MSCA COFUND

GUIDE FOR APPLICANT

ALLIES AI FOR SDG

Artificial Intelligence in Sustainable Development Goals

CSIC

Co-funded by the European Union

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1 ALLIES Overview

1.1 About ALLIES

ALLIES ("Artificial inteLLigence In sustainable dEvelopment goalS") is a new excellent collaborative postdoctoral program led by the Spanish National Research Council (CSIC) and coordinated through the Artificial Intelligence Research Institute (IIIA) for the recruitment of 17 postdoctoral researchers to provide a new dimension through highly interdisciplinary & intersectoral research in the broad topic of Artificial Intelligence (AI) in alignment with the SDGs.

ALLIES is a CSIC initiative cofounded with the European Commission under de MSCA COFUND of the HORIZON Framework Program. The program was awarded under the Call HORIZON-MSCA-2022-COFUND-01[1] with the Grant Agreement 101126626.

The program includes the participation of 18 different CSIC research institutes experts in the fields of AI, Big Data, Machine Learning, Robotics & Data Science as Implementing organisations recruiting fellows. It offers a bottom-up approach for multidisciplinary research topics in one of the 8 AI challenges covered in CSIC's AI White Paper[2], the program provides a tailor -made training program to educate tomorrow's AI researchers & entrepreneurs in a broad set of scientific and transferable skills.

ALLIES builds up on the Artificial Intelligence Hub (AIHUB) collaborative framework created by CSIC to provide an excellent platform to pursue and fulfil the strategic agenda of CSIC in AI, in alignment with national and European strategies and policies. One of the medium-term impacts and outcomes of ALLIES is to create a workflow of excellent researchers as future leaders in AI for the implementation of CSIC's scientific challenges in AI,

[1] https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-msca-2022-cofund-01-01
[2] http://libros.csic.es/product_info.php?products_id=1493

robotics & data science, as well as the EC White Paper on Artificial Intelligence and other relevant national and European strategies and priorities. The program will maximize the impact on the career perspectives of recruited fellows by integrating a holistic approach to training through a combination of research-oriented and soft skills, providing the recruited fellows with personal capacities and prospective career perspectives in the academic & non-academic sectors.

1.2 What we offer

ALLIES postdoctoral program represents the perfect environment for the training of recruited researchers, thus creating a myriad of future opportunities for the fellows and a workflow of excellent researchers as future leaders in AI, Robotics and Data Science.

The program aims to augment cutting-edge research with superior training that encompasses a variety of activities to bolster both research and personal skills. This will open up new career avenues for fellows and incorporate a well-rounded training approach that merges research-focused and essential soft skills. Moreover, fellows will have complete access to top-notch research infrastructure, signifying the program's dedication to integrating these resources into everyday activities.

It aims to go one step further by strengthening the collaborative approach of the AIHUB to a new level to achieve higher impact and a multiplier effect by enhancing and promoting the potential and future career perspectives of the recruited fellows, consolidating the excellence and outstanding track record of the participating entities, and providing the ideal setting to attract the best talent of postdoctoral researchers worldwide in the program´s research priorities.

IIIA-CSIC and its network of AIHUB partner institutions are truly motivated to foster a competitive economy and societal transformation based on the responsible implementation of AI technologies to boost the green & digital

transition with a positive impact on society and a strong effort on applied research & breakthrough technologies. The program encourages public-private partnerships by promoting strong participation of the industry and boosting the career development of recruited fellows through high-quality training.

1.3 Beneficiary, Coordinators and Partners

The Beneficiary is the AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS (CSIC)[3]. The Spanish National Research Council (CSIC) is Spain's largest public research institution, ranks third among Europe´s research organizations, produces 20% of the Spanish national scientific output and remains the first institution in Spain in the generation of patents. The CSIC is a major player in the development of the European Research Area (ERA) and a significant contributor to the European integration process.

The Artificial Intelligence Hub (AIHUB)[4] is the hub for AI research at CSIC. It is a scientific-technical collaborative network covering more than 400 CSIC researchers aimed at 5 CSIC-HUBs, scientific-technical collaboration networks that seek to establishing synergic links and exchanges between researchers personnel from different CSIC centres so as to advance the frontiers of AI and the frontiers of science.

The Artificial Intelligence Research Institute (IIIA)[5] belongs to the Spanish National Research Council (CSIC). Founded in 1994, is one of the top research institutions in Artificial Intelligence in Spain. Located at the Autonomous University of Barcelona (UAB) campus in Bellaterra, IIIA-CSIC is dedicated to basic & applied research in Artificial Intelligence (AI) in three main subareas including Machine Learning, Multi-Agent Systems and Reasoning and Logic. The main application areas covered at IIIA include health and well-being,

[3] http://www.csic.es
[4] http://aihub.csic.es
[5] http://www.iiia.csic.es

education, smart cities, industry 4.0, and computational creativity to name a few. Its almost 90 staff, includes 25 Senior Researchers, 8 Postdoctoral Researchers, 18 PhD, 7 Undergraduate Students and 14 supporting staff (engineers, administration, IT, communication).

The IIIA-CSIC is the ALLIES Program Coordinator and a set of AIHUB CSIC Centres are the implementing partners of the program.

1.3.1 Implementing Partners

ALLIES brings together a balanced combination of network partners from different sectors and fields which are complementary to each other. CSIC institutes hosting fellows have been selected taking into account their excellence in AI, a wide variety of research options, advanced training capabilities in research & transferable skills, a network of international collaborators, state-of-the-art equipment, excellent and modern research facilities, wide array of high-quality research & non-research infrastructures and a long-term commitment for collaboration. They are distributed geographically on 2 major territories: Madrid-Andalucía and Barcelona-Valencia-Aragón. The full list of implementing partners is in the Annex 7, Section 7.1.

Figure 1 Geographical distribution of CSIC institutes under ALLIES postdoctoral program

1.3.2 Associated Partners

The research program is completed by the participation of several Associated Partners that will actively contribute to the different programmed activities

through their participation in research (hosting fellows in short status and secondments) and training activities, increasing the scope and impact of the action. Associated Partners include a wide variety of academic and non-academic organisations from 7 EU and overseas countries. The complete list of associated partners is in the Annex 7, Section 7.2. Through a collaborative approach with active participation industry and non-academic organisations, the program will foster the intersectoral component thus creating added value to the program for a multiplier effect.

1.4 The Program

ALLIES is a 5-year excellence postdoctoral training program presented by CSIC as beneficiary and coordinated through IIIA-CSIC in collaboration with AIHUB and 17 implementing CSIC institutes that contribute to the co-funding and recruitment of 17 excellent postdoctoral fellows on 2-year contracts.

The program is tailored to attract top-tier international researchers who meet the mobility criteria. It is structured to foster international collaboration, cross-sector movement, and research across disciplines. The aim is to enhance the career prospects of the fellows, whether in academia or industry, by ensuring that the research topics and training are closely aligned with current market demands. This alignment is intended to set high professional standards and open up more career paths in fields related to Artificial Intelligence.

Considering the duration of the project and the length of the contracts, 3 Open Calls will be launched in the first 2 years of the program.

Available positions will be split between the participating CSIC institutes taking into account the collaborative approach of the program, so recruited fellows will spend 1 year at each of the two CSIC hosting institutes, with 1 or 2 secondments at the industry or international partner organisations

completed in between, in a way that recruited fellows spend one year in each of the two hosting institutes.

A wide variety of multi & interdisciplinary themes in the fields of AI, Big Data, Machine Learning, Robotics and Data Science for its application in cybersecurity, health & biomedicine, robotics, edge computing, telecommunication and mobility will be available for the fellows.

Figure 2 summarizes the research options available under the ALLIES postdoctoral program. Two hosting CSIC institutes and two co-supervisors will be involved in each research theme. The research themes information is extended in Annex 7, Section 7.3.

AVAILABLE RESEARCH THEMES	HOSTING	AI CSIC CHALLENGES	ODS
Adversarial machine learning and cybersecurity	ICMAT, ITEFI	8	11,16
AI approaches for the analysis of macromolecular structures and the design of pharmaceutical ligands	CNB, ICMAT	1,3	2,3
Learning cognitive models for assistive wearable robots	Instituto Cajal, IIIA	4,5	3,10
Spike based vision platform for high-speed low power robotics	IMSE-CNM, IIIA	3,4	3,9,11
Social sensing	IIIA-25, JAE	1,3	16
Edge computing hardware architectures for AI in scientific applications	ITEFI, IFIC	3,7	3,7
Collective behavior in Bayesian agents	CIAC, ICMAT	1,2,3	3,9
Autonomous mobility for urban environments	CAR, IIIA	3,4	9,11
Photonic and optomechanic platform for ultrafast efficient neuromorphic computing	ICMM, INMA	3,7	9,12,13
Neuromorphic computing for monitoring and control in sustainable and smart production systems	CAR, IMSE-CNM	3,4,7	8,9
Big Data analysis techniques applied to simulated data for the preparation of the space mission PLATO	IAA, Institute of Space Sciences	3	7,17
Graph-based Artificial Intelligence Methods applied to the design of new drugs and materials	ICMM, Margarita Salas	3	3,6,7
Using AI for Earth and Ocean Observation Using Telecommunication Fiber Optic Cables	ICM Institut de Ciències del Mar, IFIC	3	9,14
Data-driven sparse identification of nonlinear cognitive models	Instituto Cajal, CAR	5	3,10
Unraveling Mössbauer spectra of Fe-based nanostructures	ICMM, Iofr Jybi	1,3	3,7,13
Integration of SAT Solving and Machine Learning	IIIA-25, IIIA	1	2,12
Ethical and safe learning for deploying multi-robot systems in complex real-world environments	IIIA-25, CAR	2,4	2,15

Figure 2 Research options available under ALLIES postdoctoral program.

1.5 Who can apply? Eligibility criteria

The program is opened for all Artificial Intelligence postdoctoral researchers with no restrictions on nationality, age and/or gender. Equal opportunities policy is taking into account to ensure a balanced participation of women and men at all stages of the ALLIES postdoctoral program, alongside equal opportunities and no discrimination on the basis of sex, race, language, religion, economic, family situation or disability.

POSTDOCTORAL RESEARCHER DEFINITION:

Researchers must be in possession of a doctoral degree at the deadline of the co-funded program's call.

Researchers who have successfully defended their doctoral thesis but who has not yet formally been awarded the doctoral degree will also be considered postdoctoral researchers and will be considered eligible to apply.

MOBILITY RULE:

Researchers must not have resided or carried out their main activity (work, studies, etc.) in Spain for more than 12 months in the three years immediately before the date of the call deadline (**1st June 2025**).

REQUIRED DOCUMENTS:

Applications submitted online must include all the personal information and details requested in the application website to be eligible. Each applicant must submit an application in English containing the information and documents summarized in Figure 2:

- **CV European Format.**
- Academic Records (Master, PhD).
- Research Proposal (A 3-page proposal aligned with one of the ALLIES lines).
- Motivation Letter.
- Two Recommendation Letters in one PDF file (1 from their PhD Supervisor).
- Proof in English. In case you do not have a degree, and have a high level of English, the level will be assessed at the time of the personal interview).

Candidates who are not yet in possession of the PhD degree can submit a letter from the organisation providing the degree must be included with an estimated date for the award. If the estimated award date does not fit with the evaluation timeline, the candidate will be considered not eligible.

> Applicants not including all the requested documents will be considered ineligible. All the documents are in English, and the interviews will be conducted in English. Proposals submitted in any other language will not be considered.

1.6 Timeline

The ALLIES program is set to open its 3rd call for applications in April 2025. This will kick off a selection phase running from June to September 2025, during which time candidates will be thoroughly evaluated. Contracts will be negotiated and signed by 30 December 2025. The chosen 8 fellows will start their journey with the program between December 25 and January 2026 and their fellowships will last 2 years, contributing to the advancement of Artificial Intelligence in alignment with sustainable goals.

Figure 3 Timeline for the ALLIES third Call for Applications.

2 How to apply

Applications must be submitted online through the official program's recruitment platform. We recommend to make the application from a Personal Computer.

Before applying to this postdoctoral program, don't forget:

- To examine all the documents and information available, in particular, this Guide for Applicants.
- Check the eligibility criteria, see Section 1.5.
- English is the only accepted language in the program and the website.
- Contact our Helpdesk service via email to resolve any questions or doubts regarding the application and evaluation processes. You may contact us at: alliescofund@csic.es

Also consider that:

- During the application, you will be asked to choose a theme from the list provided in the Call.
- If there are duplicate applications, only the last submission will be considered.
- Any application submitted after the call deadline will be automatically dismissed.
- Any application missing one or more required documents will be automatically rejected.
- The online platform allows you to save and edit your application. You are encouraged to start working on your application well before the deadline and allow enough time to compile the necessary information and supporting documents.
- ALLIES is committed to open, transparent and merit-based recruitment (OTM-R). Therefore, positions will be awarded based purely on merit and capacities.

2.1 Application Form

Each applicant interested in applying to one of the positions in ALLIES has to create an account as a user on the online platform (Chairing Tool).
A username, password and valid email address must be provided. After the successful registration, the applicant will receive an email with an activation link and can start a **New Submission**.

The submission counts of a Default Data form and four form Tabs:

1. Default Data for the Research Proposal
2. Tab 1 for the Research Theme
3. Tab 2 for Personal Information
4. Tab 3 for Eligibility Criteria
5. Tab 4 for Merits

Applicants must complete the different forms and include all the required information and documents. Check that each Tab is completed.

The application submission Default Data form requires: The Research Title, an Abstract for the Research Summary, and to upload the 3-pages research Proposal.

The Research Theme form requires to select the Research Theme that your Research Proposal matches.

The Eligibility form requires to tick the two boxes referring to the DC and Mobility rules. If in doubt about any of these criteria, please contact the Helpdesk service. If you do not meet one or both of these criteria, please do not apply to the program since you will be considered ineligible.

Personal Information form requires to provide your personal information.

The Merits form requires to upload several documents in PDFs that to evaluate your merits. Please note that Merits must include:

⇒ Curriculum vitae: the only format accepted is the Europass CV[6], a template is provided in the Application Package. The maximum length accepted is 3 pages (any additional pages will be discarded from the CV).
⇒ PdD degree: Title degree, Institution, Country, End date, and Final score (normalized to a scale of 0-10).
⇒ Academic records and certificates: Master's degrees or another degree which would formally entitle the candidate to embark on a doctorate.
⇒ Motivation letter: use the template provided.
⇒ Proof of English: official proof of upper-intermediate.
⇒ Recommendation Letters: at least 2 and ideally one from the PhD Supervisor (You can attach them in one single PDF).
⇒ Other: certificates and documents that credit your complementary training (courses, schools, conferences, other skills, etc.). Please upload them as a single file.

When the required information is completed the **"Submission"** button will appear and you can submit your application. However, application will be open to review and "Edit" until the deadline. Make your that once you edit you must "Submit" again to apply your changes.

Every time that you **"Save"** or **"Submit"** your application you will receive an acknowledgement email with the detailed information about you submission status.

If the system fails or you experience any problems during the submission process, please contact the Helpdesk Service alliescofund@csic.es.

Your data will be kept confidential and only used for evaluation purposes, as well as, to monitor the correct progress of the program (performance indicators).

[6] https://europa.eu/europass/en/create-europass-cv

Once you have registered and created your application you can always use this link to access your application:

Chairing Tool My Application
https://chairingtool.com/conferences/allies_third_call/main-track?role=author

3 Evaluation and Selection

3.1 Selection Process

The two cohorts selection process for ALLIES will be implemented in four main phases: Phase 1 (Eligibility Check) / Phase 2 (Evaluation of Merits) / Phase 3 (Interviews) / Phase 4 (Final scoring & ranking) with active involvement of one or more committees in each phase to support the Program Coordinator (CO) & the Program Management Team (PMT).

Phase 1 (Eligibility Check): Managed by the Program Management Team (PMT), this phase screens applicants based on mobility and experience criteria to ensure they meet the academic requirements for a postdoctoral fellowship.

Phase 2 (Evaluation of Merits): Candidates who pass the eligibility check are then assessed by the Scientific Evaluation Committee (SEC), which includes a coordinator representative, an organization representative chosen by the fellow, and three external experts. Evaluations are reviewed by the PMT, with extreme scores discarded and the remaining three averaged to form a Final Evaluation Score. The selected candidates progress to online interviews.

Phase 3 (Interviews): The selected candidates undergo a remote interview, divided into a presentation and Q&A session. An individual report is prepared for each interviewee.

Phase 4 (Final scoring & ranking): The PMT, expanded with two international experts, finalizes rankings using scores from the merit evaluation (60%) and interviews (40%). A Consensus Report is created for the final decision, and an Evaluation Summary Report (ESR) is sent to all participants, detailing outcomes and feedback.
Selected fellows must sign an acceptance letter within 15 days. If any decline, a reserve list is used. Accepted fellows are then contacted to begin contract negotiations with their hosting organization.

3.2 Evaluation Criteria

Different criteria/sub-criteria for the selection of researchers under ALLIES will apply for the 3 stages that constitute the evaluation & selection process (Eligibility + Evaluation of Merits + Interviews). These criteria are summarised in Table 1, along with the scoring, thresholds, and priority (in the case of ex-aequo).

After the eligibility check, evaluation of merits considers 4 major items: a) Educational aspects of the applicant; b) Working experience (including research); c) Other activities in the context of career progression & development of personal skills; d) Research proposal submitted under one of the areas/themes available. These criteria will ensure a fair, objective and consistent selection procedure in alignment with the principles & requirements of the Code of Conduct.

As a postdoctoral program for experienced researchers, bibliometric indices will be relevant but also other relevant aspects, skills & competencies (teaching, supervision, teamwork, knowledge transfer, management or scientific-technical implication in research projects, language skills, computer literacy and public awareness activities). Short-listed candidates going to the interview stage will be evaluated on criteria not so evident from the CV (creativity, level of independence, leadership skills, overall potential as researchers and self-identification of strengths & weaknesses).

The evaluation of merits will count 60 points towards the final score (30 points from the research proposal), with the remaining 40 points obtained from the interview (only 40 candidates will pass to the interview), providing the final score & ranking (over 100).

STEPS	CRITERIA	SCORING (over 100)	THRESHOLD	PRIORITY (in case of ex-aequo)
STEP 1 ELIGIBILITY CHECK	Application submitted before the deadline / All necessary documents included / Mobility + Experience rules fulfilled / Academic requirements for postdoctoral fellows	In order to pass to Step 2, applicants must fulfil all these criteria		
STEP 2 EVALUATION OF MERITS	Education: graduate and postgraduate education (Masters, PhD) (**0-10**). Research & working experience: participation in projects, publications, attendance to conferences and events, patents, research skills and competencies, support letters (**0-10**). Research proposal: description, innovative aspects, alignment with the program's thematic areas, work plan, and expected results (**0-30**).	60	30	2
	Others: mobility (research stays), supervision and mentoring, public awareness, English level, suitability of the profile to the program, nonacademic/industrial experience (**0-10**).			

STEP 3 INTERVIEWS SHORT LISTED	Research Skills: Scientific excellence, level of independence, motivation and potential as a future lead researcher, scientific quality of the presentation and answers during the Q&A session (**0-20**). Communication Skills: English skills & oral communication skills (**0-10**). Interpersonal Skills: Professional attitude, team player, reliability, motivation etc. (**0-10**)	40	25	1

Table 1 Evaluation criteria for ALLIES postdoctoral program.

3.3 Equal Opportunities

ALLIES will maintain the highest standards regarding equal opportunities through improving administrative policies of recruitment, equal pay, work-life balance and internationalization practices with awareness and focus on the gender dimension and intersectionality.

A Plan for Equal Opportunities has been designed to ensure a balanced participation of women, men and any other minority groups at all stages of the program (from recruitment to career development), alongside equal opportunities and no discrimination on the basis of sex, race, language, religion, sexual orientation, economic or family situation/status, special needs or disability.

3.4 Evaluators

ALLIES will carry out a selection process with the help of experts internal to the Consortium and external to it. A good balance between internal & external experts will conform the evaluation committees. The criteria indicated in the following table will be followed for the selection of internal & external experts:

ACADEMIC EXPERTS	GENDER-BALANCE	NON-ACADEMIC	INTERNATIONAL
≥30 indexed publications h-index ≥20	≥50% of the experts will be female	≥30% of the total number of experts	≥25% of the external members

Table 2 Criteria for the selection of ALLIEs Evaluators.

3.4.1 ALLIES Committees

There are four Committees involved in the ALLIES Selection Process.

Program Management Team: in charge of screening applications based on mobility and experience criteria to ensure they meet the academic requirements for a postdoctoral fellowship.

Scientific Evaluation Committee (SEC): in charge of evaluating the CVs and research proposals of the different candidates along with representatives of the recruiting organisations.

Interview Panel (IP): in charge of interviewing the candidates that passed to this Step.

Ethics Committee (EC): Taking into account the scope of the program and possible implications on ethical issues and scientific integrity, an Ethics Committee will be specifically designed for the program to control and monitor any ethical implications during the selection process.

4 Remuneration and employment conditions

Recruited fellows will be hired for 24 months with a full-time contract with total social security coverage.

4.1 Remuneration

Fellows' annual gross salary will be 41,213.44€, which encompasses living and mobility costs, disbursed in twelve monthly instalments of 3,434.42€ (gross) each. For fellows with families (spouse, dependent children), the total annual allowance increases to 42,122.82€, divided into twelve monthly payments of 3,510.24€ (gross).

The net salary, which fellows will take home, is calculated by subtracting the employee's taxes and social security contributions from the gross amount.

The contract type for this position is indefinite (pursuant to Article 23 bis of Law 14/2011, dated 1 June). The contract includes social security coverage for healthcare, occupational accident insurance, disability benefits, parental and sick leave, and unemployment benefits. Besides, upon the contract's conclusion, fellows will be entitled to a severance payment that corresponds to 20 days of salary for each year of service.

Expenses for the execution of the individual research projects under the ALLIEs program (consumables, hosting institutions services, access to CSIC infrastructure, etc.) and participation in ALLIES training activities (Secondment and ALLIES planned activities) will be covered by the hosting organisations.

4.2 Employment conditions

ALLIES promotes adequate work and employment conditions for the 17 recruited postdoctoral fellows, fulfilling the principles set in the Charter & Code.

CSIC holds the "HR Excellence in Research" award from the European Commission. This award is a recognition of the institution's commitment to the development of a Human Resources (HR) strategy for researchers designed following the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (C&C).

Statutory working practices for ALLIES fellows will be the same as for other staff from the host organisations (CSIC institutes) working in similar positions.
Fellows will be entitled to carry out 37,5 hours of work per week and have an annual period of paid leave as well as official holidays, sick leave and days off work for personal matters.

They will also have access to all the facilities & services at the host institutions and receive the support of the PMT and local administration to complete the necessary paperwork. Other working conditions will be aligned with the national legislation requirements; for example, sick leave or maternity/paternity leave.

5 Training and Career Development

The ALLIES Co-fund program aims to foster the postdoctoral researcher's career development and training aligned with the EU.

5.1 Training

Complementary to the excellent supervision of top CSIC senior researchers, ALLIES training program incorporates several novel features, including a summer school on AI ethics & regulation, training on research diversity, a retreat for personal development.

It also includes research-industry meetings to promote the discussion on AI industrial and academic challenges, work together in use cases development and support the development of careers in the non-academic sector for the recruited fellows. Fellows will also receive training on knowledge transfer & entrepreneurship, as well as being encouraged to participate and contribute to communication & outreach activities.

The international and intersectoral aspects of the program are boosted by the secondment visits planned in collaboration with several associated partner organisations, including private companies, start-ups & spin-offs, Universities, Research & technology organisations, Hospitals and European organisations of interest.

Research training offered by Hosting Organizations as part of their regular activities (Seminars, courses, etc): for example:

- Network-wide research training activities offered by ALLIES program, for example, secondments
- Training on non-research-oriented skills offered by Hosting Organizations

- Network-wide non-research-oriented training activities offered by ALLIES program

	Main Training Events & Conferences	Lead Institution	Action Month (*estimated*)
1	ALLIES-AIHUB Advanced Programming Tools monthly seminar	All	24-48
2	ALLIES-AIHUB intensive courses in AI	All	28, 33, 40
3	ALLIES-AIHUB Research-Industry meetings on AI	All	44
4	ALLIES "Dagstuhl" Seminar	All	25, 36
4	ALLIES Summer School on AI Ethics & regulation	All	42
5	ALLIES Workshop on Research Diversity	DIVu	34
6	ALLIES Retreat for Personal Development	IIIA-CSIC	38
7	Training events on EU funding, Open Science, Citizen Science, RRI, IPR and entrepreneurship	All	14-54
8	Secondments	All	30-60

Table 3. Relevant training on research-oriented skills offered by AIHUB and selected CSIC centres in ALLIES.

5.2 Career Development

Recruited fellows must write a Career Development Plan (CDP) with the support of the PhD supervisor. This CDP will include short and long-term goals of the research project (including expected results), new skills and competencies desired, and participation in any activities, as part of the fellow's training program (research, communication, networking, dissemination, supervision and mentoring, etc.). The CDP must be written and submitted within 1 month after the contract starts and updated periodically. A template will be provided in advance.

6 Application Package

You can find the Application Package on the ALLIES website (http://aihub.csic.es/allies-cofund). It contains the following documents:

1. Guide for Applicants
2. Europass CV Template
3. Research Proposal Model Template

4. Motivation Letter Template
5. Redress Template
6. Annex Information (List of Implementing Partners, List of Associated Partners)

7 Annex Information

7.1 Implementing Partners

Name	Acronymn	Location	Principal Investigators
INSTITUTO DE NANOCIENCIA Y MATERIALES DE ARAGÓN	INMA	ZARAGOZA	L. Martín
INSTITUTO DE ANÁLISIS ECONÓMICO	IAE	BARCELONA	H. Muller
CENTRO DE AUTOMÁTICA Y ROBÓTICA	CAR	MADRID	R. Haber, E. Rocon, Villagrá, A. Ribeiro, J.M. Moreno
INSTITUTO DE CIENCIA DE MATERIALES DE MADRID	ICMM	MADRID	S. Gallego, C. López y D. Garcia , E. Hdez
INSTITUTO DE FÍSICA CORPUSCULAR	IFIC	VALENCIA	L. Fiorini, J.Enrique
INSTITUTO DE CERÁMICA Y VIDRIO	ICV	MADRID	A. Quesada
CENTRO INTERNACIONAL DE NEUROCIENCIA CAJAL	CInc		G. Polavieja
INSTITUTO DE TECNOLOGÍAS FÍSICAS Y DE LA INFORMACIÓN	ITEFI	MADRID	J. Cruza, D. Arroyo
INSTITUTO DE MICROELECTRÓNICA DE SEVILLA	IMSE	SEVILLA	T. Serrano
INSTITUTO DE ROBÓTICA E INFORMÁTICA INDUSTRIAL	IRII	BARCELONA	G. Alenyà, C. Torras y A. Colomé, J. Andrade-Cetto
CENTRO NACIONAL DE BIOTECNOLOGÍA	CNB	BARCELONA	C.O. Solorzano
INSTITUTO CAJAL	ICajal	MADRID	L. M de la Prida
INSTITUTO DE CIENCIAS MATEMÁTICAS	ICMAT	MADRID	D. Rios
INSTITUTO DE INVESTIGACIÓN EN INTELIGENCIA ARTIFICIAL	IIIA	BARCELONA	J. Cerquides, J. A. Rodríguez-Aguilar, F. Manya
INSTITUTO DE CIENCIAS DEL ESPACIO	ICE	BARCELONA	A. Serenelli
INSTITUTO DE ASTROFÍSICA DE ANDALUCÍA	IAA	ANDALUCÍA	J. Pascual
INSTITUTO DE CIENCIAS DEL MAR	ICM	BARCELONA	A. Villaseñor

CIB MARGARITA SALAS	CIB Margarita Salas	MADRID	N. Campillo
INSTITUTO DE QUÍMICA-FÍSICA ROCASOLANO	IQFR	MADIRD	J. de la Figuera

Table 4. ALLIES Implementing partners details.

7.2 Associated Partners organisations

Associated Partners	Short Name	Country
Companies		
GRAI MATTER LABS B.V.	GML	BE
ARAGON PHOTONICS LABS S.L.	APL	ES
FAGOR AUTOMATION S.COOP	FAGOR AUTO	ES
Predicland S.L.	PREDICLAND	ES
LIGHTON	LIGHTON	FR
PUXANO	PUXANO	BE
THE BASEMENT LAB	THE BASEMENT	ES
THE SOCIAL COIN	CITIBEATS	ES
DIVERSIUNITY	DIVU	DK
UNISYS	UNISYS	ES
LIGHT ON	LIGHT ON	FR
CHRONOCAM	PROPHESEE	FR
TECHNAID S.L.	TECHNAID	ES
Start-ups & spin-offs		
ENCAPSULAE S.L.	ENCAPSULAE	ES
Research & technology organisations		
POLITECNICO DI MILANO	POLIMI	IT
LESIA OBSERVATOIRE DE PARIS	OBS PARIS	FR
TAMPEREEN KORKEAKOULUSAATIO SR	TAU	FI
AITENEA BIOTECH S.L.	AITENEA	ES
CENTRO DE INVESTIGACAO EM ASTRONOMIA E ASTROFISICA DA UNIVERSIDADE DOPORTO ASSOCIACAO	CAUP	PT
CONSIGLIO NAZIONALE DELLE RICERCHE	CNR	IT
KARLSRUHER INSTITUT FÜR TECHNOLOGIE	KIT	DE
PAL ROBOTICS S.L.	PAL	ES
PROPHESEE	CRONOCAM	FR
AALTO KORKEAKOULUSAATIO SR	AALTO	FI
FUNDACION TECNOLOGICA ADVANTX	FUNDITEC	ES

AERONAUTICAL ENERGY ENGINEERING SERVICES, S.L.	AEROENGY	ES
Universities		
UNIVERSITY OF LINCOLN	UOL	UK
UNIVERSIDAD DE ANTIOQUIA	UA	CO
UNIVERSITE CATHOLIQUE DE LOUVAIN	UCL	BE
UNIVERSITE PARIS DAUPHINE	DAUPPHINE	FR
AIX-MARSEILLE UNIVERSITY	AMU	FR
IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	ICL	UK
LINKOPING UNIVERSITY	STIMA, LiU	SWEDEN
Hospitals		
HOSPITAL LOS MADROÑOS	HLM	ES
European organisations		
ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE	CERN	CH

Table 5. Associated partners in ALLIES program.

7.3 Research Themes

ID	Research Theme	IP1	Centre	IP2	Centre	ODS 1	ODS 2
ALL1	Adversarial machine learning and cybersecurity	David Rios Insua	ICMAT, Madrid	David Arroyo	ITEFI, Madrid	11	16
ALL2	Artificial intelligence approaches for macromolecular analysis and pharmaceutical ligands design of	Carlos Oscar Sorzano Sánchez	CNB, Madrid	Nuria Campillo Martín	CIB Margarita Salas, Madrid	2	3
ALL3	Learning cognitive models for assistive wearable robots	Juan Moreno	Instituto Cajal, Madrid	Adrià Colomé	IRI, Barcelona	3	10
ALL4	Spike based vision platform for high-speed low power robotics	Teresa Serrano Gotarredona	IMSE, Sevilla	Juan Andrade Cetto	IRI, Barcelona	3	9
ALL5	Social Listening	Jesús Cerquides Bueno	IIIA, Barcelona	Hannes Mueller	IAE, Barcelona	16	/
ALL6	Edge computing hardware architectures for AI in scientific applications	Jorge Fernández Cruza	ITEFI, Madrid	Luca Fiorini	IFIC, Valencia	3	7
ALL7	Collective behavior in Bayesian agents	Gonzalo G. de Polavieja	CNIC, Madrid	David Rios	ICMAT, Madrid	3	9
ALL8	Autonomous mobility for urban environments	Jorge Villagrá	CAR, Madrid	Juan Andrade Cetto	IRI, Barcelona	9	11
ALL9	Photonic and optomechanic platform for ultrafast efficient neuromorphic computing	Cefe López	ICMM, Madrid	Luis Martín Moreno	INMA, Zaragoza	9	12
ALL10	Neuromorphic computing for monitoring and control in sustainable and smart production systems	Rodolfo Haber	CAR, Madrid	Teresa Serrano	IMSE, Sevilla	8	9

ALL11	Big Data analysis techniques applied to simulated data for the preparation of the space mission PLATO	Javier Pascual Granado	IAA, Granada	Aldo Serenelli	ICE, Barcelona	7	17
ALL12	Graph-based Artificial Intelligence Methods for new drugs and materials design	Eduardo Hernandez	ICMM, Madrid	Nuria E. Campillo	CIB Margarita Salas	3	6
ALL13	Using AI for Earth and Ocean Observation Using Telecommunication Fiber Optic Cables	Antonio Villaseñor	ICM, Barcelona	José Enrique García	IFIC, Valencia	9	14
ALL14	Data-driven identification of nonlinear cognitive models	Liset M de la Prida	Instituto Cajal, Madrid	Eduardo Rocon	CAR, Madrid	3	10
ALL15	Unraveling Mössbauer spectra of Fe-based nanostructures	Silvia Gallego Queipo	ICMM, Madrid	Juan de la Figuera Bayón	IQFR, Madrid	3	7
ALL16	Integration of SAT Solving and Machine Learning	Felip Manyà	IIIA, Barcelona	Guillem Alenyà	IRI, Barcelona	2	12
ALL17	Ethical and safe learning for deploying multi-robot systems in complex real-world environments	Juan Antonio Rodríguez Aguilar	IIIA, Barcelona	Ángela Ribeiro	CAR, Madrid	2	15

Table 6. ALLIES Research Themes.

Sustainable Development Goals Description

1 No poverty
2 Zero Hunger
3 Good Health and Well-Being
4 Quality Education
5 Gender Equality
6 Clean Water and Sanitation
7 Affordable and Clean Energy
8 Decent work and Economic Growth
9 Industry, Innovation and Infrastructure
10 Reduced Inequalities
11 Sustainable Cities and Communities
12 Responsible Consumption and Production
13 Climate Action
14 Life Below Water
15 Life on Land
16 Peace, Justice and Strong Institutions
17 Partnerships for the goal

MSCA COFUND

ALLIES

Artificial inteLLigence In dEvelopment goalS

AI FOR SDGS

Co-funded by the European Union

CSIC
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