

KEY NOVELTIES & UPDATES IN MSCA (2023–2025)



October 2025

Document elaborat de Unitatea Horizon Europe NCP din cadrul UEFISCDI ©. Octombrie 2025.

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KEY NOVELTIES & UPDATES IN MSCA (2023–2025)

MSCA AND ARTIFICIAL INTELLIGENCE RESEARCH

The role of Artificial Intelligence in MSCA projects

Artificial Intelligence (AI) has become a **key driver of innovation and scientific excellence** within the Marie Skłodowska-Curie Actions (MSCA). With a budget of €6.6 billion for 2021–2027, the MSCA programme supports bottom-up research, mobility, training, and interdisciplinary collaboration among researchers. AI-related topics feature prominently in MSCA-funded projects, reflecting their essential role in addressing Europe's societal and technological challenges.

Under Horizon 2020 and Horizon Europe, more than 1,100 projects include a strong AI component.

AI and machine learning rank among the top five thematic areas of MSCA projects under Horizon Europe, surpassed only by materials engineering.

The MSCA actions with the highest share of AI-related projects are Staff Exchanges and Doctoral Networks, representing about 22% and 20% of all funded projects. These projects promote knowledge and skills transfer between academia, industry, and the public sector, creating collaborative environments that strengthen Europe's leadership in ethical, human-centred artificial intelligence.

Moreover, these initiatives have already provided training and career development opportunities for over 2,000 researchers, contributing more than €1 billion to AI-based research and innovation (in the last 10 years)¹.

¹ European Commission, Marie Skłodowska-Curie Actions: Research in AI, Publications Office of the European Union, Luxembourg, 2025, <https://op.europa.eu/en/publication-detail/-/publication/1cb5610f-a3f1-11f0-97c8-01aa75ed71a1/language-en>

Top 5 research areas in MSCA under Horizon Europe



1 Materials engineering	3 Numerical analysis, simulation, optimisation, modelling tools
2 Machine learning, statistical data processing and applications using signal processing (e.g. speech, image, video)	4 Molecular biology and interactions
	5 Energy collection, conversion and storage, renewable energy

Source: Horizon Europe MSCA Dashboard

Success stories

SMART (Soft, Self-Responsive, Smart Materials for Robots)

A Doctoral Network that trained young researchers in developing AI-driven algorithms and machine learning models to enhance the performance and adaptability of smart materials used in robotics. The project fostered collaboration between universities and industry, combining material science, robotics, and AI.

OPTIMA (Organization Specific Threat Intelligence Mining and Sharing)

A Postdoctoral Fellowship that applied explainable AI and machine learning to classify network behaviour and identify cybersecurity threats. Its results contribute to strengthening digital resilience and data protection in both public and private sectors.

aiD (Artificial Intelligence for the Deaf)

A Staff Exchange project that used generative AI to reduce communication barriers between deaf and hearing individuals. It developed efficient systems for sign language transcription and translation, promoting inclusion and accessibility through technology.

Interdisciplinary impact

Artificial Intelligence in MSCA projects extends far beyond technical disciplines. Funded initiatives explore its intersections with ethics, law, social sciences, medicine, and environmental studies, promoting responsible research and innovation. This interdisciplinary approach enables MSCA fellows to develop and apply advanced AI tools in collaboration with academic, industrial, and societal partners.

By integrating AI research across its core actions – Doctoral Networks, Postdoctoral Fellowships, Staff Exchanges, COFUND, and MSCA and Citizens – the programme keeps Europe at the forefront of digital transformation, nurturing talent capable of developing trustworthy and sustainable AI solutions.

“CHOOSE EUROPE FOR SCIENCE” PILOT INITIATIVE

A major new component introduced in the revised MSCA Work Programme (2023–2025) is the “Choose Europe for Science” pilot scheme². Its goal is to make European research careers more attractive by addressing job precarity and brain drain.

Key features / novelties:

The pilot will recruit postdoctoral researchers for up to 5 years; MSCA co-funds the first 2–3 years (6700 euro for pm), and the host institution must cover the remaining period³.

With a budget of 22.5 million euro, the first call will support around 100 researchers, with a planned expansion to 200 in 2026–2027, contributing to strengthen Europe’s global competitiveness and consolidating its role as a magnet for talent.

Call opening: 1 October 2025 – closing 3 December 2025.

² Horizon Europe Work Programme 2023-2025 - Marie Skłodowska-Curie Actions (European Commission Decision C(2025) 2779 of 14 May 2025) https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions_horizon-2023-2024_en.pdf

³ <https://marie-sklodowska-curie-actions.ec.europa.eu/actions/choose-europe-for-science>

This is perhaps the single most visible “new” feature in the current MSCA cycle.

Building on the vision set out by President Ursula von der Leyen at Sorbonne Université in May⁴, Europe is doubling down to become the world’s most attractive destination for researchers and innovators - offering not only excellent research opportunities and careers but also outstanding working and living conditions. Europe will not compromise on its principles and must stay the home of academic and scientific freedom, as the President made clear.

The pact of this reinforced endeavour is already visible. For example, this year’s Marie Skłodowska-Curie Actions (MSCA) Postdoctoral Fellowships recorded a 65% surge in applications, including a notable rise from researchers currently based in the United States. This testifies to the strength of Europe’s stable, world-class research ecosystem and its robust funding landscape (strengthened through Doctoral Networks, Staff Exchanges, and the 65 European Universities alliances), attracting brilliant minds eager to advance the frontiers of knowledge.

REVISED WORK PROGRAMME & BUDGETING (2023–2025)

The MSCA Work Programme 2023–2025 was formally adopted, with new elements and updated rules. The total funding in 2025 for MSCA calls is about €1.25 billion.

The programme now emphasises strengthening “excellent working conditions” and high standards in researcher career development.

The MSCA unit contribution and country-correction coefficients for 2024 and 2025 calls were updated to cope with the inflation and to respond to the recommendations put forward in the Study on Unit costs²:

- ✓ MSCA PF living allowance from 5080 EURO to 5990 EURO
- ✓ MSCA DN living allowance from 3400 EURO to 4010 EURO
- ✓ MSCA SE top-up allowance from 2300 EURO to 2710 EURO

⁴ https://ec.europa.eu/commission/presscorner/detail/da/speech_25_1130

Revision MSCA and Citizens call 2025 consists in the new ranking procedure to ensure broader and more balanced geographic coverage.

PREPARATION OF THE 2026-2027 MSCA WORK PROGRAMME

The European Commission has published drafts of many parts of the Horizon Europe Work Programme 2026-2027 via the Comitology Register⁵, to increase transparency. However, as of the latest updates, the MSCA-specific draft part has not (or not yet) been made publicly available in full.

The main objective for the changes in this last Work programme under Horizon Europe is about bringing further simplification and flexibility to the applicants which is a strong commitment from Commissioner Zaharieva⁶.

The draft Work programme also includes a scaled-up second pilot of the new Choose Europe for Science scheme, which takes into account the feedback received on the first pilot, notably by including a more attractive co-funding model, based on the same unit contribution as for MSCA Postdoctoral Fellowships.

These are not yet confirmed — the final Work Programme may differ.

Debate: directionality vs bottom-up

One proposed upcoming change (in draft for the 2026–2027 Work Programme) is to introduce directionality (i.e. more thematic / top-down calls) in MSCA, aligning them more explicitly with EU priorities⁷.

This is receiving pushback from the research community, which argues that MSCA's strength lies in being bottom-up, non-prescriptive, open to all fields. Many stakeholders are calling to preserve MSCA's openness and guard against over-prescription.

⁵ <https://ec.europa.eu/transparency/comitology-register/screen/home>

⁶ https://research-and-innovation.ec.europa.eu/implementation-dialogues/making-horizon-europe-work-smarter-dialogue-implementation-and-simplification-commissioner-ekaterina-2025-09-16_en

⁷ <https://eua.eu/news/eua-news/research-community-urges-the-eu-to-preserve-mscas-bottom-up-approach.html>

The joint statements from research associations explicitly demand “No directionality” in MSCA. Critics warn that thematic constraining could disadvantage emerging or cross-disciplinary topics that do not align neatly with political priorities.

Greater alignment with EU priorities / political goals

Related to “directionality,” MSCA is likely to be more explicitly tied to EU-level strategic goals (e.g. climate, green transitions, digital transformation). MSCA proposals may need to more clearly articulate how projects contribute to defined EU missions or priority domains.

Calls may stress alignment with EU Missions or cross-cutting policy goals (e.g. sustainability, green charter) more than before.

Some of MSCA’s features (e.g. emphasizing employability, green practices) may be reinforced further.

Stricter or changed eligibility / evaluation criteria

To support the move toward more strategic focus, there may be changes in how proposals are evaluated:

- Greater weight on impact / contribution to EU strategic priorities in evaluation.
- More rigorous checks of alignment with targeted thematic areas (if directionality is adopted).
- Possibly additional “filters” in eligibility (e.g. requiring a link to certain fields or domains).
- The rules around resubmission, scoring thresholds, and eligibility may be adjusted more tightly.

OUTLOOK FOR 2026–2027

Looking ahead, the 2026–2027 period brings new opportunities to **strengthen the role of Artificial Intelligence within MSCA**. The “Choose Europe for Science” initiative will support institutions that provide stable and attractive career prospects for young researchers, including in emerging areas such as AI and digital technologies. At the same time, upcoming calls will place stronger emphasis on **green & digital transitions, intersectoral exposure, and**

geographical openness, sustainability, interdisciplinarity and the contribution of projects to the European Union’s strategic priorities.

AI will remain a transversal priority area, embedded in applied research, doctoral training, and international staff exchanges. Thus, MSCA will continue to serve as a catalyst for responsible innovation, global collaboration, and the preparation of a new generation of researchers ready to shape Europe’s digital future.

SUMMARY OF THE MSCA NOVELTIES

Area	New / Changed element	Purpose / Impact
AI in MSCA	>1,100 projects, opportunities for over 2,000 researchers, key thematic area	Strengthens Europe’s leadership in ethical, human-centred AI
Choose Europe for Science	5-year postdoc pilot, €22.5M budget, 100 researchers (2025)	Attracts global talent, mitigates brain drain
Work Programme 2023–2025	Higher unit contributions, focus on working conditions	Offsets inflation, supports researcher well-being
Work Programme 2026–2027 (draft)	Simplification, flexibility, scaled-up pilot	Increases accessibility and fairness
Thematic directionality (debate)	Possible shift toward calls aligned with EU political priorities	Raises tension about preserving MSCA’s bottom-up nature

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3. MSCA Choose Europe for Science call 2025

<https://marie-sklodowska-curie-actions.ec.europa.eu/actions/choose-europe-for-science>

4. Closing speech by President von der Leyen at the 'Choose Europe for Science' event at La Sorbonne

https://ec.europa.eu/commission/presscorner/detail/da/speech_25_1130

5. Comitology Register

<https://ec.europa.eu/transparency/comitology-register/screen/home>

6. Making Horizon Europe work smarter: dialogue on implementation and simplification with Commissioner Ekaterina Zaharieva

https://research-and-innovation.ec.europa.eu/implementation-dialogues/making-horizon-europe-work-smarter-dialogue-implementation-and-simplification-commissioner-ekaterina-2025-09-16_en

7. Research community urges the EU to preserve MSCA's bottom-up approach

<https://eua.eu/news/eua-news/research-community-urges-the-eu-to-preserve-mscas-bottom-up-approach.html>