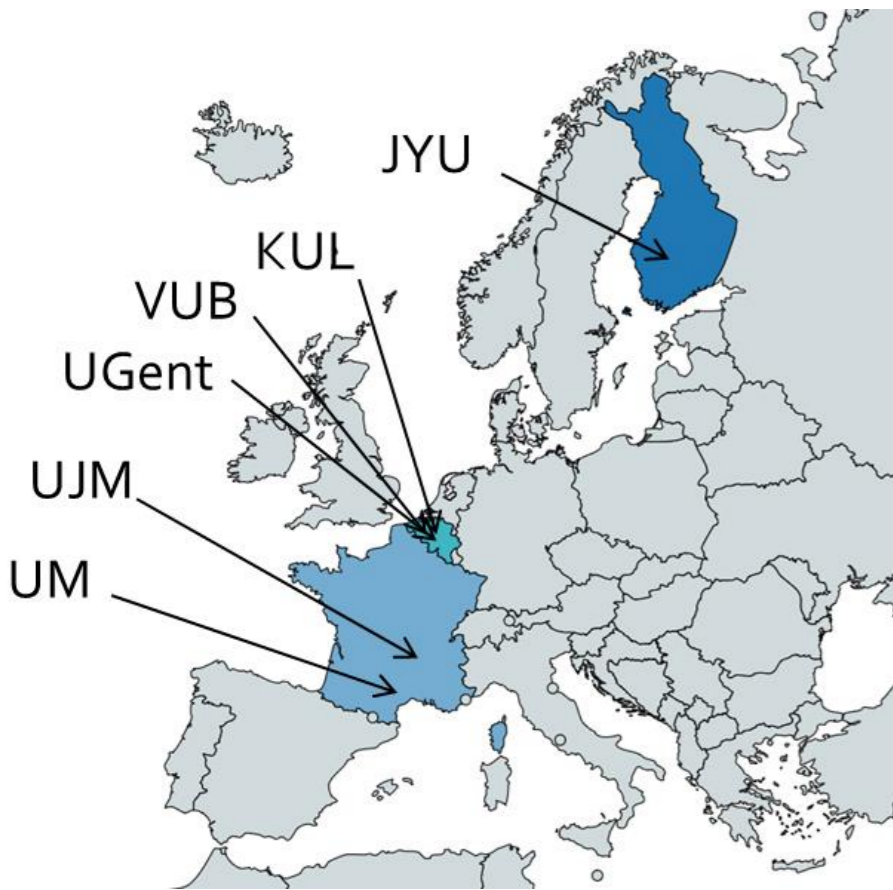


RADMEP+ Full Partners

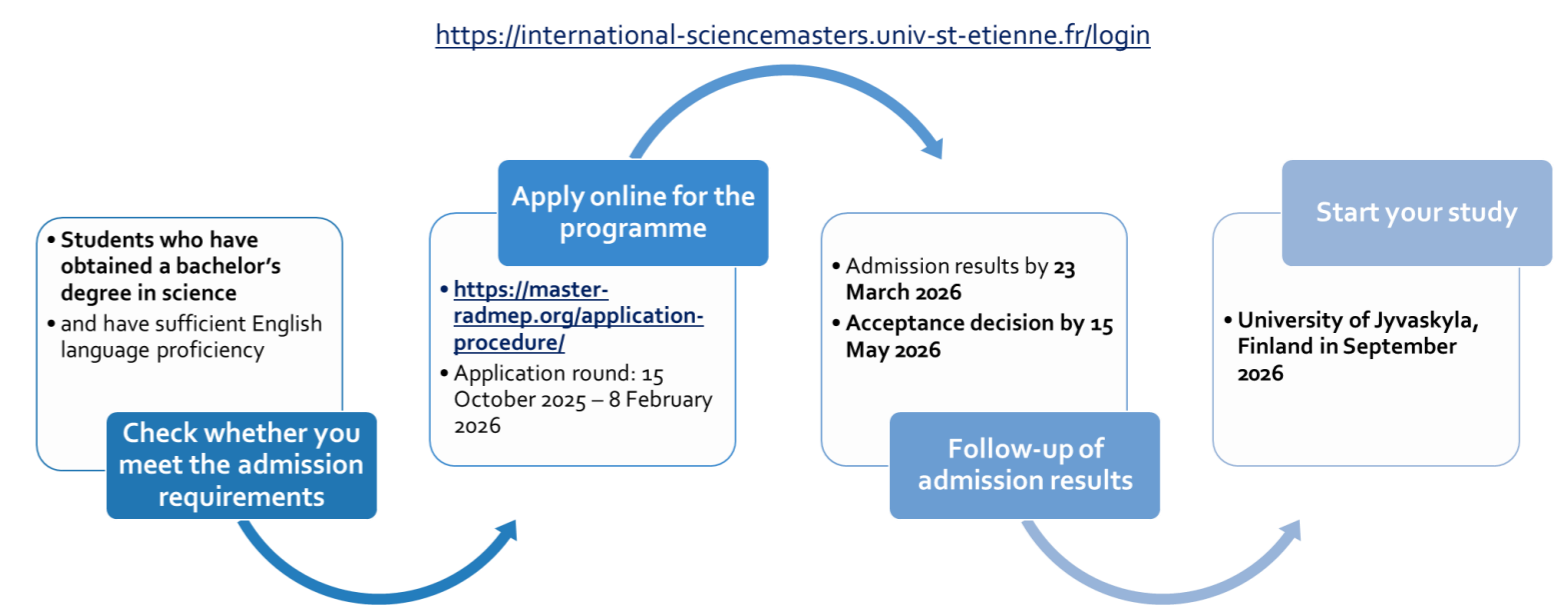


EMJM RADMEP+ project (ID 10128766) has been accepted by the EACEA through the Erasmus+ programme, will start in Sept. 2025 and will end in Aug. 2031. The EC contribution is 4.632.000 €. It is the following up of the successful EMJMD RADMEP (2020-2026). RADMEP+ will deliver 70 EMJM grants to worldwide students.



Application Procedure & Results

To apply to RADMEP+ and EMJM scholarships, students should check their eligibility. Candidates apply online via a common platform with a joint electronic application and procedure. The applicant selection will be organized according to the given scheme:



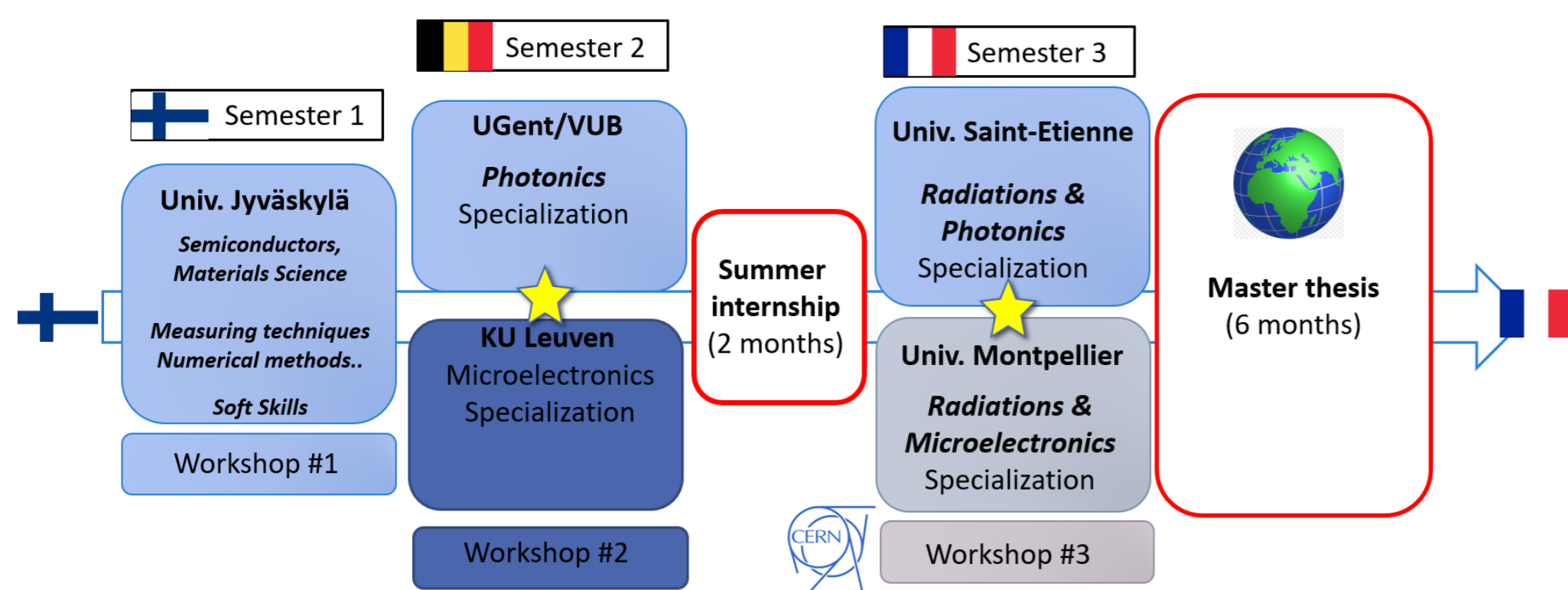
EMJMD RADMEP:
 750+ applications (5 intakes)
 From 60+ different countries for 60 delivered EMJMD grants



Why RADMEP+?

- ✓ European Commission has singled out Microelectronics and Photonics as one of six **Key Enabling Technologies (KETs)** for Europe.
- ✓ **Microelectronics** are the lifeblood of 40% of all innovations. Components and integrated systems are found in virtually all electronic products from computers and telephones to cars and buildings.
- ✓ **Photonics** also has a substantial leverage effect on the European economy and workforce: 20-30% of the economy and 10% of the workforce depend on photonics, directly impacting around 30 million jobs.
- ✓ Reliability" of those KETs is essential for safe operation and optimized efficiency within all application areas where radiation effects on electronics and photonics are and have to be considered: **space, aviation, ground, accelerators, medicine and nuclear industry.**

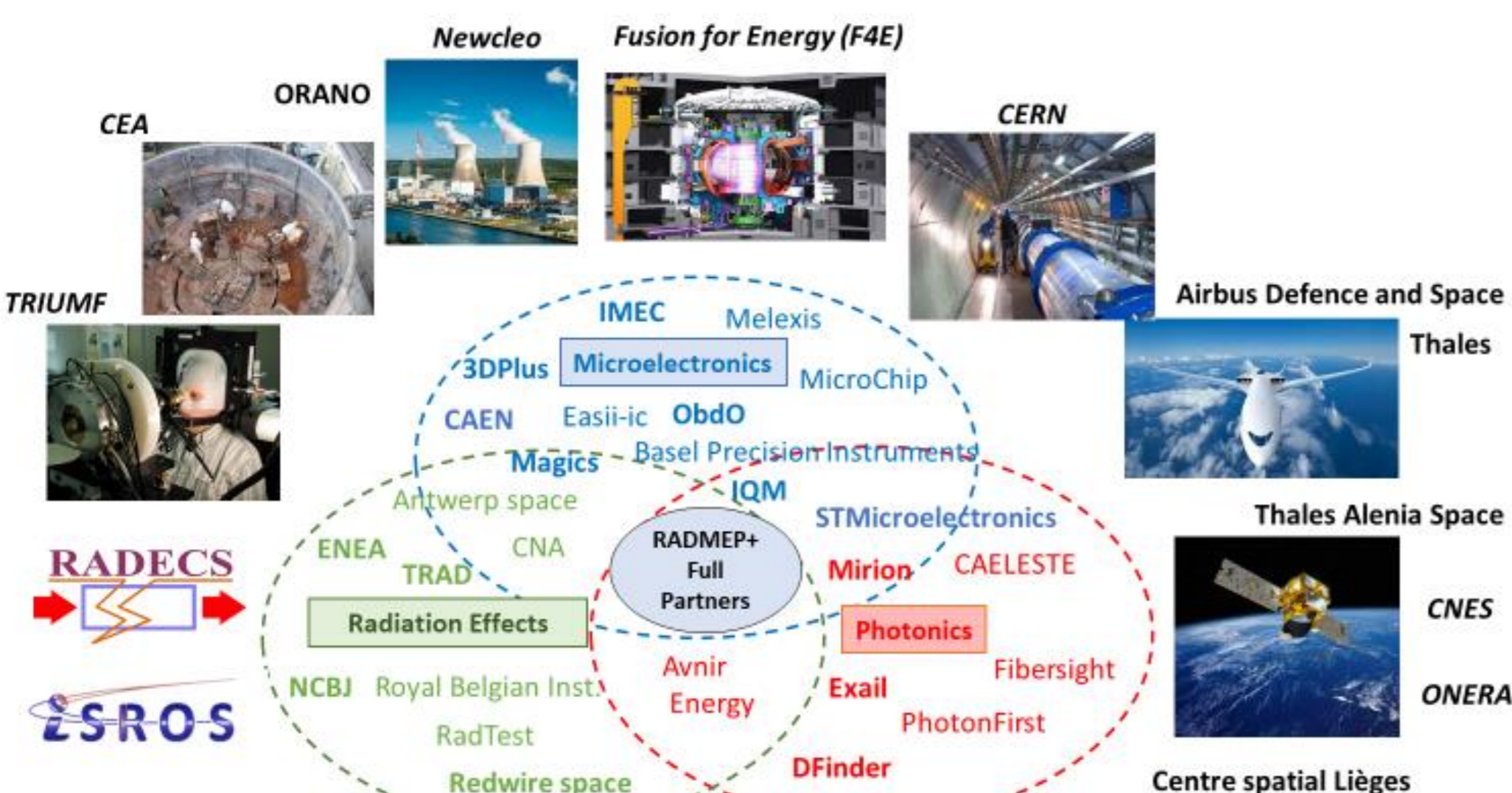
RADMEP+ Mobility Scheme



The RADMEP mobility scheme is designed to guarantee academic excellence:

- From S1 to S3, skills and competences of students in the main RADMEP disciplines are developed gradually regarding microelectronics, photonics and radiation effects.
- Creation of a new semester on Photonics (S2) at VUB and UGent.

RADMEP+ Industrial Partners



RADMEP+ Curriculum

RADMEP+ Master Course is a unique **2-year full-time program of 120 ECTS**, built through an international collaboration delivering an advanced, application-led curriculum in close collaboration with agencies and industrial partners.

Semester 1 - JYU (Finland, full cohort)		ECTS
Major Units (22)	Applied Semiconductor Physics	5
	Electron, Photon and Ion Methods in Materials Science	5
	Measuring Techniques and Systems	5
	Microfabrication	4
RADMEP+ Workshop - Basics of Radiation Environments & Challenges related to radiation effects		3
Elective Units (8)	Electronics part A	4
	Electronics part B	4
	Numerical Methods in Physics	4
	Efficient Numerical Programming	4
	Fundamentals of Nuclear Physics	5
	Applied Nuclear Physics	4
Extra-credits	Creating Careers(1), Systematic Information seeking (1)	
Radiation & Microelectronics track		ECTS
Semester 2 - KUL (Belgium)		
Major Units (22)	Analog Chip design	3
	Embedded Systems	5
	Digital Chip Design	4
	Analog and Mixed-Signal Chip Design	6
RADMEP+ Winter School of Photonics		4
Elective Units (8)	Machine Learning	4
	Advanced Digital Signal Processing	5
	Radiation to electronics project	4
	RF and PLL Design	4
	Image Sensor and Processing	4
AI and tensors	5	
Extra-credits	Short Internship (5), Survival Dutch (3)	
Radiation & Microelectronics track		ECTS
Semester 3 - UM (France)		
Major Units (20)	Radiation and Reliability of Electronics for Transport, Aerospace and Nuclear	3
	Test and reliability of Integrated Circuits and Systems	5
	Industrial tools and Methodologies for devices qualification for space mission	3
	Radiation Effects on electronic systems & complex devices	3
	Collaborative Project	3
	RADMEP+ Workshop at CERN - Simulation tools for Radiation-Matter Interaction	3
Elective Units (10)	Digital Innovation and Entrepreneurship	5
	Acoustic sensors with associated systems	4
	Optical and thermal sensors with associated systems	5
	System on Chip and Embedded systems	5
Embedded Electronics and wireless communications	6	
Extra-credits	French language and culture (2.5)	####
Radiation & Photonics track		ECTS
Semester 2 - VUB/UGent (Belgium)		
Major Units (18)	RADMEP+ Winter School of Photonics	4
	Laboratories in Photonics Research	6
	Photonic Integrated Circuits	4
	Physics of Semiconductor Technologies and Devices	4
Elective Units (12)	Sensors, Actuators and Electronic Microsystems	6
	Optical Communication Systems	6
	Short Internship in Photonics	5
	Optical Sensors	4
	Machine Learning in Photonics	4
Business Aspects of Micro-electronics & Photonics	3	
Sustainable Energy and Rational Use of Energy	4	
Engineering Physics and Industry	6	
Extra-credits	Dutch language	
Radiation & Photonics track		ECTS
Semester 3 - UJM (France)		
Major Units (22)	Radiation environments & radiation-matter interactions	3
	Photonics Labs	2
	Collaborative Project	3
	Photonics for space and high energy physics	4
	Photonics for nuclear & dismantling industries	4
	Photonics for dosimetry, beam instrumentation and radiation detection	3
RADMEP+ Workshop at CERN - Simulation tools for Radiation-Matter Interaction		3
Elective Units (8)	Digital Innovation and Entrepreneurship	5
	Scientific Methodology and Project Management	3
	Optical Engineering	3
Radiation to photonics project	3	
Analytical Instrumentation for Detection	3	
Extra-credits	French language and culture (5)	
Semester 4 - Worldwide		ECTS
Major	Master thesis	30

RADMEP+ Academic Partners

- ✓ Arizona State University (USA)
- ✓ Vanderbilt University (USA)
- ✓ Indiana University (USA)
- ✓ University of Michigan (USA)
- ✓ The University of Texas at Dallas (USA)
- ✓ Université de Liège (Belgium)
- ✓ Université d'Ottawa (Canada)
- ✓ Universidad EAFIT (Columbia)
- ✓ Ganil (France)
- ✓ University of Piraeus (Greece)
- ✓ Universitas Negeri Yogyakarta (Indonesia)
- ✓ Universidad Carlos III de Madrid (Spain)
- ✓ Politecnico di Bari (Italy)
- ✓ Università degli Studi di Padova (Italy)
- ✓ Università degli Studi di Napoli (Italy)
- ✓ Università degli Studi della Campania (Italy)
- ✓ Università di Pavia (Italy)
- ✓ Università degli Studi di Palermo (Italy)
- ✓ Politecnico di Torino (Italy)
- ✓ Universität Basel (Switzerland)

