

3rd Network of Excellence Community Workshop - Report

Celebrating the achievements and joint endeavors of the NoE community and looking forward to maximize impact beyond 2024

Location: University of Siena - Rettorato, Banchi di Sotto 55, Siena, Italy

Website: [Community Workshop 2023 | Vision4AI](#)

Date: June 7, 2023

Time: 9:30 - 17:30



Summary report

The third Vision community workshop took place on 7 June 2023 in Siena, Italy. The event gathered 40 participants from the Networks of Excellence in AI - AI4MEDIA, TAILOR, ELISE, HumanE-AI-Net as well as ELSA and euROBIN and was organized by the VISION CSA. The event was a successful opportunity for networking, learning about the common activities of the NoEs and discussing possible ways forward. Over the course of the day, representatives of the NoEs discussed strategic topics common to all Networks of Excellence, ways to collaborate and create impact as well as looking ahead towards the future of EU research on AI, the needs and lessons learned for the future funding period programme.

The day was opened (remotely) by Lucilla Sioli, Director DG CNECT.A (AI & Digital Industry) who highlighted the role of AI research and research networks within the EU ecosystem of excellence and the progress already achieved by the Networks. Mrs Sioli also called for further connections among different players in the ecosystem to enable the community to leverage on the unique capabilities of the EU researchers towards making the EU a powerhouse and lead the way towards explainable and trustworthy AI.

Following the opening from the Commission, the workshop proceeded with 7 sessions of joined interested for the NoEs, including:

- The International AI Doctoral Academy: the session, highlighted the achievements of AIDA so far and discussed ways to expand the impact and educational content of the Academy as well as alternatives towards sustainability. The session was led by Ioannis Pitas, Filareti Tsalakanidou, Nicu Sebe from AI4MEDIA
- Sustainability of NoE and its activities: the objective of the session was to start the discussion on ways to maximize the impact of and sustain the NoEs results. The session explored to what extent the AI white paper on EU approach to excellence and trust is still a blueprint and what further is needed to create impact. The discussion highlighted the need for connection among research and innovation areas and ecosystems but also the need for ambition and vision within Europe to connect the different initiatives and efforts together towards a common goal.
- Ecosystem Mapping: a cross-NoE activity that aims to map the particular AI topics on which researchers are working on in Europe. The discussion led to a decision on how to proceed with next steps towards implementing an approach.
- Joint strategic research agenda: the session showcased the approach of the cross-NoE activity to provide a JSRA, discussion on the results and next steps.
- In the session on 'Connecting research to industry', the networks shared their highlights from approaches used and discussed how they can collaborate further together;
- Common visual identity and "AI made in Europe" offered the opportunity to present the progress towards a common visual identity and take decisions for further actions among all the NoEs.
- Lessons beyond Horizon Europe, discussed how HEU projects could connect to the knowledge and research of the NoEs, and drawing lessons for how AI R&I should be addressed in the next work programmes.

Below, a more elaborate summary of the sessions is provided. Sessions were accompanied by slide decks and open discussions as well as mentimeter polls. All available slide decks and polls are found [here](#).

Session 1: The International AI Doctoral Academy: Achievements and future potential - Filareti Tsalakanidou, Nicu Sebe (AI4Media)

Objective: This session aimed to present the main AIDA achievements so far and discuss ways to expand AIDA in terms of members, educational offerings, and impact. The topic of AIDA's sustainability after 2024 was also addressed.

Main outcomes: AIDA aims to nurture the next generation of AI researchers and to be a reference point for AI education. With this in mind, the initiative has achieved significant progress with 75 members, 58 Universities, 19 research institutes, ~500 members in various roles, all supported with courses, educational resources, lectures, PhD curriculum, support of events, etc. ICT-48 projects contribute to AIDA. NoEs were encouraged to provide even more support, e.g. by offering lectures on a broader set of topics (beyond ML), becoming members, asking students to connect, disseminate and promote through their own network,

etc. AIDA is also considering its next steps, already thinking on the sustainability and needs and working towards:

- Delivery of curriculum
- Expansion of members (lecturers and students)
- More and better course offer
- Enrich educational repository
- Improve website
- AIDA alumni network
- Promote international collaboration;

The discussion highlighted the support and the excellent results of the AIDA initiative, while AIDA representatives expressed their wish for further increasing the NoEs involvement. Discussion on sustainability beyond the project also took place with ideas ranging from connection to ADRA, connection and contribution (e.g. on content) from current and future NoE projects, and possibly connections with other networks and initiatives like ESSAI. Expansion of activity beyond Europe was also discussed but the need for support from EC on that topic was highlighted.

Session 2: Sustainability of NoEs and their activities within the AI, Data and Robotics ecosystem - Jozef Geurts (VISION)

Objective: The network of AI excellence centers (NoEs) play an important role to support the development and uptake of AI across the EU economy. In this session, the objective was to discuss mechanisms to maximize and sustain the impact of the NoEs, and look forward towards the future innovation landscape on AI. The session was led by Joost Geurts and was the first part of a dual session (second part in the afternoon).

Main Outcomes: The session started with a discussion based on the *White Paper on Artificial Intelligence: a European approach to excellence and trust*¹ and explored to what extent the paper can still be considered a blue-print, and whether there are missing elements. The discussion pointed out that the white paper highlights areas where the efforts can be focused (synergies, talent, light-house research). Yet, the discussion also pointed out that higher ambition and efforts are needed.

The group also discussed how to sustain the impact of the NoEs in the EU ecosystem, echoing the same sentiment for more clear and ambitious goals connected to needs. These elements need to be underpinned with higher investments (following the example of the Chip Act), instruments (like joined undertakings), and longer-term ambition to connect the different initiatives together. Examples from outside Europe, such as Canada were also highlighted as potential inspiration. Some of the further ideas are depicted in the menti-meter results (see below).

¹ [White Paper on Artificial Intelligence: a European approach to excellence and trust \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/inline-photos/attachment-data/file/11422)

How to maximize and sustain the impact of the NoEs within the European 'ecosystem of excellence' ?

15 Answers

We need to find a way to continue the efforts started, how is a challenging question	Can the next NoEs take up some initiatives?	some funding to sustain the community and enable them to stay in contact
Convince EC to provide sustainable funding (as to prevent starting over with new projects)	Support 'bottom-up', self-sustaining communities of research and practice	Set clear goals for collaboration with long-term incentives.
Provide longer-term funding, incentives for sustained activities rather than short bursts of 3-4 years.	Indeed continuation of existing successful initiatives is important	Radically change the EC approach to building and sustaining the ecosystem of excellence. Follow lessons learned from the Canadian model.



How to maximize and sustain the impact of the NoEs within the European 'ecosystem of excellence' ?

15 Answers

Offer 1Meuros prize for some extraordinary project that necessarily involves several of the technologies we want to promote (see e. g. Darpa challenges)	Focus funding on larger-scale, longer-term and newsworthy initiatives and activities.	Leveraging professional connections resulting from the NOEs collaborations to come up with joined initiatives/projects & may be coming up with grand challenges that need many to work on
Collaboration is beneficial but costly and should be organized carefully	Joint communication initiatives could be continued and furthered by the next NoEs.	Focus on the unique selling proposition and added value that each NoE has to offer, with users/beneficiaries with a real interest.

Session 3: I Ecosystem Mapping - Joachim de Greeff, Freek Bomhof (VISION)

Objective: The third session of the day discussed the status and way forward of the AI Ecosystem mapping exercise, aiming to map the particular AI topics on which researchers are working on in Europe. The idea was to gather this input starting with the mapping within the 6 NoEs and later-on expanding beyond VISION and the NoEs. The session was led by Joachim de Greeff, Freek Bomhof

Main outcomes: The work towards the ecosystem mapping has benefitted by a collaborative, community driven approach: a representative from each NoE sits in a Working Committee, with additional input from the EC. So far it was agreed that the collection of the data can be done via a survey but it proved challenging to find a categorization of topics that is sufficiently inclusive (everyone agrees with) and is also practical. In the session, it was therefore discussed how to proceed and whether the AAAI keywords can be a way forward. The discussion highlighted the need for right granularity, recognizing that it is impossible to include all topics, the need to periodically check if the topics are still relevant given the quickly moving research field in AI, as well as to work with topics recognized by the community and those previously agreed upon by the

representatives of the networks of excellence (it was noted that the AAAI is a categorization used in the US and we might need a different approach in EU).

Following the discussion and a **vote (For=12, Against=0, Abstain=3)**, the group decided to:

- Continue with the previously agreed upon list of topics with the Working Committee.
- In addition, respondents to the survey should be able to select lower-level topics based on AAAI keywords as well as promote new topics (also towards higher-level categories).
- To enable updates of topics to remain relevant, a body/committee will be suggested to be set up (e.g. from the NoEs or ADRA) to meet once a year to see if changes in the higher level topics are needed based on the promotion of topics by the community.

The decision will be communicated with the Commission with the aim to proceed with the outlined plans and the survey shortly after that.

Session 4: Developing the joint strategic research agenda (SRA) - Fredrik Heintz (TAILOR), Jessica Montgomery (ELISE)

Objective: The Joint Strategic Research Agenda (JSRA) is a collaboration across AI4MEDIA, ELISE, ELSA, euROBIN, HUMANE-AI, and TAILOR (via joint editorial board). It will highlight shared areas of research interest across the current ICT-48 networks. The objective of the session was to introduce headlines from the joint agenda and discuss the results and future plans with the community. The session was led by Fredrik Heintz and Jessica Montgomery.

Main outcomes: The first version of the JSRA has now been prepared (almost done), outlining 8 research challenges and a number of research topics covered within the document. The future plans include: (i) Finalization of the Joint SRA and publish it by the end of the month (June), (ii) Meeting in Brussels with the NoEs and Adra organized by the EC, (iii) Disseminate the Joint SRA broadly and widely to maximize impact.

During the discussion, it was highlighted that the JSRA represents the current view, a snapshot in time. Given the speed of research in AI, it is not always possible to predict what topics might emerge or how big their impact could be. Therefore, it was suggested that the need for flexible instruments to enable researchers to pursue new relevant topics should be acknowledged. Suggestions were also made to include a summary about where we think research will develop into the next few years (this is already there but can be highlighted). It was also discussed that a second version of the JSRA is planned and this might be a way to capture the future needs and input from the community on topics missing can be considered. The distinction between the JSRA and the ADRA research agenda was explained with the broader scope of ADRA.

Last but not least, it was noted that the JSRA might have influence on the future research programmes on EU level and therefore the community needs to be satisfied with results before communication with EC and the public.

Session 5: Connecting research to industry - Philipp Slusallek (VISION)

Objective: In this session, the Networks of AI Excellence presented and discussed the main achievements with regard to establishing a link between research and industry. The session was led by Philipp Slusallek (VISION, TAILOR), with panel speakers including Elizabeth El Haddad (VISION), Beatrice Bozzao (VISION), Danae Tsaouraki (AI4Media), Bernhard Nessler (ELISE), Paul Lukowicz (HumanE-AI-Net), Mario Fritz (ELSA) and Christophe Leroux (euROBIN).

Main outcomes: During the session, NoEs and VISION presented highlights of their industry collaboration activities. The following activities were noted:

- VISION: one of the objectives of the project is to foster the industry and research connection, in addition to connecting the NoEs. To this effect, Visions has been active to: (i) in collaboration with the NoEs and specifically Tailor, two cross-network Theme Development Workshops have been organized with industrial partners; (ii) a cross-network Working Group has been set up with the NoEs to exchange knowledge and best practices, scout novel ideas, focus on AIoD, integrate roadmaps; and (iii) the possible connection with (E)DIHs has been explored via a couple of surveys and outlining options for collaboration.
- TAILOR: the network highlighted their approach in research and industry by (i) organizing Theme Development Workshops with industry and research to collect use cases and foster collaboration, (ii) as well as supporting industrial use cases and hackathons. A task force on hackathons has now also been established.
- AI4Media: the network noted that connection between research and industry is supported via activities such as (i) 7 use cases - led by industrial partners and inspired by real challenges - as a main building block for industry research collaboration in the project, (ii) demonstrators that demonstrate the applicability of the research and ai components in real-world settings, (iii) 7 white papers that present industry needs and challenges led by industrial partners, (iv) collaborating with a network of industrial partners.
- ELISE: the network highlighted some examples of collaboration supported by: (i) ELLIS PhD +industry track which aims to support PhD students by joint supervision by industry and academia supervisors; (ii) the cascade funding instrument used to initiate SMEs/start-up projects supported by scientific advisors, (iii) increasing innovation in AI certification process by for instance a functional trustworthiness requirements.
- HumanE-AI-Net: the network pointed that their overall strategy is to integrate and collaborate with different players in the ecosystem, which is done via instruments such as (i) Micro Projects to foster industry and scientific integration and foster the transition of knowledge, (ii) connect to industrial representatives via the connected associations and conduct workshops with them to identify needs of industry and work with them on a research agenda, as well as (iii) connect to the innovation ecosystem via e.g. events (like conference) with the objective to connect to business actors and Venture Capital to research.
- ELSA: the network highlighted their objective to support trustworthy AI, including all actors. The connection between research and industry is supported via methods such as (i) grand challenges and use cases - the industrial use cases are developed

with industrial partners and scientific partners as well as supporting innovation for instance via the (ii) Innovation lab which supports socially-beneficial innovation

- euROBIN: support the connection between research, innovation and industry via (i) aiming to create a community that shares tools and results between industry and academia, where the network has a role to boost participation and well as (ii) leveraging on the connections of the network and industrial partners to attract robotics young professionals (tech and career match-making).

During the follow-up discussion, it was noted that the collaboration with industry is beneficial as, by collaboration you can get more targeted research. Further, several possibilities to collaborate were raised, including

- cross-participation in events, such as inviting industrial partners/connections from the different networks to each other's events in order to bring them together;
- Exchanging best practices among the networks (and challenges) in general but also with regard to concrete topics such as acquiring computing resources
- communicate the impact of the research and the collaboration in the NoES in the longer run, e.g. by joint collection of success stories (from companies).

Session 6: Common Visual Identity and “AI made in Europe” brand (Holger Hoos, Eva Doležalová)

Objective: In this session, the design and intended use of the common visual identity as developed by the NoEs was presented, followed by a discussion on maximizing visibility and impact. The session was led by Holger Hoos, Eva Doležalová.

Main outcomes: The objective of the common visual identity is to Highlight EU excellence in AI research and innovation, commitment to achieving global leadership in development & deployment of human-centric, sustainable, secure, inclusive and trustworthy AI technology. For that purpose, two versions of a common logo modifier have been developed, respectively noting ‘AI Made in Europe’ and ‘AI NoEs’, to be used depending on the audience and purpose. The logo options were consulted with the community with a survey with about 70 respondents.

Several suggestions and decisions were made during the meeting:

- **Preference for options on the main logo, including claim** (see slide 8): In total, Option 1A received 9 votes and option 1B received 1 vote. Three people abstained due to lack of preference and 2 people abstained because they thought that neither option was good.



main logo without claim



main logo with claim (Option 1A)



main logo with claim (Option 1B)



symbol

symbol integration



- proposal to include in the brand book a suggestion that **when more than one NoE is included in a presentation, the “AI Made in Europe” is used with the NoEs around it** (to avoid messy pictures). In total the votes were: Yes=17, Against=1, Abstain=2.
- Discussion also took place on whether to reverse whether the network or the AI made in Europe logo should be bigger but it was decided to continue with currently suggested approach (stick to current approach =15 votes, open the discussions and explore option=5);
- An idea was also supported to **suggest to EC to establish a connection to the logos, with corresponding web pages** explaining what AI made in Europe is and respective links that lead to the respective networks of excellence (approved with 18 votes supporting and 0 votes against).
- The question on whether an official trademark will be launched was also raised. It was considered a good idea but this is outside the scope of VISION and the NoEs and should be taken up by EC.

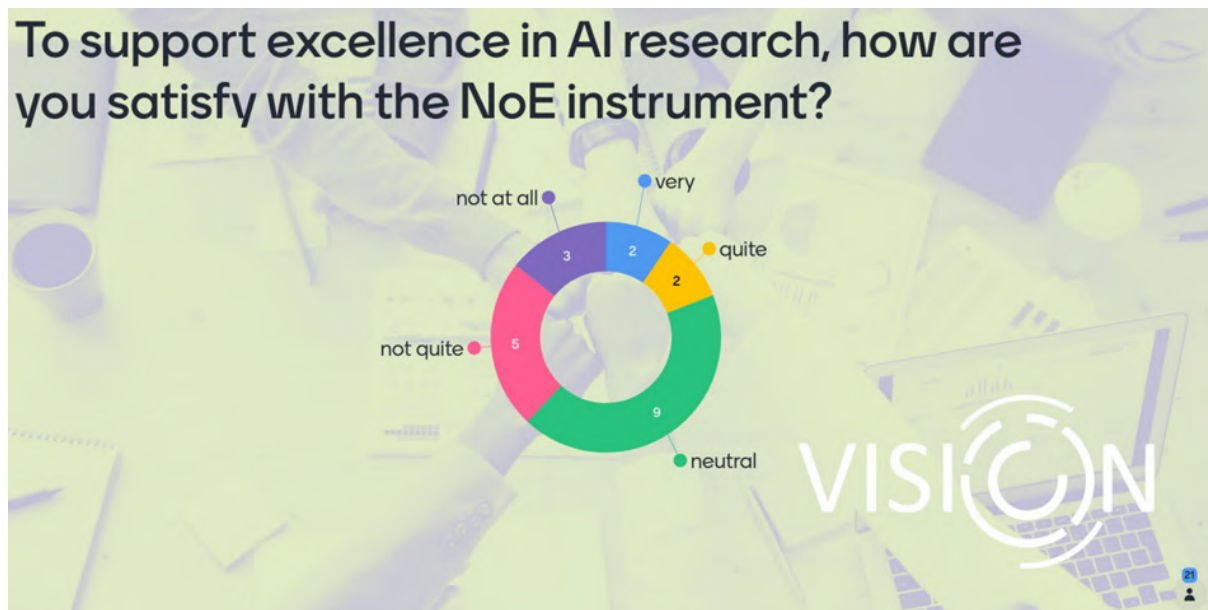
Session 7: Looking beyond the Horizon - Géraud Guilloud (VISION)

Objective: The network of AI excellence centers (NoEs) are a central piece of the EU R&I landscape on AI. This landscape is evolving and the preparation for the R&I landscape in the next MFF have started, notably with the Open consultation begin 2023. This session gathered early input from the NoE on the shape of the future innovation landscape on AI as from 2028, in order to ensure the continuity of the impact generated by the NoE and face the future research and innovation challenges on Artificial Intelligence.

The session is a continuation of the 2nd session by Joost Geurts, about sustainability within the ecosystem. The participants were taken through the complexity of the European AI landscape, highlighting that 2028 is a year of uncertainty – as projects but also programmes

will be finished. As the policy process is long, it is important to start thinking on this from now as budgets, topics will start being discussed. Géraud recapped the process for Horizon Europe, and where AI is part of it. He showed a gap analysis of the public consultation on HEU – showing that AI and robotics might end up in future policy discussions.

Main outcomes: the session elicited in an interactive discussion, where Géraud polled the satisfaction of the participants with NoEs as instruments for excellence in AI. After voting (see figure below) there was a discussion on the expectations that were set, and whether funding matched that.

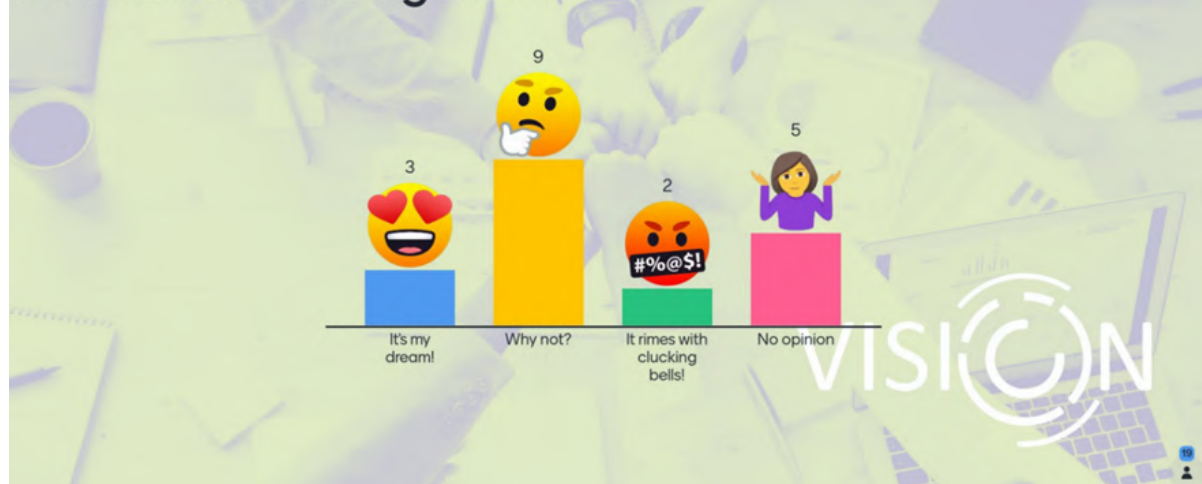


Next, participants were asked what they would like to have removed from the NoE as an instrument. Discussion centered on the following topics:

- Overlapping activities and the reduced capacity to do other things
- The dependency on funding which may stop after 4 years, and the dependency on more investment down the line – and whether this is the responsibility of the NoE to solve.
- Involvement of sufficient researchers in the basic research agendas
- Overhead of sustaining the EU network besides supporting research

Second, it was gauged whether a joint undertaking (JU) would be a solution. This resulted in a discussion about tradeoff between scale benefits and complexity of the JU, and the difference between European goals and academic freedom, meaning to separate roles in AI prioritization by policy makers and research topics definition by the community.

A Joint Undertaking (ie co-funded partnership) for Artificial Intelligence?



Third, Géraud asked participants how they see the form of the NoEs in the future. Participants argued that basic research is not self-sustaining, thus requiring public funding, and that it is not the job of research networks to be self-sustaining. This was followed by a discussion on what a successful model for AI investment is, where the Canadian model is mentioned.

Fourth, a poll was held on what should be the priorities of funding in the next framework programme - in order of rank from 1st to 5th: Research (excellence), Infrastructure, Collaboration (network), skills, take-up. A discussion on the order of the results, mainly on take-up of AI took place. It was argued that investing in take-up does not necessarily give the expected desired results if the objective is not clear e.g. or people may still use non-EU or not trustworthy AI systems.

Finally, common challenges for the NoEs were elicited. Among the suggested challenges, there were specifically discussions on:

- Infrastructure that supports and enables collaborative research
- The value of NoEs in connecting researchers to other initiatives
- The speed of development and a call for ambition from policy
- Informing the effort of the NoEs by a broader societal community

What are the grand challenges for the AI ecosystem?

15 Answers

To preserve European technological independence and sovereignty in AI (the key driver of progress and prosperity in all sectors, all sciences and all of engineering).

To form critical mass and achieve news-worthy, global impact (which will require more, and more focussed investment into the ecosystem of excellence).

Increasing dependence on key AI technology and capabilities (notably large generative models) from a few US-based companies.

We urgently need a hardware/software infrastructure to support collaborative research on advanced AI pipelines.

Trusted AI (providing guaranties), Large AI models, Neuro-Explicit Models, Causality, Grounding, Modularity

Trustworthy generative AI

European version of publically owned foundational model

Playing catch up

European Technology Ecosystems; AI Solutions for Empowering Europeans in Digital Centenary; AI for Independent Energy Diversifications & Systems

creating AI in collaboration with the public, so that user keeps understanding its risks and advantages.

Unclear legal position of AI

Fear from AI instead of embracing the opportunities

Identifying the critical technologies to push for EU sovereignty and agenda. Choices are necessary given the catching up needed.

Update our AI education programs to be ready for the new skills that need to be developed to catch up with the new reality faced with LLMs

the societal and economic impact of massive use of AI tools /services that affect how individuals and companies work and operate.

The discussions and connections continued after the event as part of the social programme.