

WEBINAR FOR CANDIDATES ATENA MSCA-COFUND

Empowering research excellence through international mobility and collaboration

17 September 2025 (15:00-16:30 CET)



**Co-funded by
the European Union**

The ATENEA project has received funding from HORIZON-MSCA-2023-COFUND-01 under Grant Agreement number 101178250

Welcome

Prof. Javier Llorca, Scientific Director, IMDEA MATERIALS INSTITUTE



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Agenda

Welcome

Prof. Javier Llorca, Scientific Director at IMDEA MATERIALS

Presentation of ATENEA MSCA-COFUND Programme

Teresa Pérez Prado, Principal Investigator at IMDEA MATERIALS.

HR and Support for Fellows

Rosa Bazán, Project Coordinator and Head of Human Resources at IMDEA MATERIALS

MSCA Fellow Testimonial

Lucía Doyle & Valentin Vassilev, Former MSCA Fellows at IMDEA MATERIALS

Q&A Session

Closure

Rosa Bazán, Project Coordinator and Head of Human Resources at IMDEA MATERIALS

ATENEA Host Institution

IMDEA Materials Institute

- Research centre established by the Madrid government in 2007 in Getafe (Madrid).
- **Mision:** research of excellence in material science and engineering, contributing to tackle the challenges of society and fostering the sustainable development.
- **Main pillars:** excellence in research; attraction of talent from all over the world; technology transfer to industry to improve competitiveness.

Why IMDEA Materials?

- Leading researcher center in Europe in Materials Science and Engineering for transport, energy and health.
- 18 research groups, 39 post-doctoral researchers (26+ MSCA Postdoctoral Fellows), 74 doctoral students
- State-of-the-art scientific infrastructures for materials processing, characterization and simulation.
- HRS4R Excellence in Research Award



Presentation of ATENEA MSCA-COFUND Programme

Teresa Pérez Prado, Principal Investigator at IMDEA
MATERIALS



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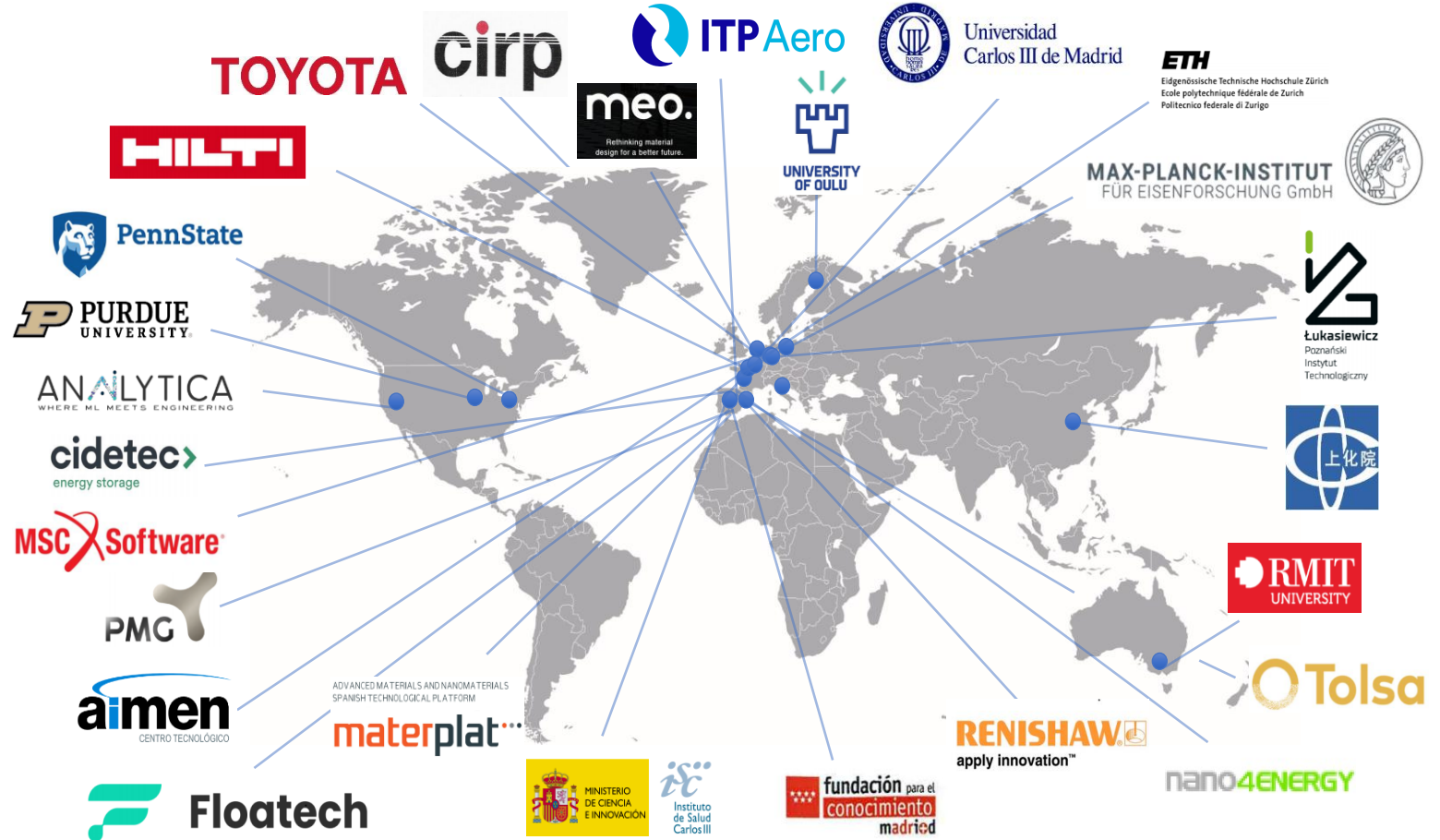
ATENEA MSCA-COFUND Programme

- The ATENEA programme will offer **ten 30-month Postdoctoral Research (PRs) fellowships** in the field of Materials Science and Engineering (MSE).
- The programme will launch one open call on **September 20, 2025**. The application deadline is **December 15, 2025**.
- **IMDEA Materials Institute** (IMDEA Materials) is the **host institution** and coordinator of the ATENEA programme.
- ATENEA will attract researchers worldwide through Open, Transparent, and Merit-based recruitment (OTM-R) principles.
- **A two-step evaluation process**, carried out by experienced and qualified **external experts** from an international, intersectoral and interdisciplinary pool, will guarantee the selection of first-class researchers.



ATENEA Secondment and Training Programme

- Career development opportunities through 3–6 months intersectoral **secondments** within an associated partners' network of 21 organisations.
- Comprehensive **training** combining in-person and online formats.
- **Specialised courses and workshops** tailored for Postdoctoral Researchers (PRs).
- **Secondment and training** locations include: IMDEA Materials, Partner universities, Research centres, non-academic associated partners as well as other institutions proposed by the fellows themselves



Research Areas for Fellowships

- ATENEA postdoctoral researchers will contribute to cutting-edge materials science research aligned with IMDEA Materials' four primary research programs.
- Detailed [information on specific research topics](#)
- Find your [supervisor](#).

1. NOVEL MATERIALS

- Polymer & Polymer-Based Nanocomposites Discovery
- Simulation- and AI-Driven Porous-Materials Design
- Nanostructured networks for electrochemical energy storage
- Water Electrolysis
- Fire-safe Polymers
- Design and discovery of novel materials for transport, energy or health

2. ADVANCED MANUFACTURING

- Novel degradable scaffolds for bone regeneration
- Energy-Efficient Steel Processing
- Plastic Waste Recycling
- Electroactive tissue engineering scaffolds for remote healing and repair monitoring
- Bioinspired scaffolds swarms for minimal invasion, self-assembly and shape-adaptation in critical size defects
- E-waste and scraps recycling using the high entropy concept and the powder metallurgy route
- Laser Powder Functionalization
- Smart Manufacturing of Structural Composites
- Advanced processing of materials for transport, energy or health

3. INTEGRATED COMPUTATIONAL MATERIALS ENGINEERING

- Enhanced toughness in Metamaterials
- Rapid Solidification Processing
- Sustainable Alloy Design & Metallurgy
- Multiscale modeling of irradiation effects on the mechanical response
- Multiscale simulation of Li batteries durability
- Modelling battery behavior under harsh conditions
- Multiscale Modelling of Structural Composites
- Integrated computational materials engineering in transport, energy and health

4. MULTISCALE CHARACTERIZATION OF MATERIALS AND PROCESSES

- Operando LPBF Process Dynamics
- Grain Growth and Corrosion in Zn Alloys
- Biological sensors for smart medical devices
- In-situ investigation of microstructural effects on hydrogen-induced dislocation activity
- Multiscale characterization of materials for transport, energy and health

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Timeline and number of fellowships



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Who can apply?

All eligibility criteria and instructions detailed in the [Guide for Applicants](#)

1. PhD awarded or thesis defended before 15 Dec 2025
2. Max 8 years postdoctoral experience (excl. career breaks)
3. Not in Spain > 12 months in past 3 years
4. One proposal per applicant
5. Open to all nationalities, backgrounds & disciplines



How to apply?

1. Download templates from ATENEA Website

- CV
- Research Proposal - inc. research area and supervisor
- Ethics Self-Assessment

Include: PhD Degree or Certificate of Defense, Letters of Recommendation and Proof of English proficiency.

2. Submit all requested documents

The application, including all required documents, must be submitted through the [IMDEA Materials Jobs Portal](#).

The application process will be open from September 20, 2025 to December 15, 2025, at 6:00 PM (CET)



ATENEA Research Proposal (1/3)

RESEARCH PROPOSAL

Name of the applicant: _____

E-mail: _____

- 1. Project Title and Acronym** *Provide the full title of the proposed research and a short acronym (max. 10 characters).*
- 2. Research Topic and Supervisor** *Indicate the research topic(s) for which you are applying and the name of the proposed supervisor(s) at IMDEA Materials.*
- 3. Abstract (max. 200 words)** *Provide a concise summary of your research proposal, including its main objectives, methodology, and potential impact.*
- 4. Objectives** *Describe the specific research objectives, questions or hypotheses addressed by your proposal.*
- 5. Research Methodology** *Detail the scientific approach, methods and techniques to be used, including justification for their suitability.*

ATENEA Research Proposal (2/3)

6. Work Plan *Provide a structured timeline of the project (e.g. Gantt chart or description per phase), including:*

- a) Research tasks,*
- b) Expected milestones and deliverables,*
- c) Timeline for secondments or training (if applicable)*

Explain how you plan to spend the “research, training and networking contribution” of the fellowship (€ 19.500) (Examples: consumables, small equipment, travel for dissemination, publication and patent fees, etc.). Note that you will have an additional budget (€ 9.000) for an academic or non-academic secondment period for a minimum of 3 and a maximum of 6 months.

Explain and justify your planned secondment. You can select one of the associated partners of ATENEA’s network, already published on the ATENEA website, as host institution or you can suggest a new host institution for your secondment.

ATENEA Research Proposal (3/3)

- 7. Expected Outcomes and Impact** *Explain the anticipated scientific, societal and/or technological impact of your project. Describe how results will be disseminated and how they may contribute to career development and scientific progress.*
- 8. Integration with Supervisor** *(maximum half page) Explain how your research aligns with: (a) The expertise and research interests of your proposed supervisor, (b) Emphasise synergies, complementarities, and mutual benefits.*
- 9. Research Infrastructure Required** *(maximum half page) Detail the materials and infrastructure required to carry out your research. All the facilities of IMDEA Materials (<https://materials.imdea.org/research/scientific-infrastructures/>) will be available at no cost associated with the project. If you need further information, contact the supervisor you selected for your project.*
- 10. Gender Dimension in Research** *(maximum half page) If relevant, describe how sex/gender analysis will be integrated into your research content (e.g. data disaggregation, inclusive design, etc.).*
- 11. Data Management Plan** *(maximum half page) Outline your approach to data collection, storage, protection, sharing, and preservation*
- 12. References (not counted within the 6-page limit)**

HR and Support for Fellows

Rosa Bazán, Project Coordinator and Head of Human Resources at IMDEA MATERIALS



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Institutional support for researchers

• **Personalised support** from the ATENEA Management Office, administration, and HR teams on:

1. Relocation & Bureaucratic Support
 - Residence permits, municipality registration, etc.
 - Help with legal formalities before and after arrival.
2. Job Integration & Support
 - Formalities: Contract signing, IT setup, etc.
 - Warm welcome and engagement from the team.
3. Adjusting to Life in Spain
 - Housing, family support, schooling, and more.
 - Personalized help to settle into life in Spain.

Our Commitment to Excellence

- HR Excellence in Research Award
- Career Development Support: Language classes, workshops, and professional training.
- Dynamic, supportive working environment with ongoing career support and networking.



Learn more on our “[Reasons to work for IMDEA Materials](#)” page for insights into professional and personal growth opportunities

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ATENEA More information

Instructions and requirements: [Guide for Applicants](#)

[FAQ](#)

Programme Website: www.atenea-cofund.eu

Contact e-mail: info.materials@imdea.org



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