# SUSTAINABLE MOBILITY MANAGEMENT

MBA



Program

Summer Semester 2023

Intake 2022-2024

Last update on: 28 February 2023

THIS PUBLICATION REFLECTS THE STATE OF PLANNING AT THE TIME OF PRINTING.

Changes may occur.



TUBS GmbH TU Berlin ScienceMarketing Hardenbergstraße 16-18 10623 Berlin, Germany

MBA Sustainable Mobility Management Program Summer Semester 2023

Dear students,

The MBA in Sustainable Mobility Management is thought for transport engineers, transport and mobility experts, planners, architects, and sustainability project managers who want to gain in-depth, special knowledge in the field of sustainable mobility management. Authorities, businesses, and other agencies engaged in transport and mobility must rethink their current strategies.

Each urban area faces its own specific set of challenges: congestion, emissions, safety, accessibility, and economic implications are only some factors that account for the mobility situation that inhabitants experience.

This implies an increased need for broadly educated, skilled managers, capable to frame those issues with social shifts, new technologies and innovative business models.

TU Berlin's master program in "Sustainable Mobility Management" closes the educational gap in this field and prepares students for leadership positions by training people who can deliver cutting-edge and sustainable mobility solutions. The master program is intended for an international and diverse audience: Learning and studying in small groups of up to 30 students means excellent and tailored learning conditions.

We are looking forward to meeting you!

Prof. Dr.-Ing. Hans-Liudger Dienel Academic Director

Dr. Massimo Moraglio Academic Coordinator Nora Bonatz Academic Coordinator

Alina Pfeifer Administrative Coordinator

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# Overview



# The Sustainable Mobility Management Team

#### Prof. Dr.-Ing. Hans-Liudger Dienel

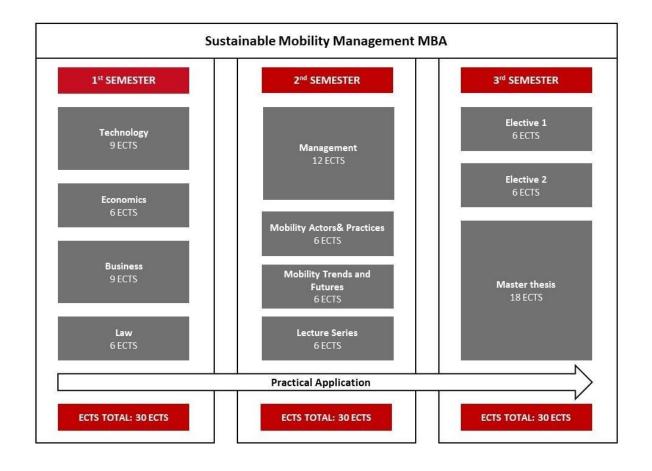
#### **Academic Director**

Institute of Vocational Education and Work Studies, Head of Chair Work, Technology and Participation T.U. Berlin



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100	Student Assistant
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A ALLAND	

### **MBA Semesters Structure**



The master program is taught over a period of three semesters.

- The first semester covers the technical, economic, entrepreneurial, and legal foundations for management decisions in the mobility sector.
- The second semester deepens this view and looks at management, trends, and actors.
- The third semester broadens the view while simultaneously focusing on practice according to student's individual interests.

All semesters include lectures, tutorials, seminars as well as (when possible) company visits, online materials related to practice and extracurricular activities. The master thesis, due in the third semester, concludes the program.

# Outline

#### **Location and Times**

The time of the lessons is always CET.

#### Semesters

- First semester (Winter semester WiSe 2022/23)
  - First lesson Mid-October 2022
  - o Last lesson mid-February 2023
  - Second semester (Summer semester SoSe 2023)
    - First lesson on Mid-April 2023
    - Last lesson on Mid-July 2023
- Third semester (Winter semester WiSe 2023-24)
  - o First lesson: Mid-October 2023
  - Last lesson: Mid-February 2024

#### Lectures

Lectures are held by professors and academic staff of TU Berlin and other universities, and by professionals of the mobility industry. Lectures are divided into core and specialized lectures. Core lectures teach the basics and are relevant for students of allMBA programs; specialized lectures are designed for students of the Sustainable Mobility Management program to dive deeper into mobility.

Group work is frequent. Homework may be assigned. Lectures start *sine tempore*, i.e. sharp.

#### **Company Visits**

Company Visits give the opportunity to go and see the company on-site and see coursecontent livelier presented.

Registration before attendance may be required.



#### German Classes

Language classes are offered on campus and incur a small additional fee. Advanced language classes are available, for which taking a test is mandatory. For more information, visit the website of Sprach- und Kulturbörse <u>here.</u>

#### E-Learning Platform 'Moodle' and WirelessLAN

Information System for Instructors and Students (ISIS)/Moodle is a software for online learning platforms for announcements, distribution of material, registration to events, etc. An introduction will be given in the first week. Please log on frequently, even in lecture free times. The TU Berlin offers <u>WirelessLAN</u> (WLAN) with full coverage acrossits campus. Students have the possibility to access the internet from any point on the campus.

#### Exams

A written (e-) exam, paper, presentation, or portfolio concludes each module. Everything that was taught in the lectures, tutorials, and compulsory company visits within the module may be subject to examination. Exams start on time! In case a student wishes to withdraw from an exam, they must inform the competent body at least one day before the exam date; in case of a valid reason (e.g. sickness) a studentcan withdraw from an exam anytime, but have to inform the competent body and submit a proof latest 5 days after the exam date. Otherwise, the exam will be marked as failed. For further details, please refer to the official Study and Examination Regulation (AllgStuPO §50). A failed examination may be repeated twice.

#### Attendanceis mandatory.

<b>Grading S</b>	Scale
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Grade	Assessment	Definition
1.0 / 1.3	Very good	Outstanding performance
1.7 / 2.0 / 2.3	Good	Performance above average requirements
2.7 / 3.0 / 3.3	Satisfactory	Complies with the average overall requirements
3.7 / 4.0	Adequate	Performance which, despite some flaws, still complies with performance requirements
5.0	Inadequate	Performance with significant flaws which does not comply with requirements

# Second Semester SoSe 2023

## **Social and Academic Events**



### Excursion

**23 – 26 May 2023** Milan

# Graduation Ceremony 2020/2021

21 July 2023

TBC



## Module 05 Management (12 ECTS)

**Prof. Dr. Hans-Liudger Dienel** Technische Universität Berlin hans-liudger.dienel@tu-berlin.de

Julia Holze Independent Consultant julia.holze@gmail.com

Prof. Dr. Søren Salomo Technische Universität Berlin salomo@tu-berlin.de

Prof. Dr. Thomas Volling Technische Universität Berlin thomas.volling@tu-berlin.de









#### Aims and Scope

Students are able to independently identify, analyze, and design strategic approaches taking into account the consequences of environmental changes for planning, management, and controlling. They do this by incorporating interdependent technological, economic, business, and legal processes in companies and organizations and considering social responsibility and sustainable development. Students will be able to define the main features of management in the transport sector, apply problem-solving skills to case studies using different fields of knowledge, and present options for optimizing mobility.

#### Keywords

Business models & plans, small group communication, leadership, environmental communication, corporate social responsibility, conflict management, change management, risk management, operational excellence, system services, and energy services, Germany's energy transformation, management of reactive power, and links to the transport sector.

#### Examination (12 ECTS, graded)

Core & Specialized Part: Management methods (40%) Oral presentation (40%) Written test (20%)

#### Schedule Core Part

<b>Fri 21 April 2023</b> 09:00 - 11:00 11:30 - 17:00	Management Core Prof. Dr. Dodo zu Knyphausen-Aufseß Prof. Dr. Søren Salomo Fundamentals of Project Management Examination Introduction I
<b>Sat 22 April 2023</b> 09:00 - 17:00	Management Core Prof. Dr. Søren Salomo & Dr. Birgit Peña Technology and Innovation Management, Examination Introd. II
<b>Fri 28 April 2023</b> 09:00 - 17:00	Management CORE Prof. Dr. Thomas Volling and Kristian Bänsch Quantitative Methods for a Project Plan
<b>Sat 29 April 2023</b> 09.00 – 17.00	Management Core Lecture Prof. Dr. Søren Salomo & Dr. Birgit Peña Innovation Management
<b>Fri 05 May 2023</b> 09:00 - 17:00	Management Core Lecture Prof. Dr. Søren Salomo Innovation Management

#### Sun 14 May 2023 EXAMINATION QUIZ-CORE: 20 points

#### Schedule Specialized Part

<b>Tue 18 April 2023</b>	Management Specialized - Communication Tutorial 01
09:00 - 12:30	Bettina Brockmann (online)
<b>Tue 25 April 2023</b>	Management Specialized - Communication
09.00 – 12.30	Bettina Brockmann (online)
Wed 26 April 2023 09.00 - 12.30	Management Specialized - Design Thinking & Project Innovation Charleen Kolpinski
<b>Tue 02 May 2023</b>	Management Specialized
09:00 - 12:30	Prof. Dr. Thomas Volling
<b>Thu 04 May 2023</b>	Management Specialized
14:00 – 17:30	Prof. Dr. Hans-Liudger Dienel, Julia Holze
<b>Tue 09 May 2023</b>	Management Specialized - Communication
09.00 – 17.00	Bettina Brockmann
<b>Thu 11 May 2023</b>	Management Specialized
09:00 – 12:30	Prof. Dr. Thomas Volling
<b>Fri 12 May 2023</b>	Management Specialized
09:00 – 12:30	Prof. Dr. Hans-Liudger Dienel, Julia Holze
13:30 – 16:00	Consulting hours
<b>Wed 17 May 2023</b>	Excursion Centre for entrepreneurship
15:30 - 17:30	TBC
Sat 14 May 2023	Examination: Handing in of Report (40P)
	Management Specialized Julia Holze
<b>Mon 05 June 2023</b>	Management Specialized
09:00 - 12:30	Julia Holze
<b>Fri 09 June 2023</b>	Management Specialized
09:00 – 12:30	Julia Holze
<b>Tue 13 June 2023</b>	Management Specialized
09:00 – 12:30	Julia Holze
<b>Fri 16 June 2023</b>	Management Specialized
09:00 – 12:30	Julia Holze

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<b>Tue 20 June 2023</b>	Management Specialized
10:00 – 12:30	Consulting hours
<b>Tue 27 June 2023</b>	Management Specialized
13:30 – 16:00	Consulting hours

Fri 07 July 2023 Examination: Oral (40P)

#### Literature

TBA and see Moodle page

# Module 06 Mobility Actors and Practices (6 ECTS)

Nora Bonatz Technische Universität Berlin nora.bonatz@campus.tu-berlin.de

Cosimo Chiffi TRT Milano chiffi@trt.it

Dr. Robin Kellermann Technische Universität Berlin Robin.kellerman@tu-berlin.de

Alexander Sprey TIER Mobility









#### Aims and Scope

After taking this module, students will:

- have acquired a knowledge base in transport systems, and sustainable mobility theories, concepts, and approaches with the focus on mobility as a social and technological system.

- be able to identify and address social, economic, and technological conflicts and points of tension in the implementation of the transition towards sustainable mobility.

#### **Course Content**

- Climate change, transition in mobility, sustainability;
- Modes of transport and actors; Actor theory, social innovation;
- The concept of motility and sessility; mobility turn; long-term visions in mobility;
- Social and individual behavior: social networks, time rhythms, and spatial distribution;
- Travel networks, community, and identity;
- Policy and inequalities; diversity of users;
- Urban, metropolitan, and rural mobility.

#### Schedule

<b>Fri 09 June 2023</b>	Lesson. Intro. Why actors and why practice
13:30 – 16:00	Nora Bonatz
<b>Mon 12 June 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Cosimo Chiffi, Alexander Sprey
<b>Thu 15 June 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Nora Bonatz
<b>Mon 19 June 2023</b>	Mobility Actors and Practices
09:00 – 12:30	Dr. Robin Kellermann
<b>Mon 26 June 2023</b>	Mobility Actors and Practices, Persona Foundation Document
09:00 – 13:15	Nora Bonatz
<b>Tue 27 June 2023</b>	Mobility Actors and Practices
13:30 – 16:00	Consulting hours (book slots)
<b>Wed 28 June 2023</b>	Mobility Actors and Practices
09:00 – 12:30	Dr. Robin Kellermann
<b>Mon 03 July 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Cosimo Chiffi
<b>Tue 04 July 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Cosimo Chiffi

<b>Thu 06 July 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Alexander Sprey
<b>Mon 10 July 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Alexander Sprey
<b>Tue 11 July 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Nora Bonatz
<b>Thu 13 July 2023</b>	Mobility Actors and Practices
09:00 – 13:15	Nora Bonatz
<b>Mon 17 July 2023</b>	Mobility Actors and Practices
11:00 – 13:00	Consulting hours (individual slots for each group)

Thu 20 July 2023 Mobility Actors and Practices – EXAM

#### Literature

TBA and see Moodle page

# Module 07 Mobility Trends and Futures (6 ECTS)

Daniel Bonin z-punkt bonin@z-punkt.de

**Dr. Roland Nolte** IZT - Institute for Futures Studies and Technology Assessment Institute Director www.izt.de

Dr. Karlheinz Steinmüller z-punkt steinmueller@z-punkt.de

#### Aims and Scope

After completion of this module, students will understand mobility trends with the aim to manage the complexity of the open and networked transport of the future. The social and technical shifts are taken into consideration as well as the fundamentals for forecasting. In this regard, different scenarios will be proposed to plan long-term developments of a mobility change.

#### Keywords

Futures research, megatrends, foresight processes, futures of mobility, sustainable mobility, the transformation of mobility systems, energy, and new mobility, MaaS – Mobility as a Service.





#### Schedule

<b>Mon 17 April 2023</b>	Mobility Trends & Futures
09:00 – 13:15	Dr. Roland Nolte
<b>Thu 20 April 2023</b>	Mobility Trends & Futures
09:00 – 13:15	Dr. Roland Nolte
<b>Thu 20 April 2023</b>	Mobility Trends & Futures
15:00 – 17:00	Visit to Futurium TBC
<b>Mon 24 April 2023</b>	Mobility Trends & Futures
09:00 – 13:15	Dr. Roland Nolte
<b>Thu 27 April 2023</b>	Mobility Trends & Futures
09:00 – 13:15	Dr. Roland Nolte
<b>Thu 04 May 2023</b>	Mobility Trends & Futures
09:00 – 12:30	Dr. Roland Nolte
<b>Thu 11 May 2023</b>	Mobility Trends & Futures
16:00 – 17:30	Daniel Bonin, Karlheinz Steinmüller
<b>Mon 15 May 2023</b>	Mobility Trends & Futures - Workshop
09:00 – 16:00	Daniel Bonin, Karlheinz Steinmüller
<b>Tue 16 May 2023</b>	Mobility Trends & Futures - Workshop
09:00 – 16:00	Daniel Bonin
<b>Tue 30 May 2023</b>	Mobility Trends & Futures - Workshop
09:00 – 17:00	Daniel Bonin, Karlheinz Steinmüller
<b>Fri 02 June 2023</b>	Mobility Trends & Futures - Workshop
09:00 – 12:30	Consulting (online)
<b>Mon 08 May + Wed</b> 09:00 – 13:15	10 May Mobility Trends & Futures EXAM

**Sun 18 June 2023** Mobility Trends & Futures EXAM Report 09:00 – 13:15

#### Literature

TBA and see Moodle page

## Module 08 Lecture Series 6 ECTS

Conveners

Nora Bonatz Technische Universität Berlin nora.bonatz@campus.tu-berlin.de



Dr. Massimo Moraglio Technische Universität Berlin Massimo.Moraglio@tu-berlin.de



#### Aims and Scope

At the end of this module, students will have an overview of state-of-the-art sustainable mobility trends. National and international experts from industry, academia, and research centers involved in the transition towards sustainable mobility will present different opinions, case studies, and perspectives.

#### Schedule

<b>Mon 17 April 2023</b>	Lecture Series – (Women) Leadership
14:30-17:00	Tamara Rose Morales
<b>Mon 24 April 2023</b>	Lecture Series - Transition of Mobility – chances for greener cities?
14:30 – 17:00	Jonas Fahlbusch und Martin Schlecht
<b>Tue 02 May 2023</b>	Lecture Series - MATSim: Introduction to Transport Modelling
14:00 – 16:30	Moritz Kreuschner
<b>Wed 17 May 2023</b>	Storytelling - Workshop
09:00 - 12:30	Tobias Oelling
Fri 02 June 2023	Lecture Series - Sustainable Logistics: Do we really need self-

14:00 – 16:30	driving trucks Alexander Cremer
<b>Mon 05 June 2023</b> 14:00-16:30	Lecture Series – Introduction to Transport Forecasts Sarah Hampel
<b>Tue 13 June 2023</b> 14:00 – 16:30	Lecture Series - Sustainable Logistics: Chances and challenges for the Industry Armin Huber
<b>Tue 20 June 2023</b> 14:00 – 16:30	Lecture Series - Assessing transit-oriented development outcomes - An alternative methodology Mariana Reis Santos
<b>Thu 22 June 2023</b> 09:00-17:00	Lecture Series - How to shoot a video (Group 1) David Donschen
Fri 23 June 2023 09:00-17:00	Lecture Series - How to shoot a video (Group 2) David Donschen
<b>Tue 27 June 2023</b> 09:30 – 12:00	Lecture Series - City Tourism: Travel Needs, Data and Behavioural Models Jan-Dirk Schmöcker
09:30 – 12:00	Models
09:30 – 12:00 <b>Mon 03 July 2023</b> 14:30 – 17:00	Models Jan-Dirk Schmöcker
09:30 – 12:00 <b>Mon 03 July 2023</b> 14:30 – 17:00 <b>Tue 04 July 2023</b> 15:00 – 16:30	Models Jan-Dirk Schmöcker Lecture Series – Company visit: Second Ride
09:30 – 12:00 <b>Mon 03 July 2023</b> 14:30 – 17:00 <b>Tue 04 July 2023</b> 15:00 – 16:30	Models Jan-Dirk Schmöcker Lecture Series – Company visit: Second Ride Lecture Series – Company visit: OnoMotion Lecture Series - The Mobility Revolution - a disruption of value
09:30 – 12:00 Mon 03 July 2023 14:30 – 17:00 Tue 04 July 2023 15:00 – 16:30 Mon 10 July 2023	Models Jan-Dirk Schmöcker Lecture Series – Company visit: Second Ride Lecture Series – Company visit: OnoMotion Lecture Series - The Mobility Revolution - a disruption of value chains. Who wins, who loses?

## **Other Information**

#### **Excursion - Milan**

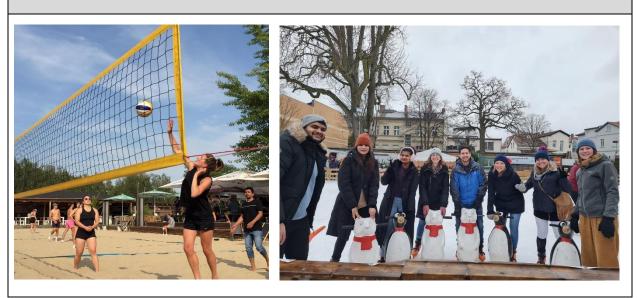
#### Dates: May 23-26, 2023

#### **Planned Activities:**

- Meeting the "Corrieri della Madonnina" (Our Lady Couriers)
- Meeting the partners of "Rob de Matt"
- Visiting ATM (Milan PT operator) operational centre and meeting the management
- Visiting the airport
- Meeting Bocconi MEMIT students



#### **Fun Events**



### **Master Thesis**

Supervisors Individual.

**Aims and Scope** Students demonstrate with the Master Thesis to be capable to address a problem from their study program independently, based on scientific methods, within a specific deadline. Once registered for the thesis, students have four months to conclude.

**Schedule** To start the master thesis, 60 CP must have been gathered; this equals successful completion of all mandatory modules. Technically,the earliest starting date is hence six weeks after the last exam. The thesis can be postponed but should be completed in the third term.

Contents Individual.

Fifty pages, plus introduction and annex (es). In English. Scientificstandards prerequisite. More detailed formal requirements to be announced.

Tutorial about the thesis procedure and implementation will be offered on:

- Thu 08 May 2023 14:30 16:00
- Mon 17 July 2023 11:00 13:00
- Tue 11 July 2023 14:30-16:00

The thesis will be developed in the third semester.

# Alumni Program

With your degree, you become part of the alumni network. Alumni receive invitations to participate in the further extension of the academic program, and to events held on the campus and within the network.

As the program rolls over, you are cordially invited to participate in the curricular and extracurricular events of the following academic year(s)

