

FUNDACIÓ INSTITUT D'ESTUDIS ESPACIALS DE CATALUNYA (IEEC)

Training Plan of the IEEC

Competences by R level · Needs assessment · Courses · Evaluation and certification

Document prepared within the framework of the Human Resources Strategy for Researchers (HRA)

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1. Introduction

This Training Plan is part of the Human Resources Strategy for Researchers (HRA). Its purpose is to develop the competences of IEEC staff throughout their careers, in line with the Career Plan and the Career Evaluation Process.

1.1. Reference to the Career Plan and the Professional Classification document

The Training Plan is based on the document «Classificació professional del personal de la Fundació Institut d'Estudis Espacials de Catalunya» (approved by the Board of Trustees in March 2022 and updated in 2025) and the Career Plan.

Training is structured using the European researcher career framework (R1–R4) as a common reference framework for scientific staff and to establish functional equivalences for engineering staff.

2. Purpose and scope

- Identify the key competences for each career stage (R level) and their equivalences for IEEC research staff with engineering and scientific profiles.
- Identify training needs through surveys or consultations with the heads of each office.
- Offer specific courses delivered by internal and/or external staff.
- Establish final evaluation and certification of training.

The Training Plan is primarily aimed at scientific and engineering staff included in the Career Plan, without prejudice to certain training activities, especially transversal ones, being extended to the rest of IEEC staff.

3. Identification of competences by R level

Each career stage requires a progressively broader set of competences. The following table summarises the key competences by profile

R profile	Key competences to develop
R1	Methodological foundations; technical tools; research integrity; data management (FAIR); basic communication; languages.
R2	Methodological autonomy; scientific and technical writing; proposal preparation; open science; initial supervision.
R3	Project leadership; fundraising (PI); team management; supervision and mentoring; knowledge transfer.
R4	Strategic leadership; programme management; large-scale competitive fundraising; institutional representation; science policy.

4. Training areas

The Plan organises the training offer into the following areas:

- Scientific and technical: methodology, instrumentation, software and specific tools.
- Project management and fundraising: R&D management, competitive proposals, budgets.
- Ethics, integrity and open science: integrity, FAIR data, open science, responsible research and innovation (RRI).
- Communication and outreach: scientific writing, outreach, presentations.
- Languages: scientific and technical English, Catalan, Spanish and other languages.
- Leadership, supervision and mentoring: team management, staff supervision, mentoring.
- Mandatory transversal training: equality and gender perspective, occupational risk prevention, data protection (GDPR).

5. Course catalogue

Initial content proposal based on the first surveys carried out. This catalogue will be updated according to identified interests. Durations are indicative.

Course	Area	R level	Format	Estimated duration
Research integrity and research ethics	Ethics	R1–R4	Online	8 h
Data management (FAIR) and open science	Ethics / data	R1–R2	Online	6 h
Scientific and technical writing	Communication	R1–R2	Workshop	12 h
Proposal preparation (Horizon Europe, MSCA)	Fundraising	R2–R3	Workshop	16 h
R&D project management	Management	R2–R3	Blended	20 h
Leadership and team management	Leadership	R3–R4	In person	16 h
Supervision and mentoring	Supervision	R2–R3	Workshop	8 h
Science communication and outreach	Communication	R1–R4	Online	8 h
Scientific and technical English	Languages	R1–R4	Ongoing	Variable
Knowledge transfer and IP	Knowledge transfer	R3–R4	Online	6 h
Occupational risk prevention	Transversal	All	Online	4 h
Equality and gender perspective	Transversal	All	Online	4 h
Data protection (GDPR)	Transversal	All	Online	3 h
Speaking to persuade: Motivating audiences with solid arguments and moving language	Public speaking	R1–R4	Online	10h
Speaking to inform: Discussing complex ideas with clear explanations and dynamic slides	Public speaking	R1–R4	Online	10h
Initiating and Planning Projects	Product Management	R3–R4	Online	12h
Budgeting and Scheduling Projects	Product Management	R3–R4	Online	12h

Course	Area	R level	Format	Estimated duration
Managing Project Risks and Changes	Product Management	R3-R4	Online	10h
Engineering Project Management: Risk, Quality, Teams, and Procurement	Product Management	R3-R4	Online	20h
Strategic Innovation: Building and Sustaining Innovative Organizations	Innovation	R1-R4	Online	20h
Innovation & Entrepreneurship - From Design Thinking to Funding	Innovation	R1-R4	Online	20h
Managing an Agile Team	Agile	R3-R4	Online	25h
Agile Meets Design Thinking	Agile	R3-R4	Online	25h

5.1 Identification of training providers

Implementation of the Plan combines internal and external providers, selected according to the nature of each course, its level of specialisation and the best cost-opportunity balance for the IEEC. As a general rule, providers are identified according to the following order of priority:

For all content areas, the training offer of the Government of Catalonia through the Directorate for Research, CERCA centres, etc. will be considered.

For compliance, ethics, integrity, data protection, equality and other transversal and regulatory matters, priority will be given, where possible, to training offered or funded by the European Commission and other reference bodies (for example, resources from the European Charter for Researchers, Horizon Europe / Marie Skłodowska-Curie actions and platforms, or Commission materials on research integrity and open science). Using these resources supports alignment with European standards, regulatory updates and, in many cases, free or funded training, thereby reinforcing the consistency of the Plan with the HRA framework.

When the required training is not available through these institutions or requires specific expertise, it will be procured from the market. In such cases, accredited providers with proven experience will be sought, applying the principles of transparency, competition and efficient expenditure governing IEEC procurement as a public-sector entity, and considering the quality of the content, the qualifications of the trainers and the certification issued.

Regardless of the route chosen, all courses must ensure assessment of learning outcomes and the issue of a certificate, so that the training is duly recorded in each person's training record.

The IEEC also takes into account training needs identified at the initiative of staff themselves. In certain cases, staff proactively identify training needs directly related to their duties. Requests are channelled through their immediate supervisor or through the Working Group when the training is of more general interest.

These requests are assessed by Management according to their relevance to the position, their contribution to professional development and the organisation's needs. Where appropriate, Management authorises the training and facilitates its completion as far as possible, thereby promoting a culture of continuous learning and improvement of staff professional competences.

5.2 Budget and validation of requests

The IEEC will define an annual training budget, which will constitute the spending limit available for implementation of the Plan.

Every training request must first be validated by the applicant's immediate supervisor (Area Director / Office Head / PI), who will verify its relevance and alignment with the duties of the position and the objectives of the area or office. The request is then submitted to Management, which will authorise the training if it is assessed positively.

Approval of each training activity will in all cases be subject to budget availability; where requests exceed the allocated budget, priority will be determined according to identified needs, the mandatory or regulatory nature of the training (e.g. occupational risk prevention, data protection, equality) and its contribution to career development.

6. Needs assessment

Training needs will be identified periodically through staff surveys, consultations with managers or proposals channelled through the Working Group. The results will form the basis for the annual update of training priorities. Training requests will be prioritised according to need, budget availability and the mandatory or regulatory nature of the training.

7. Annual planning

Based on the priorities identified, an annual calendar will be prepared setting out the training activities planned.

8. Final evaluation and certification

- Attendance: a minimum attendance rate of 80% is required for certification.
- Learning outcomes: depending on the course, assessment through a test, exercise or applied project.
- Certification: the IEEC or the training provider issues a certificate indicating the course, hours and competences developed.
- Record: training is recorded in the individual's training record
- Plan evaluation: satisfaction survey after each course and annual review of the Plan's effectiveness.

9. Indicators and monitoring

Recommended indicators: number of people trained, training hours per person, coverage by R level, certification rate, average satisfaction and gender equity in access to training.

These indicators will be reviewed annually to adjust the training proposal if necessary.