

The logo for Technische Universiteit Eindhoven, featuring the letters 'TU' in a large, bold, blue font, followed by a red diagonal slash and the letter 'e' in a smaller, blue font.

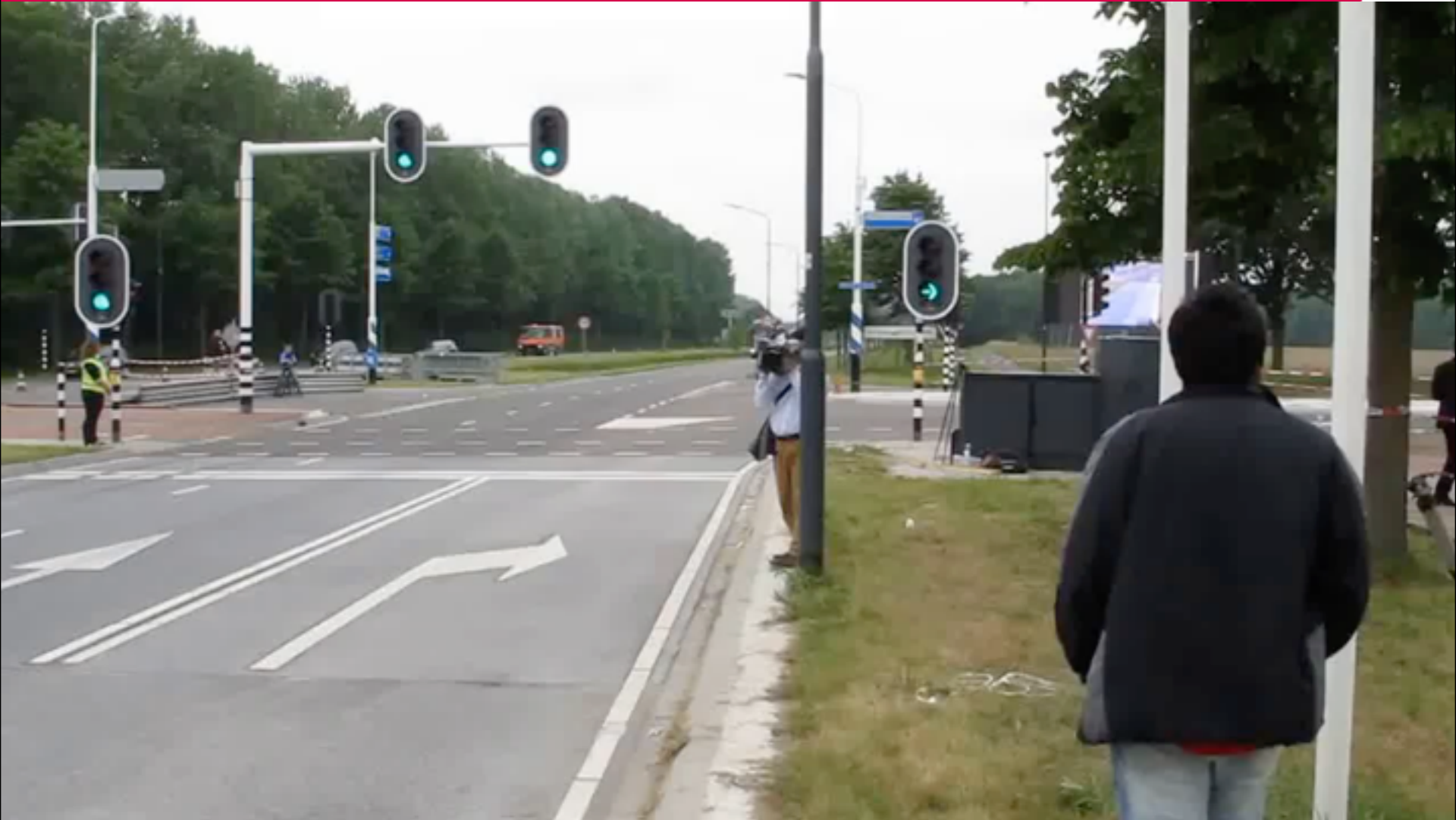
Technische Universiteit
Eindhoven
University of Technology

Master
Automotive Technology
For BSC Electrical Engineering and
Automotive

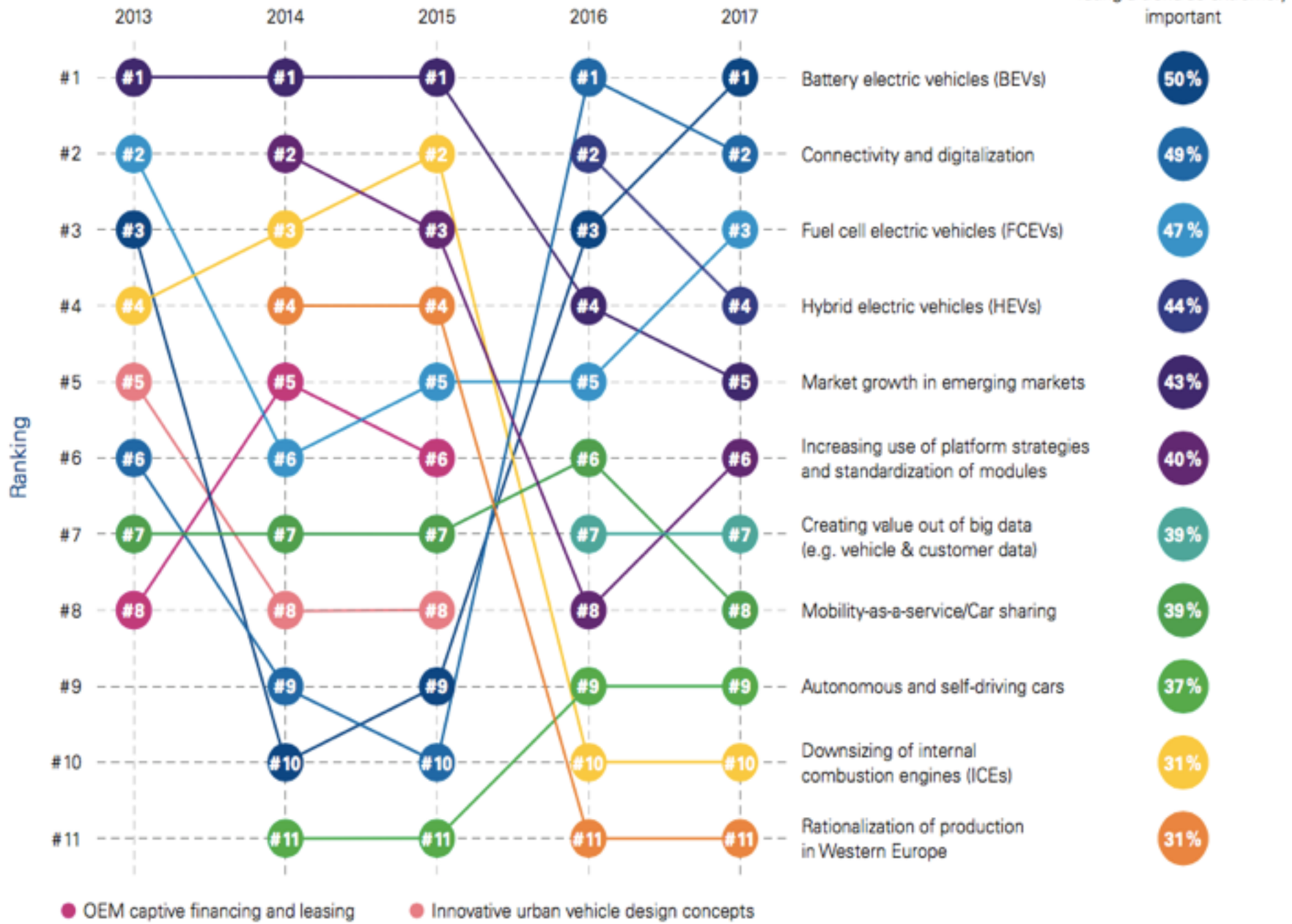
May 3, 2017



Where innovation starts



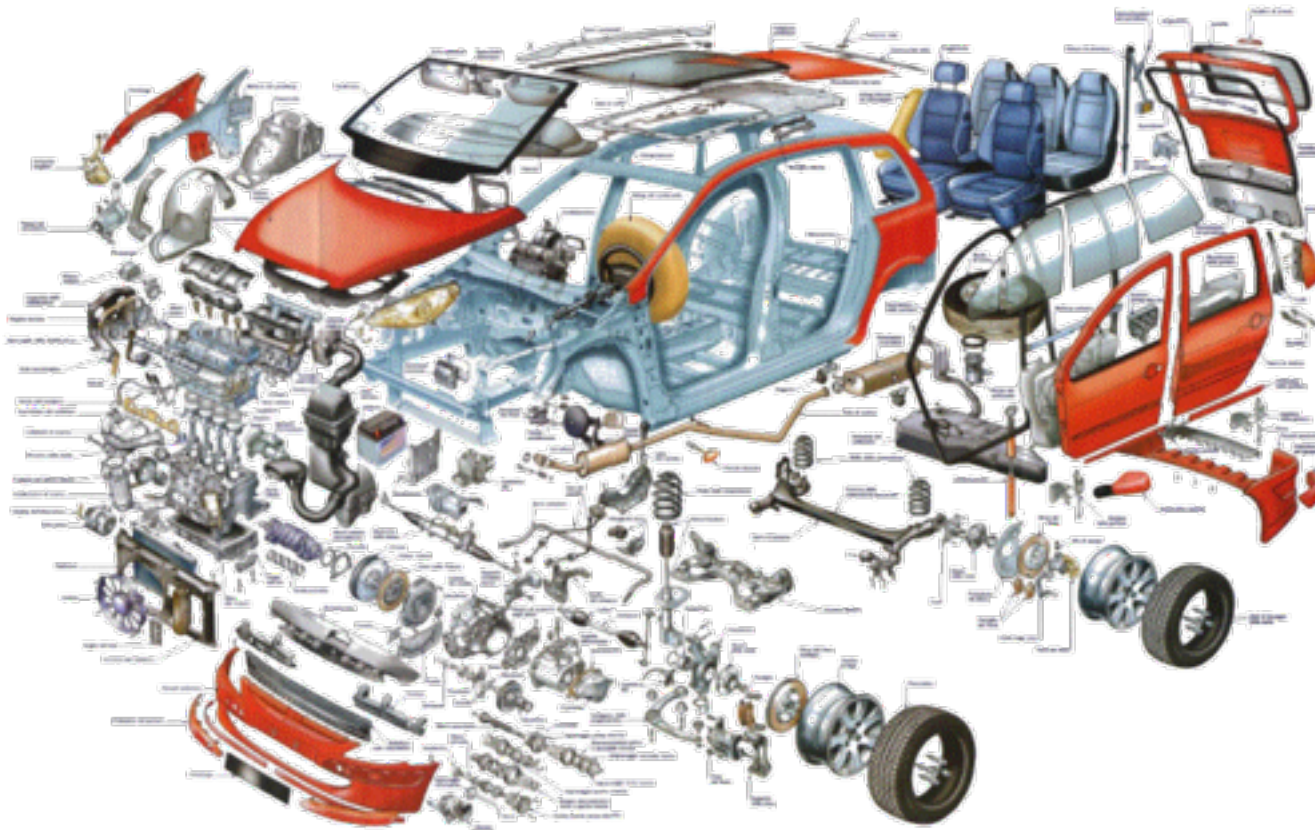
Percentage of executives rating a trend as extremely important



● OEM captive financing and leasing ● Innovative urban vehicle design concepts

Systems perspective

- Understanding of the relations between disciplines
- The car from a system perspective



15000 parts, 4.5 km and 80 kg of copper wires, 70 processors, 60 actuators; all weather, power cogeneration unit, comfort, entertainment and communication features, cockpit, multi-purpose display, safety and security systems.

All moving on 4 wheels.

MSc Automotive Technology

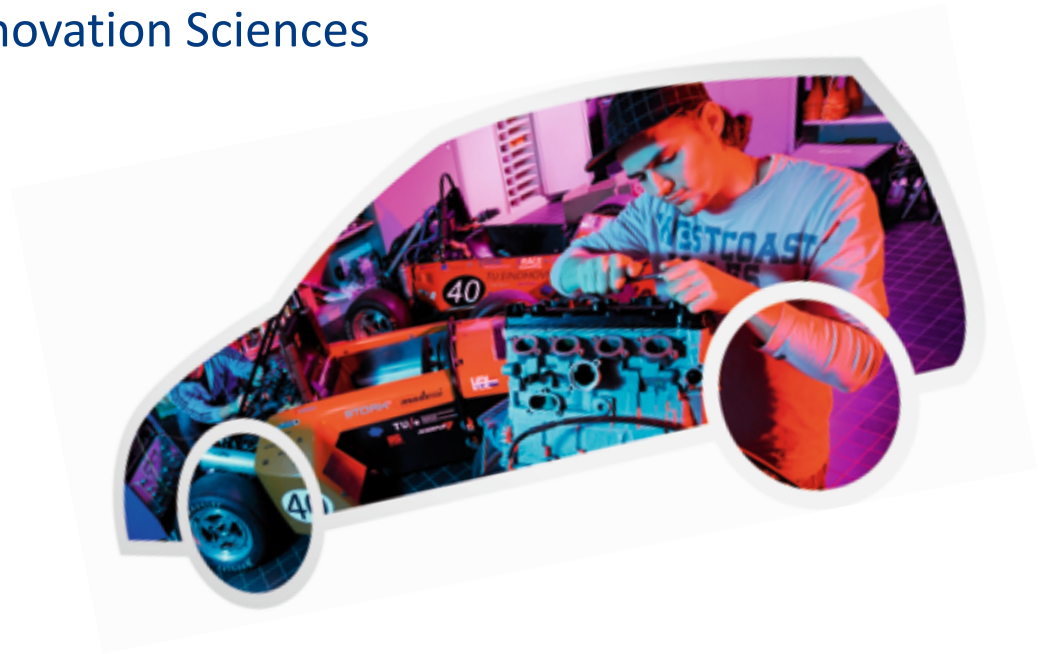
- Duration: 2 years (120 ECTS)
- Time of entry international students: September
- Time of entry TU/e students: each month
- Degree: Master of Science (MSc)
- Language: English



Specialist from many fields involved

Cooperation between 5 departments:

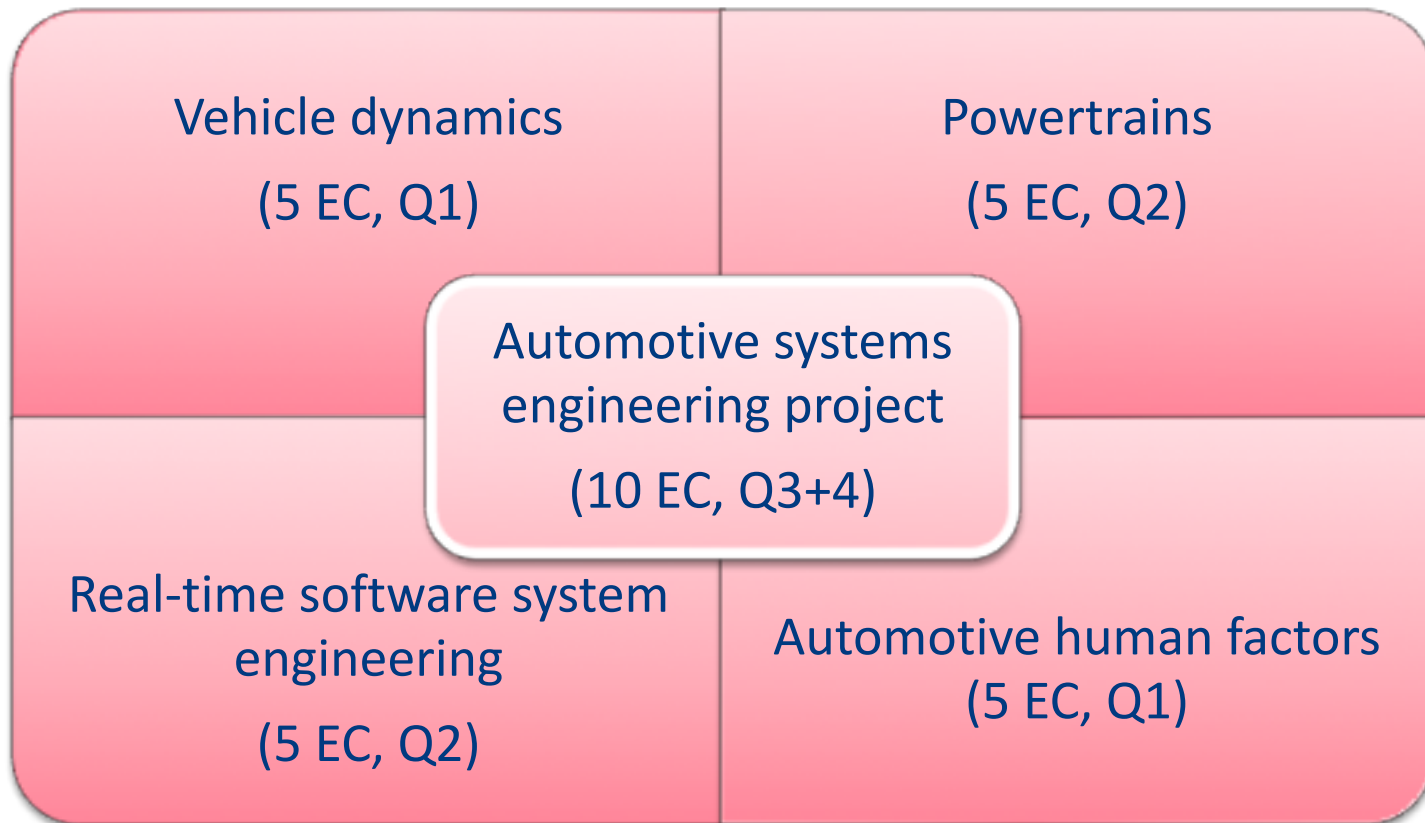
- Electrical Engineering
- Mathematics and Computer Science
- Industrial Engineering and Innovation Sciences
- Industrial Design
- Mechanical Engineering



Program Overview

Year 1	Core program (30 EC)	Specialization (15 EC)	Homologation / Free electives (15 EC)
Year 2	Internship (15 EC)	Graduation Project (45 EC)	

Core program



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Homologation and free electives

Homologation (Q1)

- C++ / computer organization (if needed)
- Heat, flow and thermodynamics (advised for those who did not take the combustion engines project)

Free electives

- TU/e-wide MSc level
- 5 EC extended internship



Program Overview

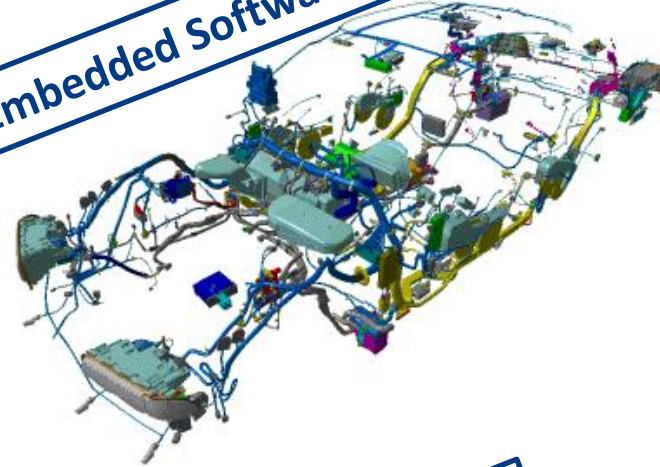
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Specialization themes : Smart Mobility

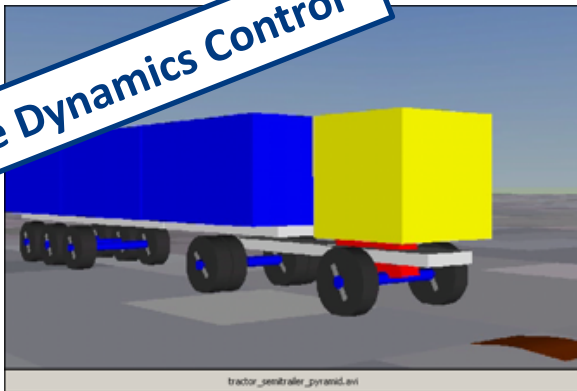
Autonomous Driving



Embedded Software



Vehicle Dynamics Control



Automotive Human Factors

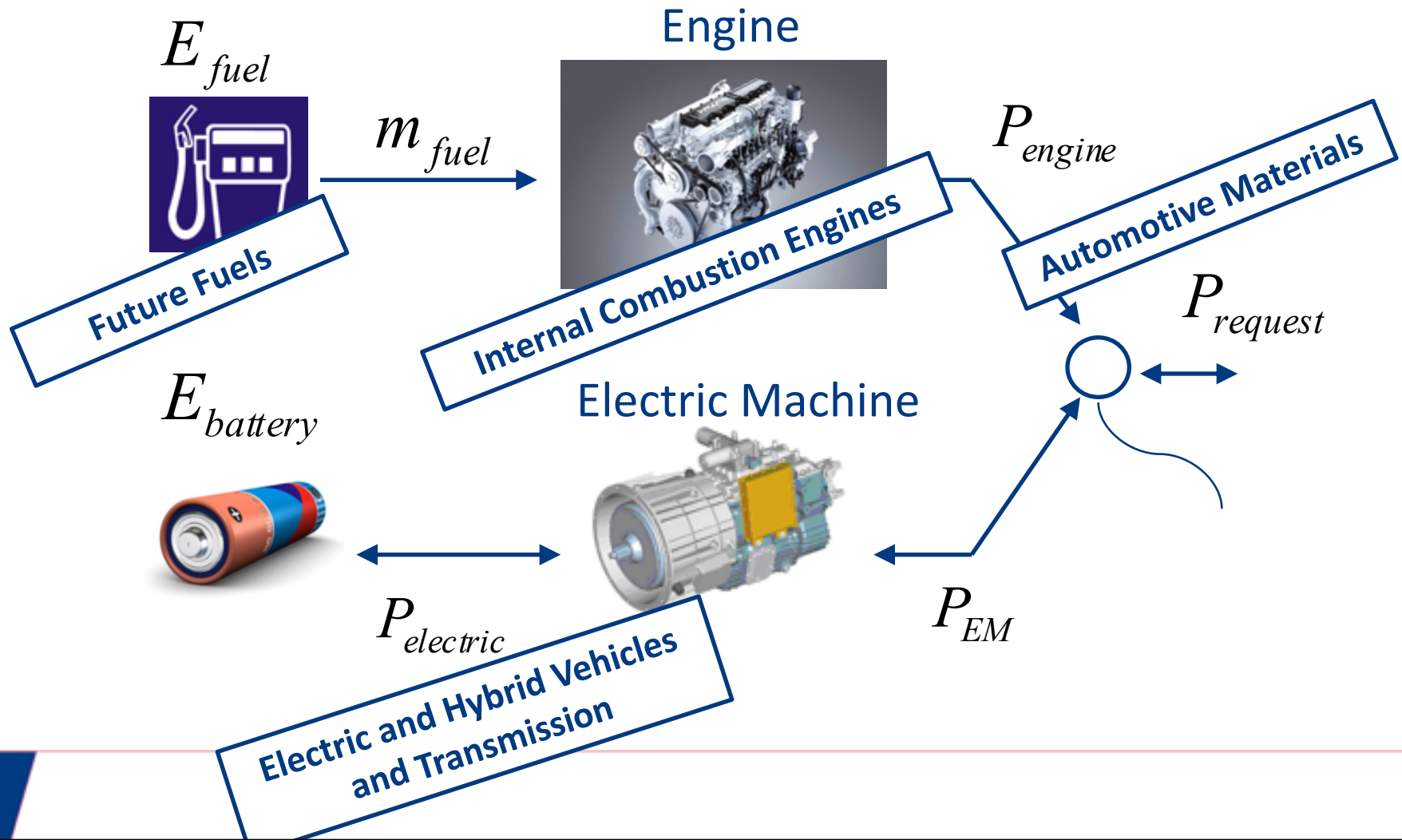


SPECIALIZATION THEMES

SMART MOBILITY

Autonomous Driving & Embedded Software	Vehicle Dynamics Control	Automotive Human Factors
Model Driven Software Engineering (W&I)	Dynamics & Control (W)	<i>Human Technology Interaction (IE&IS)</i>
System Architecture and Networking (W&I)		User Centered Engineering (ID)
Signal Processing Systems (EE)		
<i>Electronic and Embedded Systems (EE)</i>		
Control Systems Technology (W)		
Dynamics & Control (W)		

Specialization themes : Sustainable Mobility



SPECIALIZATION THEMES

SUSTAINABLE MOBILITY

Internal Combustion Engines & Future Fuels	Electric & Hybrid Vehicles and Transmissions	Automotive Materials
Multiphase and Reactive Flows (W)	Electromechanics and Power Electronics (EE)	Mechanics of Materials (W)
Control Systems Technology (W)	Control Systems (EE)	
Mechanics of Materials (W)	Control Systems Technology (W)	
	Dynamic & Control (W)	

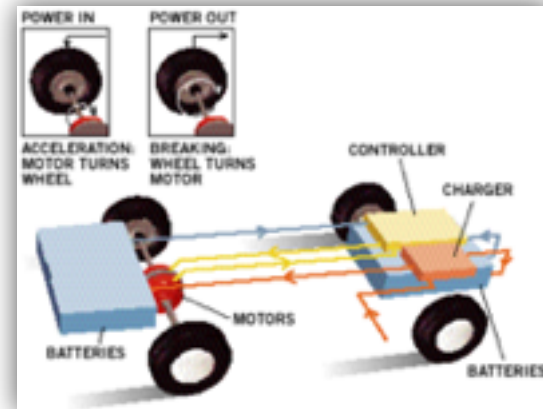
Research groups Electrical Engineering

- Electromechanics and Power Electronics (EPE) – Lomonova
- Control Systems (CS) – Van den Hof
- Electronic and Embedded Systems –Goossens
- Signal Processing Systems (SPS) - Jan Bergmans

Examples of graduation projects

“Development of a generic hybrid energy management strategy for CO₂-declarations”

“Maximization of Brake Energy Recuperation with Minimal Impact on other Drive Train Components”



Examples of graduation projects

“Research and Development of Human Machine Interface (HMI) for future long-haul trucks”

“Guidelines for transition of control in autonomous vehicles”



Wish to specialize within a **Mechanical Engineering research group**?
As of **September 1st** through renewed selection process!

- Popular groups; necessary to guarantee quality supervision
- Selection by groups – CV and motivation letter
- Expectation: enough capacity to place all students within group of first choice
- Opportunity to participate in current allocation system; **deadline 15 May** (≥ 160 EC of bachelor program)

*More information:
Check Education Guide AT, leave your email
address or contact masterat@tue.nl*

Information

- **E-mail:** masterat@tue.nl
- **Website:** www.tue.nl/at
- **Studyguide AT**
- **Study advisor:** Mw. Creusen - Erica

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