



From Erasmus+ Mundus Joint Master Degrees (EMJMDs) to European Joint Doctorates (EJDs): a natural path

Designing training programs under H2020 to attract excellent students and keep them as early-stage researchers in the UE

- Context of the practical case: from a Multiple Master Degree to a EJD
- 2. The missing link...
- 3. MSCA-EJD basics
- 4. EMJMDs pave the way for EJDs
- Thinking on EJDs when designing EMJMDs





Context of the practical case

- Multiple Master Degree (2014-15 to 2017-18)
- Erasmus+ Mundus Joint Master Degree (2018-19 to 2020-21)
- European Joint Doctorate (preparing for the 2019 call)
- Multiple Master Degree (2014-15 to 2017-18)
 - Domain: highly-dynamic and *research-intensive* Image Processing & Computer Vision (IPCV)
 - Structure: 120 ECTS Training Programme, 3 (not 2) European Universities, constrained by national existing degrees.
 - Mobility scheme: a joint group of students moving the 3 first semesters from one university to the other. Master thesis in the 4th.
 - Local talent attraction: appealing experience, affordable tuition fees (national fees) via exchange students. Opened to self-paid students.





Context of the practical case

- Erasmus+ Mundus Joint Master Degree (2018-19 to 2020-21):
 - High quality training program not constrained by national degrees which, combined with national and EACEA* funding, allows to include ad-hoc training courses (scholars, tutored R&D project, entrepreneurship, writing skills, etc.).
 - Huge attraction of global talent mainly boosted by the EMJMD scholarships: 320 top-quality applications for the first cohort. The challenge of attracting self-paid students.
 - Research-driven vs PhD orientation: many applicants declare interest and most graduates are convinced to pursue a PhD. They all have appropriate training to compete for a doctoral fellowship.
 - Great enhancement of the research cohesion among partners if carefully designed for that purpose.

European Joint Doctorate: a natural academic path...

*EACEA: Education, Audiovisual and Culture Executive Agency





The missing link...

- 2007-2013: Erasmus Mundus Action 1: Master Courses (Action 1A EMMC) and Joint Doctorates (Action 1B - EMJDs): jointly offered and managed by the EACEA.
- 2014-2020: Erasmus+ Mundus Joint Master Degrees still supported by the EACEA under KA1.
- 2014-2020: Research training for early-stage researchers now supported by the Marie Skłodowska-Curie action (MSCA) on Innovative Training Networks (ITNs):
 - European Training Networks (ETNs), European Industrial Doctorates (EIDs) and *European Joint Doctorates* (EJDs).
 - Keywords: Inter-disciplinary, inter-sectorial, academic and nonacademic, innovation, entrepreneurship, excellence, transferable skills, wider career opportunities.

Doctoral education is better supported in the MSCA but the link with the EMJMDs, managed by the EACEA, is now diffuse





MSCA-EJD basics

- Innovative joint doctoral program, including a *research programme* (structured into workpackages) and a training programme, and involving *non-academic partners*.
- Generous fellowships (~4000€/month gross) for up to 15 PhD projects, all co-supervised during 3 years, which should end with the delivery of a joint, double or multiple doctoral degrees by at least two institutions.
- Participants: a minimum of 3 degree delivering universities, and a recommendation of 4 to 8. The more involvement, the more commitment and manageable.
- The importance of jointness: a joint governance structure with joint admission, selection, supervision, monitoring and assessment procedures.
- The proposal should lead to *lasting doctoral-level cooperation* between the beneficiaries.
- A considerable budget to set-up and manage the training and research programmes: self-paid students are not an option nor realistic in EJDs.





EMJMDs pave the way for **EJDs**

- Several aspects are common in EMJMD and EJD evaluation. If the domain and the partners are shared, you can take advantage of much of the effort when writing the proposal.
- Jointness is critical bot in EMJMDs and EJDs evaluation . If you are running an EMJMD, jointness in the EJD proposal will be easy to implement and will be convincing.
- The quality of the project team, the cooperation arrangements, and the interaction between partners are also an important part in the evaluation of both instruments. Partners involved in an EMJMD have paved the way in this aspect.
- Recruitment in EJDs is a nightmare. Research-intensive EMJMDs can be designed to yield highly productive research talent which is best suited for FJDs in the same domain.

Keep highly productive talent into the EU, making the **EMJMDs** cost-effective





Thinking on EJDs when designing EMJMDs

- If possible, select a research-intensive domain, preferably with a high degree of transfer to the industry.
- Partners profile: select them according to their research expertise in the target domain. Research units in every university should coordinate or at least be highly involved in the proposal.
- Number of partners: 5-6 partners has organizational advantages for an EJD. If you go for the minimum in the EMJMD (3 partners), you have flexibility to include complementary partners later.
- Design specific EMJMD activities to promote research collaborations among partners: joint tutored R&D projects, joint master thesis, invited speakers, etc. Try to start supervision of doctoral fellows under cotutelle agreements.
- Design both the curriculum and specific EMJMD activities to enhance students research skills: highly applied courses, R&D projects, specific courses on transversal skills, etc.



Thank you!

Jesús Bescós

Escuela Politécnica Superior j.Bescos@uam.es









