



AI4Media – Open Call #2 Overview

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| Project Title | AI4Media - A European Excellence Centre for Media, Society and Democracy |
| Contract No. | 951911 |
| Instrument | Research and Innovation Action |
| Thematic Priority | H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT) / ICT-48-2020 - Towards a vibrant European network of AI excellence centres |
| Start of Project | 1 September 2020 |
| Duration | 48 months |



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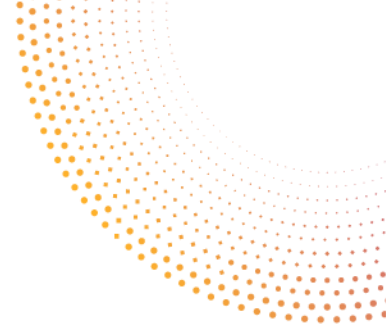
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1 The AI4Media project

1.1 Background

The world is changing. Following a series of breakthroughs in the field of Artificial Intelligence (AI), new technologies are emerging which are ushering a wave of revolutionary innovations in nearly all aspects of business and society; from transportation to finance, fighting climate change, the media industry, journalism, and politics. In all facets of economic and social life, AI is disrupting existing practices and creates new opportunities.

In this changing world, the competition is intense among leading players, and the EU is in danger of lagging. Achieving a high adoption of AI technologies in all relevant sectors of the industry and society and developing a vibrant EU AI ecosystem will be necessary for it to keep up and contribute with its own unique AI brand.

Trust, ethics, and accountability are key characteristics of the European AI brand that the EU can and must contribute to, in addition to technological excellence itself. Europe has a unique, human-centric, and trustworthy ethical AI brand to offer to the world. One field where such AI is needed and can offer a strong advantage to European actors is Media.

Digital media is present in most aspects of human and social activity and is intertwined with information exchange and knowledge transfer. The media market is already benefiting from intelligent ways of media production, distribution, and delivery, from advanced editing tools for media to AI-assisted quality enhancement, to audience analysis and recommender systems.

AI technologies hold the promise of disrupting the media industry through advances in content synthesis, analysis, and distribution, and by offering new deeper insights into the complex and rapidly evolving social processes that unfold online and offline through the capabilities for large-scale sensing of citizen activities, interests, and opinions.

AI technology could help redefine and radically improve the democratic role of the media by enabling new ways of getting informed, of deliberation, political participation and decision making. AI technologies could help reshape the relationship between the media and its audiences, make it more responsive, and better reflect the needs of citizens in a datafied society. The introduction of AI also creates exciting new opportunities for the realisation of public values, such as media diversity, freedom of expression, and inclusiveness.

1.2 AI4Media concept

AI4Media's contribution to the European Strategy on AI¹ is based on six key pillars (Figure 1), including one encompassing financial support to third parties (the open call funding programmes). These pillars are aligned with specific objectives (SO) of the project.

¹ <https://ec.europa.eu/digital-single-market/en/artificial-intelligence>



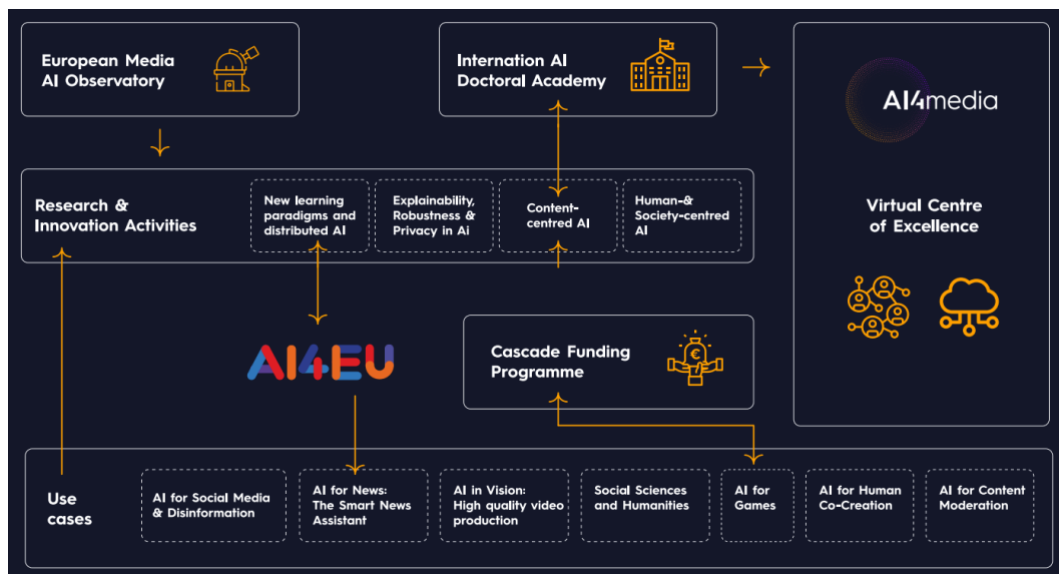


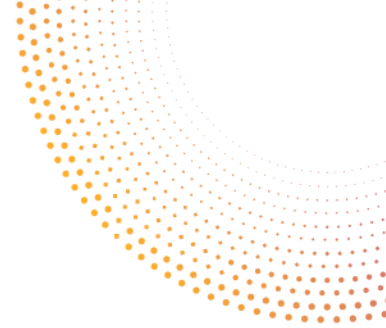
Figure 1. Key elements of the AI4Media Excellence Centre

1. **The European Media AI Observatory**, which will set and maintain a research and innovation agenda for media AI, while anticipating the social and economic disruptive potential of emerging technologies.
2. **Intensive research and innovation activities** in areas where Europe has or can acquire a competitive advantage, generating technologies to enrich the AI4EU platform.
3. **A portfolio of use-cases** aimed to provide direct application of technologies made available through the AI4EU platform to strengthen EU competitiveness.
4. A **cascade funding programme** to increase engagement of external actors and build an ecosystem around the network, in turn benefiting from it and bringing innovations to the market.
5. The **International AI Doctoral Academy (IAIDA)** that will foster a new generation of talent, provide links to the industry, and ensure skilled researchers remain in Europe.
6. The **AI4Media Virtual Center of Excellence**, in close communication with the AI4EU network, which will function as a portal and network nexus for all Media AI research and innovation activities in Europe.

The research efforts of AI4Media will produce tangible outputs in the form of modules, services, and algorithms, providing state-of-the-art results, and beyond. These outputs will be integrated in the AI4EU platform, which will strengthen the platform's value and will increase the impact of AI4Media outputs.

Furthermore, the work in AI4Media, including the project's specific use-cases, will take advantage of tools and services available from the platform and build upon them to reduce redundancy and further develop interactions within the European AI community.





1.3 AI4Media objectives

AI4Media will establish the networking infrastructure to bring together the currently fragmented European AI landscape in the field of media and foster deeper and long-running interactions between academia and industry, the AI4EU platform and community, as well as several relevant digital innovation hubs (DIHs). AI4Media will also shape a research agenda for media AI research and implement research and innovation both with respect to cutting-edge technologies at the core of AI research, and within specific fields of media-related AI.

Motivated by the challenges, risks and opportunities that the wide use of AI brings to media, society and politics, **AI4Media aspires to become a centre of excellence and a wide network of researchers across Europe and beyond**, with a focus on delivering the next generation of core AI advances to serve the key sector of Media, to make sure that the European values of ethics and trustworthiness are embedded in future AI deployments, and to reimagine AI as a crucial beneficial enabling technology in the service of Society and Media.

AI4Media has defined **seven use cases** (Figure 2), addressing emerging market opportunities and urgent industry challenges, each raising specific requirements and research questions.

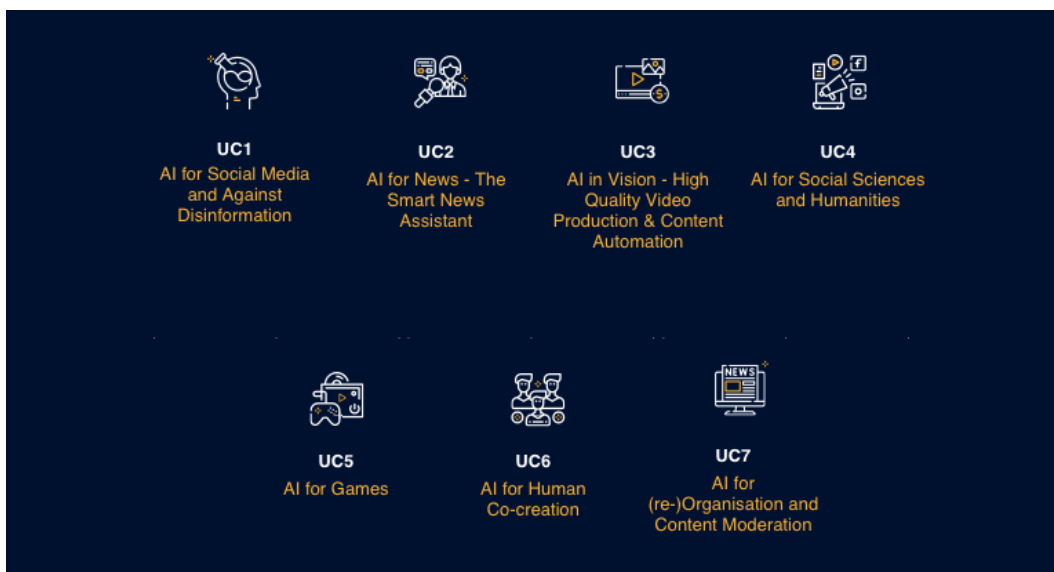


Figure 2. AI4Media use cases

These use cases highlight how AI applies throughout the value chain, from research and content creation to production, distribution, consumption/interaction, performance, and quality measurement. These industry cases play a key role in exploiting and sustaining results of AI4Media research activities, inform and inspire AI4Media's dissemination work, the International AI Doctoral Programme, and frame the open call programme. These use cases reflect the dimension of AI4Media's broad impact across media, society, and democracy. A summary of the use cases is provided below (Table 1). Full details on the use cases can be found on: <https://www.ai4media.eu/use-cases/>.



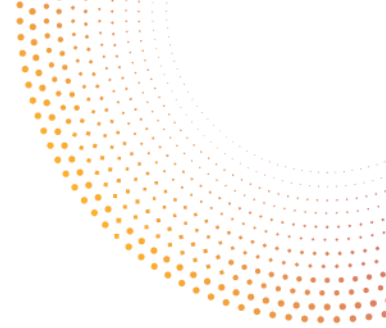
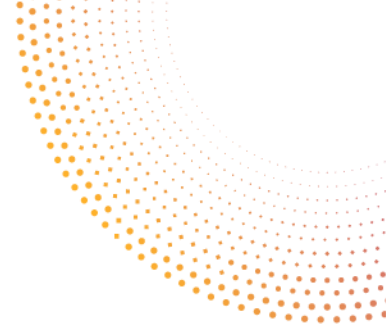


Table 1. AI4Media use cases

| AI4Media use case | Overview |
|--|---|
| UC1: AI for Social Media and Against Disinformation | This UC leverages AI technologies to improve support tools used by journalists and fact-checking experts for digital content verification and disinformation detection. New AI-based features will be made available within two existing journalism tools: Truly Media (a web-based platform for collaborative verification) and TruthNest (a Twitter analytics and bot detection tool). |
| UC2: AI for News - The Smart News Assistant | This UC focuses on the concept of a Smart News Assistant, i.e., a tool that will support journalists in the creation of news stories by providing a variety of AI-enabled functionalities for story production and development, story curation and publication, and audience engagement. |
| UC3: AI in Vision - High Quality Video Production & Content Automation | This use case aims at supporting broadcasters' newsrooms (and in general information and entertainment production) in reporting unexpected events like e.g., natural disasters. |
| UC4: AI for Social Sciences and Humanities | This UC provides researchers (and by extension investigative journalists) with practical methods to sift, connect and analyse various data and media collections in search of factual responses to broad societal research questions. The aim is to provide AI-based tools that facilitate the identification of patterns or new research questions in aggregated, multi-modal collections. |
| UC5: AI for Games | This UC aims to advance game testing and design through AI algorithmic innovations. It focuses on two topics: automated testing and improved music analysis and synthesis. |
| UC6: AI for Human Co-creation | This UC aims at producing a novel way of music co-creation based on AI tools. The objective is to collaborate with authors to fulfil development requirements to approach these tools to a point where they may reach a wide range of content. |
| UC7: AI for (re-) organisation and content moderation | This UC utilizes several AI-enabled tools such as visual tagging, categorization, and content moderation to facilitate: (a) Automated (re)organisation of large media collections of photos and video, and (b) Automated and human-in-the-loop moderation of user-generated media content. |

The AI4Media – Open Call #2 is accepting proposals to a selection of research and application challenges, the latter particularly aligned with a selection of AI4Media use cases. Proposals are also accepted to open challenges, aligned with AI4Media's research agenda or defined use cases, as defined in Table 1.





2 Scope of the Open Call

2.1 Objectives and requirements

The main objective of the AI4Media – Open Call #2 is to engage entrepreneurs, companies (e.g., SMEs, mid-caps) and researchers that develop and integrate applied research in the field of AI, to develop new and innovative research and applications for AI. Such developments must contribute to the enrichment of the pool of research and technological tools to be made available – via AI4Media – on the AI4EU (AI-on-Demand) platform. The submitted proposals must be aligned with one of the open call's tracks and respective challenges, described in what follows.

2.2 Open call tracks

AI4Media Open Call #2 targets two types of projects, divided into **tracks**:

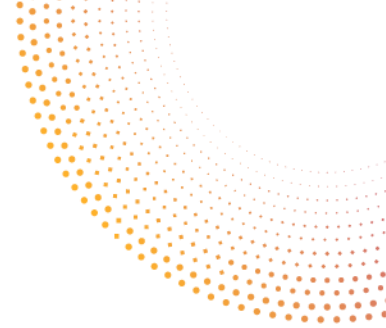
- **RESEARCH track**
Targets academia and researchers working in the AI field to increase the value of the AI4Media ecosystem by developing and integrating new research in AI media domains. Projects funded under the Research track will run for 12 months and receive up to €50.000 each. Five research projects will be funded in this track.
- **APPLICATION track**
Targets AI stakeholders such as entrepreneurs, companies (micro-SMEs, SMEs, mid-caps) to submit ideas for innovative AI applications for the media sector by building on the existing research from AI4Media or by adopting AI solutions from other sectors and adapting them to the media sector. Projects funded under the Application track will run for 9 months and receive up to €50.000 each. Applications are expected to have a minimum TRL of 7. Five application projects will be funded under this track.

2.3 Open call challenges

In addition to the listed tracks, the AI4Media – Open Call #2 is structured around specific challenges that have been defined to provide value to the AI4Media ecosystem and contribute to the richness of the AI4EU platform. These research and application track challenges have been defined by the AI4Media consortium and are based on the [AI4Media roadmap on technologies and applications for the Media Industry](#) and ongoing use case demonstration activities (Figure 2) being carried out within the AI4Media project.

When preparing a proposal, the applicant must select the track and challenge to which the proposal will be submitted. A total of 19 challenges have been defined (Table 2) covering the research and application tracks and including an open challenge in both tracks. A maximum





number of selected proposals per challenge applies. Full descriptions of each challenge are provided in Annex 1.1.

Table 2. Challenges of the AI4Media - Open Call #2

| Code | Title | Proposals to be selected |
|-------------------------------------|---|------------------------------------|
| RESEARCH TRACK CHALLENGES | | |
| C1-R | Reinforcement learning and the challenge of generalisation | Maximum 2 for each challenge |
| C2-R | Evolutionary learning and the challenge of evaluating quality | |
| C3-R | Scarce data and the cross-media transfer of knowledge | |
| C4-R | New decentralised collaborative learning paradigms for AI | |
| C5-R | Quantum Reinforcement Learning for classical data processing | |
| C6-R | Frugal cross-modal representation for media research | |
| C7-R | Broadening the spectrum of Interpretable AI | |
| C8-R | Standardising AI datasets and model creation | |
| C9-R | Novel AI-powered enablers for social media research | |
| C10-R | Social media alert system to avoid the attention gathering loop | |
| C11-R | Representative and Inclusive Depictions of AI | |
| C12-R-OPEN | Open Research Challenge | |
| APPLICATION TRACK CHALLENGES | | |
| C1-A | Realising a hybrid AI application in AI4EU Experiments | Maximum 2 for each challenge |
| C2-A | AI global support to informative content production | |
| C3-A | New learning methods for music overcoming scarce data | |
| C4-A | AI for suggesting visually appealing images based on text | |
| C5-A | Recommender Systems to Support Exploratory Research with Media | |
| C6-A | AI for automated testing and sound synthesis | |
| C7-A-OPEN | Open Application Challenge | |

3 Open Call #2 funding scheme

A total of €1,000,000 has been budgeted for the two planned AI4Media open calls. For Open Call #2, a total of **€500.000 will be made available**, funding up to 10 projects, five for each track:

- **RESEARCH track:** 5 projects with up to €50.000 per project.
- **APPLICATION track:** 5 projects with up to €50.000 per project.

AI4Media will financially support third parties' activities along the implementation of their projects. The total grant requested by the third parties must represent up to 100% of the total costs of the project. **Activities that are already funded by other grants cannot be funded by AI4Media**, respecting the principle of no double funding.



The defined funding for each sub-project will be disbursed according to three stages of the project implementation: Sprint 1 (25%), Sprint 2 (35%), and Sprint 3 (40%).

With each stage, third parties will be required to submit a report describing activities carried out and information on the plans for the following stage. This will provide justifications for AI4Media to proceed with payments as contracted.

4 AI4Media funding programme

The AI4Media funding programme is a 9 to 12-month programme divided into three sprints (Figure 3). The AI4Media - Open Call #2 will be open from 29 September 2022 to 30 November 2022 (17:00 CET).

After the submission deadline, AI4Media will initiate the evaluation and selection stage, consisting of an internal and external evaluation. The internal evaluation will check all submitted proposals against the defined eligibility criteria. Proposals that do not meet the criteria will be notified and receive a rejection letter. Eligible proposals will move on to the external remote evaluation stage, where proposals will be reviewed by external evaluators. The top ranked proposals (a minimum of 20) will be invited to an online interview. After establishing the final ranking, the selected proposals will be notified to enter the contract preparation and signature stage. All other proposals, including those that do not meet the threshold or are kept on a reserve list, will be notified.

Upon completion of the contract preparation, the awarded projects will begin their implementation process, divided into three stages with a maximum duration in months (mo.):

- **Sprint 1:** Up to 3 mo. for the **Application track**; up to 4 mo. for the **Research track**.
- **Sprint 2:** Up to 3 mo. for the **Application track**; up to 4 mo. for the **Research track**.
- **Sprint 3:** Up to 3 mo. for the **Application track**; up to 4 mo. for the **Research track**.

Figure 3 represents the timeline of the AI4Media – Open Call #2, including all steps and stages from submission up to the final project implementation.

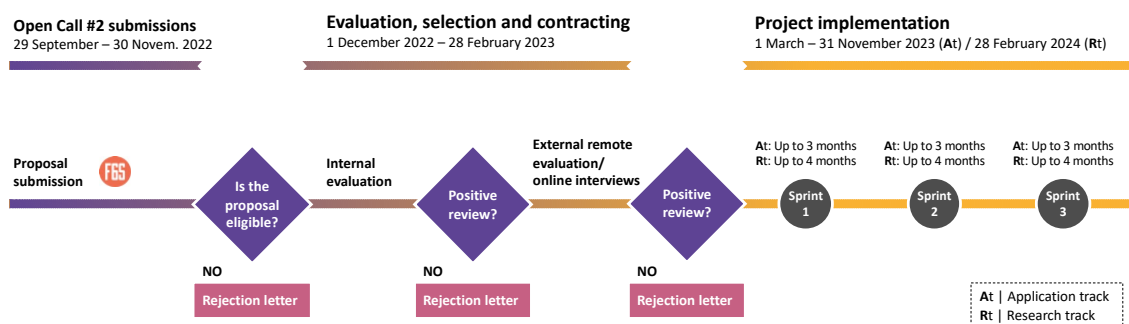
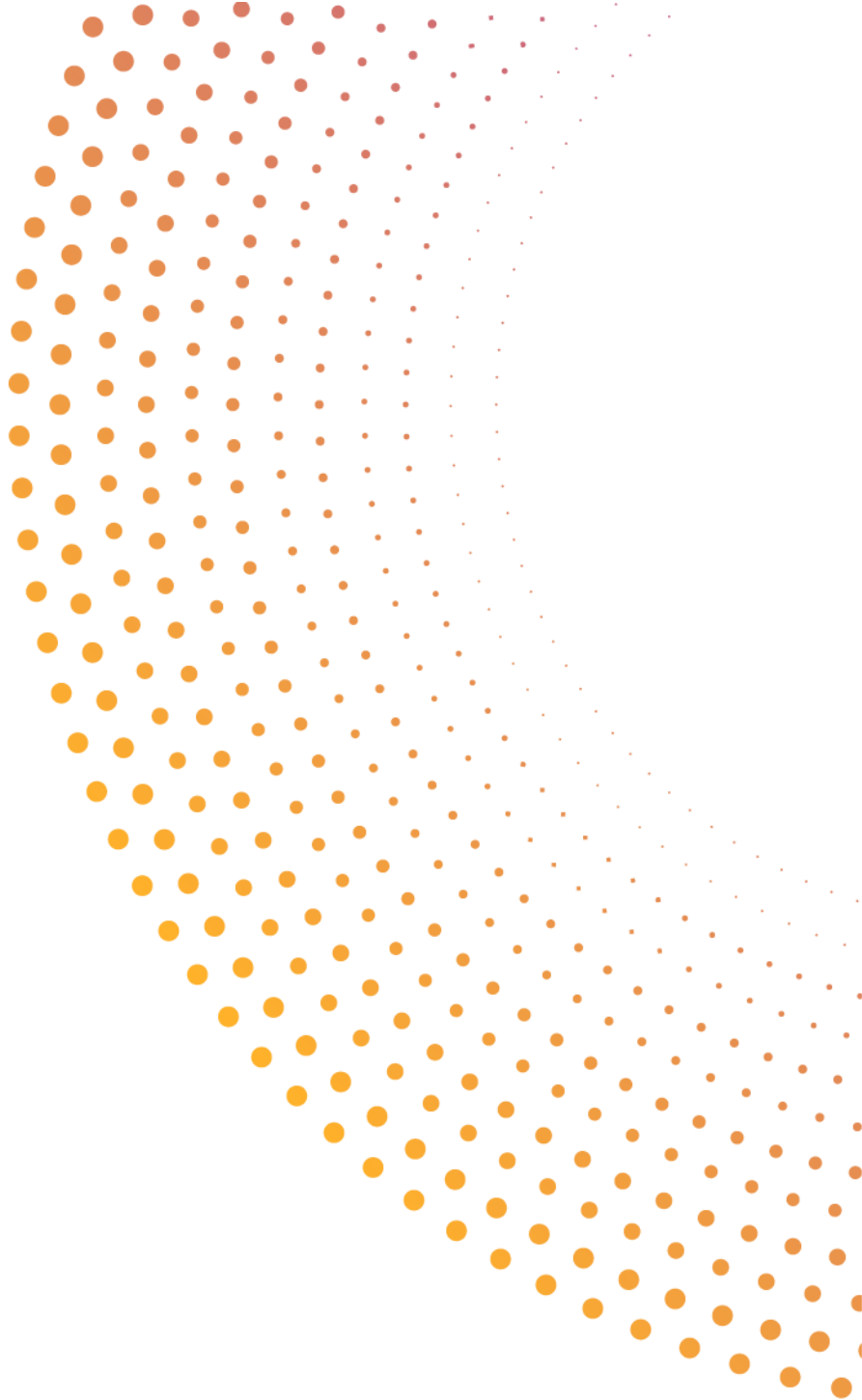


Figure 3. AI4Media Open Call #2 timeline – from submission to implementation





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