What is an Erasmus Mundus Joint Master programme?

Implemented in 2004 by the European Union, the **Erasmus Mundus Join Master programme** is based on cooperation and mobility in the field of higher education. Its objective is to improve the quality and visibility of European higher education at a global level and, through exchanges, to facilitate a better knowledge and understanding between European and non-European countries.

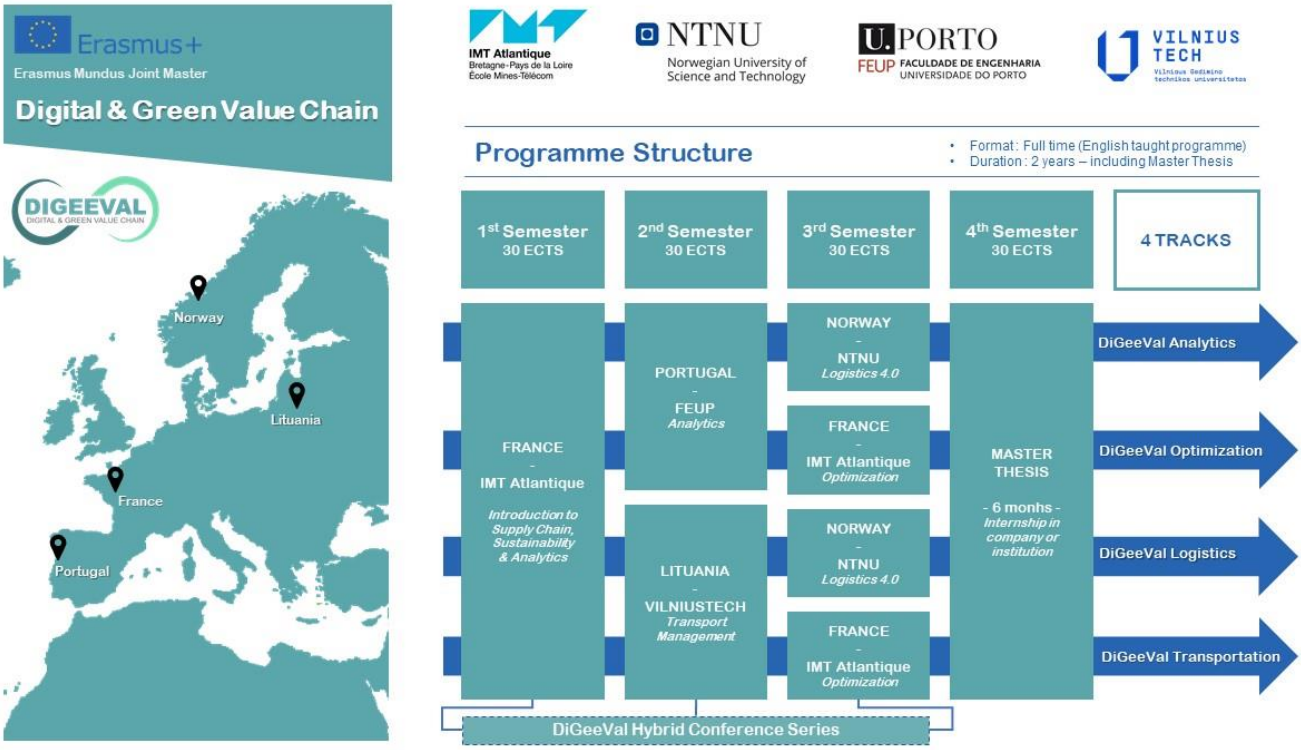

Figure 1: Integrated DiGeeVal Curriculum

What is the DiGeeVal programme? *(expected start date September 2025)*

The DiGeeVal – European Master Degree in Digital & Green Value Chain is an **innovative programme** which combines:

- Global knowledge and skills in **supply chain engineering and management**, with a particular focus on **sustainability**.
- Practical experience on digitalization, information systems and data management for a better communication, data sharing and data reliability.
- Strong knowledge and skills in data analytics and optimization algorithms for a better planning of the supply chain, making it more efficient and more resilient.
- Complementary skills of 4 European renowned partner universities.
- Partnership between academia and industry at an international level.
- Top-quality education of students from Europe and around the world.

DiGeeVal is a **multiple-degree** programme that allows students to study in at least 2 European countries which offering **opportunities** in terms of **mobilities**, **options**, **degrees** and finally **job profiles**.

The Consortium of the DiGeeVal EMJM is composed of three institutions acting as core partners and is coordinated by IMT Atlantique (acting for Institut Mines Telecom):

- P1: **IMT Atlantique** acting for Institut Mines-Telecom (**IMT**), France. The legal representative is IMT but the programme DiGeeVal is operated by IMT Atlantique
- P2: **University of Porto – Faculty of Engineering** (FEUP), Portugal
- P3: **Norwegian University of Science and Technology** (NTNU), Norway
- P4: **Vilnius Gediminas Technical University** (Vilnius Tech), Lituania

The DiGeeVal Masters programme lasts **2 years (120 ECTS)**. It is composed of an academic period (entirely taught in English) which lasts 3 semesters (accounting each for 30 ECTS) and of an industrial or research project period (master thesis, 30 ECTS) which covers the 4th semester. The degrees delivered under the DiGeeVal frame are all **Master of Science degrees referred to existing international MSc programmes** in each institution and **nationally accredited**.

The integrated curriculum and proposed options are presented in Figure 3. The programme enhances the students' mobility and offers a genuine European learning experience. For the graduation, each validated semester is transferred to the partner HEIs (Higher Education Institutions) which will deliver the degree.

DiGeeVal aims at integrating Sustainability, and in particular environmental aspects in the design, planning and operation of industrial value chains. We integrate sustainability skills that have been developed in collaboration with a project manager of the Shift Project for DiGeeVal (Figure 2).

Figure 2: DiGeeVal Sustainability Skills

DiGeeVal will train students on a set of complementary skills related to value chain management, digitalization, performance and sustainability (Figure 3). Our objective is to design highly original engineers profiles on ***Digital and green supply-chain management; 4.0 and smart technologies for a digital and green supply chain; and Optimization and analytics for a digital and green supply chain.*** We seek to use digitalization and optimization as a key enabler to develop greener value chains.

Skills (Main pillars & originality of the master)						
Value Chain Fundamentals		Digitalization			Performance & Sustainability	
Engineering	Social Science & Economics	Computer Science & Information Systems	Data Science & Analytics	4.0 skills	Sustainability	Optimization
Operations management	Product Life Management	Computer programming	Probability	Assistive technologies	Environmental Awareness	Operations Research
Warehouse management	Procurement	Database	Statistics	Mobile robots		Algorithmics
Inventory control	Strategy	Python programming	Data analysis	Augmented reality	Analysis & Compliance	Mathematical programming
Production planning	Project management	ERP & IS	Machine learning	Virtual reality		Heuristics and metaheuristics
Scheduling	Transportation economics	Clouds and blockchains	R programming	Simulation and digital twin	Sustainable Approaches	Stochastic optimization
Vehicle routing		e-business	Forecasting			
Network design						

Figure 3 : DiGeeVal skills

DiGeeVal seeks partners from industry or academia to support the cursus by:

- submitting **internships or projects** to the DiGeeVal students;
- providing **expertize** on the digital and green value chain and participating to the programme in **teaching** sessions, **seminars** or **visits** of your institution in which key practices will be illustrated;
- **funding invitation of international experts** in the DiGeeVal Hybrid Conferences or **student grants** to help us training more students in the Master.

All DiGeeVal partners will be duly acknowledge on the Master website and given a special exposure when transferring job or internship opportunities to the students.

If you are interested in participating to the program, please address a letter of interest to:

- Fabien Lehuédé – Professor in Operations Research – fabien.lehuede@imt-atlantique.fr
- Francois Keo – International officer - francois.keo@imt-atlantique.fr