ACADEMIC COOPERATION
Consortium with the universities:
› University of Antwerp, Belgium
› Loughborough University, England
› University of Deusto, Bilbao, Spain

LEVEL
› Master Degree in Engineering of Sustainable Vehicles awarded by the University of Bordeaux.
› Joint Master Degree in Sustainable Automotive Engineering awarded by the University of Antwerp and the University of Deusto.

PROGRAM DURATION
2 years (120 ECTS).

ADMISSION REQUIREMENTS
Candidates must fulfill the following requirements:
› Hold a Bachelor’s degree (equivalent to a minimum of 180 ECTS credits) in a relevant domain (e.g. automotive/mechanical engineering).
› Admission is decided according to the diploma. If necessary, candidates are convened for an interview (face-to-face or via Internet).

LANGUAGE REQUIREMENTS
› Candidates must provide proof of a sufficiently high level of English. It must be equivalent to the Common European Framework of Reference for Languages of B2.

TUITION FEES
› 4,500€ for EU students
› 9,000€ for international students

The Joint Master Degree in Sustainable Automotive Engineering (JMDSAE) provides courses in the field of Low Carbon Automotive Engineering and more largely in Electromobility.

The partner institutions have the shared aim of promoting strong cooperation in order to implement the JMDSAE. In particular the objectives are:

› Providing students with a broad scientific background and in-depth knowledge of the automotive related fields in order to become independent learners, capable of solving engineering problems in a multidisciplinary way.
› Preparing graduates for the industry or for further research by equipping them with adequate knowledge and skills related to modern automotive systems.
› Equipping graduates with the ability to critically evaluate their own work relative to other work in the field in order to establish best global practices.
› Strengthening scientific, teaching and research collaborations within the European Union and other countries.
› Developing a network of experts in the automotive field with leading academic and industrial partners.
Program structure

The JMDSAE consists of four semesters including an internship and a Master thesis.

Semesters 1 & 2:
University of Antwerp
Term 1: September to December
AUTOMOTION AND ENGINE TECHNOLOGIES
› Engine technologies and green fuels (6 ECTS)
› Vehicle dynamics (3 ECTS)
› Electric power subsystem in EV and HEV (6 ECTS)
› Communication & Entrepreneurship (6 ECTS)

Loughborough University
Term 2: January to March
POWERTRAIN
› Powertrain calibration and optimization (10.5 ECTS)
› Sustainable Vehicle Powertrains (10.5 ECTS)

University of Bordeaux
Term 3: April to June
ELECTROMOBILITY
› Design of EV/HEV powertrain (6 ECTS)
› Analysis and modelling technical systems (6 ECTS)
› Electro-mobility (6 ECTS)

→ And after?
The European Commission estimates 12 million jobs within the European automotive industry. The industry also has strong economic connections to many other developing industrial sectors. There is therefore already a strong and growing need for a qualified workforce in this domain in Europe and throughout the world.

Graduates are expertly qualified to work in R&D departments that focus on the development of hybrid/electrical vehicles as well as parts of these vehicles as powertrains.

Or:
University of Deusto
Term 3: April to June
FUTURE VEHICLES
› In-vehicle intelligent transportation (6 ECTS)
› Vibro-acoustic comfort in electric powered (6 ECTS)
› Lightweight structures (6 ECTS)

Semester 3:
September to January
Compulsory internship in the industry, preferably with associated industrial partners (30ECTS)

Semester 4:
February to June
Research thesis to be supervized by one of the partner institutions (30ECTS)

Strengths
› This innovative program covers different aspects of the electric/hybrid electric vehicle sector, thus responding to the ever changing energy needs of the automobile industry and the criteria of pollution reduction.
› Courses cover the latest technological trends and knowledge in the topics of Automation and Engine Technologies, Powertrain, Electromobility and Future Vehicles.
› All classes are taught in English and language classes in each country are available.
› Classes and internships take place within four different universities / countries, thus providing a rich multi-cultural background which develops students’ ability to adapt and work in different international environments.
› Associated partners are leading actors within the automotive field thus providing innovative internship and networking possibilities for students.

How to apply?
› Students may apply online via a standard application form:
  http://www.master-greendrive.eu/admission-tuition/admission-procedure/

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