



AI-BOOST

Delivering the next level of European
AI Open competitions

AI Challenge Competition — Info Webinar

AI-BOOST Open Innovation Competition

22 July 2026 · 11:00–12:00 CEST · Online



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Welcome & Introduction to AI-BOOST

What the programme is, and who is behind it



AI-BOOST project

Challenge Prize Program

Establish a prominent challenge prize program that will serve as a **benchmark** for the EU AI community



Open AI Competitions

Create attractive AI open innovation competitions



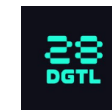
Breakthrough Solutions

Leading to breakthrough technologies and solutions with substantial scientific progress. Leading trustworthy and human-centric real-world solutions.



Attract Talent

Attract outstanding talent and the best teams to tackle AI challenges. Teams from academia and industry.





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Overview of the Open Innovation Competition

Structure, eligibility, prizes and key dates



The competition, in numbers

4

Challenges

20

SPARK Phase winners (5
per challenge)

4

ADVANCE Phase winners
(1 per challenge)

€1.07M

Total prize pool across all
4 challenges*

Who can apply

Eligible participants

- Individuals: students (18+), researchers
- Single legal entities
- SMEs, including start-ups
- Academia, universities, NGOs, non-profits — or a consortium of these

Key conditions

- Technical capacity AND experience with AI systems
- Civil applications only
- Established in an eligible EU / Associated country
- Only one proposal per applicant is evaluated

Eligible countries

■ EU Member States

- All 27 EU Member States (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden)

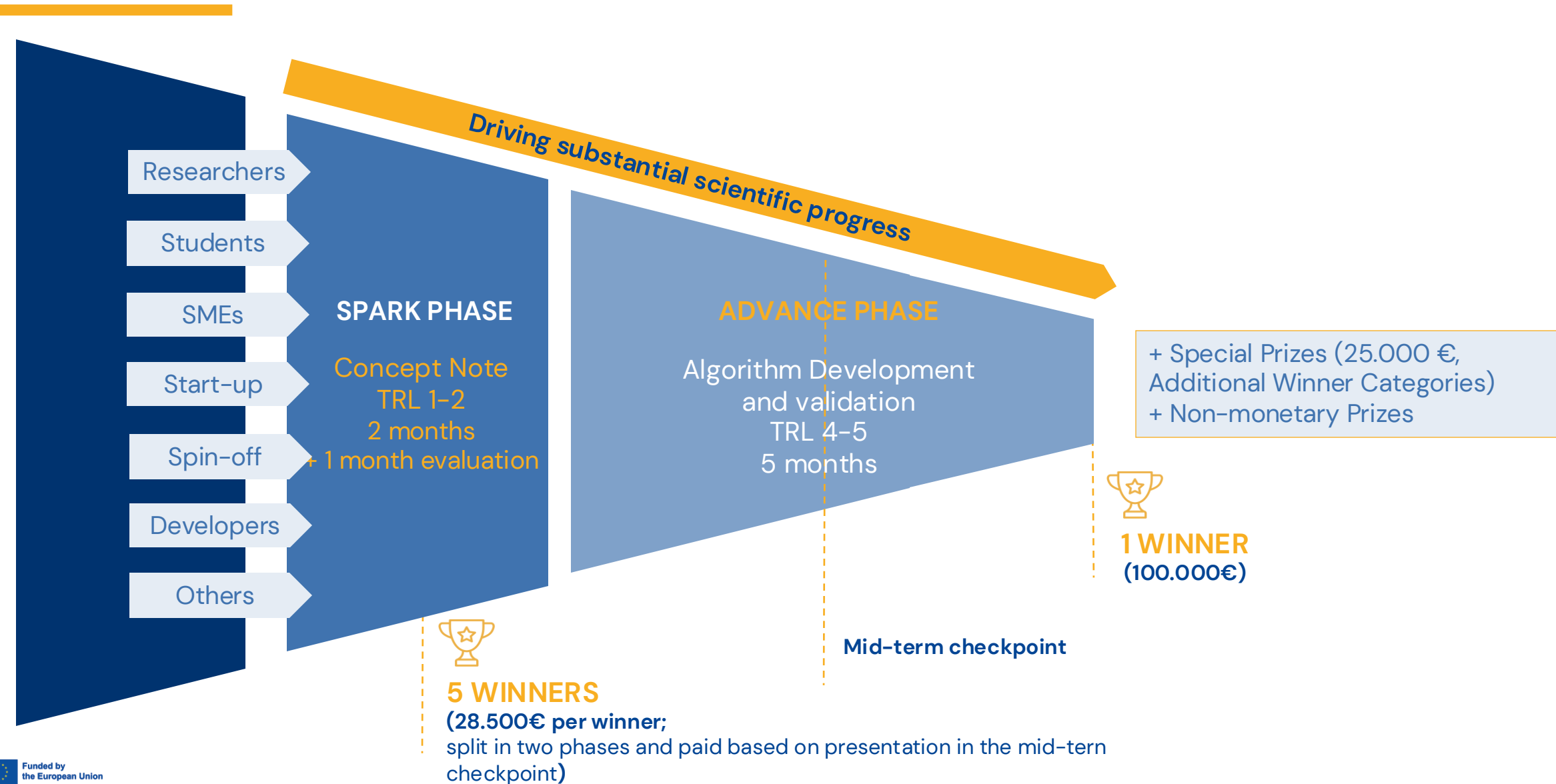
■ Overseas Countries & Territories (OCTs) linked to EU Member States

- Aruba, Bonaire, Curaçao, French Polynesia, French Southern and Antarctic Territories, Greenland, New Caledonia, Saba, Saint Barthélemy, Sint Eustatius, Sint Maarten, St. Pierre and Miquelon, Wallis and Futuna Islands

■ Associated Countries to Horizon Europe

- Albania, Armenia, Bosnia and Herzegovina, Canada, Egypt, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Moldova, Montenegro, New Zealand, North Macedonia, Norway, Republic of Korea, Serbia, Switzerland, Tunisia, Ukraine, Turkey

Challenge Timeline



Prize structure

SPARK PHASE · per challenge

5 winners

€28,500 each

- Concept Note, 2 months + 1 month evaluation
- Paid in two instalments:
 - 50% on signature of the Participation Agreement,
 - 50% after passing the Mid-Term Checkpoint

ADVANCE PHASE · per challenge

1 winner

€100,000

- Algorithm development & validation, 5 months
- + 2 Special Awards:
 - Innovation Excellence €12,500
 - Responsible AI €12,500

Advance Phase (5 months)

M1-M5 – CONTINUOUS DEVELOPMENT

- ALGORITHM DEVELOPMENT
- MONTHLY ALGORITHM SUBMISSION
- LEADERBOARD UPDATES
- AI-BOOST CONSORTIUM CONTINUOUS SUPPORT



OCTOBER 2026



DECEMBER 2026



FEBRUARY 2027

KICK-OFF

- Kick-off Meeting
- Challenge Briefing
- Q&A with Challenge Owner
- Access to Data
- Access to CINECA Infrastructure if needed and training

MID-TERM CHECKPOINT (pass/fail)

- Presentation including:
- Technical Specifications
 - Development Progress
 - Automatic Scoring Results

Pass:

- €14,250 Payment
(Remaining 50% of SPARK Prize)

FEEDBACK SESSION

- Technical Feedback Session
- Q&A with Challenge Owner
- Feedback from AI-BOOST technical partners

FINAL EVENT

15 days before:

- Final Report
- Final Algorithm submission

Final event

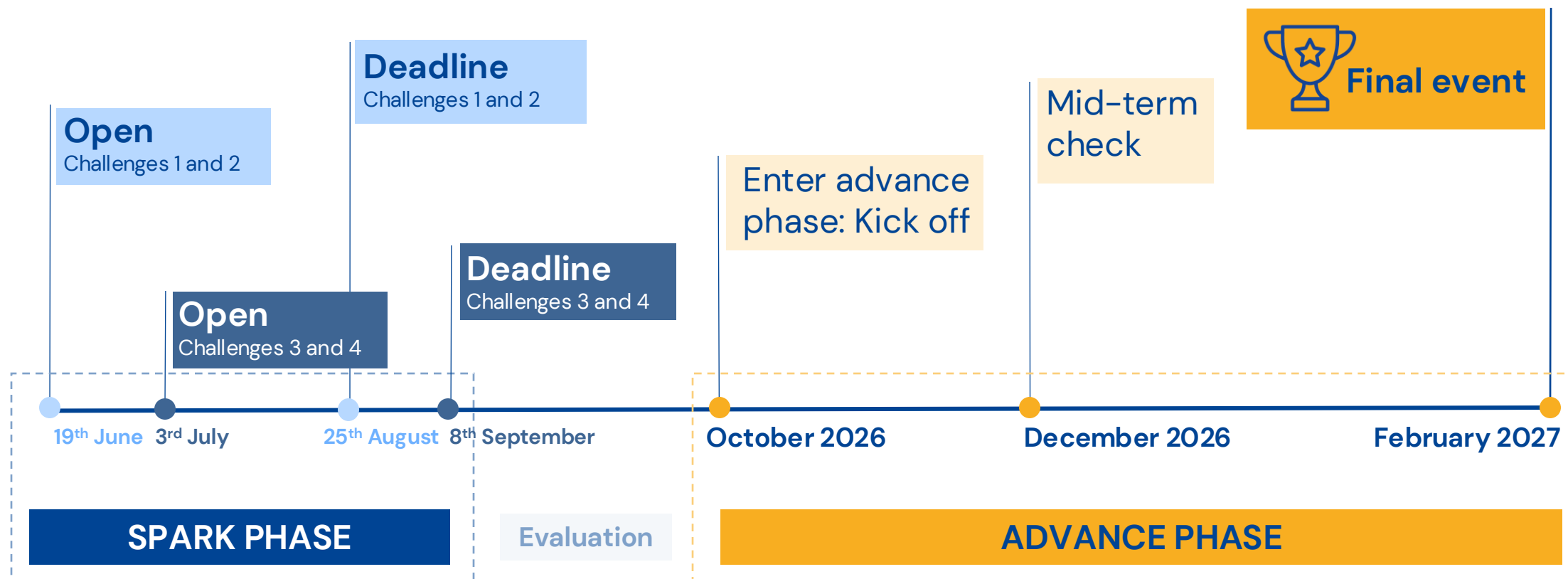
- Public Pitch
- Audience Voting



1 Winner per Challenge
€100,000 Prize

+ SPECIAL AWARDS

Timeline (all challenges)



Main application requirements

- **Admin**
 - Organisation and team information
- **Excellence**
 - Problem fit & contribution, quantifiable outcomes, innovation & novelty, technology readiness, AI technology & justification, trustworthy/responsible AI & compliance, ethics & data governance (7 sub-sections)
- **Impact**
 - Sustainability & scalability, social & environmental impact, fairness/diversity & open science, exploitation & collaboration potential
- **Quality of Implementation**
 - Work plan, CINECA infrastructure needs (if any), team credentials, risk management & mitigation
- **Declaration of Honour**
 - Confirmation of compliance with EU Financial Regulation exclusion grounds
- Full question list is in Annex 1 of the Guidelines for Applicants.



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Challenge Presentations

Four Generative AI challenges, four industry Challenge Owners



Challenges at a glance

	Challenge 1	Challenge 2	Challenge 3	Challenge 4
Owner	Consorzio Intellimech / JOiiNT LAB	SIAD Group	EUCAIM – Cancer Image Europe	Siemens Industry Software (SISW)
Sector	Agriculture robotics	Manufacturing / CAD & simulation	Medical imaging AI	Automotive safety validation
Core challenge	NL mission generator (VLA models, ROS)	Agentic AI for CAD generation and industrial piping layout	Synthetic clinical imaging data	GenAI scenario generation from crash data
Data provided	Labelled vineyard / grape imagery	CAD assemblies & 2D piping drawings (NDA)	1,088 anonymised CT studies (secure env.)	Public accident DBs + multimodal datasets
Validation	Physical robot, real vineyard row (Italy)	Expert CAD and engineering checks	Secure Processing Env. (CINECA)	Simulation / benchmark scoring

Challenge 1

Natural-Language Mission Generator for Agricultural Robots

Consorzio Intellimech & JOiINT LAB · Agriculture robotics

■ PROBLEM STATEMENT

Programming robots still requires ROS expertise and scripting skills, limiting accessibility and scalability for SMEs and non-technical operators.

■ EXPECTED SOLUTION & OUTCOME

A GenAI mission generator translating speech and text into ROS-compatible commands via Vision-Language-Action models (speech, text, vision, maps). Target: a functional PoC validated end-to-end on a robotic platform.

■ DATA & INFRASTRUCTURE

Labelled grape-cluster imagery (Wgisd, AI4Agriculture, wGrapeUNIPD — open licences). Final validation on a real vineyard row at JOiINT LAB, Italy.

■ TEAM WE'RE LOOKING FOR

Comfortable with ROS / robotics middleware and LLM-VLA integration — the only challenge validated on a physical robot, not purely in simulation.

Challenge 2

Agentic AI for CAD Generation & Autonomous Simulation

SIAD Group · Manufacturing / industrial engineering

■ PROBLEM STATEMENT

CAD (Computer-Aided Design) and engineering checks for piping and mechanical assemblies still depend on experienced engineers interpreting implicit geometric, connection and assembly constraints.

■ EXPECTED SOLUTION & OUTCOME

An agentic AI system generating parametric, compatible CAD/piping components from assemblies, 2D drawings and natural-language requirements, and automating meshing and convergence analysis. The main goal is to support compressor tube routing within a package/skid, reducing manual engineering effort and enabling more compact layouts.

■ DATA & INFRASTRUCTURE

SIAD-owned CAD assemblies, 2D piping drawings and meta-information, with data sharing possible under agreed NDA. Azure-based testing may be used for real-world validation with SIAD, while CINECA infrastructure may be used for training, development and experimentation where appropriate.

■ TEAM WE'RE LOOKING FOR

Engineering / geometric-reasoning background; comfortable operating under NDA and confidentiality constraints from day one.

Challenge 3

Generative AI for Enhancement of Clinical Datasets

EUCAIM – Cancer Image Europe · Medical imaging AI

■ PROBLEM STATEMENT

Clinical imaging datasets are often incomplete, imbalanced or under-representative of specific patient populations, limiting robust AI model development.

■ EXPECTED SOLUTION & OUTCOME

Generative AI producing synthetic cohorts that complete, harmonise and balance datasets while preserving clinical realism and radiomic stability.

■ DATA & INFRASTRUCTURE

1,088 anonymised thoracic CT studies and clinical variables (CHAIMELEON project), accessible only inside a Secure Processing Environment on CINECA — no downloads permitted.

■ TEAM WE'RE LOOKING FOR

Medical-imaging / radiomics experience; comfortable working entirely inside a federated secure environment with no local data copies.

Challenge 4

GenAI for Test-Case Generation from Crash Databases & Standards

Siemens Industry Software (SISW) & EU RobustifAI

■ PROBLEM STATEMENT

Converting accident investigations and regulatory requirements into simulation scenarios is still largely manual, limiting scale and consistency.

■ EXPECTED SOLUTION & OUTCOME

A GenAI / RAG / knowledge-graph pipeline turning fragmented crash evidence into structured, validation-ready scenario catalogues, matched against reference scenarios (e.g. Euro NCAP-aligned).

■ DATA & INFRASTRUCTURE

Public European accident databases (UK, France, Belgium, Barcelona) and multimodal scenario datasets.

■ TEAM WE'RE LOOKING FOR

RAG / knowledge-graph / multimodal AI experience; lowest data-access barrier of the four challenges — fits teams without secure-infrastructure needs.



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Application Process & Evaluation

How to apply, what gets assessed, and by when



How to apply — via F6S

Challenges 1 & 2

- **Open since:** 19 June 2026
- **Deadline:** 25 August 2026, 17:00 Brussels time
- **Apply via :** f6s.com/ai-challenge-competition/about

Challenges 3 & 4

- **Open since:** 3 July 2026
- **Deadline:** 8 September 2026, 17:00 Brussels time
- **Apply via:** f6s.com/ai-challenge-competition-2/about

How to apply

Register on F6S → complete the full application form (Annex 1 of the Guidelines) → submit before the deadline.
English only — and only the last submission counts if you submit more than once.

Eligibility & fit — key points

- Technical capacity AND experience working on AI systems
- Proposal content must correspond, wholly or in part, to the specific challenge description
- Must comply with EU policy priorities (environment, social, security, industrial policy)
- Willingness to actively engage with AI-BOOST services and infrastructure
- Openness to collaborate with the Challenge Owner, including development and demonstration activities
- CINECA HPC access is optional, not mandatory
- Commitment to attend AI-BOOST training and capacity-building activities
- Acceptance of a 6-month IP foreground exclusivity for the Challenge Owner after the competition ends
- No double funding: cannot have already received an EU prize or grant for the same action

SPARK Phase evaluation — two stages

Stage 1 — Internal pre-assessment (only if more than 20 eligible applications are received; shortlists the top 20 per challenge)

25% Innovation Novelty	25% Challenge Fit & Motivation	25% Technical Plan & Team Capacity	25% EU AI Alignment, Replicability & Sustainability
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Stage 2 — External evaluation (3 independent, NDA-bound experts score every shortlisted concept note)

Excellence — 50% Originality · soundness of concept · data & ethics strategy	Impact — 25% Industry transformation · scalability · SDG / social benefit	Quality of Implementation — 25% Work plan · team track record · capacity to reach TRL5
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Applicants choosing to use CINECA infrastructure must also specify partition, wall-clock time, GPU/CPU hours, storage and software requirements in this stage.

ADVANCE Phase evaluation

Final score — four weighted components



Final Report (50%)

Technical performance, data & bias-mitigation documentation, GDPR/AI Act compliance — scored by independent external evaluators.

Key documents to review

- **AI-BOOST Guidelines for Applicants**
 - This document — full process, eligibility, evaluation, IPR and timeline
- **4 Challenge Description documents (Annex 2)**
 - One per challenge, with full technical, data and infrastructure detail. In case of any discrepancy with the Guidelines, the Challenge Document prevails
- **F6S Application Form (Annex 1 of the Guidelines)**
 - The actual online submission form; the online version prevails over any other version
- English only — submissions in any other language will not be evaluated.



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Q&A

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Thank you

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Contact us: info@aiboost-project.eu



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