

# MASTER OF TRANSPORTATION SCIENCES



**UHASSELT**

## VISIO OVERVIEW

APPROVED BY THE  
BOARD OF DIRECTORS  
on 18/01/2024

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# MISSION AND VISION

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## Mission

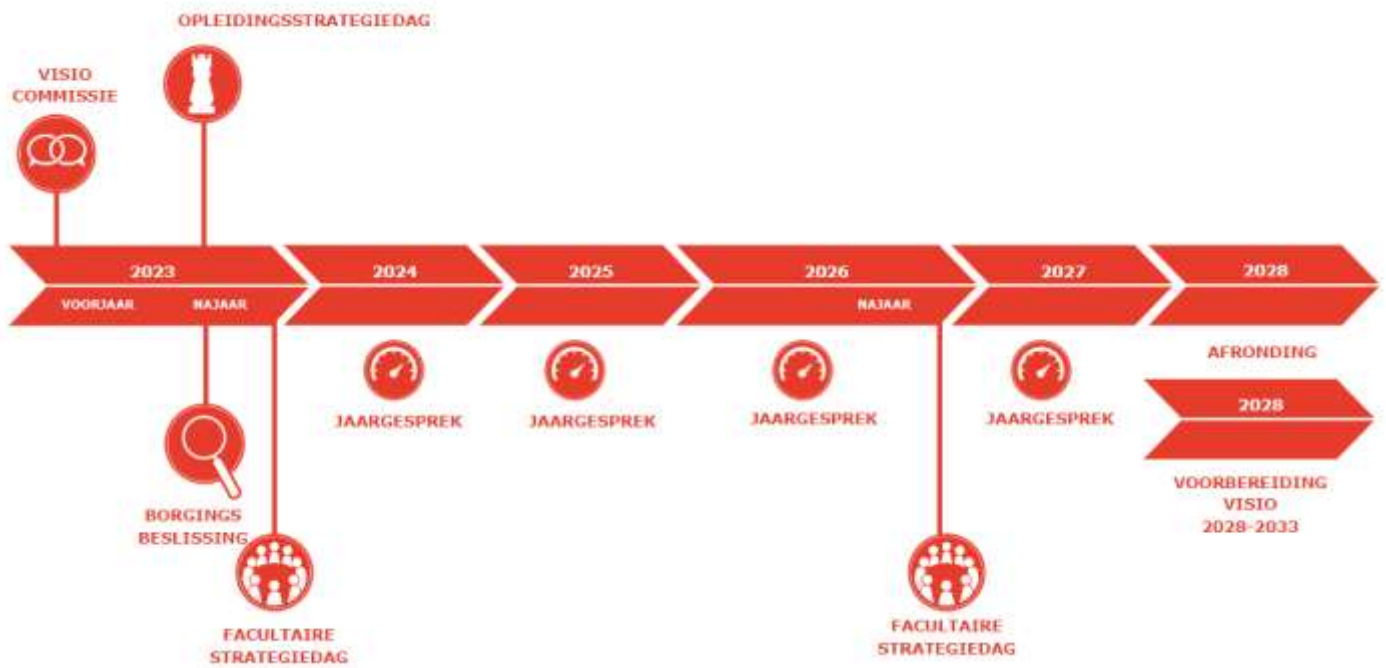
Transportation is indispensable in everyday life and plays an important and connecting role in every society. Transportation is therefore often called "the engine of society". The transportation sciences graduate is a broadly educated transportation scientist who contributes to better transportation. Indeed, the unique bachelor-master program in transportation sciences educates students to become academic and civic transportation scientists who approach current and future, regional and international transportation challenges in a critical and multidisciplinary way and develop solutions with attention to sustainability, safety and taking into account various stakeholders.

## Vision

The bachelor-master program in transportation sciences meets local, regional and global transportation challenges through:

- delivering high-quality, critical and committed transportation scientists who detect and act on transportation opportunities;
- approaching transportation issues from a(n inter)national perspective;
- cooperating with organizations, companies, governments, other knowledge centers and societal actors in order to create support;
- approach the field of transportation in an innovative and solution-oriented way.

# TIMELINE



# VISIO-COMMITTEE (EXTERNAL VIEW)

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The VISIO committee is an external committee that reviews the educational quality of the program, providing both feedback and feedforward.

The members of the VISIO committee enter into dialogue with the EMT and various stakeholders of the program from different perspectives as independents. In its meeting on May 4, 2023, the VISIO committee analyzed the direction and future vision of the bachelor and master programs in Transportation Sciences on the basis of provided documents (including ambition memorandum) and a site visit. The committee held discussions with successively:

- the EMT, which explained the current curriculum and clarified its ambitions;
- alumni and the professional field who were questioned about the extent to which the program matches the demands of the professional field;
- students who discussed their experiences in the program

From this, the committee was able to form a broad picture of the program, its qualities and its challenges.

## VISIO committee members.

### Chair + academic:

- Prof. Rob van der Heijden, professor, Raboud University

### Educationalist:

- Prof. Dr. Martin Valcke, Professor, Chair Department of Educational Sciences, UGent

### Professional field representative:

- Yves De Bleyr, traffic safety expert, Roads and Traffic Agency
- Lieve Neiryck, director Business Area Mobility Belgium, Arcadis

### Student:

- Koen Ploum, ba student Built Environment & Logistics, Breda University of Applied Sciences


# Findings




inspiring practice

## Strengths

- The program rightly presents itself as a unique and innovative program with a focus on different perspectives and associated disciplines (depth), but transversal themes (zooming out) are also addressed and there is room for reflection.
- The program is strongly tailored to the needs of the student with, among other things, intensive supervision of students, low-threshold contact between students and teaching staff, close follow-up and (interim) feedback and a good balance of (activating) work forms. The students therefore appear very satisfied with the program, indicating that they experience a strong connection with the staff.
- The labor field is satisfied with the program in which they see the possibilities and capacities in the knowledge and skills of graduates to facilitate a transition in transportation, now and in the future.
- The regional labor field endorses the curricular choices because they meet the signals indicated by alumni and the labor field. The choice of the 5 roles in the program fit well with the needs of the labor field.



The program has built a powerful, inclusive and blended educational learning environment and didactic concept through which students and alumni indicate that they have sufficient methodical baggage and academic knowledge to agitate in a multi-actor environment with many interests and many uncertainties.



The committee praises the commitment and enthusiasm of the teaching staff for the development of the program in transportation sciences with a quick follow-up and adjustment (e.g. demonstrated in the curriculum changes). The program clearly forms one team: everyone is imbued with the same vision, there is clear support and the ambitions have been discussed with teaching staff, the professional field and students (see short lines student-teacher). Regarding quality assurance, there is good information sharing and the improvement cycle runs well throughout the program, between EMT and teaching staff and with students. The appreciation for the strong leadership of the EMT chairman is high.

## Recommendations

- An analysis of the inflow and throughput figures from bachelor to master is appropriate (feasibility NL and ENG program). Thus, in addition to its classic profile as a flow-through master, the master can also be positioned as a master after master or as a leading study.
- The new strategy plan calls for sharp choices as the resources of the program are limited. The essential questions are: have the right shifts in content been realized and what content may be completely or partially dropped?
- There may be even more connection with the field for picking up on needs and requirements, this is crucial in a sector that is evolving so much. Students also ask to be able to connect even more with the labor field and society during their education.
- The labor field may be involved even more frequently to broaden the perspective of the program. In this regard, the committee calls attention to the representativeness of the professional field that covers the full width of the professional domain.
- Students, alumni and professional field indicate that, as a result of the rapidly changing challenges, several aspects could be given even more emphasis in the program: disciplinary enrichment, options for master thesis, vision formation and innovative topics and skill development (see report for details).
- The reporting on labor field experience could be even more extensive, diverse and innovative for some components.
- The program will further develop the ambition regarding lifelong learning (micro-credentials) given its importance in the future (with support from the institution/university).

# QUALITY ASSURANCE DECISION

THE ASSURANCE BODY GIVES A POSITIVE ASSESSMENT TO THE BACHELOR AND MASTER PROGRAM IN TRANSPORTATION SCIENCES. THE ASSURANCE BODY IS CONVINCED OF THE EDUCATIONAL QUALITY OF THE PROGRAM AND MANDATES THE PROGRAM TO FURTHER DEVELOP THE PROGRAM BASED ON THE FEEDFORWARD FROM THE VISIO COMMITTEE. THE COMMITTEE HAS NOT DETECTED ANY SERIOUS WORK POINTS THAT NEED TO BE REMEDIED AHEAD OF TIME.

QUALITY CLUSTERS	QUALITY ASSURANCE DECISION
PROFILING AND COMPETENCE PROFILE	Positive: the program rightly presents itself as a unique and innovative program with a focus on different disciplines
SOCIETAL RELEVANT CURRICULUM	Positive: the labor field is satisfied with the program in which they see the potential and capabilities in knowledge and skills of graduates to facilitate a transition in transportation now and in the future
PERSONNEL	Positive: the committee praises the commitment and enthusiasm of the teaching staff for the development of the program in transportation sciences with a quick follow-up and adjustment, everyone is imbued with the same vision, there is clear support
STUDY (CAREER) GUIDANCE	Positive: students indicate that they have sufficient opportunities to be supported in their study and career guidance
 DIDACTICAL CONCEPT (learning content, study materials, organizational and working methods, educational technology and infrastructure) + EVALUATION	Good practice: the program has built a powerful, inclusive and blended educational learning environment and didactic concept through which students and alumni indicate that they have sufficient methodical baggage and academic knowledge to act in a multi-actor environment with many interests and many uncertainties
INFORMATION AND COMMUNICATION	Positive: complete and easily readable communication about the program is available
 QUALITY ASSURANCE	Good practice: there is good information sharing and the improvement cycle runs well throughout the program, between EMT and teaching staff and with students

# PROGRAM STRATEGY DAY AND PROGRAM PLAN

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The Educational Strategy Day for the Transportation Sciences programs was held on September 5 and 12, 2023. Participating in this day were the Vice Rector of Education, the Director of the School, the EMT chairman, the EMT members of the Bachelor and Master program, some teaching staff and staff from the Educational Development, Policy and Quality Assurance Service (OQBKZ).

The education plan was approved at the 18/01/2024 Board meeting.

## Objectives

### **SO1: The program implements a diverse and inclusive policy regarding blended education**

Explanation: The program is committed to blended education in response to changes and diversity in society. It designs flexible and inclusive education to attract different student audiences and respond to their needs.

OO 1.1 We develop a vision of blended education that is consistent with the didactic concept of the program

OO 1.2 We strengthen the educational learning environment through the exploration and development of current and innovative forms of work and organization

OO 1.3 We optimize the distance learning program

### **SO2: The program is committed to providing a solution-oriented curriculum that responds to future challenges**

Explanation: The program is committed to providing an up-to-date curriculum that focuses on solutions and anticipates future transportation challenges. Students are with relevant knowledge and skills prepared to meet the evolving demands of society and labor market.

OO 2.1 We explore and evaluate opportunities for the various programs

OO 2.2 We realize a logical structure through the further implementation of learning lines

OO 2.3 We continue to respond to current needs through (multidisciplinary) cooperation with stakeholders

OO 2.4 We strengthen the product and solution-oriented approach

### **SO3: The program optimizes the evaluation program in view of effective, innovative and competency-based forms of evaluation**

Explanation: In order to fulfill the role of transportation scientist, the program - throughout the various bachelor and master years - is committed to a thoughtful evaluation of competencies in students. The most optimal form of evaluation is always sought thereby paying attention to students' competence growth.

OD3.1 We update the evaluation criteria for project courses

OD3.2 We further develop innovative and effective forms of evaluation

OD3.3 We implement growth paths to evaluate competencies

### **SO4: The program responds to the rising demand for lifelong learning**

Explanation: The program strives, in cooperation with partners, to develop flexible learning pathways in the area of transportation. These enable individuals to continuously learn and meet changing professional demands. For the program, scalability of the various educational initiatives is an important aspect.

OO 4.1 We develop a policy for lifelong learning

OO 4.2 We explore and develop multi-purpose modular offerings in collaboration with external providers



