



MME-B: Sustainable Supply Chain Analytics

	Period 1 12 ECTS	Period 2 12 ECTS	Period 3 6 ECTS	Period 4 6 ECTS	Period 5 12 ECTS	Period 6 12 ECTS	
MO Year 1 AF	Supply Chain Analytics Elective	Material Flow Analytics Elective	Academic Consultancy training AND Modular Skills Training		Analytics for Business Economics Elective	Business Information Analytics Philosophy of Management and Economics Supply Chain research SKILLS	
MO Year 2 AF	Thesis (36 ECTS) BEC, INF, ORL						MO Year 2 AF
	Internship (24 ECTS) BEC, INF, ORL						

22-10-24, more info: wur.eu/mmeb, contact: mme.msc@wur.nl

MO: Morning course
AF: Afternoon course

Sustainable Supply Chain Analytics (MME-B)

Sustainable Supply Chain Analytics plays a vital role in the transition to sustainable and circular supply chain networks. Its multidisciplinary approach allows students to explore the three main disciplines pivotal in managing sustainable businesses. By analysing information, goods flows and the economics side students develop a toolkit of quantitative methods for business decision-support in sustainable supply chains.

Main Courses:

Business Information Analytics (INF37306)

This course focusses on business information systems and data analytics. Managers and decision-makers need up-to-date business intelligence, visualisation in dashboards, to be able to respond adequately to potential problems, to plan and strategize, and to capture new marketing opportunities.

Business information systems focus on how to design and facilitate information exchanges within business processes, both in the organization and between supply chain partners. Data analytics explores the potential of (big) data, including machine learning approaches, to acquire useful insights. The course further addresses selected topics related to programming and software engineering, systems modelling, technological enablers, Artificial Intelligence, and visualization techniques.

Material Flow Analytics (ORL34306)

Adequate management and optimization of the operations in the chain of supplies from source to sink requires a deep understanding of network design, production planning, inventory control and transportation management. Many problems in practice are large, complex and rely such an amount of data that solving these with off-the-shelf tools is not possible.

Alternative concepts, approximation methods and visualisation techniques are presented to explore and find effective solutions for managing the flow of goods from source to sink. This provides students with an indispensable foundation for successful interpretation and application of generated solutions and provides the tools for core decision problems in nowadays' supply chains.

Analytics for Business Economics (BEC30306)

Economic actors in supply chains in the agri-food sector make decisions in the context of an environment that is characterised by a variety of risks such as production risks, price and market risks, financial and policy risks. Managing these risks is key for a resilient and sustainable supply chain.

This course provides students with the theories (e.g. expected utility theory, behavioural decision theory, investment theory, resilience theory), concepts (e.g. value of information in light of big data) and analytical methods (e.g. econometric modelling, stochastic simulation) that enable to analyse economic decision making under risk.

Sustainable Supply Chain Analytics (YSS32806)

This course integrates the acquired knowledge and skills from the three core specialisation courses. The course provides a multi-disciplinary basis for the analysis and improvements along the three main perspectives in supply chains (information technology, business economics and operational optimization). A substantial part of the course includes a complex case from practice that will be analysed based on the three main perspectives of this program.

Thesis:

In the Sustainable Supply Chain Analytics master's program at WUR, your thesis is basically your chance to take a deep dive into a topic focused on one of the main disciplines within this master program. It's like your academic mic drop moment. Instead of just learning theories in class, you get to pick a real-world question you're curious and interested about and you will get the chance to research this topic.

You start by picking a topic that sparks your interest. Then, you dig into what's already out there – what researchers have said, what studies have found – and figure out where there's still room for more insight. Next, you design your own study and you will start by working with quantitative methods on your thesis. You collect your data, analyse it and then report everything in an official paper. It's not just about getting it right, but about showing you've really thought deeply about something you're passionate about. It's like your academic rite of passage into the world of Sustainable Supply Chain Analytics.

Example of our thesis:

- Data-driven understanding of trading patterns and prices in energy markets
- Enhancing Retail Shopping Experience through Consumer Transaction
- Environmental Sustainability of plant-based textiles
- Analysing supply chain risk management strategies in humanitarian organisations

Internship:

Doing an internship while working on your master degree in Sustainable Supply Chain Analytics is like taking a real-world joyride through the fascinating landscape of supply chain networks. It's not just about hitting the books, it's about diving deep into the practical side of things. You get to swap the classroom for a hands-on experience, where the theories you've been absorbing start making sense in the wild.

You might find yourself working with industry pros, getting the lowdown on how businesses understand and optimize supply chain networks anywhere in the world. You're not just observing, you're part of the action, trying to figure out why people do what they do, whether it's making a decision on opening a new distribution centre, implementing a new stock taking software package, or analysing a potential take-over. In the end you will also write a research report about your experiences. It's the kind of real-world insight you can't get from textbooks alone, and it sets you up for a one-of-a-kind learning experience as you cruise through your master's journey.

Example of companies where our students do their internship:

- Slimstock, predicting the down lift for cannibalised products during promotions
- Arla, the design of a price model for the high-protein product portfolio of Arla Foods
- SPAR, working on supply chain, data structure, planning and visualization

Entry requirements:

The criterion for admission is a WUR degree in Management and Consumer studies or equivalent.

The norm for this equivalence is:

≥ 30 ECTS in at least two of the following three disciplines:

- Business economics (accounting, financial management)
- Decision theory (logistics, operations research)
- Information technology

Additionally, the candidate should have covered:

≥ 10ECTS in Mathematics

≥ 5ECTS in Statistics

The Admission Board will determine your eligible to the master program or refer you to a pre-master program covering your deficiencies.

WHERE ARE OUR GRADUATES NOW?

Sustainable Supply Chain Analytics offers a wide range of possibilities for graduates. The multidisciplinary perspective makes it possible for us to have real examples in many different spheres of application of the programme and the knowledge.



Supply Chain Analytics & Digitization Developer

Cargill
Schiphol, North Holland, Netherlands (On-site)

123 alumni work here



[PhD Researcher - Sustainability impact assessment in the bio-based economy](#)

Wageningen University & Research
Wageningen, Gelderland, Netherlands (On-site)



Sustainability Data Analyst

FrieslandCampina
Wageningen, Gelderland, Netherlands

3 connections work here



[Sustainability Specialist](#)

Nomilk2day Headhunters
Wezep, Gelderland, Netherlands

1 school alum works here



Sustainability Manager - Western Europe

DNV
Arnhem, Gelderland, Netherlands (On-site)

5 company alumni work here



Global Supply Chain Specialist

Progressive Recruitment
Oss, North Brabant, Netherlands (On-site)

Actively recruiting



Junior Consultant Supply Chain Data Scientist

Royal HaskoningDHV
Amersfoort, Utrecht, Netherlands (Hybrid)

1 connection works here



[Manager Data & Analytics](#)

FrieslandCampina
Wageningen, Gelderland, Netherlands

4 connections work here

de volksbank

Risk Manager Sustainability

de Volksbank
Utrecht, Utrecht, Netherlands (Hybrid)

16 school alumni work here



Supply Chain Analyst (Planning)

Euro Pool System
The Hague, South Holland, Netherlands (On-site)

1 company alumnus works here



[Sustainable Sourcing Manager](#)

Danone
Amsterdam, North Holland, Netherlands (On-site)

2 connections work here



Data Driven Improvement Specialist

bol
Utrecht, Utrecht, Netherlands (Hybrid)

9 company alumni work here



Managing Consultant - Team Lead - Green & Sustainable Innovations

Catalyze Group
Amsterdam Area (Hybrid)

1 school alum works here



[Head of Sustainability Solutions, Risk & Data Services Platform](#)

Swiss Re
Hoofddorp, North Holland, Netherlands (Hybrid)

1 company alum works here

Promoted