



SUMA

Master in Sustainable Materials

Awarded the EIT Label in 2016



This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation

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Diploma	<p>Dual Master of Science degree awarded from two of the following universities:</p> <ul style="list-style-type: none"> – KU Leuven – Montanuniversität Leoben – University of Trento – Grenoble INP – University of Milano-Bicocca <p>EIT Label Certificate</p>
Credits	120 ECTS, 24 months
Language of Instruction	English
Starts in	September
Requirements	<p>Generally, all students should have: Bachelor of Science or Bachelor of Engineering (or equivalent), as well as proof of English language proficiency.</p> <p>Candidates must meet the admission criteria of the Master's Degree Programmes of both partner institutions of their chosen track. Please refer to the individual entry university websites for information on admission requirements.</p>
Tuition fees	<p>Fees vary based on programme track and country of origin.</p> <p>Total fees for EEA students range from €77 to €5,500. Total fees for non-EEA students range from €600 to €12,000.</p> <p>Visit www.master-suma.eu/study/#paths for details</p>
Application Period	<p>Application for the SUMA programme is a multi-step process. Applicants should register on the SUMA website: www.master-suma.eu</p> <p>For information on the registration/application deadlines for the entry universities, please check the following:</p> <p>KU Leuven www.kuleuven.be/english/application/instructions</p> <p>Montanuniversität Leoben https://starter.unileoben.ac.at/en/3274/</p> <p>University of Trento https://international.unitn.it/incoming/admission</p> <p>University of Milano-Bicocca (UNIMIB) www.unimib.it/unimib-international/bachelor-and-masters/how-enroll</p>
Scholarships	<p>For students beginning in September 2020, EIT Label scholarships from EIT RawMaterials of €13,500 per eligible student are available. For information on how EIT Label scholarships will be awarded and who is eligible, please contact the coordinating university directly: master-suma@kuleuven.be</p>

Participating Universities

KU Leuven
Belgium

Montanuniversität Leoben
Austria

University of Trento
Italy

Grenoble INP
France

University of Milano-Bicocca
Italy

Sustainable Material Solutions with SUMA

The SUMA Master programme aims to train tomorrow's resource engineers in collaborative work in a global world, gathering together some of the best educational programmes in the field of sustainable materials engineering in Europe. The goal is to ensure young scientists obtain a solid background in chemistry and physics, with competences for designing and tailoring new material systems for specific functions, and with a specific view to the sustainability of processes and technologies in the field of material development. SUMA puts a particular strong focus on innovation, entrepreneurship and leadership and takes a holistic approach to the materials paradigm by exploring circular (eco) design, materials substitution, life cycle engineering and circular economy design, materials processing and recycling, manufacturing and innovation.

Programme Structure

The Sustainable Materials (SUMA) Master programmes are two-year programmes embedded in the engineering programmes of the participating universities:

KU Leuven

Master of Materials Engineering

Montanuniversität Leoben

Master in Sustainable Materials

University of Trento

Master in Materials and Production Engineering

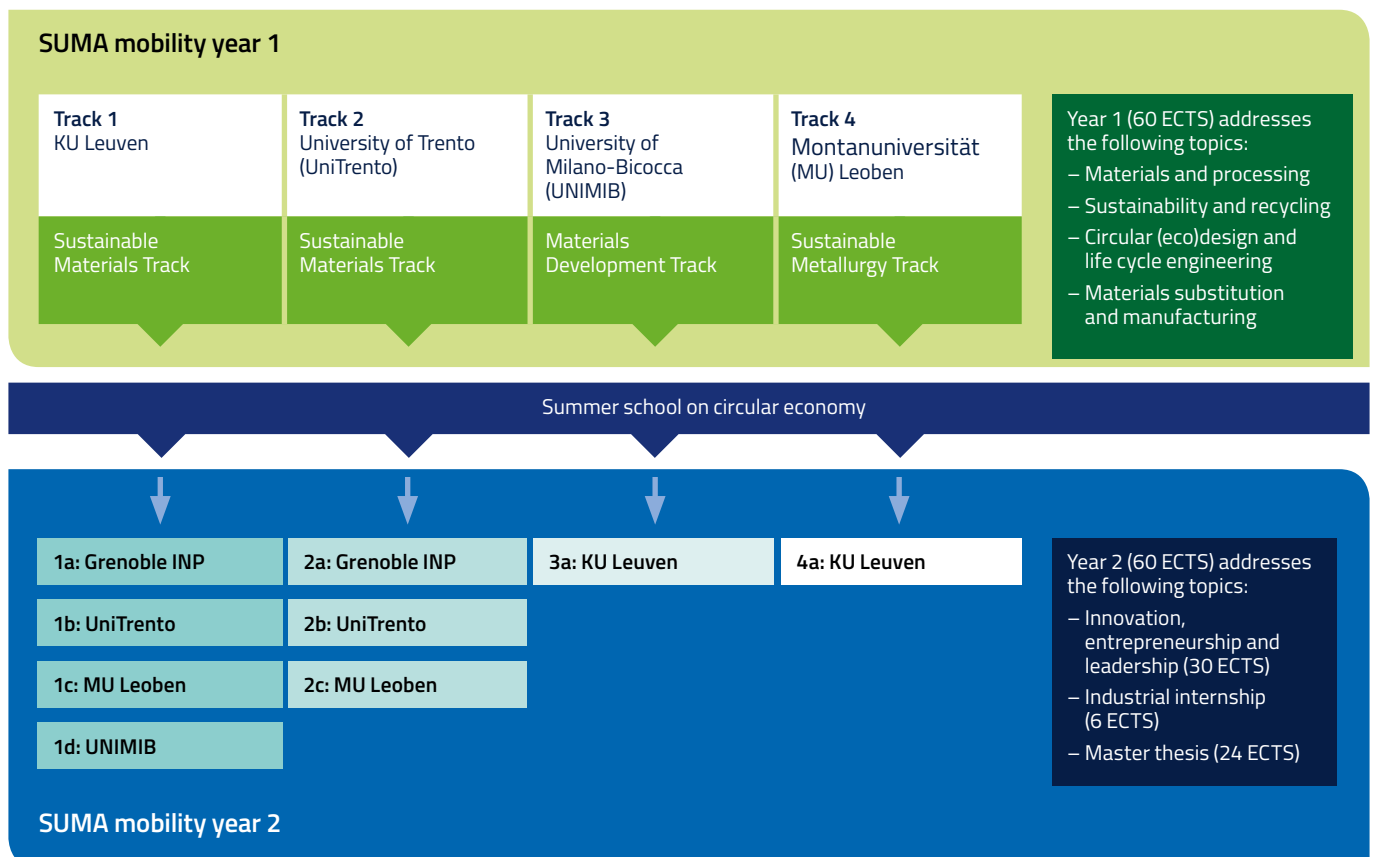
Grenoble INP

Master in Sustainable Industrial Engineering

University of Milano-Bicocca

Master in Materials Science

There are in total 9 tracks, each of which has been awarded the EIT Label. Each track of the SUMA programme consists of one full year at an entry university, followed by a second year at one of the other participating universities.



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Innovation and Entrepreneurship Training

As an EIT-Labelled Master programme, SUMA recognises the importance of providing students with the opportunity to explore the economic relevance of sustainable materials solutions and how they are practically implemented in industrial and societal settings. SUMA students will be provided with innovation and entrepreneurship training addressing the following:

- Courses dealing with the implementation of an innovation strategy at a company level and the management of the product development process and strategic management, creativity and decision-making for product development
- Business simulation games
- Testimonies given by young entrepreneurs on the role of engineering in the start-up of technological spin-off companies
- Case studies presented by industrial and company experts in the field
- Small group and individual project work addressing real world problems

One-week Summer School

Every year the SUMA Master programmes organise a summer school where all students from the different tracks come together to learn from leading experts on a particular sustainable materials topic. During the summer school, students will work together in teams on societal and technological challenges, using the knowledge and lecture content from the expert summer school faculty. The 2017 edition took place in Leuven and discussed the topic of 'Digitising the Circular Economy', where students learned how Internet of Things (IoT), big data analysis and Industry 4.0 principles can be applied to sustainable materials processing and recycling. The 2019 SUMA summer school supported the SUMA master students in developing competencies in the field of entrepreneurship. The courses and activities were focused on methods and tools to guide the process of startups creation. Theoretical approaches for new business creation were presented and students were invited to develop and pitch ideas related to startups creation.

“For me the SUMA master programme is one of the most enriching opportunities I’ve ever taken part in; it combines the tools to a knowledge broadening on the topics I’m passionate about, getting to know lots of people with different backgrounds and attend events and seminars from experts of the sustainability world. It’s a life changing experience.”

Davide – Italy

Professional Profiles after Graduation

Are you a student who is:

- Interested in earth sciences, mining, materials sciences and engineering?
- Motivated to explore the connection between materials technology and its environmental and socio-economic factors?
- Keen to become entrepreneurial and start your own company?
- Motivated to work closely with industry and research on cutting-edge challenges?

The SUMA Master programme aims at training scientists with a solid background in chemistry and physics, with competences for designing and tailoring new material systems for specific functions, and with a specific view to the sustainability of processes and technologies in the field of material development.

The main job opportunities are in industries and research centres in Europe, working on the development and production of functional materials for advanced applications and high technology.

Graduates can start a career as highly valued future leaders in positions of responsibility in managing advanced material design, production processes and material qualifying protocols in high-tech firms, material diagnostics and analysis in industries and research centres, and material development projects and scientific research projects in the field of material science and technology innovation.

For more information:

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The EIT Label: Raising a new generation of entrepreneurs and innovators



EIT RawMaterials Academy is able to offer students a unique opportunity to learn in a dynamic environment, focusing on real-life challenges.

EIT RawMaterials is initiated and funded by the EIT (European Institute of Innovation and Technology), a body of the European Union. The EIT Label is a certificate of quality that is awarded only to excellent educational programmes at the Master and Doctoral level.

As a student of an EIT-Labelled programme, you'll be part of the largest European raw materials network – with more than 120 core and associate partners and 180 project partners from more than 20 European countries coming from higher education, research institutions and industry. As an EIT Label student, you will have the opportunity to become part of this committed partnership as well as champion and contribute to the EIT RawMaterials goals of finding new, innovative solutions to secure the sustainable supply of raw materials across the value chain – from exploration, mining and extraction, to mineral processing, recycling and moving towards a circular economy.

EIT RawMaterials aims to raise a new generation of innovators in Europe equipped with the necessary entrepreneurial mindset for designing and delivering solutions. You'll also get the chance to collaborate internationally, developing sustainable solutions to pressing economic, environmental and societal challenges.

Join an EIT-Labelled programme and become a global game-changer, obtaining the knowledge, skills and experience employers are seeking out in future graduates, and becoming part of the RawMaterials Academy Label student and Alumni community.

Our EIT-Labelled programmes offer you



Thesis internship placements at leading European companies

The knowledge to become an expert in a particular raw materials discipline, coupled with an overview of the entire raw materials value chain

European mobility – study in at least two European countries

Innovative ‘learning-by-doing’, challenge-based courses which focus on real-life problems

Membership of the EIT Label Alumni Community

Courses designed to nurture start-up ideas at accelerators and incubators

Study tours and site visits to companies and industrial sites

New ways of learning – online courses, virtual and augmented reality and MOOCs

Course modules dedicated to entrepreneurship and innovation skills and competences

EIT RawMaterials Innovation support: business plan competitions, innovation bootcamps, seed funding

EIT RawMaterials summer schools and interdisciplinary courses

Labelled by







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a body of the European Union