



D10.3

Analytics on the submitted proposals

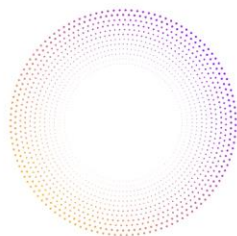
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Abstract	<p>This deliverable reports on the two open calls organised by AI4Media, which were the foundation for the two funding programmes that delivered €1 million to third parties.</p> <p>The objective of the deliverable is to provide an overview of the two open calls, the activities carried out to promote them, and the results of participation (including challenges addressed, participating entities, countries). The deliverable also focuses on the selection of experts that supported the evaluation process and provides an overview of the full open call procedure.</p> <p>Lastly, the deliverable presents the 10 projects selected in each open call, and briefly describes the process to kickstart their projects within the framework of AI4Media.</p>
Keywords	Open Calls, FSTP, Funding Programme, AI, Media, analytics

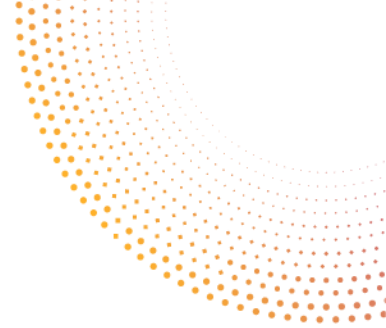
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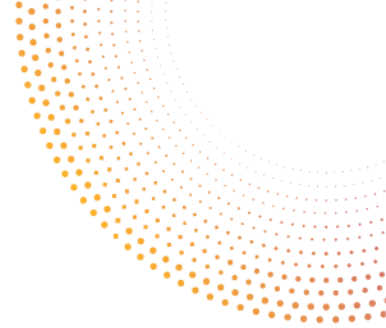
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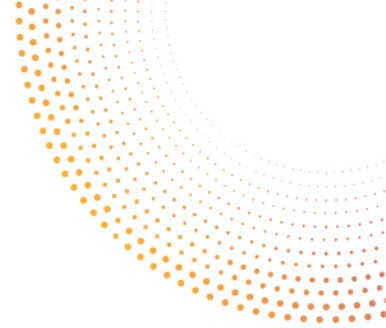


Table of Abbreviations and Acronyms

Abbreviation	Meaning
AI	Artificial Intelligence
AIDA	(International) AI Doctoral Academy
AIoD	AI-on-Demand (platform)
AR	Augmented Reality
AT	Application track
CNN	Convolutional Neural Networks
CV	Curriculum Vitae
CV	Computer Vision
EC	European Commission
EOI	Expression of Interest
ESR	Evaluation Summary Report
EU	European Union
FSTP	Financial Support to Third Parties
GA	Grant Agreement
IER	Individual Evaluation Report
IFCN	International Fact Checking Network
KPI	Key Performance Indicator
OC	Open Call
OSINT	Open-Source Intelligence
RT	Research track
SME	Small-Medium Sized Enterprise
TRL	Technology Readiness Level
UAV	Unmanned Aerial Vehicle
UC	Use Case
VR	Virtual Reality
WP	Work Package



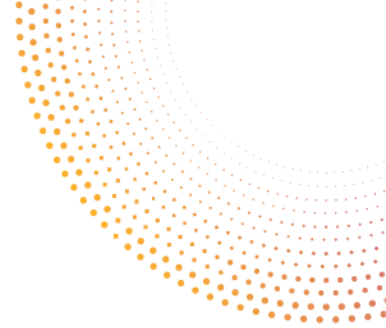
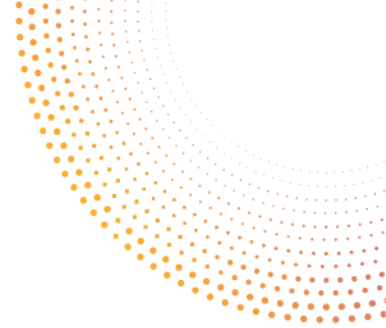


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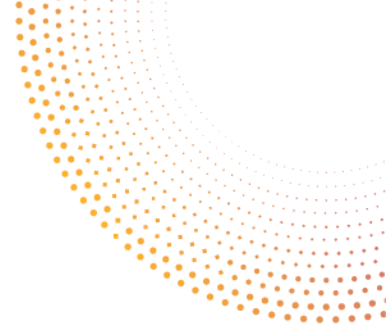




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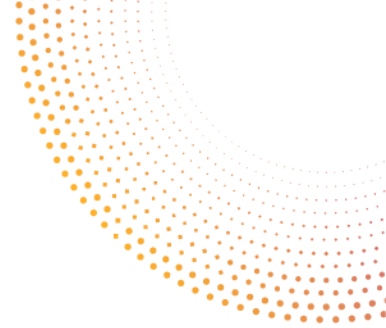




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Executive Summary

This document is deliverable D10.3 – “Analytics on the submitted proposals”, framed within WP10 – “Community Outreach and Growth”. The objective of the deliverable is to provide a review and analysis of the procedures and initial results of the two AI4Media open calls. These open calls were the foundation for the two respective funding programmes: the first ran from March 2022 to February 2023; the second will begin in March 2023 and will run until the end of February 2024.

Objectives of the open calls

The main objective shared by the two AI4Media open calls 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 for media applications. These developments must contribute to the enrichment of the pool of research and technological tools to be developed within the AI4Media project.

A total of €1,000,000 has been budgeted for the two open calls, which is equally divided among the two calls. In each call, 10 sub-granted projects (hereinafter projects) were selected for funding, five from the Application track and five from the Research track, each receiving up to €50.000.

For each call, and through a co-creation process, several challenges were defined. In the first open call, there were four research and three application challenges. In the second open call, there were 11 research and six application challenges. For both calls, there were also open challenges for the two tracks, where submissions could address other topics not specific to any of the predefined challenges.

Open calls publication, promotion, and participation

The first open call was launched on 1 September 2021 and was open until 1 December 2021. The second open call was launched on 29 September 2022 and ran until 30 November 2022.

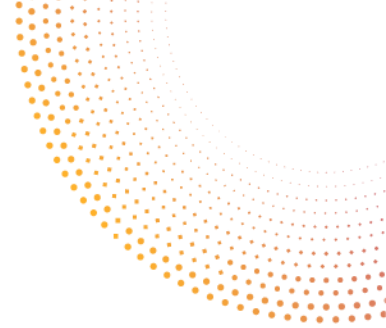
Publication and promotion

For both open calls, all relevant documentation was published on the AI4Media project website ([open call #1 web page](#); [open call #2 web page](#)). A dedicated [profile](#) for the project and for the [first](#) and [second](#) open call were set up on the F6S platform.

Promotion was pushed through three primary channels: events, targeted mailing and posting, and social media.

For each open call, two webinars were organised to promote the project and present the open call, as shown in the table below.





	Open Call #1	Open Call #2
First webinar	<p>Date 30 September 2021</p> <p>Registrations & participants 60 registrations; 36 participants</p> <p>Recording Recording here</p>	<p>Date 20 October 2022</p> <p>Registrations & participants 22 registrations; 14 participants</p> <p>Recording Recording here</p>
Second webinar	<p>Date 10 November 2021</p> <p>Registrations & participants 45 registrations; 45 participants</p> <p>Recording Recording here</p>	<p>Date 15 November 2022</p> <p>Registrations & participants 38 registrations; 26 participants</p> <p>Recording N/A</p>

Other start-up focused events were also pursued to promote the open calls, such as the [WebSummit 2021](#) (first open call) and [TechChill Milano 2022](#) (second open call).

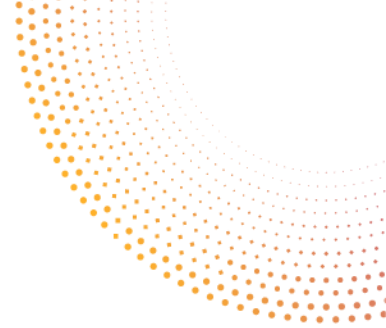
Targeted mailing and cross posting were supported by AI4Media partners. F6S sent out a targeted newsletter to hundreds of F6S community members with profiles aligned with the AI and media domains, and to other projects addressing similar domains. Partners also posted on their institutional websites, and the call was promoted through several media outlets. Lastly, the project's social media accounts - Twitter, LinkedIn, and Facebook - were also used to promote the two open calls.

Participation

Both the first and the second open calls were very competitive, having received more than 150 submissions combined, as summarised in the table below.

	Open Call #1	Open Call #2
Applications opened, submitted and eligible	<p>Opened 117 total proposals</p> <p>Submitted 60 submitted (51% submission rate)</p> <p>Eligible 48 eligible (80% eligible proposals)</p>	<p>Opened 159 total proposals</p> <p>Submitted 95 submitted (60% submission rate)</p> <p>Eligible 67 eligible (70% eligible proposals)</p>
Submissions per track	<p>Application track 40 total submissions, 32 eligible</p> <p>Research track 20 total submissions, 16 eligible</p>	<p>Application track 63 total submissions, 44 eligible</p> <p>Research track 32 total submissions, 23 eligible</p>
Country participation (Top 3)	<ul style="list-style-type: none"> • Germany: 12 total; 10 eligible • Italy: 6 total; 6 eligible • Greece: 5 total; 5 eligible 	<ul style="list-style-type: none"> • Spain: 13 total; 10 eligible • UK: 9 total; 7 eligible • Germany: 9 total; 6 eligible





Selection of external experts to evaluate proposals

Two expressions of interest were organised to identify and select experts to support the evaluation of the proposals submitted to the two open calls. For the first open call, 45 experts' CVs were evaluated and 10 were contracted (eight men and two women, from six countries). In the second open call, 43 experts' CVs were assessed and 10 were contracted (six men and four women, from seven countries).

Evaluation, selection and contracting

The two open calls accepted submissions from single entities (e.g., SMEs, mid-caps, individual entrepreneurs, secondary and higher education establishments, and research organisations) and from an eligible country (e.g., an EU Member State and H2020 Associated Countries).

Submitted proposals were subject to an initial eligibility check, where the type of applicant, country, language of the proposal, financials, and selected documentation were verified.

Following the eligibility check, each eligible proposal was then remotely evaluated by two external experts. Each proposal was checked against several criteria, related to the excellence, impact, implementation and budget. The proposal's final score was the average of the two evaluators' scores. The 20 top-ranked proposals (also considering the track and challenges addressed) were invited to an interview.

In the interview stage of the evaluation process, experts were given the opportunity to hear about the proposals directly from the applicants. The interviews evaluated the concept and innovation, the impact, workplan and applicant, and the budget (with some differences between the first and second open call).

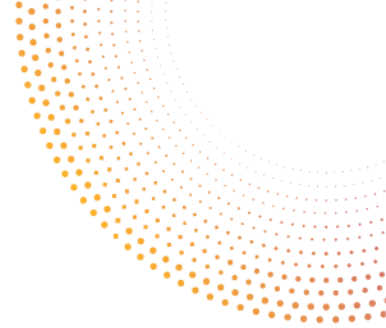
For both open calls, the top five proposals in each track were invited to the contract preparation and negotiation stage. All proposals received a letter with the outcome of their evaluation.

The awarded sub-projects are implemented over 9 months (Application projects) or 12 months (Research projects). The implementation of the projects is divided into three sprints. At the end of each sprint (3 or 4 months), the beneficiaries of the sub-projects must provide a report that is assessed by an AI4Media partner. Upon approval, part of the awarded funding is distributed.

Sub-granted projects (projects) kick-off

The projects from the first open call started their activities on 1 March 2022 and ran until 28 February 2023. The projects from the second open call will start on 1 March 2023 and run until 28 February 2024.





1 Introduction

This document is deliverable D10.3 – “Analytics on the submitted proposals”, framed within WP10 – “Community Outreach and Growth”.

The objective of the deliverable is to provide a review and analysis of the procedures and initial results of the two AI4Media open calls. These two open calls were the basis for the selection of the projects that participated in the two AI4Media funding programmes: the first ran from March 2022 to February 2023, and the second is to begin in March 2023 and will run until the end of February 2024.

This document is of public nature and therefore excludes any personal information related to the applicants that submitted a proposal to the open calls, as well as those that were selected for funding in the two open calls.

1.1 Financial support to third parties in AI4Media

A total of €1,000,000 has been budgeted for the two AI4Media open calls, equally divided among the first and second open call. In each open call, 10 projects were selected for funding, 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.

In total, 20 projects were selected for funding in the two calls combined.

AI4Media financially supports third parties’ activities along the implementation of their projects, where the total grant requested must represent up to 100% of the total costs of the project. The defined funding for each sub-project is disbursed according to three stages of the project implementation: Sprint 1 (25%), Sprint 2 (35%), and Sprint 3 (40%).

With each stage, third parties are 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.

1.2 Document structure

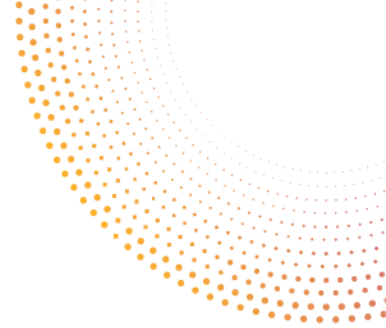
This deliverable is structured into the following sections:

1. **Introduction:** the present section.
2. **Overview of the AI4Media open calls:** provides an overview of the objectives of the two open calls, funding schemes, and challenges.
3. **Open call publication and promotion:** presents the efforts made to promote the open calls and a selection of relevant participation statistics.
4. **Selection of evaluators via a call for expression of interest:** describes the process to recruit and select external experts to support the evaluation of proposals.



5. **Overview of the open call process: from submission to contracting:** describes the process implemented to receive submissions, evaluate the submitted proposals, select the awarded projects, and sign respective contracts.
6. **Awarded projects from the open calls:** presents the funded projects from each of the open calls.
7. **Sub-granted projects launch and kick-off:** provides a description of the launch of the funding programme, supported by a kick-off meeting.
8. **Final considerations:** provides a final summary of the document.





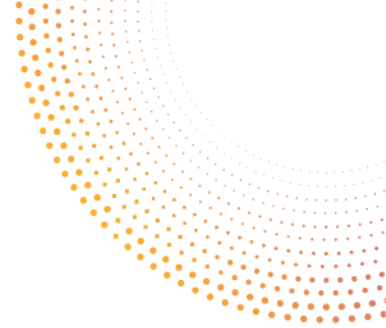
2 Overview of the AI4Media open calls

The main objective of AI4Media FSTP programme, framed within WP10, is to attract and involve researchers and SMEs to the AI4Media network, and to boost cross-border and cross-sector AI innovation within the media sector. This is to be achieved through the implementation of two open calls for funding innovative ideas for AI with application in the media. The two open calls – AI4Media Open Call #1 and Open Call #2 – shared similar objectives, their funding scheme, and structure, as detailed in Table 1.

Table 1. Overview of open calls' objectives and funding scheme

	Open Call #1	Open Call #2
Objectives	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 for the media sector. These developments must contribute to the enrichment of the pool of research and technological tools to be developed within the AI4Media project. The submitted proposals must be aligned with one of the open call's tracks and respective challenges.	
Timeline	<p>Open for submissions: 1 September 2021 – 1 December 2021 (17h00 CET)</p> <p>Evaluation and contracting period: 1 December – 28 February 2022</p> <p>Implementation period: 1 March 2022 – 28 February 2023</p>	<p>Open for submissions: 29 September – 30 November 2022 (17h00 CET)</p> <p>Evaluation and contracting period: 1 December 2022 – 28 February 2023</p> <p>Implementation period: 1 March 2023 – 28 February 2024</p>
Funding scheme	<p>Funding available: €500,000 to fund 10 projects in two tracks; five research projects and five application projects per call. The total grant requested must represent up to 100% of the total project costs. Activities that are already funded by other grants could not be funded by AI4Media, respecting the principle of no double funding. The allocated funding for each project is disbursed according to three stages of the project implementation: Sprint 1 (25%), Sprint 2 (35%), and Sprint 3 (40%).</p> <p>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 run for 12 months.</p> <p>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 run for 9 months. Applications are expected to have a minimum TRL of 7.</p>	





Although the two open calls shared a similar funding scheme, they differed in the challenges to which applicants were required to submit their proposals, as shown in Table 2 and Table 3.

The challenges of Open Call #1 (Table 2) were developed through an internal co-creation process involving various partners of the consortium. Each AI4Media WP leader was invited to discuss with respective Task leaders what topics were of most interest and could result in a project that delivered value to the work being developed within the WP.

Table 2. Challenges of the Open Call #1

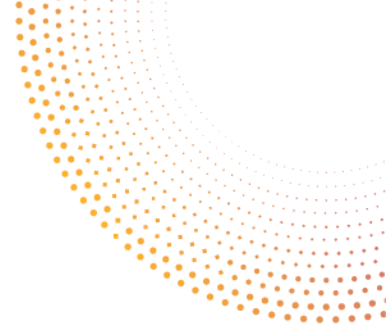
Code	Title
Research Track	
C1-Rt	Bio-inspired deep learning
C2-Rt	Human-centred interactive explainable AI
C3-Rt	Combining deep learning-based computer vision and classic path-planning/ control for autonomous UAV cinematography tasks
C4-Rt	Innovative solutions for fake content detection in line with fundamental rights and the developing EU regulations
Application Track	
C5-At	Evidence Collection in Digital Media Authentication
C6-At	Navigating multiperspectivity in media heritage collections
C7-At	Leveraging the power of media archives through Artificial Intelligence
C8-At/Rt	<i>Open challenge</i>

The challenges of Open Call #2 (Table 3) were defined to provide value to the AI4Media ecosystem and contribute to the richness of the AIoD platform. The challenges were defined by the AI4Media partners and are based on the [AI4Media roadmap on technologies and applications for the Media Industry](#), and ongoing use case demonstration activities being carried out within the AI4Media project as part of WP8.

Table 3. Challenges of the Open Call #2

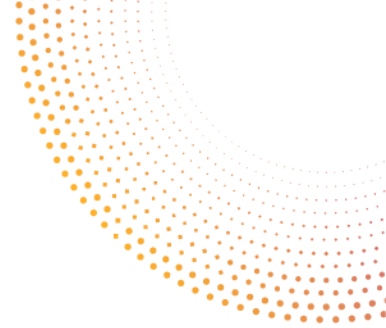
Code	Title
Research Track	
C1-R	Reinforcement learning and the challenge of generalisation
C2-R	Evolutionary learning and the challenge of evaluating quality
C3-R	Scarce data and the cross-media transfer of knowledge
C4-R	New decentralised collaborative learning paradigms for AI
C5-R	Quantum Reinforcement Learning for classical data processing





Code	Title
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	
C1-A	Realising a hybrid AI application in AI4EU Experiments
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 publication, promotion, and participation

Although the two open calls followed similar approaches, the various actions towards publishing and promoting the two open calls, as well as participation statistics are addressed separately.

3.1 Open Call #1

The AI4Media – Open Call #1 was launched on 1 September 2021 and was open to submissions until 1 December 2021 (17h00 CET).

3.1.1 Publication and promotion

The AI4Media website was the main platform to promote the *first open call* (Figure 1). Through the website, potential applicants were provided with detailed information about the open call, the offer, target audience, as well as the relevant documentation to participate.

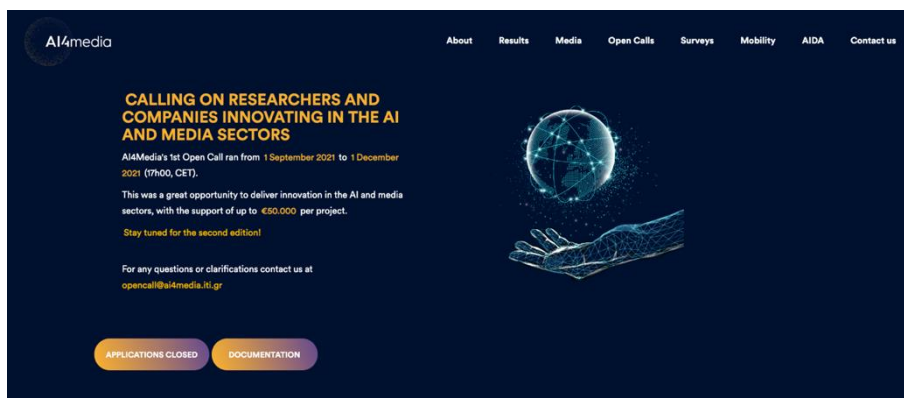


Figure 1. Screen capture from the website's Open Call #1 page

A specific page for the *AI4Media – Open Call #1* was set up on the F6S platform (Figure 2). This was also the channel through which applicants were required to submit their proposals. This page included general information about the open call and access to the discussion group, which is used to exchange information between AI4Media and interested applicants.



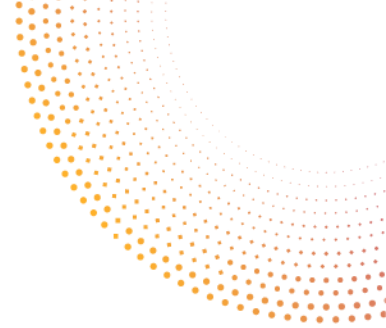
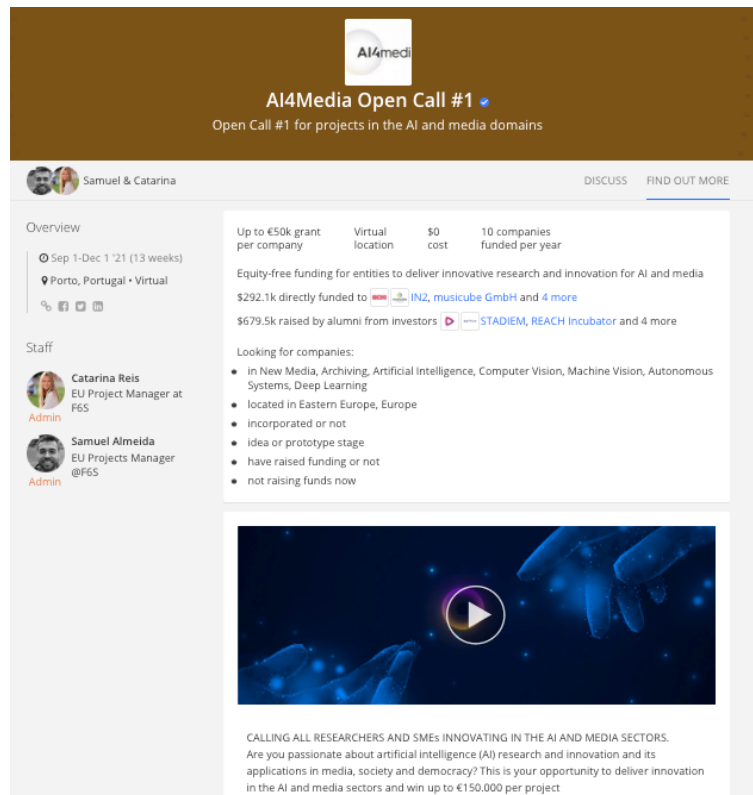



Figure 2. Screen capture from the AI4Media - Open Call #1 page on the F6S platform

Events

Two online events were organised to promote the project and provide potential applicants with information about the first open call.

The first webinar was held on 30 September 2021 (Figure 3) and was organised by F6S with the support of CERTH. The webinar included a presentation of the project (delivered by CERTH), a presentation of the open call requirements and relevant processes (delivered by F6S), and a Q&A session. The webinar was attended by 36 people (out of 60 registrations; 60% attendance rate) from 16 countries. A post-webinar survey was shared, and results indicated a general satisfaction with the webinar (4 out of 5 rating) and a significant likelihood to submit a proposal (4.7 out of 5 rating). The video recording is available on the project's [YouTube channel](#).

The second webinar was held on 10 November 2021, again organised by F6S with the support of CERTH. The agenda was the same as the first webinar. The webinar was attended by 26 people (out of 45 registrations, 58% attendance rate) from 15 countries. Like the first webinar, a post-webinar survey suggested a general satisfaction with the webinar (4.5 out of 5) and a significant likelihood to submit a proposal (4.5 out of 5). The video recording is available on the project's [YouTube channel](#).



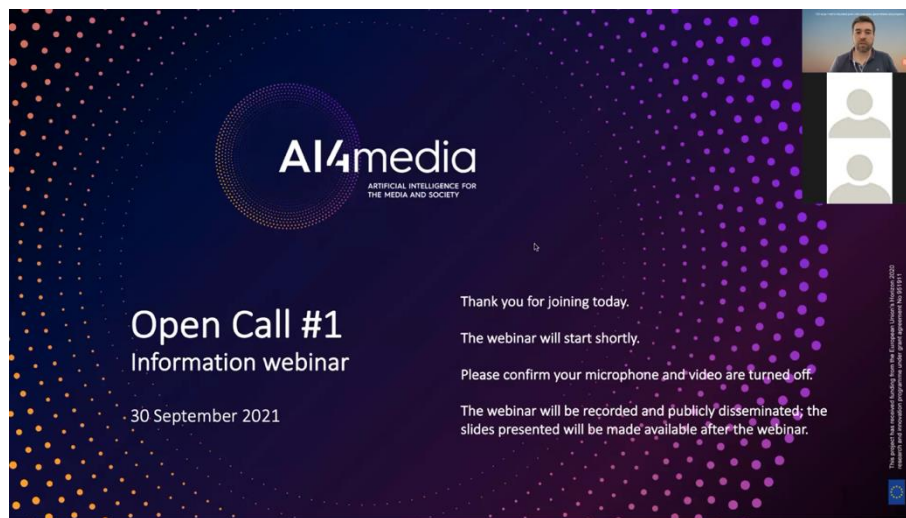


Figure 3. Screenshot from the first webinar for Open Call #1

In addition to the two webinars, F6S representatives were also able to participate in the 2021 edition of the [WebSummit](#) held in Lisbon (November 2021). At the WebSummit, flyers were distributed to participants that were showcasing ideas and solutions that had a fit with the AI and media domains.

Targeted mailing and cross posting

Several targeted mailing and cross posting (i.e., sharing information across multiple channels) actions were done to promote the first open call with the support of AI4Media partners. A press release was prepared for dissemination as well as a flyer (Figure 4), shared by partners across their networks.

F6S sent out a targeted newsletter to more than 800 entities registered on the F6S community that matched a defined profile, particularly having a focus on the AI and media domains, as well as being based in the EU Member States and the H2020 Associated Countries. This approach generated immediate feedback from those that were targeted, with many community members requesting additional information on the conditions and process to participate.

Furthermore, through other F6S projects that have previously organised open calls in the domain of AI or media (e.g., [X-Europe](#), [Reach](#), [EDI](#), [Blockstart](#), [STADIEM](#)), an additional 750 contacts were made and invited to participate in the open call.

Cross posting was explored by the partners to promote the open call, namely through their institutional websites. Through AI4Media’s internal channels and network, the posting reached approximately 875 contacts comprising AI4Media partners, Associate members, subscribers, and the AIDA mailing lists. The press release was distributed to 6,150 media outlets, leading to 1,166 unique opens. Additionally, cross posting was used to increase the visibility through various other organisations/ initiatives and respective websites. Examples include [AI4Europe \(AI on Demand\)](#), [DigiMedia](#), [Media Literacy Ireland](#), [Picante](#), and others.



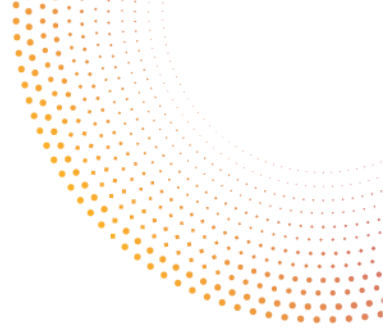


Figure 4. AI4Media - Open Call #1 flyer

Social media campaigns

A social media campaign was implemented with the support of AI4Media partner LOBA. Posts were posted on the project’s social media channels (Figure 5, Figure 6) on a regular basis informing about the running of the open call or the two webinars. The social media campaign resulted in 5,378 users engaged and a total of 237,587 impressions.





Figure 5. Screenshot from a Twitter post promoting Open Call #1

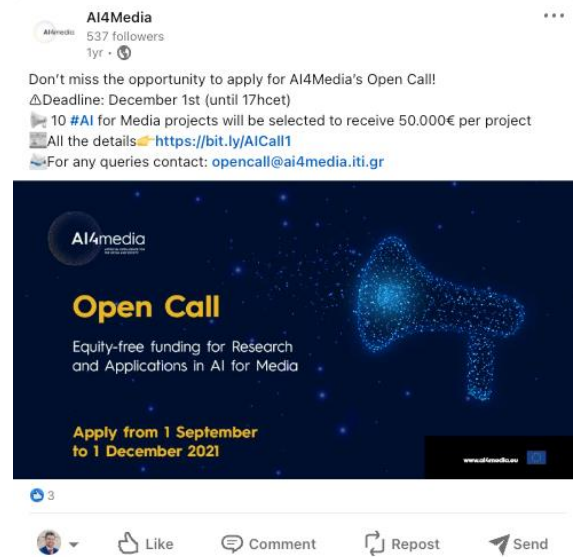


Figure 6. Screenshot from a LinkedIn post promoting Open Call #1

Furthermore, AI4Media partners (e.g. [LOBA](#), [DW](#), [UPB](#), [Fraunhofer](#)) were also very active in sharing the posts through their own or institutional social media accounts.

3.1.2 Participation statistics

Regarding participation statistics, several analyses can be made considering the information in the tables below.

A total of 60 proposals from various countries were submitted to the first open call, addressing the defined specific and open challenges. Of these, 40 addressed the Application track and the remaining 20 the Research track (Figure 7). It can also be mentioned that despite the 60 submissions, there were an additional 57 proposals 'opened' on the F6S platform that were not formally submitted and had different progress levels. Therefore, the submission rate was just over 50%, meaning a significant set of potential applicants for the second open call.

An initial eligibility check led to the exclusion of 12 proposals due to one or more reasons: missing/ invalid documents; missing/ invalid signatures; issues with the budget, etc. The final number of eligible proposals was 48 (80% eligibility rate), 32 for the Application track and 16 for the Research track.



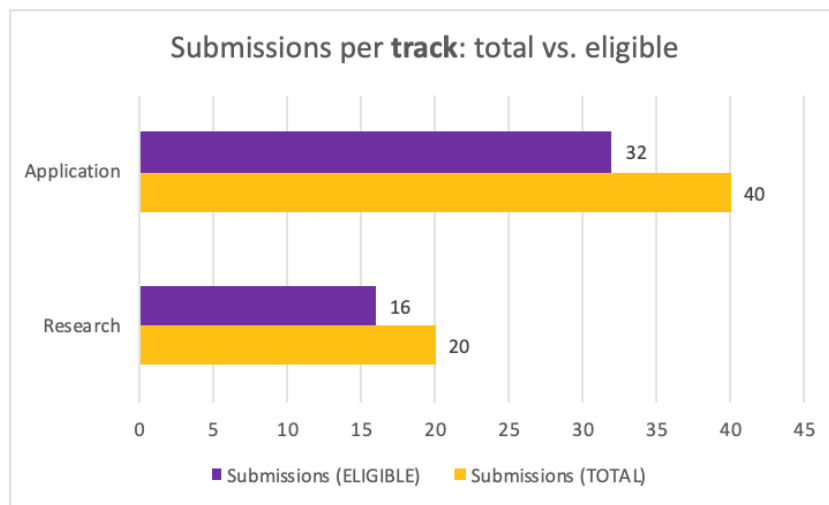
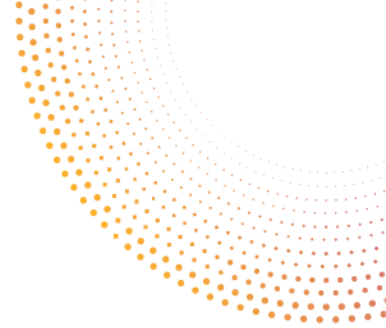


Figure 7. Open Call #1 – Total eligible and non-eligible submissions per track

Regarding the submissions per challenge (Figure 8), two challenges stand out as being the most targeted, both from the Application track: “C7-At: Leveraging the power of media archives through Artificial Intelligence” and “C8-At: Open Challenge (Application)”, with 15 and 13 total submissions, and 14 and 9 eligible submissions, respectively. On the other hand, there were three challenges with three or less submissions, and two with only one eligible submission: “C3-Rt: Combining deep learning-based computer vision and classic path-planning/ control for autonomous UAC cinematography tasks” and “C1-Rt: Bio-inspired deep learning”.

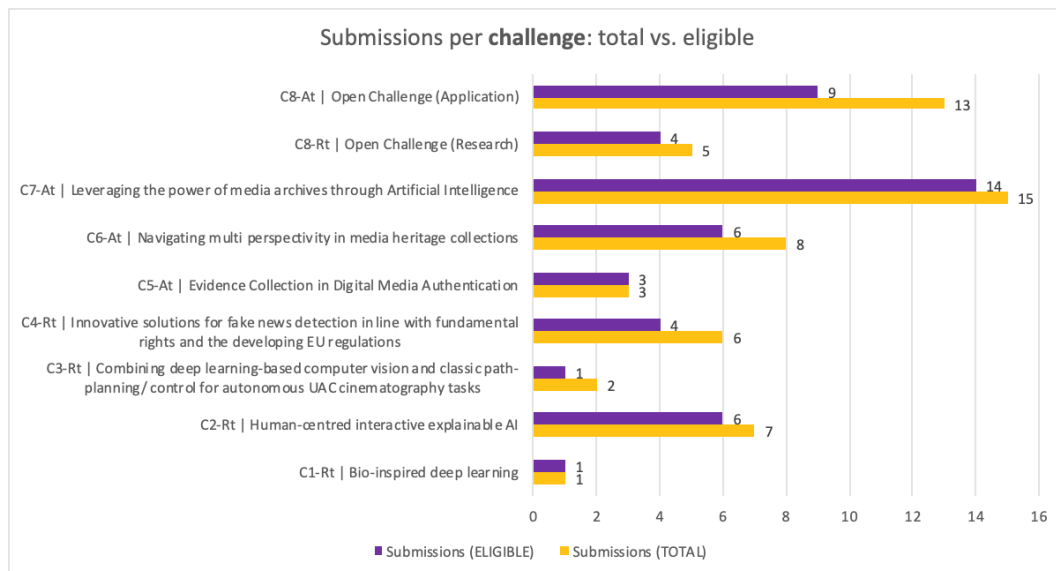


Figure 8. Open Call #1 – Total eligible and non-eligible submissions per challenge

Regarding the types of applicants that applied to the first open call (Figure 9), the majority were SMEs (regardless of their size), with 40 total submissions and 33 eligible submissions. This contrasts with the education and research-focused applicants, that jointly represented 17



submissions, 14 of them eligible. Lastly, there were three submissions received by individuals, only one being eligible. Considering that the open call was promoted equally among all types of organisations, this shows a possible tendency that the industry is more aware or interested in pursuing these FSTP opportunities.

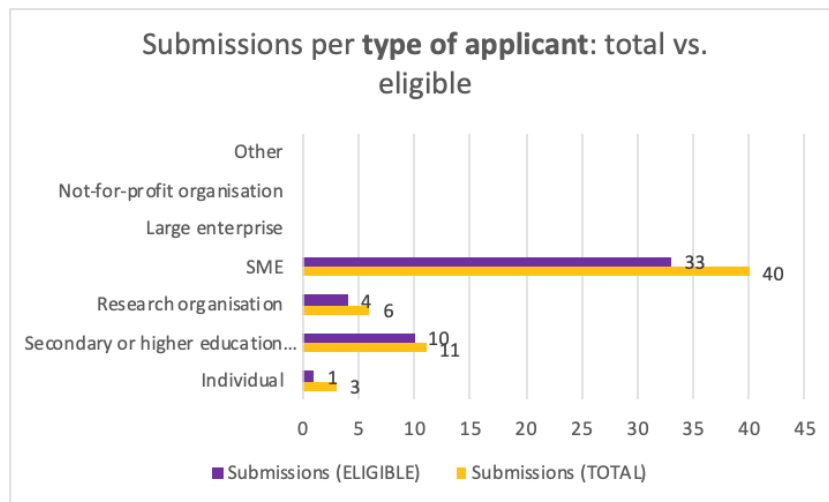


Figure 9. Open Call #1 – Total eligible and non-eligible submissions per type of applicant

Regarding the tracks to which the applicants submitted their proposals (Figure 10), the Application track is clearly dominant, having received 40 of the total submissions, 35 being from SMEs. Of the 20 submissions to the Research track, 11 were from secondary or higher education establishments.

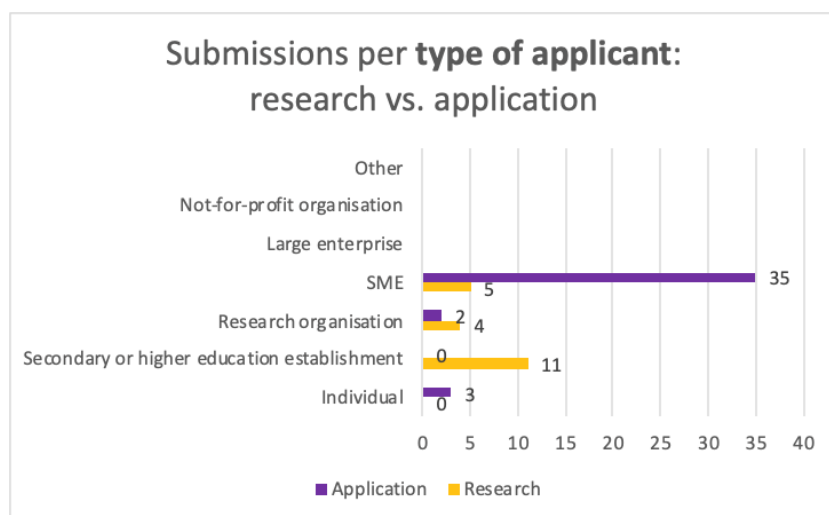


Figure 10. Open Call #1 - Submissions to the Research and Application tracks per type of applicant

Regarding submissions per country, there were submissions from 22 different countries. Germany stands out with 12 submissions (10 eligible), which represents 20% of the total submissions. Germany is followed by several countries with six or five total submissions (e.g.,



Greece, Italy, Portugal, Spain, and the United Kingdom). It can also be noted that there were 11 countries with only one submission.

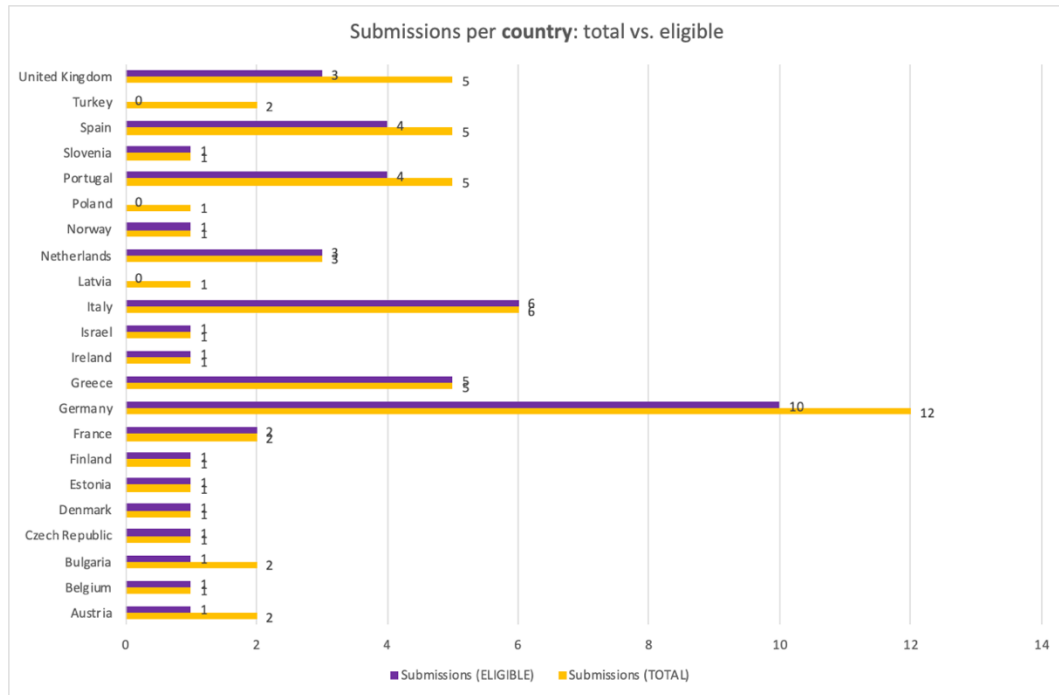


Figure 11. Open Call #1 – Total eligible and non-eligible submissions per country

3.2 Open Call #2

3.2.1 Publication and promotion

Like Open Call #1, the AI4Media website was the main platform to promote the [second open call](#) (Figure 12). All relevant information was provided to applicants, including details about the open call, the financial offer, target audience, list of challenges, and the documentation to participate in the open call.

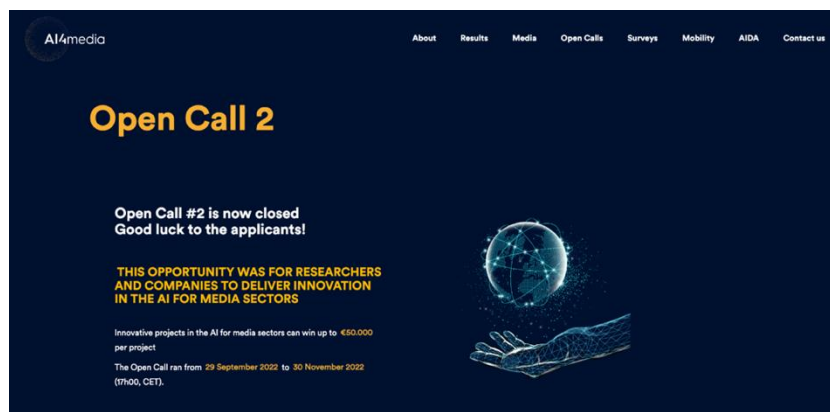
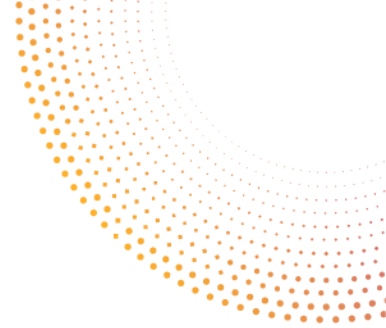


Figure 12. Screen capture from the website's Open Call #2 page





A specific page for the [AI4Media – Open Call #2](#) (Figure 2) was set up on the F6S platform. Like the page prepared for the first open call, it provided a brief description about the open call, and it was the page through which applicants were required to submit their proposals.

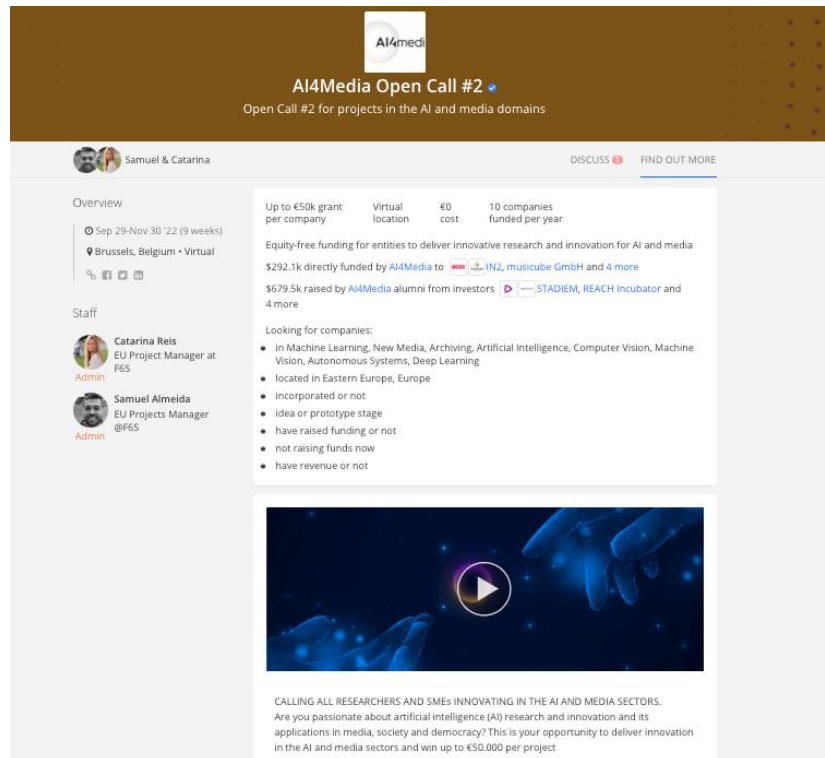


Figure 13. Screen capture from the AI4Media - Open Call #2 page on the F6S platform

Events

Like in the first open call, two online events were organised to promote the second open call.

The first webinar was held on 20 October 2022 and was organised by F6S. The webinar included a presentation of the project, a presentation of the open call requirements and relevant processes, and a Q&A session. The webinar was attended by 14 people (out of 22 registrations; 64% attendance rate) from eight countries. A post-webinar survey was shared, and results indicated a general satisfaction with the webinar (5 out of 5 rating) and a positive likelihood to submit a proposal (4 out of 5 rating). It can also be mentioned that nine of the 11 participants had no previous experience with FSTP programmes. The video recording is available on the project's [YouTube channel](#).

The second webinar (Figure 14) was held on 15 November 2022, again organised by F6S, and following the same agenda as the first webinar. The webinar was attended by 26 people (out of 38 registrations; 68% attendance rate) from 15 countries. Like the first webinar, a post-webinar survey suggested a general satisfaction with the webinar (4.25 out of 5) and a positive likelihood to submit a proposal (3.75 out of 5). It can also be mentioned that 17 attendees indicated having



no previous experience with FSTP programmes. The webinar was recorded but could not be made available due to technical issues with the recording.



Figure 14. Social media visual to promote the second webinar of the second open call

In summary, it can be noted that although the two webinars in the second open call had fewer participants (40) compared to the first open call (62), the total number of submissions was still higher in the second open call. This could be due to, for example, applicants not joining the webinars because they already knew the general scope of the open call and understood the information of the open call guidelines and general processes.

In addition to the two webinars, AI4Media (through F6S) participated in the [TechChill Milano 2022](#) event in Milan. Acting as a co-sponsor project (Figure 15), AI4Media was able to get some visibility at the F6S booth (Figure 16), as well as participate in a reverse pitching session where the second open call was presented to the audience (Figure 17).

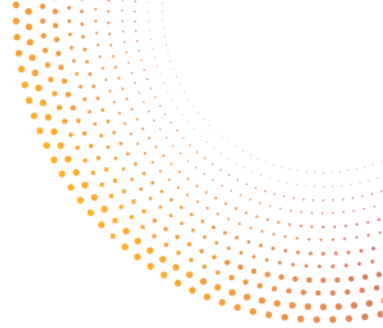


Figure 15. F6S booth at TechChill Milano 2022 co-sponsored by AI4Media

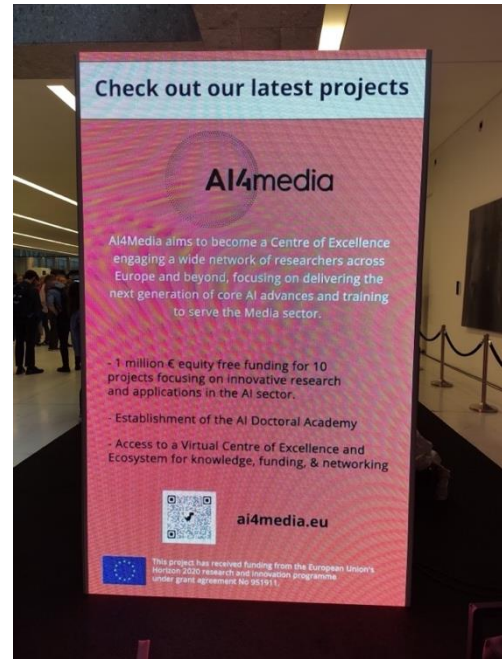
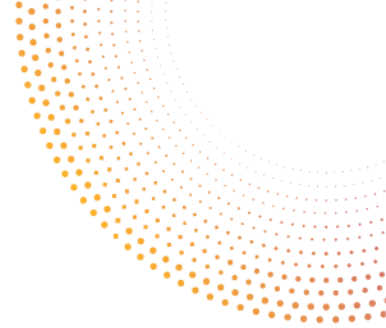


Figure 16. Promotion of AI4Media on the digital wall of the F6S booth at TechChill Milano 2022



Figure 17. AI4Media - Open Call #2 being reverse pitched to the audience (TechChill Milano 2022)





A short video of AI4Media’s participation at TechChill Milano 2022 can be seen via a post prepared for Twitter, [here](#).

Targeted mailing and cross posting

A similar mailing and cross posting strategy was implemented during the second open call, also supported by relevant visuals (Figure 18).



Figure 18. AI4Media - Open Call #2 flyer

F6S again sent out a targeted newsletter to more than 350 entities registered on the F6S community. There was a significantly lower number of entities targeted compared to the first open call (more than 800) due to updated internal F6S procedures that required more detailed filtering and therefore resulted in fewer entities being matched. Regardless, many of those contacted via the newsletter quickly requested further information on how to participate.

Once more, through other F6S projects that have previously organised open calls in the domains of AI or media (e.g., [STADIEM](#)), an additional 600 contacts were made and invited to participate in the open call and respective webinars.

Cross posting was used by the partners to promote the open call, namely through their institutional websites. Through AI4Media’s internal channels and network, the posting reached



more than 1,000 contacts comprising AI4Media partners, Associate members, subscribers, and the AIDA mailing lists. The press release was distributed to 6,427 media outlets, leading to 1,799 unique opens and 375 clicks. Additionally, visibility was boosted by cross posting through various other organisations/ initiatives and respective websites. Examples include the [Vision project](#), [Opportunity Desk](#), [Funds for NGOs](#), [POLOICT](#), and others.

Social media campaigns

As with the first open call, social media was again used to massively promote the second call. Posts were posted on the project’s social media channels (Figure 19, Figure 20) on a regular basis informing about the running of the open call or the two webinars.



Figure 19. Screenshot from a Twitter post promoting Open Call #2

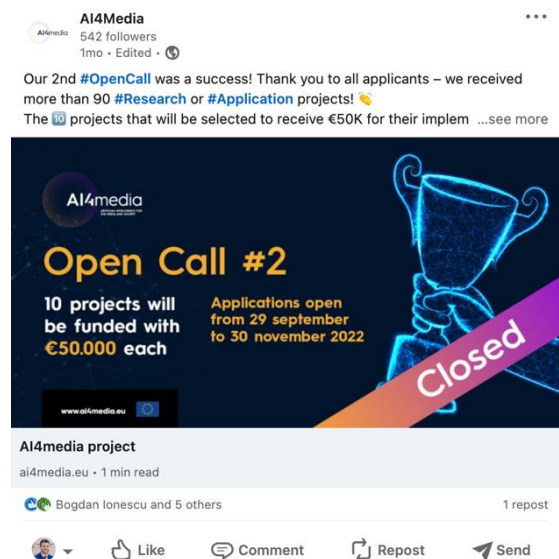


Figure 20. Screenshot from a LinkedIn post announcing the end of Open Call #2

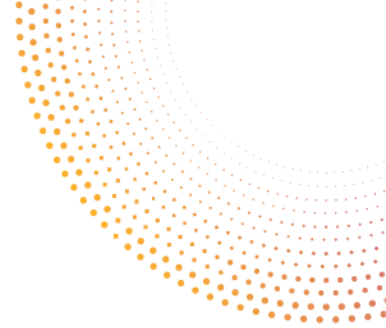
The social media campaign resulted in 2,165 users engaged and a total of 185,121 impressions. Furthermore, AI4Media partners (e.g. [NISV](#), [ATC](#), [IBM](#)) were also active in sharing the posts through their own or institutional social media accounts.

3.2.2 Participation statistics

Regarding the participation statistics in the second open call, the same analyses can be made as with the first open call.

A total of 95 proposals were submitted to the second open call, addressing one of the many specific and open challenges and from various countries. Of the 95 total submissions, 63 were aimed at the Application track and the remaining 32 at the Research track (Figure 21). As in the





first open call, there were many proposals ‘opened’ (63 proposals) that were not formally submitted. This represents a 60% submission rate and a 10% improvement compared to the first open call.

Having carried out the required eligibility check, 28 proposals were excluded due to one or more reasons: issues with the budget, inconsistency in the type of applicant, not being from an eligible country. The final number of eligible proposals was 67 (71% eligibility rate), 44 for the Application track and 23 for the Research track.

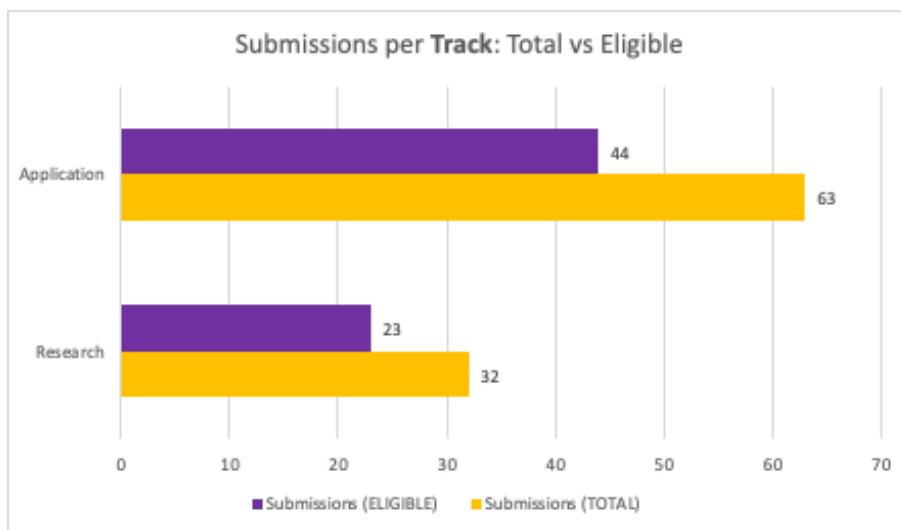


Figure 21. Open Call #2 – Total eligible and non-eligible submissions per track

Regarding the submissions per challenge (Figure 22), and notwithstanding the increased number of challenges compared to the first open call (19 compared to 9), the “C7-A-OPEN: Open Application Challenge” received a total of 26 submissions, which represents just under 1/3 of the total submissions (30%). However, just over half of these were eligible. A similar situation occurred with the first open call, where the open challenge in the application track was the second most targeted challenge (33% of total application submissions). This suggests that despite the greater number of specific challenges available, these were considered either very specific or applicants felt that their project ideas were better suited to a non-specific challenge. Two other Application challenges – C4-A and C2-A - had 10 total submissions, both with eight eligible proposals. It can also be highlighted those two challenges – C3-A and C5-R – one from each track, did not receive a single submission, and a few other challenges with two or less proposals.



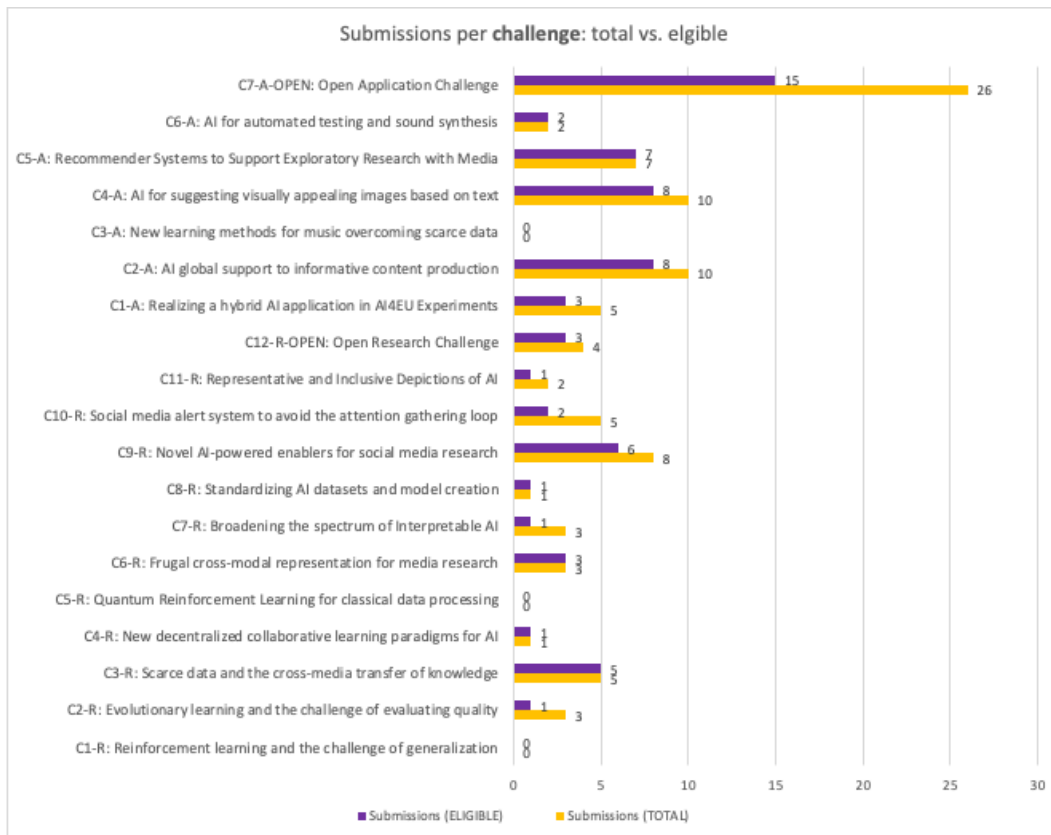


Figure 22. Open Call #2 – Total eligible and non-eligible submissions per challenge

Regarding the types of applicants that applied to the second open call (Figure 23), once again the majority were SMEs, with 54 of the 95 total submissions, and 42 eligible submissions. In contrast, the education and research-focused applicants jointly represented 22 submissions, 19 of them eligible. It can also be noted a relevant increase in the number of submissions by individuals (11), albeit only one was eligible, as well as from not-for-profit organisations, that did not submit any proposal in the first open call.

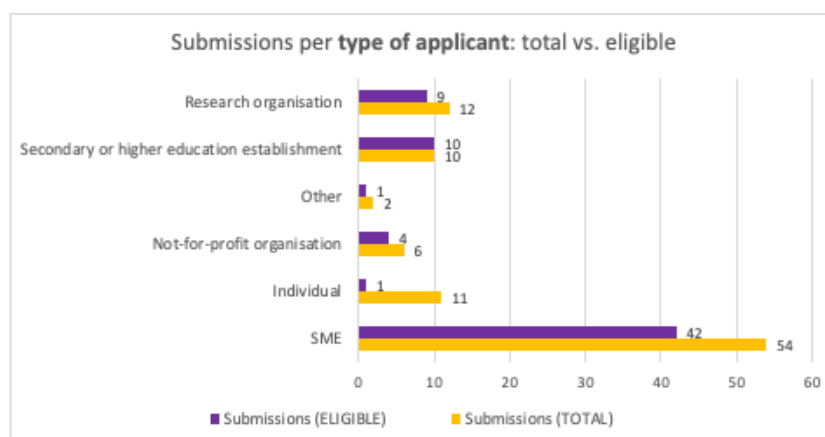


Figure 23. Open Call #2 - Eligible and non-eligible submissions per type of applicant



Analysing the track targeted by the applicants (Figure 24), the results are those most expectable: 40 of 44 eligible submissions to the Application track were from SMEs, with the remaining four being submitted by research organisations, not-for profits, or others. Furthermore, there was limited participation by SMEs in the Research track. Research organisations and secondary/higher education establishments, as expected, represented most submissions (18 of the 23 eligible submissions). This suggests, as is often the case, that organisations will focus on the type of projects that suits their main type of activity.

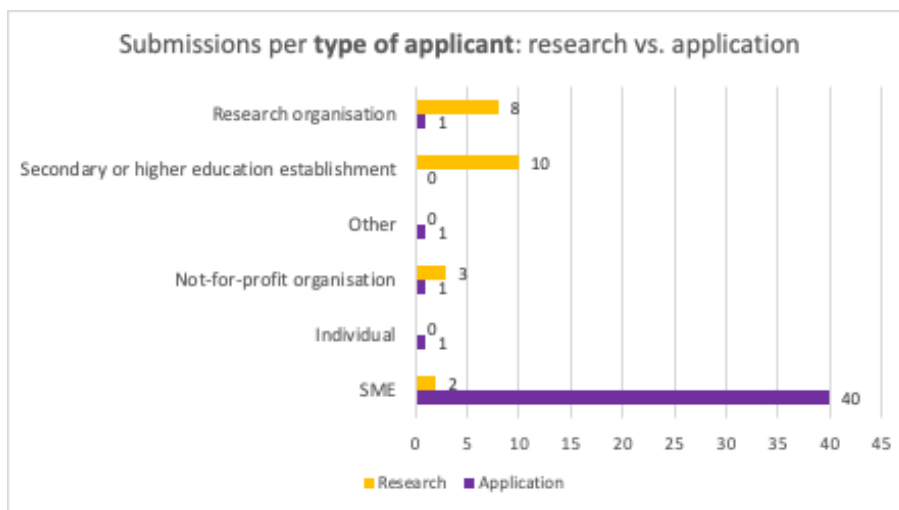


Figure 24. Open Call #2 - Submissions to the Research and Application tracks per type of applicant

Last, regarding participation by country, there were submissions from 24 countries (not including four non-eligible countries), compared to the 22 in the first open call. There were also additional differences compared to the first open call. In the second open call, Spain is the country with the highest number of submissions (13 total, 10 eligible), followed by the United Kingdom (nine total, seven eligible), and then Germany (nine total, six eligible), which was the most active in the first open call. It can also be noted the reduction in the number of countries with only one submission: eight in the second open call compared to 11 in the first open call.

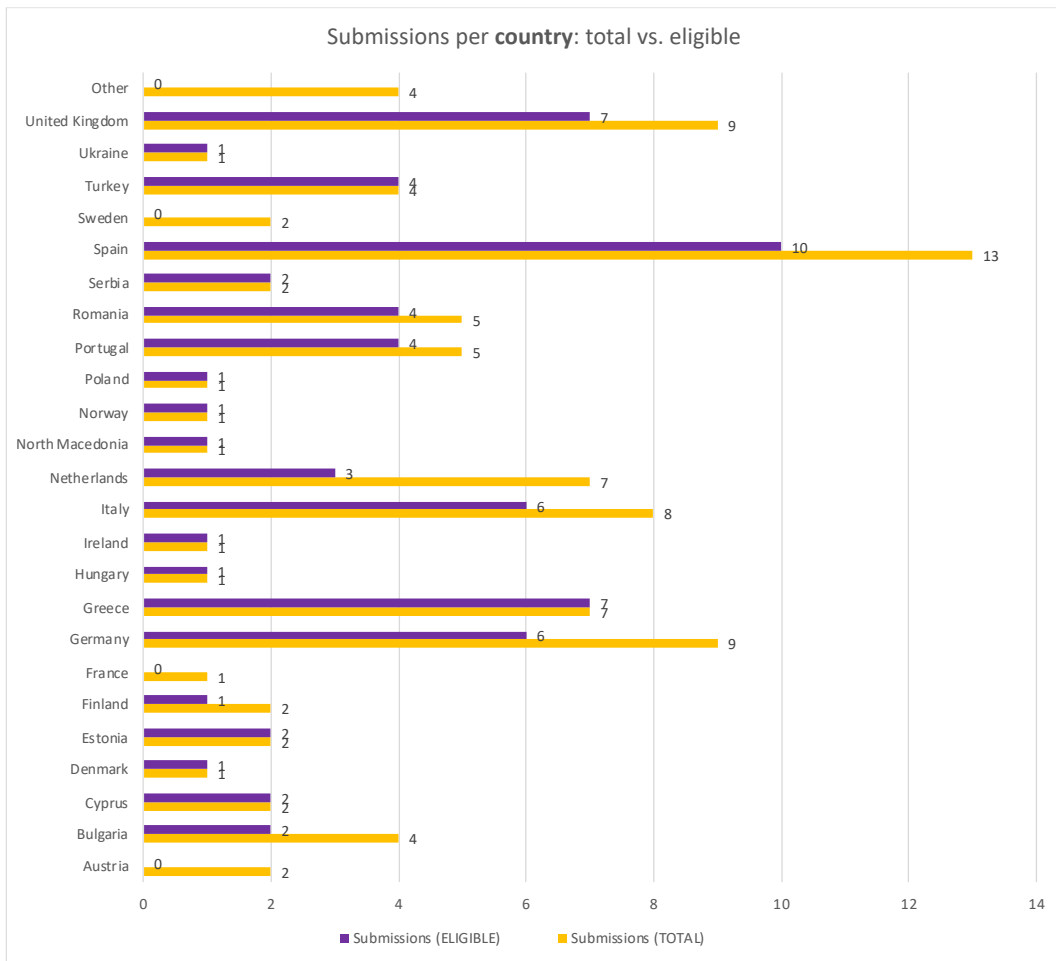
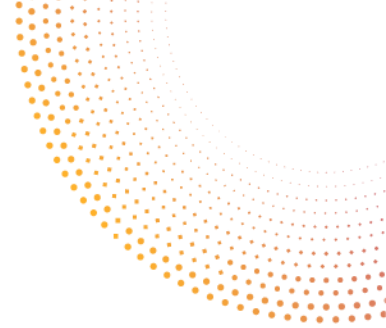


Figure 25. Open Call #2 - Eligible and non-eligible submissions per country

It can also be noted that, considering the more than 150 total submissions across the two open calls (and excluding the 10 funded through the first open call), only six applicants applied to the first and later to the second open call. Of these, two ended up being selected and invited to participate in the second funding programme.





4 Selection of evaluators via a call for expression of interest

To support the AI4Media partners in the evaluation of the proposals submitted to the two open calls, two calls for expressions of interest (EOI) were launched. The objective of these calls for EOI were to identify highly knowledgeable experts in the topics of the open calls and with previous experience in evaluating proposals to support the evaluation process and ensure an independent evaluation process.

Both calls for EOI were run via the F6S platform on independent webpages, as shown in Table 4. The evaluation of the experts was carried out by several AI4Media partners, that evaluated each expert and respective CVs according to three items: CV, experience in the open call domains, and experience in EC/FSTP evaluations. Prior to this, an initial eligibility check was carried out by F6S to ensure that only experts that provided all the required information were evaluated. Each expert was evaluated by at least two AI4Media representatives. The top-ranked experts were invited to sign a contract with AI4Media.

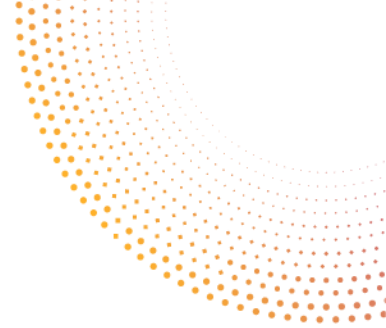
Table 4 provides a summary of the two calls for EOI and characterisation of the experts that supported the evaluation process of the two open calls.

Table 4. Overview of the external experts supporting the evaluation process

	Open Call #1	Open Call #2
F6S page	<u>AI4Media – EOI #1</u>	<u>AI4Media – EOI #2</u>
Timeline	27 October 2021 – 19 November 2021	24 October 2022 – 11 November 2022
Submissions	<ul style="list-style-type: none"> • 57 Eoi submitted • 45 eligible CVs evaluated 	<ul style="list-style-type: none"> • 73 Eoi submitted • 43 eligible CVs evaluated
Characterisation of expert pool	<ul style="list-style-type: none"> • 10 experts invited to sign contract • 8 male, 2 female experts • Average profile score by AI4Media partners: 8.6 • Experts' countries: Belgium, France, Greece, Italy, Romania, Spain 	<ul style="list-style-type: none"> • 10 experts invited to sign contract • 6 male, 4 female experts • Average profile score by AI4Media partners: 8.4 • Experts' countries: Belgium, France, Germany, Greece, Italy, Malta, Spain

In both open calls, an onboarding session was organised with the experts to provide them with a detailed overview of the respective open call and the evaluation procedures. The session included a brief overview of the project, expectations related to the open call, a summary of the evaluation procedures (remote evaluation, consensus meeting, interviews), agreement on timeline, and a description of recommendations when preparing the evaluation report.





5 Overview of the open call process: from submission to contracting

The two AI4Media open calls both followed clear processes that consisted of several well defined, transparent, and successive steps that were included in the respective open call guidelines. In general, these steps were:

- Step 1: Proposal preparation and submission
- Step 2: Eligibility check
- Step 3: External remote evaluation
- Step 4: Interviews
- Step 5: Final ranking and selection
- Step 6: Contract preparation and signature

Figure 26 is a representation of the mentioned steps, which cover the submission, evaluation, and selection process of the AI4Media open calls.

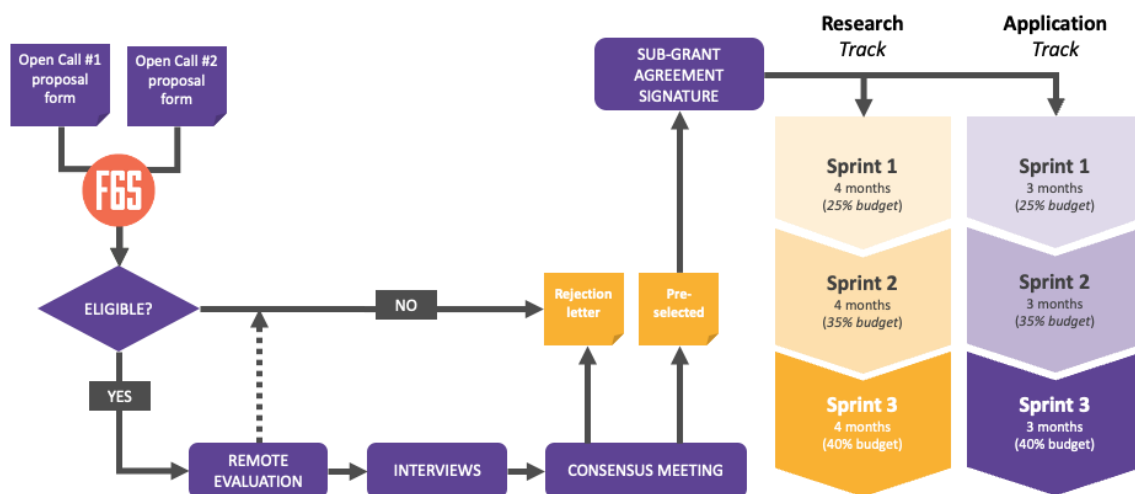


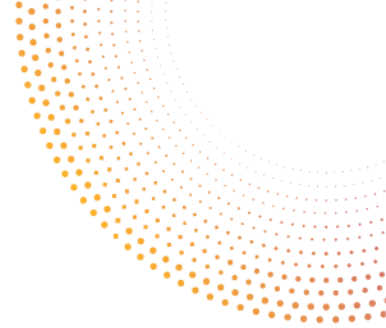
Figure 26. Submission, evaluation, and selection process of the AI4Media open calls

In general, the two open calls followed the same six steps, with some differences being implemented in the second open call based on lessons learned from the first open call (e.g., number and naming of evaluation criteria, weight of the interviews in the selection process). The general process is described in what follows (considering the six steps), as well as the main differences between the two open calls when such existed.

5.1 Step 1: Proposal preparation and submission

This step was the exclusive responsibility of the potential applicants to the two open calls. All applicants that planned to submit a proposal were required to register on the F6S platform or on the [AI4Media F6S page](#). As mentioned, F6S was the platform used to manage the reception





of proposals during the two open calls. Regarding the preparation and submission, the following was required:

- All mandatory questions had to be included in the proposal form and correctly filled out.
- Applicants had to select one of the challenges that the proposal addresses.
- Applicants had to correctly prepare and submit the technical proposal using the provided template, which includes all the mandatory items to be addressed.
- Applicants had to confirm that they had read and agreed with the conditions defined in the Guidelines for Applicants.

Applicants were also made aware of a final requirement related to complementary documentation, which differed from the first to the second open call. In the first open call, applicants were required to sign and submit an SME Declaration (in case they participated as SMEs) and either the Declaration of Honour for Individuals or for Non-Individuals. To reduce some of the administrative burden at the proposal stage for the second open call, these documents were not required with the submission. Rather, they were only required as part of the contracting stage if the applicant was selected.

5.2 Step 2: Eligibility check

This step consisted in verifying the eligibility of the submitted proposals by checking them against several defined criteria. All applicants were required to fulfil the general requirements described in the eligibility criteria section of the Guidelines for Applicants to be considered eligible to participate in the open calls. Specifically, the eligibility check verified if:

- Submissions were received exclusively through the F6S platform before the deadline.
- Applicants were from an eligible H2020/ Associated country.
- Applicants were not funded under the AI4Media - Open Call #1 funding programme (*only applicable in the second open call*).
- Proposals and all required documents were provided in the English language.
- The proposal description was submitted according to the guidelines (including financial) and using the provided template.
- A complete proposal was submitted, including the requested administrative data and any mandatory supporting documents specified in the open call guidelines.

Proposals were only considered eligible if all above mentioned aspects were met. Proposals marked as non-eligible were contacted and provided a specific letter, identifying the reasons for being marked as non-eligible. Eligibility statistics for the two open calls are:

- Open Call #1: 60 proposals received; 12 non-eligible.
- Open Call #2: 95 proposals received; 28 non-eligible.

Table 5 summarises the number of proposals that were marked non-eligible due to one or more of the listed exclusion criteria.



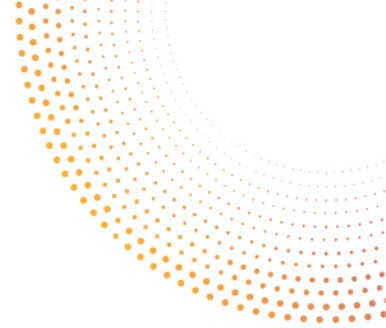


Table 5. Review of eligibility check: exclusion criteria

Exclusion criteria	Open Call #1	Open Call #2
Incomplete/Incorrect proposal and/or documentation	7 proposals	13 proposals
Non-eligible country	---	4 proposals
Inconsistency in type of applicant/ documentation provided	2 proposals	4 proposals
Financial eligibility (exceeding maximum budget)	5 proposals	10 proposals

As shown in Table 5, various proposals were marked non-eligible for more than one issue. Common issues to both open calls were the provision of incomplete or incorrect documentation. In the first open call, this was related to the submission of a proposal using the wrong template or not providing signed administrative documentation. The later was also a reason for only requesting administrative documentation in the contracting phase for the second open call. Also visible is the high number of non-eligible proposals due to financial issues, namely providing budgets above the maximum value or not including indirect costs as was required in the open call documentation.

5.3 Step 3: External remote evaluation

This step consisted in the external evaluation of the proposals that cleared the eligibility check. The external evaluation was carried out by the experts as described in Section 0.

In both open calls, each proposal was evaluated by two experts. Experts were allocated to proposals considering the following:

- Expertise in the topics related to the challenges the proposals addressed.
- Expert's nationality and countries of the proposers.

Each evaluator was provided a package with the proposals allocated to them, including a scoring document on which they could record their scores and provided their assessments, thereby establishing an individual evaluation report (IER). Each proposal was scored against different criteria, which are described in detail in the respective open call Guidelines for Applicants.

It is important to note that there was a small change in the number of criteria from the first to the second open call, namely the removal of the 'Alignment' criterion, as shown in Table 6.



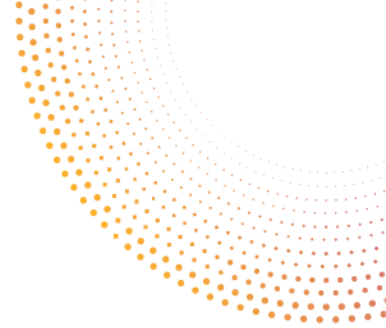


Table 6. Main evaluation criteria for Open Call #1 and Open Call #2

Open Call #1	Open Call #2	Assessment
EC1. Alignment	---	Alignment of the proposal with the selected challenge
EC2. Excellence	EC1. Excellence	Objectives of the proposal, quality of the project concept and innovation potential.
EC3. Impact	EC2. Impact	Contribution to the AI4Media ecosystem, contribution to the strengthening of the applicant and growth of the EU.
EC4. Implementation	EC3. Implementation	Quality of the work plan, including objectives, milestones, KPIs, and capacity of the applicant.
EC5. Value	EC4. Value	Justification of the project costs.

This change was mainly due to the reduced number of sub-criteria associated with the main 'Alignment' criteria, as well as feedback from some experts from the first open call. The experts commented that it wasn't always obvious the reason for a single 'Alignment' criterion and how to dissociate it from the 'Excellence' criteria.

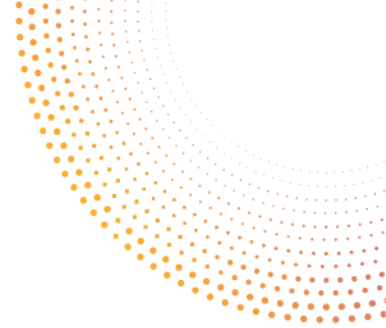
Each criterion was scored from 0 to 5, considering the rationale described in Table 7.

Table 7. Scoring rationale for the evaluation criteria of the two AI4Media open calls

Score	Rationale
0	The proposal fails to address the criterion or cannot be judged due to missing or incomplete information.
1 - Poor	The proposal addresses the criterion in an inadequate manner or there are significant weaknesses.
2 – Fair	The proposal addresses the criterion broadly, but there are still several weaknesses.
3 – Good	The proposal addresses the criterion well, but improvements are necessary.
4 – Very Good	The proposal addresses the criterion very well, but some improvements are still possible.
5 – Excellent	The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

The final score (including for each criterion) was calculated based on the average of the scores provided by the evaluators. The threshold for each criterion is three (3), therefore the overall score threshold was 12. Considering the evaluations received, a consensus meeting was held to prepare a single consensus Evaluation Summary Report (ESR) for each proposal, representing opinions and scores on which the evaluators agreed.





5.4 Step 4: Interviews

In both open calls, the top-20 proposals (10 per track, with a maximum of two per challenge) were invited to the interview stage. Interviews were approximately 60 minutes. The objective of the interview was to help the experts better understand the proposal, particularly its quality and excellence, the expected impact and exploitation potential, quality of the workplan, and quality of the applicant (individual or entity implementing the project).

As with the external remote evaluation, the evaluators judged the applicant against several criteria (Table 8). Again, some changes were made from the first to the second open call, namely the number and naming of the criteria. This was done to better harmonise the evaluations from the external remote evaluation and the interviews.

Table 8. Online interviews evaluation criteria for the AI4Media open calls

Open Call #1	Open Call #2	Assessment
IC1. Concept and innovation	IC1. Concept and innovation	Quality/novelty of the project concept and innovation potential.
IC2. Impact and exploitation	IC2. Impact and exploitation	Contribution to the AI4Media ecosystem and path for exploitation
C3. Applicant	IC3. Workplan and applicant	(Rationale of the workplan;) capacity of the applicant; motivation to participate in the programme.
---	IC4. Value for money	Rationale of the project budget.

Specifically, in the second open call, applicants were required to present details on their workplan and the budget, which was not requested in the first open call. In the interview stage of both open calls, AI4Media partners – namely those directly involved in the development of the challenges the proposal being evaluated addressed – were invited to support the evaluation process and take part in asking questions to the applicant being interviewed.

5.5 Step 5: Final ranking and selection

After concluding the interviews, the proposals were ranked in a single list. In this step, there was also a significant difference between the two open calls. In the first open call, the applicant's final score towards the ranking was solely based on the score of the interviews. In the second open call, the ranking was based on a final score that considered by 50% the external remote evaluation score and 50% the interview score.

This change was introduced because it was considered that the selection of the awarded projects solely based on the interview score excessively penalised those applicants that were, for any number of reasons, less comfortable with public speaking or had difficulties passing a message that was, in principle, well evaluated in the remote evaluation stage. Therefore, reducing the weight of the interview ensured that the quality of what was written in the proposal still counted towards the final overall score.



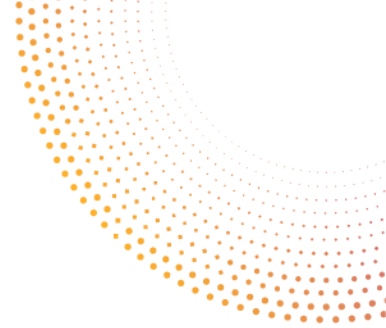
After finalising the ranking and selection, the ESR with the final scores (overall and per criteria) and comments were sent to the respective applicant. In both open calls, those that had participated in the interview but were not selected (total of 10 projects) were kept in a reserve list. Any applicant that considered there was a shortcoming in the application of the eligibility check or rules for evaluation was entitled to submit a redress request that was required to follow specific steps. For the two open calls, there were a total of three formal redress requests. Upon receipt, which was acknowledged to the applicant, an internal committee evaluated the request. For all three requests, the redress focused on the experts' evaluation which, per the guidelines, the committee will not question. Therefore, results were final.

5.6 Step 6: Contract preparation and signature

This step involved the receipt and validation of the required documentation to enter the funding programme, namely the SME Declaration Form (for SMEs), the Declaration of Honour, proof of legal existence (for non-individuals), and VAT registration (for non-individuals).

Upon validation of the documentation, the sub-grant agreements (contracts) were signed, namely by CERTH (as Coordinator), F6S (as Treasurer) and the awarded applicant.





6 Awarded projects from the open calls

6.1 Open Call #1 projects

Table 9 lists the 10 projects selected from the AI4Media – Open Call #1, five from the Application track (**At**) and five from the Research track (**Rt**).

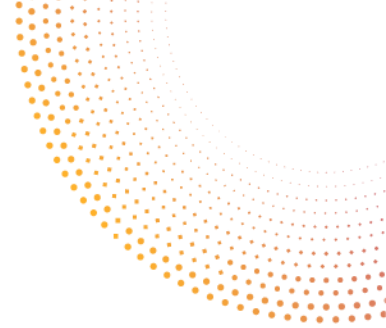
All five Application track projects were developed by SMEs, while the Research track projects were developed by research organisations, higher education institutions and one SME. The applicants came from Germany (3 projects), Spain (1 project), Israel (1 project), Slovenia (1 project), United Kingdom (1 project), Greece (2 projects), and Bulgaria (1 project).

The public summary of each selected proposal (as provided by the applicant) is provided in Appendix 1. Additional details about the first open call projects can be found on the AI4Media [website](#).

Table 9. Selected projects from Open Call #1

Proposal acronym Title (Track)	Applicant name (Country), Type of entity
AIEDJ AI Empathic DJ App (At)	musicube GmbH (Germany), <i>SME</i>
CIMA Next-Gen Collaborative Intelligence for Media Authentication (At)	AdVerif.ai (Israel), <i>SME</i>
CUHE An explainable recommender system for holistic exploration and Curation of media HEritage collections (At)	IN2 Digital Innovations GmbH (Germany), <i>SME</i>
edgeAI4UAV Computer Vision and AI Algorithms Edge Computation on UAVs (Rt)	International Hellenic University (Greece), <i>Higher Education</i>
InPreVI Inauthentic web traffic Prediction in Video marketing campaigns for investment optimization (At)	JOT Internet Media (Spain), <i>SME</i>
NeurAdapt Development of a Bio-inspired, resource efficient design approach for designing Deep Learning models (Rt)	Irida Labs (Greece), <i>SME</i>
RobaCOFI Robust and adaptable comment filtering (Rt)	Institut Jozef Stefan (Slovenia), <i>Research Organisation</i>
SMAITE Preventing the Spread of Misinformation with AI-generated Text Explanations (Rt)	University of Manchester (United Kingdom), <i>Higher Education</i>
TRACES AuTomatic Recognition of humAn-written and deepfake-generated text disinformation in soCial mEdia for a low-reSourced language (Rt)	Sofia University “St. Kliment Ohridski”, GATE Institute (Bulgaria), <i>Higher Education</i>
VRES Varia Research (At)	Varia UG (Germany), <i>SME</i>





6.2 Open Call #2 projects

Table 10 lists the 10 projects selected under the AI4Media – Open Call #2, five from the Application track (**At**) and five from the Research track (**Rt**).

The five Application track projects will be developed by SMEs, while the Research track projects will be developed by research and higher education institutions. The applicants come from Portugal, Romania (2 projects), Spain (2 projects), Denmark, Greece, United Kingdom (2 projects), and Italy.

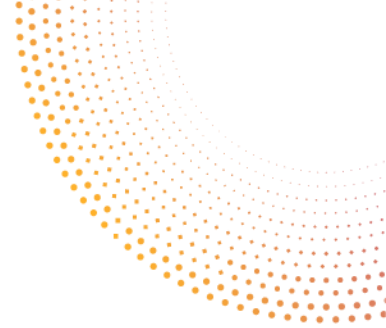
Therefore, it is interesting to note that the second open call is funding projects from a few different countries compared to the first open call, namely Portugal, Romania, Denmark, and Italy. In total, projects in both open calls were funded from 11 countries.

The public summary of each selected proposal (as provided by the applicant) is provided in Appendix 2. Additional details about the second open call projects will be made available on the AI4Media website once the projects are officially launched in March 2023.

Table 10. Selected projects from Open Call #2

Proposal acronym Title	Applicant name (Country), Type of entity
CAMOUFLAGE Controllable Anonymization through diffusion-based image collection Generation (Rt)	Politecnico di Torino (Italy), <i>Higher Education</i>
CLIP LENS CLIP models, Looking for Enhanced New Systems (LENS) (Rt)	Asociación Centro Tecnológico de las Tecnologías de la Información y las Comunicaciones de la Región de Murcia (Spain), <i>Research</i>
ELMER Efficient Long-term Multi-modal video Retrieval (Rt)	University of Surrey (UK), <i>Higher Education</i>
HoloNeXT Holographic transmission and Neural radiance fields for a novel Xr production Tool (Rt)	i2CAT Foundation (Spain), <i>Research</i>
JECT-CLONE JECT – Creative Landscapes of News (At)	JECT.AI Limited (UK), <i>SME</i>
magnet Automatic Recommendation of In-Context Media Content to Support Exploratory Research in Journalism (At)	inknow solutions, lda (Portugal), <i>SME</i>
MBD Mindbugs Discovery (At)	Tech Wave Development Srl (Romania), <i>SME</i>
NLMIE Natural Language Media Indexing Engine (At)	Kaspar ApS (Denmark), <i>SME</i>
VIREO Visually appealing Image Recommendation based on Article Content using Artificial Intelligence (At)	Human Opsi (Greece), <i>SME</i>
VolEvol Generation of Meaningful Representations of Volume Data Through Evolutionary Learning (Rt)	"Gheorghe Asachi" Technical University of Iasi (Romania), <i>Higher Education</i>





7 Sub-granted projects launch and kick-off

The funding programme of the first open call launched on 1 March 2022, while the programme of the second open call will launch on 1 March 2023.

To formalise the start of the projects in both open calls, a kick-off meeting was organised with representatives from all 10 funded projects as well as AI4Media partners. The objective of the meeting was to welcome the projects to the funding programme, provide them with an overview of the AI4Media project, and introduce them to the various support mechanisms and responsibilities related to the programme. All the information that was presented was compiled into a technical handbook and made available to the sub-grantees. The kick-off meeting for the first open call was held on 2 March 2023; the meeting for the second open call projects will be organised on 3 March 2023.

Table 6 presents the agenda of the kick-off meeting of the first funding programme.

Table 11. Agenda of the kick-off meeting of the first funding programme

Time	Topic	Responsible
14:00	Welcome and quick round table	F6S + AI4Media partners
14:05	Brief introduction to AI4Media	CERTH
14:15	Presentation of the funded projects	Projects
15:00	How AI4Media will support the projects	F6S
15:10	Overview of other processes	F6S
15:20	Q&A	F6S + All

Figure 27 shows the representatives from AI4Media and the projects in the kick-off meeting of the first funding programme.

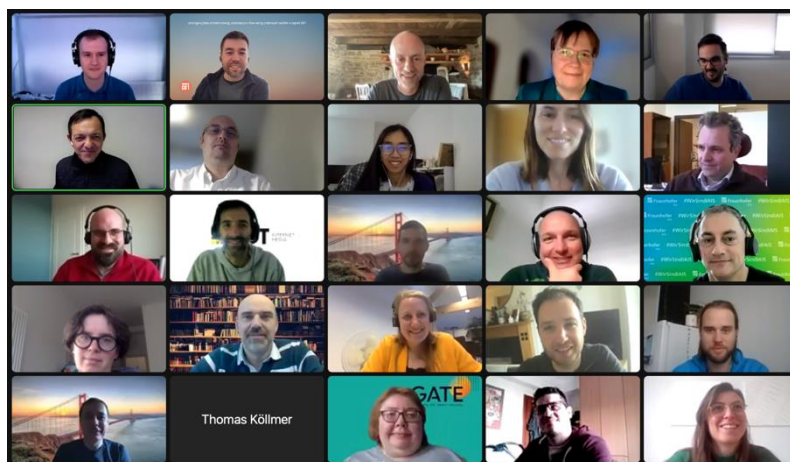
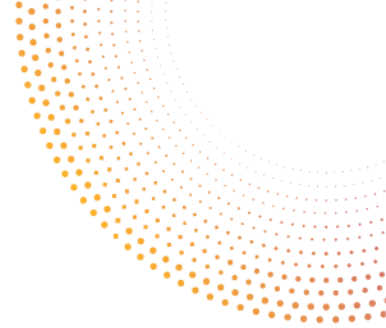


Figure 27. AI4Media kick-off meeting for the first funding programme





8 Final considerations

The main objective of the AI4Media FSTP programme (open calls) is to engage researchers and SMEs to the AI4Media network, and to boost cross-border and cross-sector innovation within the media sector.

The AI4Media project has successfully organised two open calls. The funding programme from the first open call ended in February 2023 and the programme from the second open call will start in March 2023 and will run until the end of February 2024.

The two open calls were very competitive, having received a total of 155 submissions, of which 103 were eligible. With the two open calls, €1 million euros has been made available to fund 20 projects: 10 focused on research (participating in the Research track) and another 10 focused on development of applications (participating in the Application track).

The 103 eligible proposals were evaluated by external experts to ensure an independent evaluation process, which consisted of a remote evaluation and an interview. A total of 20 experts participated in the evaluation of the applications submitted to the two open calls. A total of 20 interviews were conducted to select the awarded projects, and 103 evaluation reports were prepared and sent to the respective applicant with their result, regardless of a positive or negative outcome.

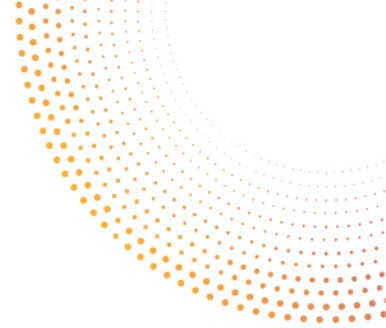
While the two open calls were similar in objectives, funding available and number of projects to be funded, some updates were introduced in terms of processes in the second open call, mainly due to internal discussions and feedback from applicants and experts. The main updates were:

- **Proposal stage:** applicants were exempt from submitting some of the administrative documentation with the objective of reducing the level of bureaucracy at proposal stage and therefore increasing submissions.
- **Evaluation stage – remote evaluation:** the number of criteria was reduced from five criteria in the first open call to four criteria in the second open call.
- **Evaluation stage – interview:** the number of criteria was increased from three criteria in the first open call to four criteria in the second open call (to better match the criterion of the remote evaluation), and the interview score had a weight of 50% in the final score (in the first open call, the interview was the only result that counted for the final selection).

Information about the 20 selected projects is and will be made available on the AI4Media website, as well as through the project's many social media channels.

With these two open calls, the AI4Media project aims to increase the size of its network but also enrich the pool of research and technological tools to be made available – via AI4Media – on the AI-on-Demand platform.





Appendix 1 – Description of selected projects (Open Call #1)

The public summaries of the project have been copied into this document as provided by the applicants. Grammar or language have not been modified.

AIEDJ | AI Empathic DJ App

musicube GmbH (Germany)

Track & Challenge addressed: Application track - Navigating multi perspectivity in media heritage collections.

Summary of the project:

Music streaming services give access to more than 60 million songs, but the biggest part remains undiscovered because search functions are limited, playlists are predefined and recommendation engines work on a “other users have also heard” basis. Thus, users are locked in filter bubbles. That is why we need music discovery tools that both work with musical and sound features but adapt to the personal musical taste of users. These tools can help them escape their musical filter bubble and support content creators to become discoverable.

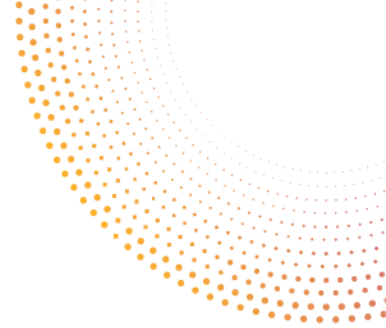
Musicube is an SME that builds AI software for audio and especially music. Musicube developed neural networks that process audio files and automatically tag them with musical features, sound features and emotions. The business model is B2B, so that companies from the media sector use Musicube’s Auto-Tagging Software to enrich their metadata or semantic music search to find music by its features (e.g. “fast and happy songs with acoustic guitar and female vocals”).

In the AI Empathic DJ project, we intend to further develop this software to adapt to listener’s perspectives on music. For example, when searching for “relaxing songs” the musicube engine currently suggests typically ambient relaxing music. However, different people find different styles relaxing, as for example Jazz and Heavy Metal fans. We want to further develop our AI to learn musical tastes and adapt to it. The AI can make personalised suggestions based on a small sample and become the person’s own perfect empathic DJ.

Technically, the “empathy” for a user’s perspective on music is achieved by a reduction of the neural network’s (AI’s) own view on music. Musicube’s current neural net produces a Euclidean space of about 500 dimensions and localises all songs in that space. A specific musical taste can be defined as a subspace of this total knowledge. Starting from points inside this user’s subspace (also known as taste or perspective), semantic music search or recommendations can be made that are outside a user’s scope but inside his or her own view on music. This way death metal fans get other search results for “aggressive” music than HipHop fans, just to name an example.

The AI Empathic DJ will be a module that can be integrated in musicube’s existing services, but also in third party software like streaming services and the AI4Media ecosystem.





CIMA | Next-Gen Collaborative Intelligence for Media Authentication

AdVerif.ai (Israel)

Track & Challenge addressed: Application track - Evidence Collection in Digital Media Authentication

Summary of the project:

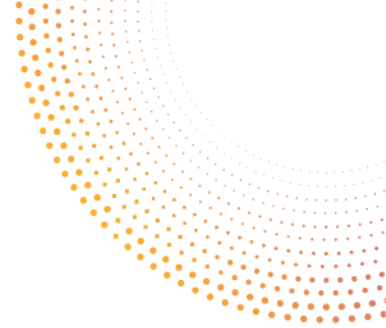
Propelled by the latest advancements in open-source intelligence (OSINT), our team of data scientists and veteran fact-checking experts will develop a next-generation intelligence platform to make collaborative collection of evidence for media authentication easier and faster. The platform will adopt cutting-edge AI methods from cyber-security to the media domain, empowering fact-checkers, investigators and journalists to be more effective. It will power more effective, transparent, explainable and reproducible verification processes, across all media formats - videos, audios, images and text - at scale.

Today, cyber-security researchers and forensic investigators have a variety of verification capabilities at their disposal, yet the existing workflows are fragmented across many tools with individualized and unstructured processes. Leveraging the latest advancements in NLP and Computer Vision, the team will develop an innovative platform which addresses these challenges and provides a centralized, collaborative and structured workflow to make evidence collection and preservation quick and simple.

The platform will provide a centralized User Interface with integrations to the most prominent and effective OSINT Tools, into one platform. It will have built-in standardized processes with checklists and best practices for verification. The technology is building upon an existing prototype we developed for fact-checking and media authentication on Twitter, already tested by leading fact-checkers. The Twitter messaging UI empowers users to exchange information and promotes collaborative investigations. Moreover, the system will be integrated with an innovative e-signature time-stamped solution for evidence storage that goes beyond the existing tools.

We will deliver a fully working system that will help save 20%-40% of the time needed for verification and make fact-checkers more effective, while advancing state-of-the-art in media authentication and contributing to the AI4Media ecosystem. To promote the project, we will publish whitepapers and case studies to demonstrate the effectiveness and value of the system and promote it via social media and webinars. Also, the team will leverage partnerships with Nielsen, Twitter and the International Fact Checking Network (IFCN) to raise awareness and position the solution as a standard for media authentication.





CUHE | An explainable recommender system for holistic exploration and Curation of media Heritage collections

IN2 Digital Innovations GmbH (Germany)

Track & Challenge addressed: Application track - Navigating multiperspectivity in media heritage collections.

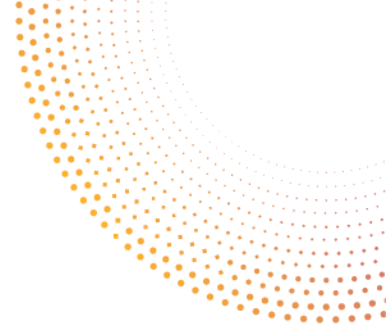
Summary of the project:

The project CUHE aims to develop and demonstrate a web-based application based on AI recommendations that will allow cultural heritage professionals (e.g. museum curators, archivists) as well as (humanities) researchers to explore existing media and cultural heritage digital collections in a more holistic way and allow them to curate new galleries or create digital stories and exhibitions which can showcase and share the new insights gained.

The project will target a key infrastructure for researchers and heritage professionals: Europeana. Users can not only find over 50 million records but also explore over 60 curated digital exhibitions, countless galleries and blog posts.

CUHE plans to improve and make more scalable the process of curating digital exhibitions and galleries by providing a facility for related content exploration based on an AI recommendation system that exploits the metadata available for the content. Resulting recommendations would be at the level of records related to a given record, records related to a given curated collection (e.g. gallery, exhibition, etc), and collections related to a given collection. The work in the project will not only focus on the recommendation algorithm themselves, but most importantly, will aim through co-creation to come up with a user interface that allows the users (who are often not ICT specialists) to understand what data dimensionalities resulted in the relation between the records or collections presented and give the option to adjust these parameters with several options. The recommendations could be used for both curating new collections (to help find interesting, diverse and related content that will enable a holistic documentation) and for contextualising and exploring connections between existing collections, allowing the audience to examine the presented topic from multiple perspectives.





edgeAI4UAV | Computer Vision and AI Algorithms Edge Computation on UAVs

International Hellenic University (Greece)

Track & Challenge addressed: Research track - Combining deep learning-based computer vision and classic path-planning/ control for autonomous UAV cinematography tasks.

Summary of the project:

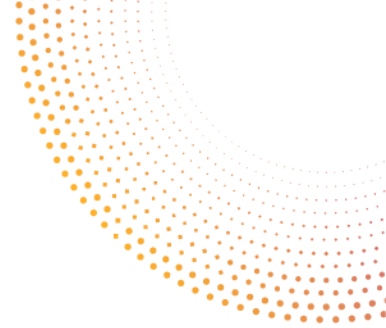
The project aims to deliver a complete framework for moving people and objects detection and tracking in order to extract evidence data (e.g. photos and videos from specific events) at realtime (when the event occurs), like cinematography tasks, though a reactive Unmanned Aerial Vehicle (UAV). To this end, edgeAI4UAV project will implement an edge computation node for UAVs. The node will be equipped with a stereoscopic camera, which will provide lightweight stereoscopic depth information to be utilized for the evidence detection and UAV locomotion.

To achieve this, the edge node of the UAV will be endorsed with an embedded processor to allow edge capabilities to the UAVs, since the information will be processed locally. The edgeAI4UAV project will develop lightweight computer vision and AI (deep learning) algorithms capable of detecting and tracking moving objects, while at the same time will ensure robust UAV localization and reactive navigation behaviour. The results of the algorithms will be exploited by an embedded decision-making module (edge computation), which will accomplish dedicated navigation missions, like follow a specific moving object (e.g. specific actor, animal, etc), turn at a specific angle of view (e.g. side face, front face, etc.), getting closer or farther to it, etc. Thus, the embedded decision-making module will have the ability to define the navigation behaviour of the UAV in a dynamic manner at real-time, in order to accomplish the envisioned tasks. The UAV will be programmed with a main mission (e.g. to follow the main actor), which can be temporarily interfered by the subordinate missions (e.g. a closer photograph from the front or side face of the main moving object), and then the main mission will be dynamically re-adjusted in order to smoothly continue its main navigation plan without disturbances, offering smooth data continuation.

Furthermore, the UAV will be equipped with a WiFi module, providing the ability to send specific photographs to a server during the flight. Thus, photographs will be sent to a centralized platform at real-time, without need to land the UAV in order to upload the photographs and/or video to a remote data storage (like usb stick, memory card, etc.), connect the USB stick (or memory card) to a PC and upload them to the server.

The project will fuse the already mature technology of industrial UAV applications with the edge computing advantages to extract scene semantic information through reactive mission planning to be researched and implemented as an adaptive decision making system, constituting the UAV's cognitive functionalities.





InPreVI | Inauthentic web traffic Prediction in Video marketing campaigns for investment optimization

JOT Internet Media (Spain)

Track & Challenge addressed: Application track - Evidence Collection in Digital Media Authentication

Summary of the project:

During the last years, video marketing has been proved as a highly efficient media to engage targeted audience at reasonable prices and good performance indicators. These aspects motivate that the global video ad investment forecast for this content shows a continuous growth of 12% till 2025, reaching \$148 B. This huge market size has associated an enormous amount of web traffic being redirected to the companies' websites. However, based on the information reported by the video ad platforms in JOT video campaigns, between 20-30% of this traffic comes from inauthentic users, programmed to spend the companies budget clicking in the ads with no post conversion, limiting marketing campaigns impact and reducing the return of investment by wasting companies' budget.

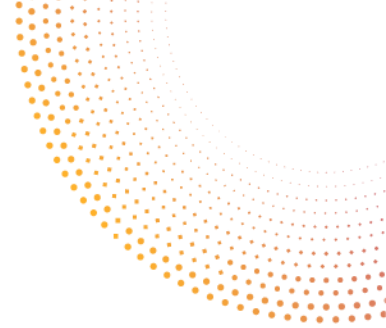
In this scenario, JOT, as a performance-based marketing company that manages 200,000 ad impressions and 10,000 clicks per day, will develop an innovative AI based system to: (i) identify the main behavioural patterns of inauthentic users to predict their actions and limit their impact in the video marketing campaigns and (ii) model the quality score associated to a campaign.

These data services will be developed thanks to the existing database describing the video web traffic (YouTube) of more than 12 landing during more than a year. This ensures that algorithms will be trained, tested, and validated with real data to reach the required quality and accuracy to be used in production conditions for decision making.

To reach such objectives, JOT team is formed by complementary skills combining, video marketing campaigns management and optimization, data science, big data processing and cloud architecture deployment. The team has been working in data collection and development of predictive services at small scale to validate to data accessibility and algorithms implementation as realistic proof of concept.

Thanks to the AI4Media support, JOT will be able to develop a system capable of identifying unauthentic/authentic web traffic for video marketing campaigns to increase trust in this media as a tool to reach the right audience at the right time, exploiting all the features and benefits of this media content ad platform.





NeurAdapt | Development of a Bio-inspired, resource efficient design approach for designing Deep Learning models

Irida Labs (Greece)

Track & Challenge addressed: Research track - Bio-inspired deep learning.

Summary of the project:

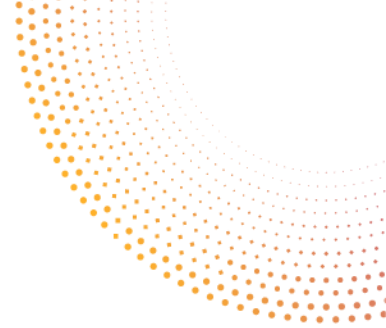
The goal of NeurAdapt project is to explore a new path in the design of deep Convolutional Neural Networks(CNNs), which could enable a new family of more efficient and adaptive models for any application that rely on the predictive capabilities of deep learning. Inspired by recent advances in the field of biological Interneurons that highlight the importance of inhibition and random connectivity to the encoding efficiency of neuronal circuits, we aim to investigate the mechanisms that could impart similar qualities to artificial CNNs.

Established techniques such as Channel Gating, Channel Attention and calibrated dropout, each proposed independently and with different objectives, can offer tools to formulate a novel building block for CNN models that expands the functional diversity of the standard convolutional layer. By formulating a differentiable convolutional operator with additional mechanisms for competitive inhibition/excitation and stochastic activation with tunable probability, we pursue the hypothesis that the optimization of the learning tasks will drive the model to create modes that are information-rich, in a process like the one observed in biological neural networks.

Furthermore, the stochastic nature of neuronal activity if appropriately modelled and augmented with sparsity-inducing mechanisms, has the potential to enable the training of models with parametrized levels of sparsity, offering the capacity to control inference/complexity tradeoff on-the-fly, without any need for additional finetuning. Achieving a functionality like this can impart new capabilities to information processing systems which are based on CNNs. Inference with adjustable level of thoroughness/speed can enable applications such as rapid content search in large media databases, energy-aware decision-making etc.

The main outcome of the proposed project will be a new methodology for designing efficient deep CNN architectures regardless of the specific task and target domain. Furthermore, NeurAdapt aims to create new knowledge regarding the dynamic behavior of the excitation-inhibition mechanisms in feed-forward DNNs, their capabilities for further development and the respective limitations.





RobaCOFI | Robust and adaptable comment filtering

Institut Jozef Stefan (Slovenia)

Track & Challenge addressed: Research track - Open Challenge

Summary of the project:

One of the primary concerns of the news media industry is how to manage the comments that readers post on news articles. Most online news publishers provide content in a form that allows readers not only to access it, but to post their own comments: for readers, this is valuable in allowing them to express their opinions and interact with each other; for the publishers, it is valuable in that it provides a way to understand their audience, and increase reader engagement. However, the ability to comment is often mis-used, with comments used to advertise, to abuse others, to spread misinformation and to post illegal content. In many countries, publishers are legally accountable for the content that is posted. Publishers therefore usually employ some form of moderation: human moderators will scan the comments posted, and apply some moderation policy to block those that should not appear, and in severe cases perhaps ban the users from posting again.

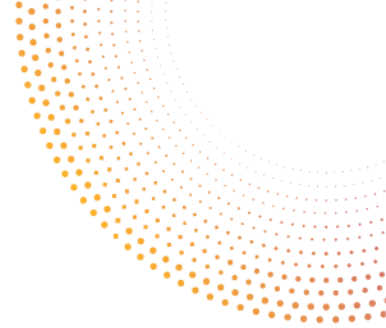
This job is not easy: decisions can be subjective and hard to make consistently; it can be easy to miss comments that need blocking; and when high volumes of comments are coming in (peak volumes of many thousands of comments per hour are not unusual during events of note) it can be difficult to keep up. There has therefore been great interest in recent years in AI tools to assist moderators: tools to analyse the content of comments using natural language processing (NLP) methods and help flag those which should or should not be blocked, helping speed up the moderators' work and produce consistent results. Recent research shows impressive accuracies.

However, transferring these AI methods from research to practical industry use is not straightforward. Tools must usually be trained on large volumes of data labelled with the correct expected output decisions: this data must be in the domain, style and language that will be seen in use, so must generally be produced from scratch for any new publisher, newspaper or topic. This process is expensive and needs expertise in NLP and AI methods.

This project seeks to develop new methods to bypass this problem and make the initial implementation process easy and fast. We will develop methods for semi-automatic annotation of data, including new variants of active learning in which the AI tools can quickly select the data they need to be labelled. We will build on recent progress in topic-dependent comment filtering to build tools that can take the context of the associated news article into account, reducing the new data needed. Finally, we will use recent progress in transfer learning to allow tools to be initialised from existing labelled data in other domains and languages, reducing the amount of data required.

The result will be a suite of tools to enable easy, fast, practical implementation of accurate, robust comment filtering methods for use in the news media industry.





SMAITE | Preventing the Spread of Misinformation with AI-generated Text Explanations

University of Manchester (United Kingdom)

Track & Challenge addressed: Research track - Human-centred interactive explainable AI

Summary of the project:

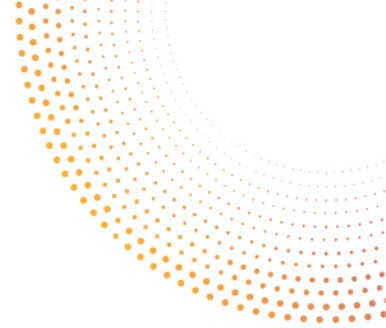
Assessing the veracity of claims is a vital capability in the modern world, but it is a task that the public is often ill-equipped to do. This is evidenced, for example, in debates around human contribution to climate change, public health policies and political elections. As a result of targeted disinformation campaigns, many users are inadvertently spreading misinformation, without critically reflecting about its sources, as the information is often presented without further context. As experts cannot provide contextualising explanations about the validity of a claim instantaneously, this gives the opportunity to research into automated claim and fact verification approaches.

State-of-the-art research on fact verification mostly focuses on the capability to identify misleading claims. However, for end-users, it is important to provide explanations why exactly a claim was identified as wrong. These explanations serve both as a context for the claim and as an insight into the reasoning process that led to the veracity decision. Existing fact verification approaches rely on deep learning-based models optimised on large static datasets to automatically classify whether a claim is true based on retrieved supporting evidence. It is however unclear, whether end-users will accept these verdicts without further context. This is further problematic, as these models have been shown to exhibit biases inferred from the datasets they were optimised upon, for example relying on the appearance of specific keywords.

Instead, we take a novel approach to developing AI-driven fact verification systems, with explainability at their core. We will leverage the large availability of high-quality human-written claim verification articles from specialised journalist outlets such as Full Fact to create a dataset for the task of explainable fact verification. We will use the data to develop a fact verification system underpinned by deep learning based, generative language models that will generate human-understandable explanations that contextualise their verdicts.

The dataset collection will follow the paradigm of iterative crowdsourcing, where annotators not only annotate data to train neural networks but also rate the quality of the predictions of models optimised on the previous iteration. Thus, we will shift the focus to an evaluation methodology that revolves around the explainability requirements of humans. This will allow us to iteratively refine the developed tool and subsequently to learn to judge the quality of explanations from human annotations.





TRACES | AuTomatic Recognition of humAn-written and deepfake-generated text disinformation in soCial mEdia for a low-reSourced language

Sofia University “St. Kliment Ohridski”, GATE Institute (Bulgaria)

Track & Challenge addressed: Research track - Innovative solutions for fake content detection in line with fundamental rights and the developing EU regulations.

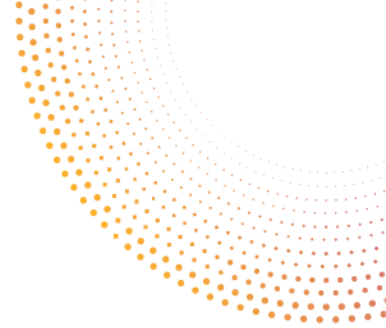
Summary of the project:

In the last few years, the problem of fake content and disinformation spread worldwide and across Europe has dramatically increased (especially in social media). Even if there is a large body of research, there are countries which still lag (e.g. have few or no fact-checkers, no tools and resources). This is particularly challenging when detecting deep fakes. Although there is some research on fake news detection for low-resourced languages (e.g. Romanian, Bangla, Tagalog), there are no guidelines on how to solve this problem for a new language. Also, even if disinformation is defined as an intentional spread of fake information, it is currently addressed by considering only its fakeness and harm, but not its intent. This is technically wrong and can prevent distinguishing between misinformation and disinformation.

TRACES is addressing these problems, by finding solutions and developing new methods for disinformation detection in low-resourced languages. The innovativeness of TRACES is in detecting both human and deep fakes disinformation, recognizing disinformation by its intent, the interdisciplinary mix of solutions, and creating a package of methods, datasets, and guidelines for creating such methods and resources for other low-resourced languages. The Use Case of TRACES is Bulgarian, the national language of a European Union (EU) country with a very low level of media literacy, problematic media freedom and a geopolitically strategic position at the border of the EU. Bulgaria has a high number of self-taught advanced computer hackers, which makes it highly plausible (but not researched) the existence of deepfakes in Bulgarian social media. Detecting and signalling fake content and especially disinformation is thus a critical need for Bulgaria, but there is only one independent fact-checker and very little NLP research on the topic. Another challenge is that Bulgarian is a low-resourced language, with very few NLP tools and datasets, and almost none for processing social media texts.

The proposed research is very well aligned with AI4media Open Call 1, Use Case 1 and Challenge C4-Rt: 1) It fills a significant gap in the EU’s existing AI research and technologies on disinformation detection; 2) It applies AI methods and tools to support journalists and fact-checking experts in digital content verification and disinformation detection; 3) Its results can be integrated into AI4Media, Truly Media and TruthNest; and 4) it is in line with EU’s fundamental rights and all relevant EU regulations (the EU Charter of Fundamental Rights, GDPR, the AI ACT, the Digital Services Act, and the EU Code of Practice on Disinformation) - no personal information will be collected, nor any content removed. The outcomes of the project will provide crucial insights for other EU countries and will consist of language resources, annotated disinformation datasets, machine learning methods, a tool for potential integration into Truly Media to support the discovery of disinformation by journalists and new language adaptation guidelines.





VRES | Varia Research

Varia UG (Germany)

Track & Challenge addressed: Application track - Leveraging the power of media archives through Artificial Intelligence

Summary of the project:

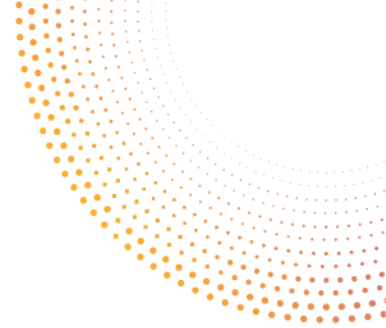
Varia Research is a project that aims to put journalists, the heavy lifters of the industry, in its focus, by providing an AI powered research solution.

For too long, the efforts in terms of digitalization and tooling have been focusing on content monetization and distribution. While these two tasks are undoubtedly important, the emphasis on content creation was neglected. At the same time, budget cuts of the recent years have led to an increasing pressure on journalists, who have to produce more content with less capacity – while adhering to constant quality standards.

Varia Research is here to change that. The goal of this project is to provide a research solution for journalists, that will help them structure their research much more efficiently and partially automate their research by leveraging machine learning insights. All with the ultimate goal to enable journalist, freelancing or employed, to produce more and better content. The outcome should be a SaaS application that is easy to use and flexible enough to fit into individual and newsroom workflows.

With this approach, Varia Research appeals to the AI4Media use case 2, which is looking for projects in the “Smart News Assistant” field, that aims to find solutions that help journalists to better cope with the ever increasing amount of news that they are confronted with – and supports them in the content creation process. Varia Research further answers the challenge 7 of the AI4Media Application Track, by leveraging publisher archives for efficient content production.





Appendix 2 – Description of selected projects (Open Call #2)

The public summaries of the project have been copied into this document as provided by the applicants. Grammar or language have not been modified.

CAMOUFLAGE | Controllable Anonymization through diffusion-based image collection Generation

Politecnico di Torino (Italy)

Track & Challenge addressed: Research track - Novel AI-powered enablers for social media research.

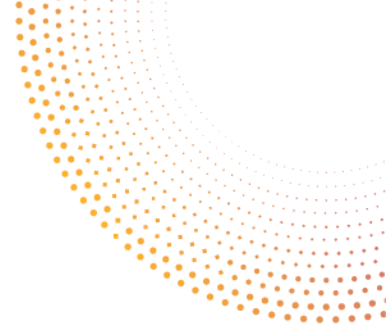
Summary of the project:

Current social media generate a tremendous amount of visual material that can be exploited by researchers operating in social media research, digital humanities, and marketing. However, privacy regulations impose significant restrictions to both data collection and sharing. The CAMOUFLAGE project aims at exploiting recent advances in controlled image synthesis to generate a synthetic version of an image corpora with similar characteristics to a target collection, while at the same time removing all personally identifiable information to ensure the anonymity of the user who published the image. Solving this ambitious goal will require tackling three distinct, yet related, research objectives: to design and implement controllable image synthesis that retains the visual and semantic content of a target image; to determine whether the resulting synthetic images can be considered successfully anonymized; and whether the synthetic collection is semantically equivalent to the original collection.

The CAMOUFLAGE synthesizer will be based on diffusion models that extract some non-sensitive data from the original image and exploit it to force the model to preserve the composition of the image, under a predetermined measure of “equivalence”, while removing personal identifiers. Of course, the notion of “equivalence” depends on the objectives and needs of the users: ideally, we wish that conclusions drawn on the synthetic dataset would be valid on the original collection as well.

As a motivating example and case study, CAMOUFLAGE will focus on the semiotic analysis of visual big data, specifically of a collection of profile pictures, tagged with socio-demographic data, acquired from Facebook and Instagram. Difference analysis scenarios will be considered, from the large-scale automatic extraction of quantitative information with pre-trained neural networks, to the visual analysis by expert semioticians. If successful, CAMOUFLAGE will not only deliver a useful tool and anonymized assets to the community, but may also bring novel insights into the existing limitations and biases of generative models.





CLIP LENS | CLIP models, Looking for Enhanced New Systems (LENS)

Asociación Centro Tecnológico de las Tecnologías de la Información y las Comunicaciones de la Región de Murcia (Spain)

Track & Challenge addressed: Research track - Scarce data and the cross-media transfer of knowledge

Summary of the project:

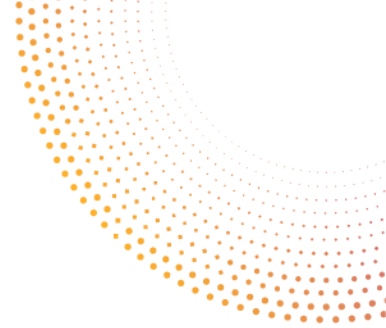
CLIP LENS aims to improve AI-based systems such as image classifiers and search engines for several scarcity of data scenarios. Nowadays, building and training such solutions to market is not very reliable, pending on external datasets, quality. To improve actual systems, we propose a combination of state-of-the-art few-shot classifiers like CLIP, plus the addition of robust generative data augmentation such as Stable Diffusion and DreamBooth. This synergy of technologies will allow to build better AI image-based systems in terms of efficiency and quality.

The main innovation of this project background in the integration of various state-of-the-art technologies for the development of a methodology to build more robust search engines, in automatic and explainable way, especially for scarce data of very specific domains that SMEs as end users may own. For building such a systems we propose a new methodology based on CLIP linear probing with a robust data augmentation based initially in to new generative models (Stable Diffusion and DreamBooth).

Very specific domain images of a company cannot be extracted by the CLIP zero-shot methodology because the CLIP has never seen those kinds of images (out-of-domain). So CLIP linear probing is required for re-training these new-domain images (finetuning the last layer).

If a domain-drift is spotted (identifying new contexts in the user query images) a supervised data augmentation like DreamBooth can be used to generate the company items in these new scenarios/domains.





ELMER | Efficient Long-term Multi-modal vidEo Retrieval

University of Surrey (UK)

Track & Challenge addressed: Research track - Frugal cross-modal representation for media research.

Summary of the project:

Multimedia content brings specific challenges for retrieval, classification, archiving, and searching tasks. Specifically, there are four challenges we would address through the project.

1. **Annotation:** Given the exponential growth of video content in media libraries, it is infeasible for humans to provide meaningful and complex labels on a frame-by-frame basis. Methods that can learn without this expensive and limiting labelling are required for clustering and understanding the footage at multiple levels of detail and different modalities.
2. **Multi-Modal Semantic Search:** Current retrieval methods do not offer a solution for viewers to search videos using multiple data modes, such as sound, image, and text. For example, “Find me a scene of two people in Paris with romantic music in the style of Wes Anderson”.
3. **Memory and Computational Efficiency:** Developing novel methods for solving tasks one and two is challenging with current neural network architectures. This is in part due to the large amount of visual and sound data that videos provide and, as such, the large amount of GPU power and memory required to implement video networks efficiently and at scale.
4. **Continual Learning:** Finally, methods for retrieval and archiving must adapt as new content is added to the database without retraining the model with all previous data. Therefore, such a system would need to address the problem of “catastrophic forgetting”. This would require a mechanism to preserve existing knowledge in the network while learning from new unseen footage.

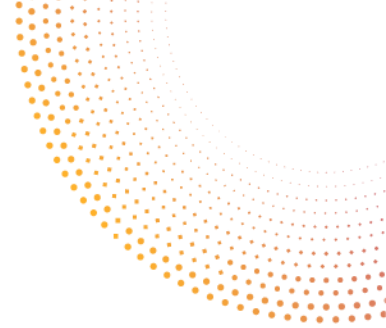
This project aims to tackle these four problems in a unified framework constructed through three research contributions. Problems one and two will be addressed by building on our current multi-modal semantic clustering and retrieval research to design a probabilistic method for locating specific video scenes using multi-modal queries.

We will then address problems three and four, developing a novel modal gating network for continual learning of video representations in large video archiving and retrieval systems. We will also explore how to leverage pre-trained audio, vision, and video networks to ensure minimal computational expense while reducing the approach's environmental impact.

Both research outputs will be combined in a working demo of an efficient fine-grained semantic video retrieval system, with input and data from our current research partners at the BBC R&D and the British Film Institute.

We anticipate that the research outputs and codebase will outline how such a system could be implemented at scale and generate additional challenges and research directions.





HoloNeXT | Holographic transmission and Neural radiance fields for a novel Xr production Tool

i2CAT Foundation (Spain)

Track & Challenge addressed: Research track – Open challenge

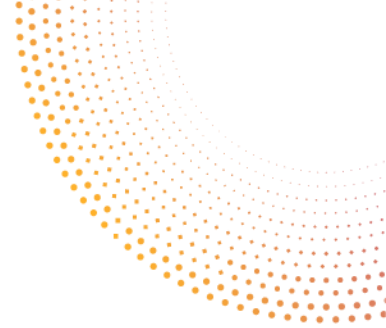
Summary of the project:

The use of Virtual Reality (VR) and Augmented Reality (AR) can change our daily life faster than predicted and are both reaching a certain degree of maturity. They are increasingly demanded and therefore accepted by both end users and companies. VR has been around for some time, started out as immersive entertainment and simulated environments, and is now finally reaching a tipping point for widespread adoption. Head mounted displays (HMDs) have become affordable and powerful, unlocking access to immersive experiences on the internet that enable VR data processing.

3D volumetric holoportation technology, enables ubiquity and brings increased levels of interaction, immersion and togetherness. However, one of the biggest problems to reach widespread use is the lack of content. The creation of 3D assets for Immersive experiences is time consuming and does not always provide the enough detail to satisfy the user experience. Neural Radiance Fields (NeRF) has shown promising results to provide implicit 3D-based scene representations, and to enable the synthesis of novel viewpoints with photometric quality. Nerfs can create novel implicit 3D scenes from a collection of photos retrieved from heterogeneous sources in a fast and automatic way. The automatic creation of photorealistic volumetric scenes (3D assets) can enhance the creation of more immersive experiences.

Our proposed solution is to provide a novel XR Media Production Tool integrating the two volumetric/XR technologies represented by 1) Neural Radiance Field scene modelling and 2) holographic real-time video volumetric transmission. The developed technology can be validated in multiple use cases across different industry verticals such as News media, Entertainment, Telecommunication, Tourism, Gaming, Education & Training. The proposed solution will be used to leverage live and offline news media XR productions and also leverage social interactions, increasing senses of realism, immersion and presence in XR spaces. The proposed solution is demonstrated in a news media XR production use case where a news presenter will be holoported to a 3D reconstruction of a XR scenario covering an example of news related event (i.e., a disaster area, concert, or sport event), and the production will be able to show the Neural based newly generated content from a potentially unlimited number of viewpoints, with improved detail and with the possibility to place the spectator in an XR immersive experience.





JECT-CLONE | JECT – Creative Landscapes of News

JECT.AI Limited (UK)

Track & Challenge addressed: Application track – Open challenge.

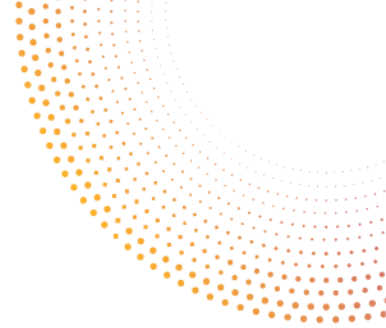
Summary of the project:

The aim of the JECT-CLONE project is to deliver new computational creativity capabilities as a software-as-a-service (SaaS) that will autonomously generate novel themes, angles and voices for stories and send them regularly using existing channels to journalists and editors who are subscribed to the service. It will provide an innovative new form of smart assistance to newsrooms.

Journalism is one of the creative industries, yet journalists and editors often fail to embrace its full creative remit. As a consequence, different digital creativity support tools for journalists have emerged. One, called JECT.AI, provides creative intelligence to journalist. However, the current version of JECT.AI only generates creative recommendations in response to stories already being written. Feedback from newsrooms has revealed the need for a more proactive service that autonomously generates recommendations for new stories and investigations yet to be written. Therefore, this JECT-CLONE project will develop and launch a new SaaS that will apply different computational creativity algorithms to news content to generate these recommendations. To do this it will exploit an important existing asset of JECT.AI – its semantic landscape of news content. Operating continuously since 2017, JECT.AI manipulates content from over 25 million news stories published in multiple languages in the form of a computational news landscape. In JECT-CLONE, this landscape will be the input to six new algorithms that journalists and editors can request multiple recommendations for more creative new stories and investigations from via the new service, at different intervals, using only a small number of initial input values.

In parallel, the JECT-CLONE project will explore markets for the new service. These markets are expected to be news businesses seeking original content, and will include broadsheet publishers, monthly magazines and scientific titles. The new service will be marketed to generate enterprise sales to news businesses wanting to support journalists to produce original and engaging stories quicker, with less resource. It will be released as both a simple free version and a full premium version with multiple subscription prices for enterprises, freelance journalists and academic institutions.





magnet | Automatic Recommendation of In-Context Media Content to Support Exploratory Research in Journalism

inknow solutions, Ida (Portugal)

Track & Challenge addressed: Application track - Recommender Systems to Support Exploratory Research with Media.

Summary of the project:

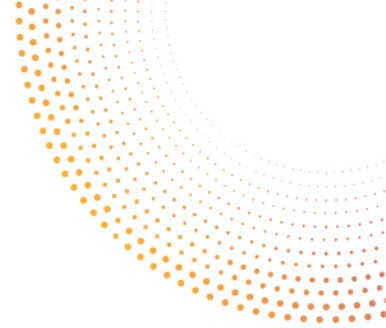
The objective of the magnet project is to develop a software platform to support journalists in the early phase of an article production by automatically resurfacing older content from previous articles, relevant for the current moment. To reach this objective, the intelligence of the platform should be twofold: It should be capable of understanding the topic of the activity being developed by the journalist; and, it should prioritise content that has a similar context with the current situation being handled. The similarity of context is strongly derived by the activities developed by other journalists, giving a strong emphasis on aspects of collaborative filtering. Topic and context identification are the two vehicles enabling the platform to automatically recommend older content in the media archives, and timely offer it to the journalists.

From previous research, directly interviewing several stakeholders including journalists, the applicant acknowledged the forces that news organisations are under, nowadays. The competition with social networks puts a pressure to accelerate the news production. There is gradually less time to verify sources and control the journalistic process. Thus, journalists need supporting tools helping them to co-create news content, namely, to access the relevant knowledge in between the large quantity of articles stored in an ever-growing news archive. Intelligently accessing selected items of previous news and other information items in the related topic and in context, allows the journalist to have a clearer picture and understand which are the deciding issues that should be more investigated, therefore boosting their productivity (while reducing the level of non-intentional disinformation). This is what the magnet project aims to purvey to workers from the media industry.

A key innovation aspect of magnet project is the context-based search on top of the topic-oriented approach. The challenge is that topic only is not sufficient to narrow the search at a human-scale when dealing with gigantic archives. The context-based approach is based on the observation of activities by other users within the network, analyse structured as well as unstructured data to determine the context of the current situation. The challenge is to develop an AI-based tool to support journalists and news organisations to better structure and/or leverage their content archives with the goal of enriching their own content, and creating new commercial opportunities using their archives.

The platform uses previously tested algorithms based on Vector Space Models and Context Modelling. These have been selected because they also contribute to both the transparency and explainability of the proposed solution, as this is a very important aspect regarding the journalistic activity.





MBD | Mindbugs Discovery

Tech Wave Development Srl (Romania)

Track & Challenge addressed: Application track - Realising a hybrid AI application in AI4EU experiments.

Summary of the project:

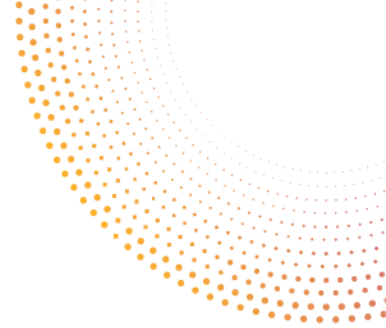
MindBugs project addresses the issues of misinformation and disinformation in an engaging and fun manner. Using machine learning and data mining we extract meaningful information from big data about fake news. The extracted information is visually interpreted and then incorporated into our mobile app. Inside the mobile app, users hunt fake news in the form of destroying mindbugs and are informed gradually about misinformation, how it works and different examples of fake news. Through the AI4Media call, we want to create a deeper understanding of the structure and key elements of fake news. The information discovered will be integrated in a visual and interactive way into our mobile AR application. The Mindbugs team began creating and merging fake news databases in order to produce a high-quality, high-value dataset of fake news representatives for the East European region. In this open call, we wish to create an API where specialists can add trending fake statements, make our dataset publicly available on the AI4EU platform for the first time, as well as construct a pipeline to create a knowledge base on misinformation.

The Mindbugs project is all about analysing the universe of disinformation so that it may be studied and understood. By merging the Mindbugs dataset with other datasets we want to generate a knowledge base graph that depicts the structure of the misleading information. We intend to create a comprehensive database of fake news that anyone may access and examine. When confronted with a new claim, specialists must conduct an extensive investigation to gather a large number of facts in order to build a convincing debunking argument. In contrast, we create a universe of fake information where users can search for the fake news that is most closely related to the one they discovered, in order to have a quick overview of the similitudes, debunking sources, and primary vulnerabilities exploited by the statement. General users can also search for a keyword linked to a topic about which they are uncertain and receive current and historical examples of misinformation on that issue, as well as information about how other similar fake news are linked to that topic.

To achieve this, we will extract fake news from the dataset, parse them, label them based on keywords, emotions, etc., and develop a knowledge graph. Then, we will open a search engine that provides fake news relevant to the introduced keywords as well as additional keywords for further study. Using this tool, individuals can become better informed and identify fake news on certain topics, helping them to better defend themselves and research misinformation.

In addition, we will conduct data mining on the text in order to uncover patterns and correlations. Our artists will visually interpret the strongest and most often used patterns and correlations before transforming them into 3D Mindbugs. The Mindbugs will be integrated into our mobile application so that our users can destroy, debunk, and play with them. In this method, we will present our discoveries in an entertaining manner via our mobile app, as well as in a professional and informative manner via the search engine's user interface and API.





NLMIE | Natural Language Media Indexing Engine

Kaspar ApS (Denmark)

Track & Challenge addressed: Application track - AI global support to informative content production

Summary of the project:

Currently, the leading tools and services that assist film and TV editors have mostly been focused on transcribing what's being said and matching this dialogue with the corresponding video clip (ScriptSync, DeScript). That is, they try to do media indexing by listening to what is being said in the footage and making that searchable, also called phonetic indexing.

While this is a good first approach, it overlooks crucial information available in the filmed material, namely everything that can be seen, such as the type of framing, actions taking place and visual characteristics of the environment.

Prominent Computer Vision (CV) services, like GCP, Azure and AWS, are all generic tag based, meaning they only look for generic objects, not specialised image features as described above. This means that most of the tags they find are useless in a media production or archive.

Within our proposed AI4Media project we will create a Natural Language Media Indexing Engine (NLMIE) that can analyse images and their relation to natural language text, and an Application Programming Interface (API) which will allow easy integration into the pipelines of content management systems (CMS), media production studios, and film and TV archives.

On our online platform, Untold Stories, we will also show the generative capabilities of the NLMIE, by making an algorithm that allows users to write a text in natural language and get a fully edited sequence from existing archival material. Doing so, we will demonstrate how AI assisted multiplatform publishing can be accomplished with this technique, by easily creating specific edits of a video sequence dependent on where it is meant to be published.

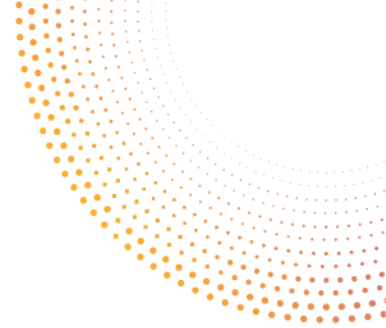
The NLMIE will be based on novel, multimodal machine learning (ML) techniques that fuse natural language (NLP) with computer vision. An added advantage of this is that it can become multilingual, as the NLP model can be trained to handle sentences in a variety of languages.

The three main outcomes of the project are:

1. A NLMIE dedicated for editors and editing assistants
2. A robust API easily applicable by various media houses and audiovisual archives
3. A demonstrator of the generative abilities of the media indexing engine, on our platform Untold Stories.

The Untold Stories platform already experiments with the openly licensed material from Sound & Vision's Open Images collection. We plan to continue this collaboration and are also open to partner with other AI4Media partners, such as RAI and VRT.





VIREO | Visually appealing Image Recommendation based on Article Content using Artificial Intelligence

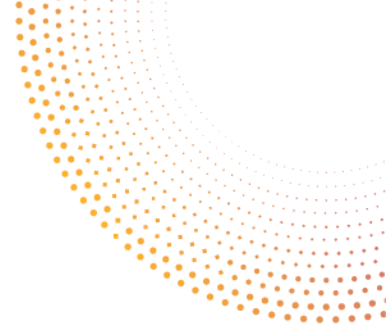
Human Opsi (Greece)

Track & Challenge addressed: Application track - AI for suggesting visually appealing images based on text.

Summary of the project:

In a fast-changing media ecosystem, professionals and enterprises in the News and Media industry face new challenges that they should address to maximize their productivity and improve their services. The rise of alternative sources of news, such as social media which are the main news source, especially for young people, has led to emerging requirements in the News and Media industry. A core requirement is the need for publishing articles as fast as possible on various platforms, combining both visual and textual content. Accompanying news with images raises the readers' interest, improves engagement, and recall. Therefore, professionals in the News and Media industry need to adapt their publication strategies to meet this requirement and meet the media consumers' expectations. However, the selection of the appropriate images is a time-consuming and manual task. VIREO addresses this challenge by providing professionals (e.g., journalists) with an integrated digital solution that automatically recommends a collection of images that could accompany an article. To achieve this, VIREO implements text and image analysis and matching processes leveraging AI techniques in real time. VIREO aims to benefit both professionals (e.g., journalists) by suggesting them appealing images that accompany the textual content of their articles and create breath-taking stories and the media consumers (e.g., readers) by delivering them an enhanced reading experience, engagement, and recall.





VolEvol | Generation of Meaningful Representations of Volume Data Through Evolutionary Learning

"Gheorghe Asachi" Technical University of Iasi (Romania)

Track & Challenge addressed: Application track – Evolutionary learning and the challenge of evaluating quality.

Summary of the project:

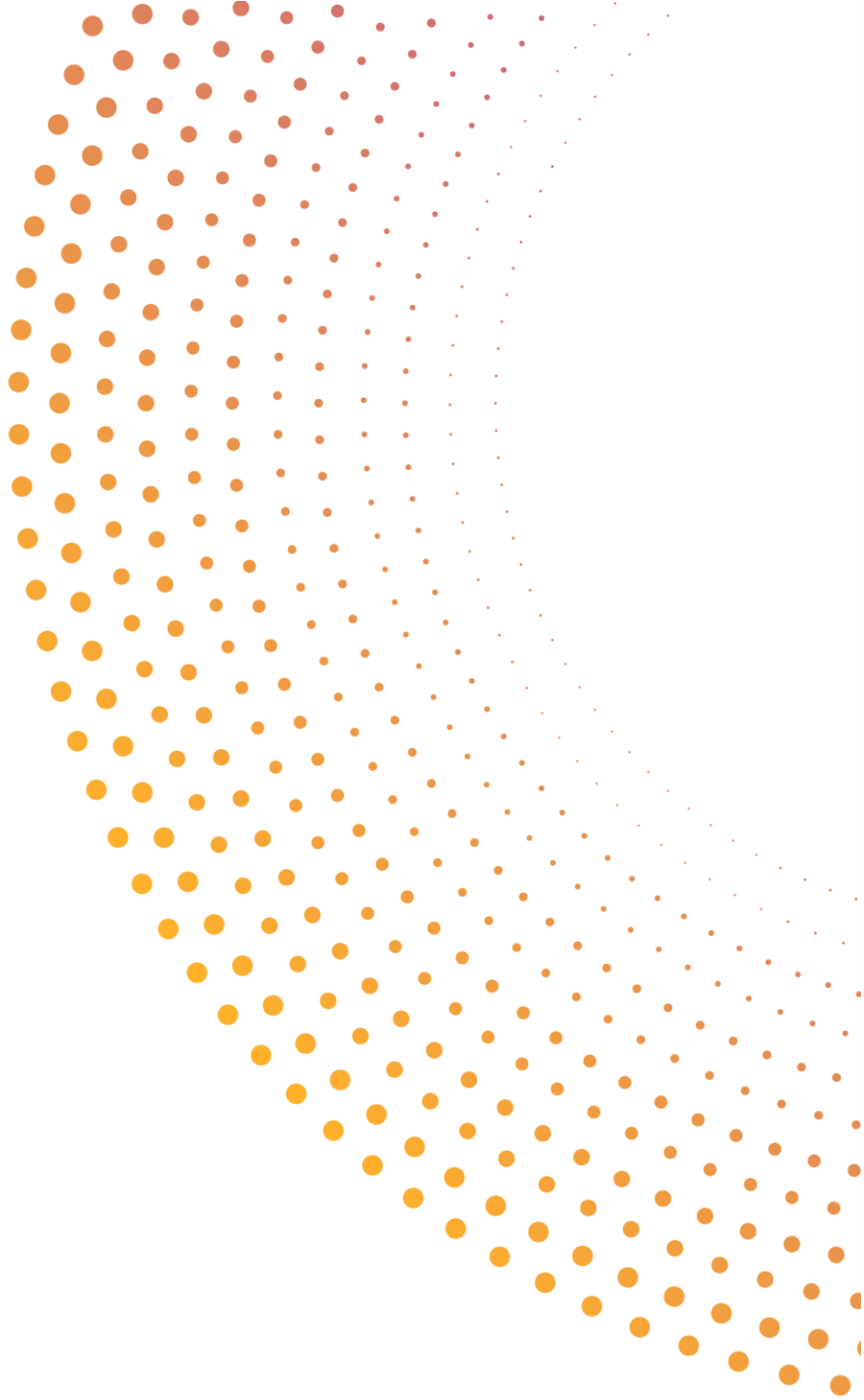
The exploration and visualization of volume data has widespread applications in multiple technical, research and artistic directions such as medical imaging, natural sciences, fault detection and inspection in the industry, videogames and 3D modeling for artistic works. The challenge is to find an optimal mapping from the properties of the data to color and opacity values, as well as the right viewing position and direction that would expose interesting and useful features from the entire volume data set. So far, most research and development efforts in the direction of volume visualization have been for specific technical niche applications. Little effort has been done to develop methods for the efficient and intuitive generation of high-quality representations from such data, that would address a much broader audience, including non-technical users, users of social media, media/news outlets, or any other interested parties not specializing in a particular technical or scientific field. In this context, this project aims at developing methods for the intuitive, automatic generation of high-quality images for volume data, that expose the most significant features of such data while simultaneously providing a comprehensive view of background, context information without causing visual overload. We aim at developing a technique that generates collections of linked images from a volume dataset, which fit several quality and diversity criteria. The resulting image set will provide useful, meaningful representations of the structures contained within the volume, from multiple angles, with different opacity and color distributions, so as to best emphasize relevant information from the volume dataset while simultaneously allowing for a comprehensive visual exploration of the most useful features from the volume data. For this purpose, we intend to use hybrid and/or ensembles of evolutionary algorithms to search through a parameter space formed from the viewing position and direction, and the parameters of a multidimensional transfer function that maps the data values of the volume dataset to colors and opacities. The evolutionary method will explore this parameter space and will search for the parameter values that, when supplied to our volume rendering engine, provide high-quality, diverse and meaningful/useful images from the volume dataset. Common user interfaces used for volume visualization require a specialized understanding of the characteristics of the data and the related rendering algorithms. We intend to provide users with simple slider-like user controls, with much more intuitive labels such as “quality”, “depth”, “diversity”, “contrast”, “number of displayed objects”, allowing users to configure the resulting images in a much more intuitive manner. Such settings will automatically cause corresponding adjustments to the evolutionary algorithms and the criteria used to define quality and diversity, without specialized user intervention. Consequently, the system will generate images which feature high-quality representations of the underlying data, while being diverse enough to highlight different important features and to allow the comprehensive exploration of the volume.





AI4media

ARTIFICIAL INTELLIGENCE FOR
THE MEDIA AND SOCIETY



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