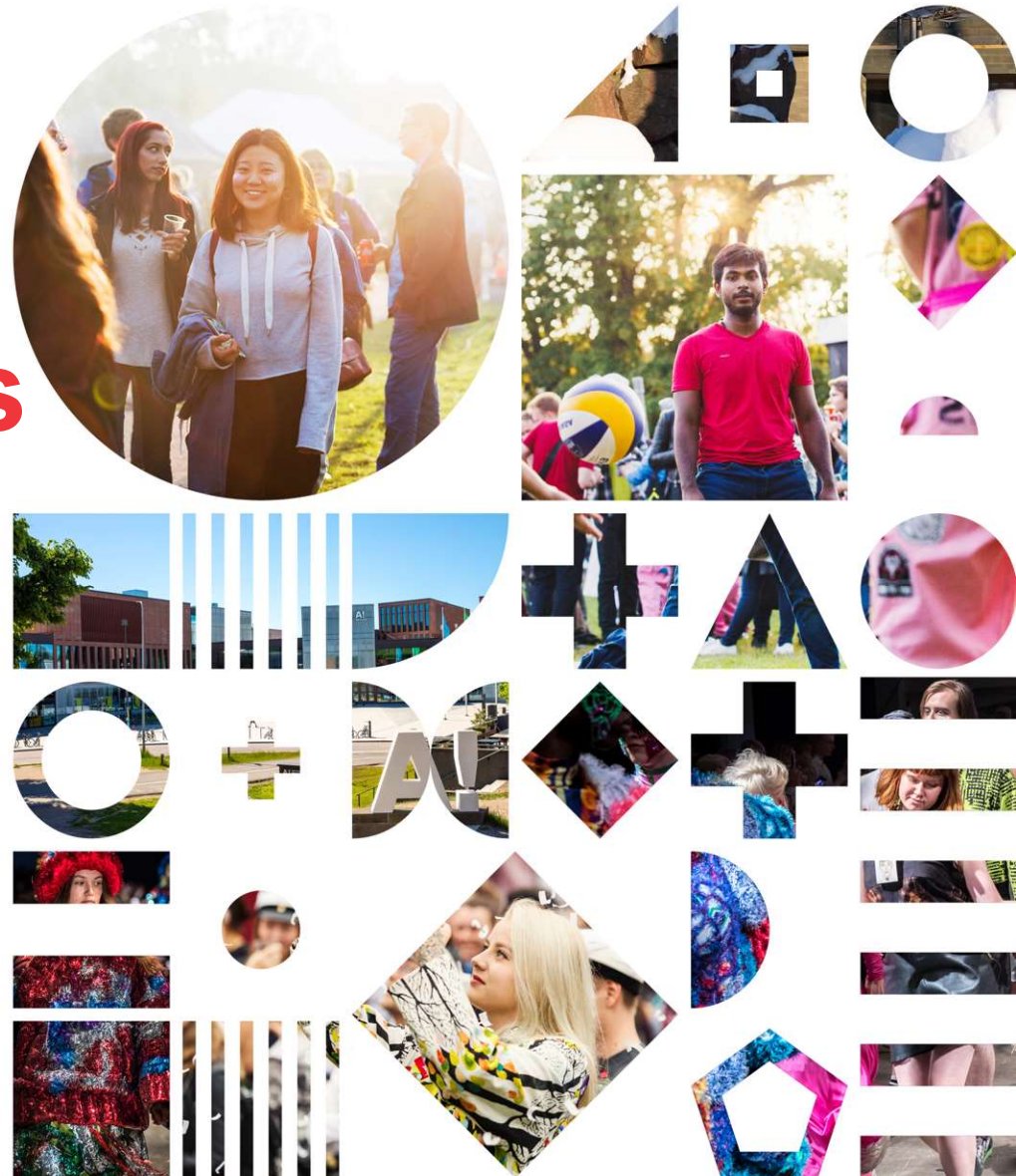


Welcome new Business Analytics students!

**Master's programme in Business
Analytics (26/08/25)**

Programme Director Juuso Liesiö

Planning Officer Elli Hämäläinen



Who are we?



Prof. Juuso Liesiö

**Director of Master's
programme in
Business Analytics**

juuso.liesio@aalto.fi



Elli Hämäläinen

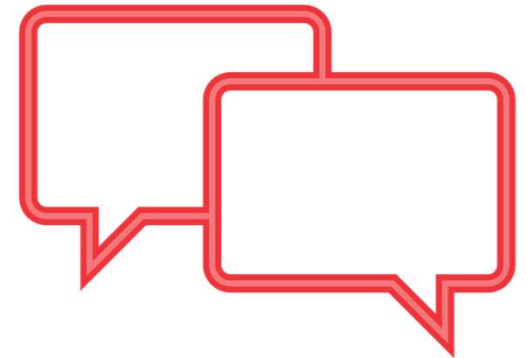
**Coordinator of the
Master's programme in
Business Analytics**

Elli.hamalainen@aalto.fi

**Meetings can be booked
via MyStudies**

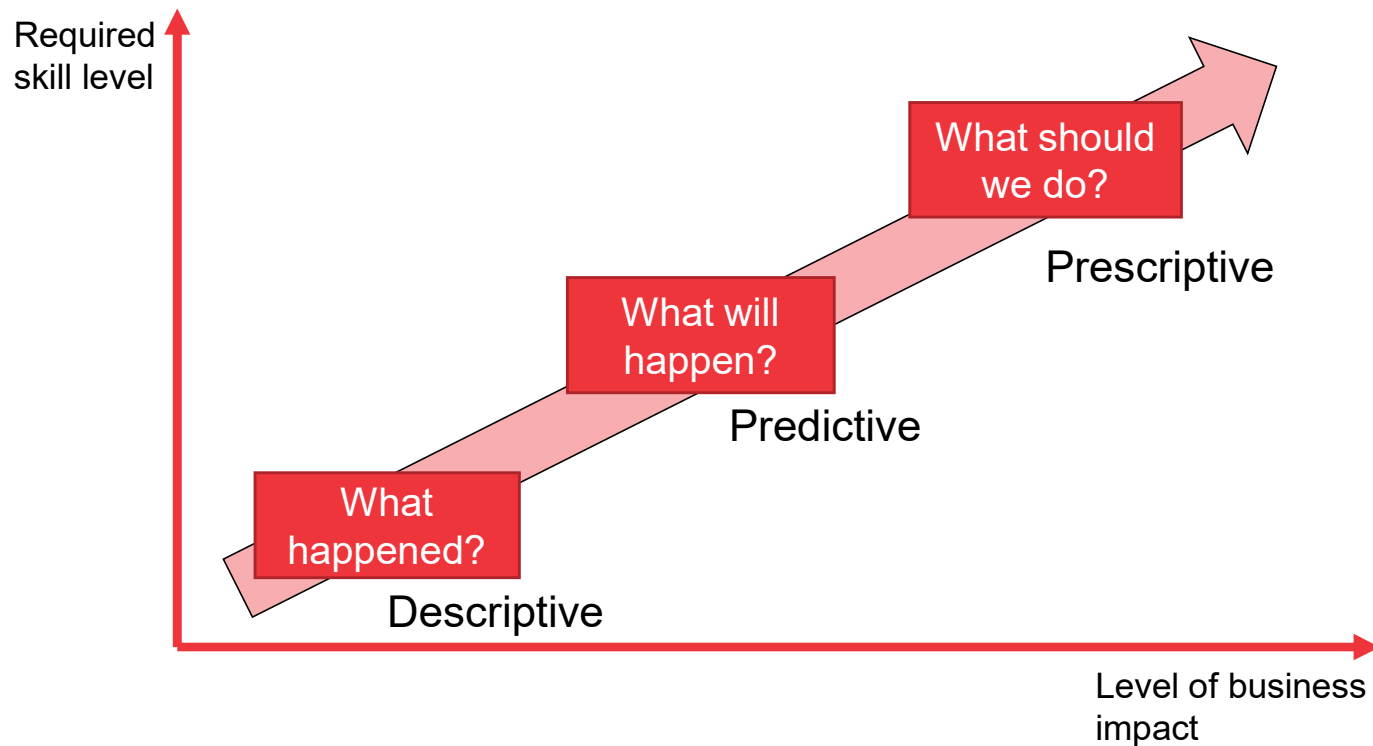
Get to know each other

1. Who are you?
2. Where are you from?
3. Tell about some happy memory from the summer

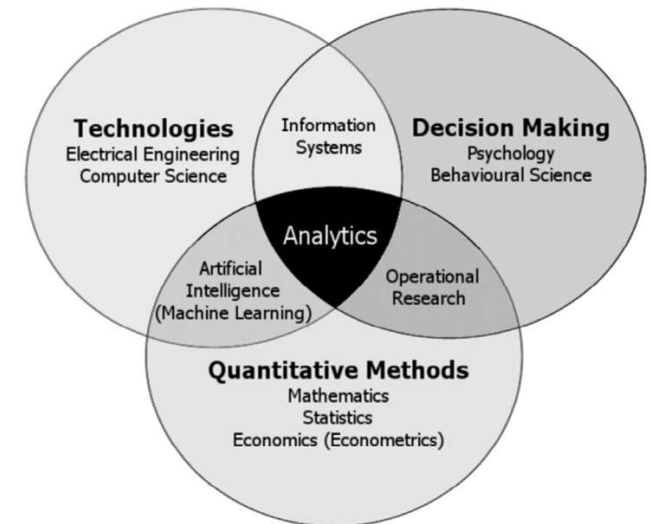


Business Analytics

Business Analytics: Better decision making through the utilization of analytical models and data (i.e., statistics, optimization, machine learning, simulation, decision analysis, game-theory)



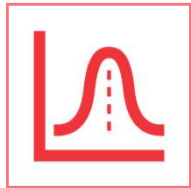
Source: Kart, L. "Advancing analytics", Gartner Inc. (2012)



Mortenson, Doherty, Robinson (2015).
"Operational research from Taylorism to Terabytes", *European Journal of Operational Research*

Program Contents

You will learn



Knowledge of business analytics

Graduates possess in-depth knowledge on analytics theory, models, methods, and tools, and how analytics and data produce added value in different application domains.



Understanding of sustainability and ethical aspects

Graduates understand how sustainability aspects can be incorporated into analytics models and tools and are aware of ethical issues related to the use analytics.



Communication, leadership, and team working skills.

Graduates have the necessary skills to successfully carry-out analytics development and deployment in diverse organizations.



Problem solving, analytical thinking and decision-making skills

Graduates are critical thinkers who can develop and deploy analytics models and tools to support data-driven problem solving and decision-making.

Programme structure

Total 120 ECTS

Programme studies 85-87 ECTS

**Mandatory courses
30 ECTS**

**Thesis + seminar
33 ECTS**

Specialization studies 24 ECTS

Elective studies 33-35 ECTS

Elective studies can include:

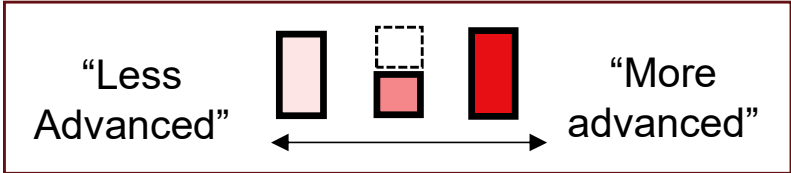
- **Minor (exchange studies, ITP, minor from another field or another university) min. 24 ECTS**
- **Courses from other fields, other schools of Aalto, MOOC courses, language studies, internship**

Business Analytics programme studies 2025-26

A U T U M N

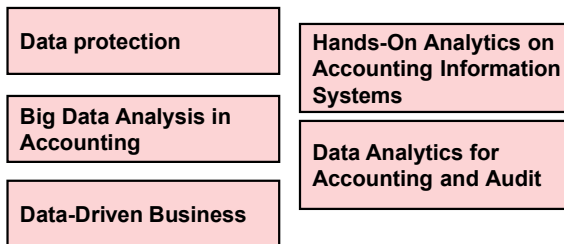
S P R I N G

Mandatory Capstone course		30E03500 Capstone: Data Science for Business 2		57E00500 Capstone: Business Intelligence	
Mandatory courses (12 ECTS)	30E03000 Data Science for Business 1		ISM-E1004 Business Analytics 2	30E03000 Data Science for Business 1	
Elective courses: Choose 10-12 credits	30E00400 Simulation		ISM-E1005 Forecasting Methods in Business Analytics	ISM-E1006 Decision Analytics for Consulting	ISM-E1007 Current Topics in Analytics Research
	ISM-E1002 Survey Research D		ISM-E1002 Survey Research D		ISM-E1009 Analytics for Sustainability
	CS-E5710 Bayesian Data Analysis		MS-E2112 Multivariate Statistical Analysis		
	CS-E4715 Supervised Machine Learning				
Suggestions for elective studies of degree by programme	ISM-C1003 Mathematical tools for analytics		37C00400 Programming I		30C02000 Negotiation Analytics
	ISM-C2022 MySQL for Data Analytics	ISM-C1004 Business Analytics 1			
	ABL-E2606 Data protection				

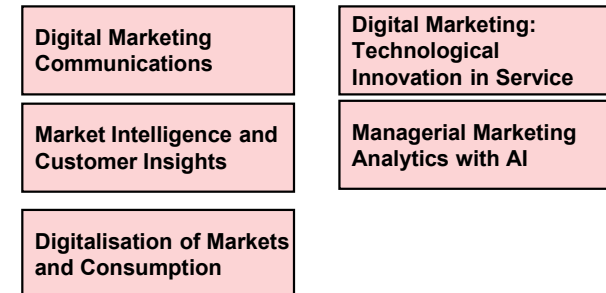


Specialization studies 24 ECTS

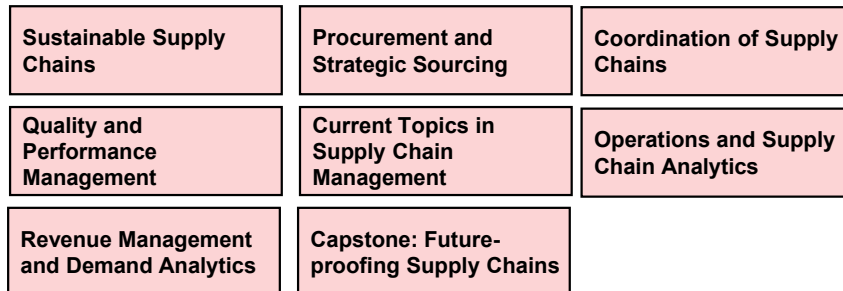
Accounting Analytics



Marketing Analytics



Supply Chain Analytics



Choose courses from one specialization field or mix courses from different fields!

Accounting Analytics specialization

Lecturer Hamed Salehi



Aalto University



Accounting Analytics

Department of Accounting & Business Law

Academic year 2025-2026

Specialization studies 24 ETCS

Accounting Analytics

Data protection

Big Data Analysis in Accounting

Data-Driven Business

Hands-On Analytics on Accounting Information Systems

Data Analytics for Accounting and Audit

Supply Chain Analytics

Sustainable Supply Chains

Quality and Performance Management

Revenue Management and Demand Analytics

Procurement and Strategic Sourcing

Current Topics in Supply Chain Management

Capstone: Future-proofing Supply Chains

Coordination of Supply Chains

Operations and Supply Chain Analytics

Marketing Analytics

Digital Marketing Communications

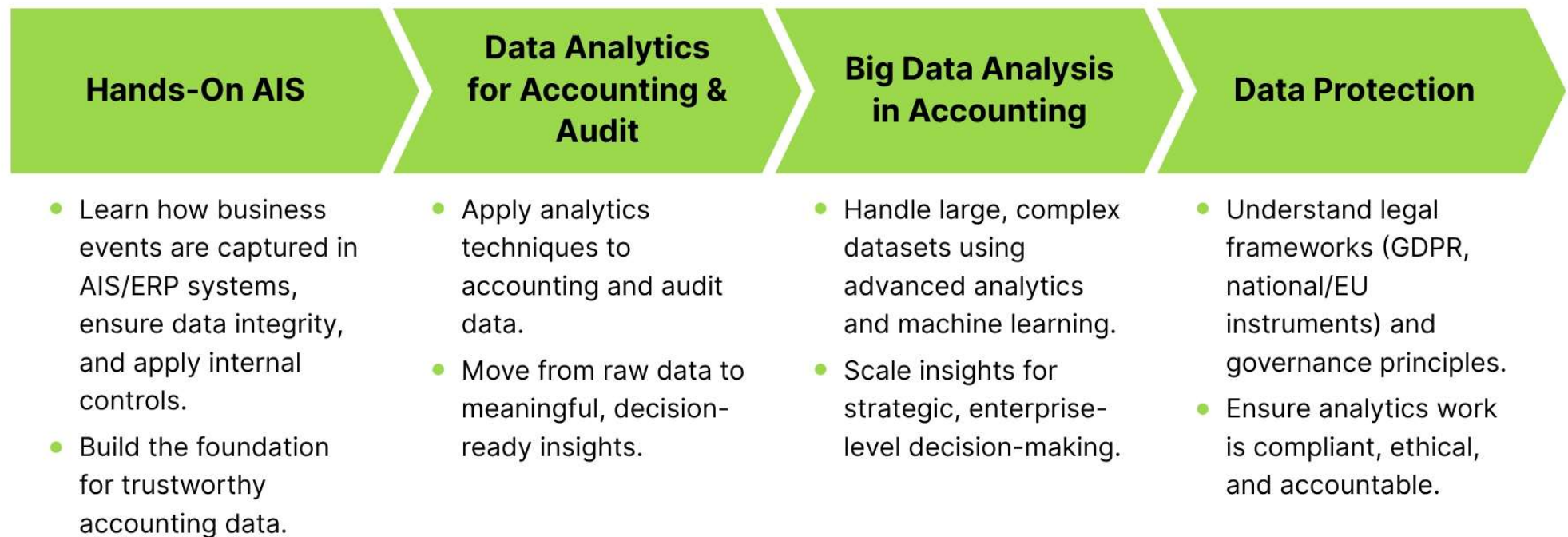
Market Intelligence and Customer Insights

Digitalisation of Markets and Consumption

Digital Marketing: Technological Innovation in Service

Managerial Marketing Analytics with AI

Our Accounting Analytics Learning Path



Why It Matters



Context is power

Learn to apply your analytics methods in the language of the business



Hands-on Learning

Work with real data under business context, SQL, R & Python workflows, legal frameworks.



Career Leverage

Be the link between analytics teams and decision-makers

Gain the skills to become the bridge between analytics and business impact, delivering data-driven insights that transform decision-making.

22.4.2026–7.6.2026

Hands-On Analytics on Accounting Information Systems (ABL-C1103)

Systems, Data & Controls

Systems & Processes

- Learn the fundamentals of Accounting Information Systems (AIS) and Enterprise Resource Planning (ERP) systems including *process documentation, change planning, and implementation.*

Internal Controls & Risk Management

- Apply internal control frameworks.
- Detect risks and potential fraud.
- Conduct a code audit in an IT audit role.

Learning Experience

- Individual assignments, including SQL/data management as well as auditing a machine learning algorithm.
- Group case work with Accountor ERP and case analysis.
- Final Exam

8.1.2026–19.2.2026

Data Analytics for Accounting & Audit (ABL-C1103)

Turning Data into Actionable Insights

Full Analytics Cycle

- Develop a data analytics mindset following: business understanding, data preparation, modeling, evaluation, and deployment.
- Communicate insights effectively to support decision-making.

Different Analytics Types

- Perform descriptive, diagnostic, predictive, and prescriptive analytics in accounting and audit contexts.

Learning Experience

- Weekly workshops, hands-on assignments with R
- Collaborate with interdisciplinary groups on a real-world project and present findings to peers and instructors for feedback.

23.2.2026–16.4.2026

Big Data Analysis in Accounting (ABL-E1300)

From large datasets to strategic insights

Managerial skills

- Recognize and manage data as a business asset.
- Recognizes different types of data, their characteristics, and potential use.
- Assess the role of data analytics in accounting and auditing from managerial perspective.

Technical skills

- Program in Python and apply relevant data science libraries.
- Extract, transform, and analyze various data formats.
- Implement classification and forecasting models in a business context.

Learning Experience

- Learn through lectures, case-based tutorials, assignments, and a learning diary.

1.9.2025–16.10.2025

Data Protection (ABL-E2606)

Law & Governance

Foundations

- Understand core rules, definitions, and roles in data protection.
- Learn the obligations arising from accountability provisions.

In Context

- Explore how data protection law interacts with other rights and interests.
- Examine the General Data Protection Regulation (GDPR) alongside national and EU instruments.
- Analyze recent case law to see principles in practice.

Learning Experience

- 20 hours of lectures with active participation.
- Guided self-study and preparation using the provided reading list.
- Final examination assessing understanding and application of data protection principles.

Supply Chain Analytics specialization

**Associate Professor
Heikki Peura**



Aalto University

Fifth of all global CO2 emissions come from the supply chains of large multinational companies such as Total, BP and Coca Cola, study finds

- Report reveals the scope of big companies' power in climate change prevention

European Union: Due Diligence in Supply Chains

BY SEHER BUDAK · JULY 26, 2023 · 3 MINS READ

Cadbury faces fresh accusations of child labour on cocoa farms in Ghana

DHL says supply chain must drive move to circular economy

January 26, 2022 · 5 mins

Supply chains + Add to myPT

Supply chain managers in demand as businesses hit by shortages

THE BIG SUPPLY CHAIN TALENT SHORTAGE

Climate change will disrupt supply chains much more than Covid — here's how businesses can prepare



Special Report UK's Leading Management Consultants

Supply chain bottlenecks: 'It's been nuts'

...“It's been absolutely nuts,” says Brian Higgins, head of KPMG's U supply chain and operations practice...



Apple Inc

Apple forecasts up to \$8bn hit from supply chain problems

...Apple executives warned that the group could sustain a hit of up to \$8bn in the current quarter from headwinds including supply chain shortages and factory shutdowns in China, underscoring how the challenges...

Supply chain traceability – the next revolution?

November 2022 | FEATURE | BOARDROOM INTELLIGENCE

Supply Chain Analytics Market Statistics - 2027

The global supply chain analytics market size was valued at \$4.53 billion in 2019, and is projected to reach \$16.82 billion by 2027, growing at a CAGR of 17.9% from 2020 to 2027. Supply chain analytics targets to improve operational efficiency and effectiveness by enabling data-driven decisions at strategic, operational, and tactical levels. It incorporates virtually the complete value chain including sourcing, manufacturing, distribution, and logistics. Supply chain analytics helps in increasing

A Tech 'Golden Age' Awaits Supply Chains Limping Out of the Pandemic

- Investors injecting \$9 billion a quarter into logistics tech

SCM knowledge + Analytics skills = ???

Traceability and digitalization are big trends in SCM – both creating new and exciting opportunities

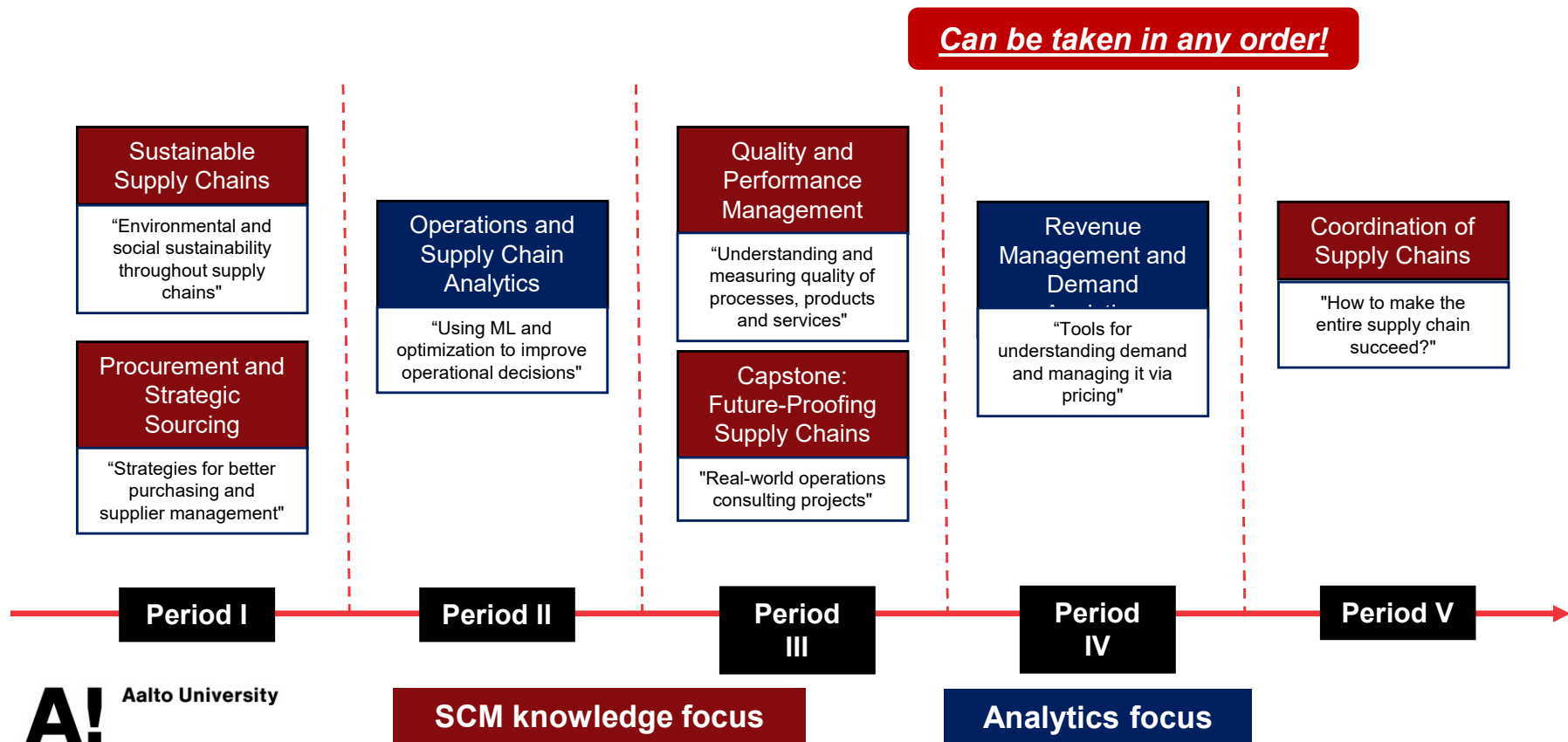
Describe – predict – prescribe...
...to create more **sustainable** and **resilient** supply chains

Example application areas for SC analytics



This Photo by Unknown Author is licensed under [CC BY-SA-NC](#)

Choose 4 SCM courses for your specialization



Marketing Analytics specialization

Lecturer Alexei
Gloukhovtsev



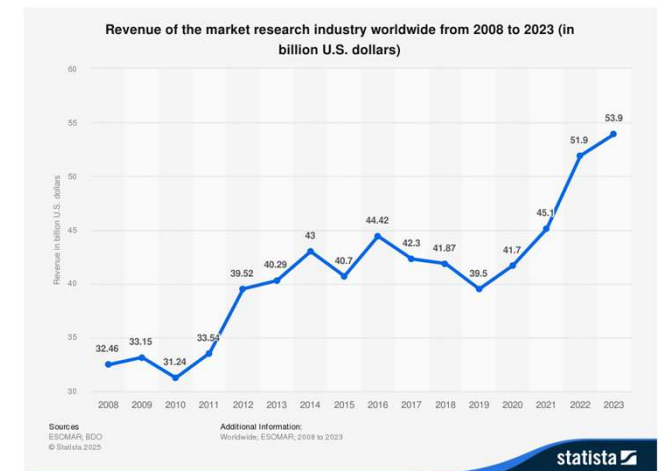
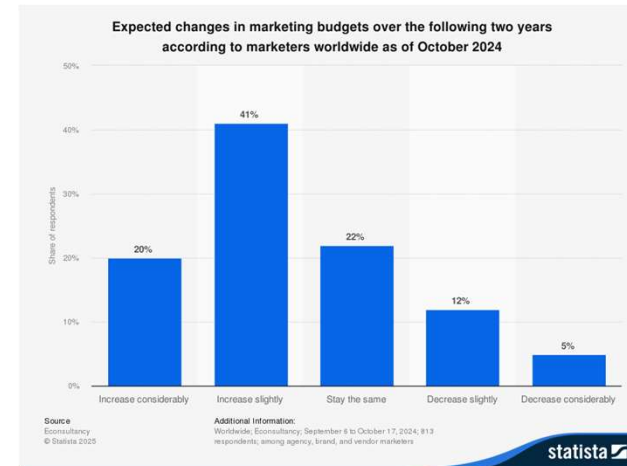
Aalto University

MARKETING ANALYTICS

Marketing continues to be a critical organizational function.

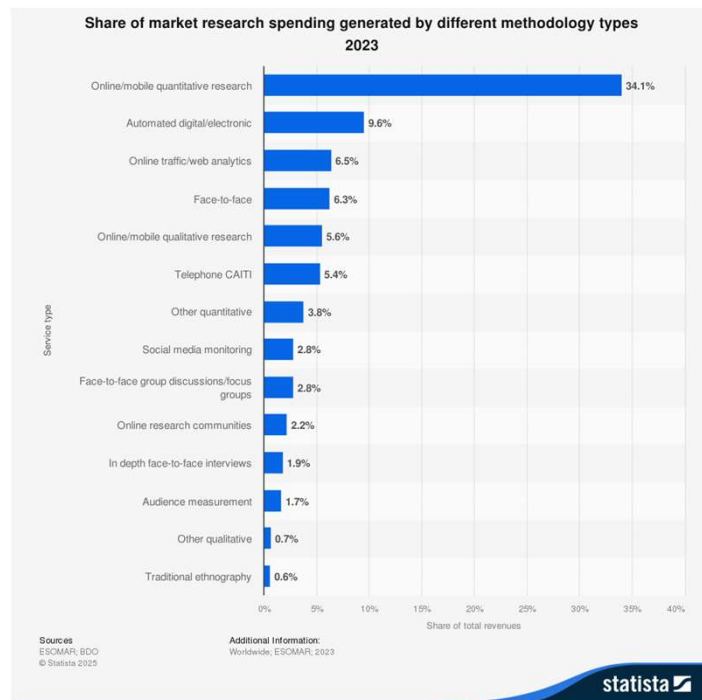
At the same time, marketing is becoming more data-driven than ever.

Strategic and tactical decisions are based on detailed understandings of consumer attitudes and preferences through tools such interviews, surveys, and increasingly, big-data analytics.



Source: Econsultancy (2024); ESOMAR Global Market Research (2025)

MARKETING ANALYTICS

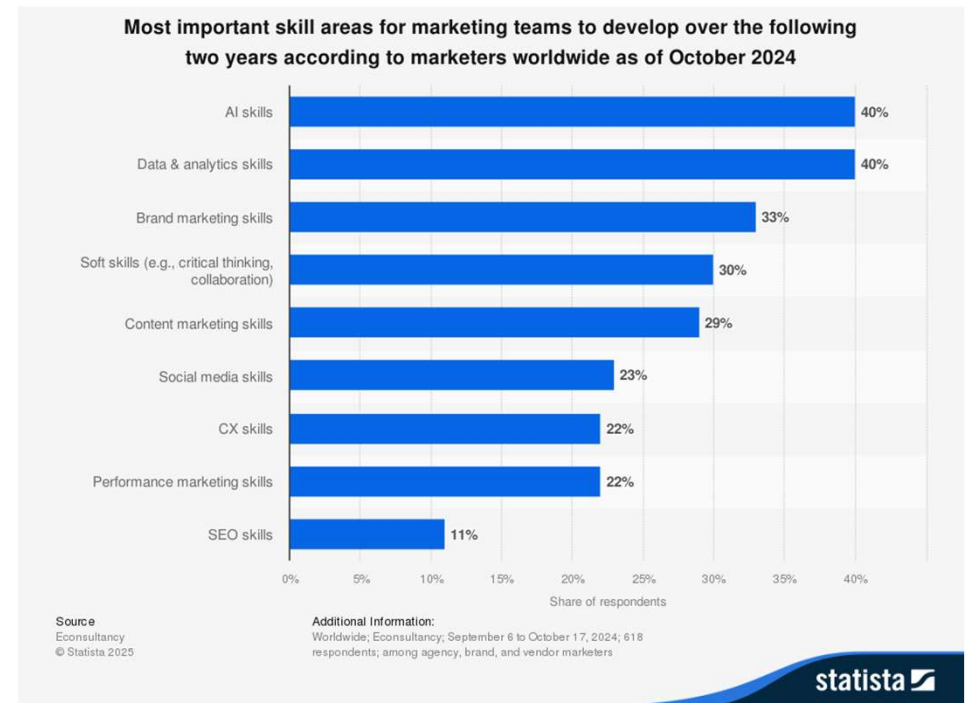


In 2023, the methodology that contributed most to the revenue of market research companies was online/mobile quantitative research with 34 percent of the market share. Second in the list was automated digital/electronic, with 9.6 percent

Source: ESOMAR Global Market Research (2025)

MARKETING ANALYTICS

During a survey conducted among marketers worldwide in September and October 2024, approximately 40 percent included artificial intelligence (AI) skills among the most important skill areas for marketing teams to develop over the following two years. The same share of respondents selected data and analytics skills.



Source: Econsultancy (2024)

MARKETING ANALYTICS SPECIALIZATION STUDIES

Market research and analytics

Market Intelligence and Customer Insights

Managerial Marketing Analytics with AI

Digital marketing

Digital Marketing Communications

Digital Marketing: Technological Innovation in Service

Digitalisation of Markets and Consumption

MARKETING ANALYTICS SPECIALIZATION STUDIES

Possible career paths:

- Marketing Analyst/Consultant
- Customer Insights Manager
- Digital Marketing Strategist



Image: sora.com

How to choose elective studies?

What are your own interests?

- What kind of jobs you are interested in?

Talk with the tutors

- Juuso Liesiö is your teacher tutor

Take intro courses

**Check also AaltoBT
subject club study path
examples**



aaltobt.fi

Minor program for the Digital Future

Information Technology Program (ITP)

School of Business

Information Technology Program (ITP)

Aalto University Information Technology Program (ITP) is a summer minor program (24 ECTS in 3 months). It brings students together from diverse backgrounds and all around the world to solve digital business problems. ITP combines business, design, and technology, and improves students future work-life skills.



www.aalto.fi/en/school-of-business/information-technology-program-itp

BA Master's theses

Think about starting your thesis work already in late spring

Completed BA thesis titles:

Price optimization for consumer loans — Case Finnish fintech company

Decision support model for cloud adoption strategy - a case study of a Finnish telecom company

Solar potential in Helsinki – optimizing the allocation of solar panels on the roofs of Helsinki

Determinants of central government employee turnover in Finland: A competing risk analysis

Facilitating public procurement processes with multi-criteria decision analysis: Evidence from the HX Fighter Program

Investigating the applicability of spatiotemporal transformer networks for air quality forecasting

Empirical asset pricing via machine learning in the context of Nasdaq Helsinki



Slide 30

HA43

TEK: Students who write their thesis for a company are four times more likely to find high-quality employment:
<https://www.tek.fi/en/news-blogs/masters-thesis-for-a-company-helps-foreign-professionals-secure-jobs>

Halsas Anna, 13/02/2023

Planning your studies

- **Student guide at aalto.fi**
 - Programme structure, course list, graduation schedule etc.
- **SISU**
 - Course registration, personal study plan, course schedules
- **MyStudies**
 - Appointment booking, tools and services for students, thesis management
- **MyCourses**
 - Online platform for courses

Personal Study Plan

- Drafted in Sisu
- The extent of the degree is **min. 120 credits** and can be exceeded by one course (max. 126 ECTS).
- If you want to complete extra courses, you can add them in the electives for the course registration and remove later
- If you are required to complete mandatory language requirements, remember to add them to the elective studies
- Remember to apply for approval for elective studies & other sections when needed

The subject club for BA and ISM programs

Aalto Business Technology



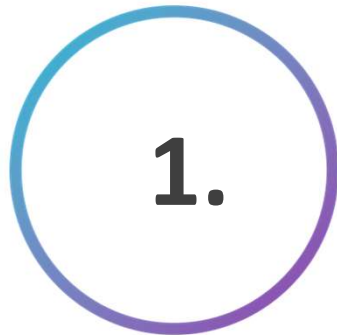
<https://aaltobt.fi/>



Welcome new ISM/BA student!

Fall semester 2025

We connect our students with



Their peers



Faculty



Companies

BT Board '25



Jonatan Nuutinen
Chairperson



Tori Schumacher
Vice Chairperson



Eemil Tikkanen
Treasurer



Jakke Liikanen
Senior Advisor



Vlad Cheorghiu
Corporate Relations



Alvar Laiho
Corporate Relations



Niilo Niinimäki
Event Coordinator



Anneli Rongonen
Corporate
Communications



Niklas Järn
Communications
Coordinator



Atte Aho
Brand Manager



Maiju Virtala
Project Coordinator



Tuukka Hietanen
Academic Affairs

Our Partners



Our Events



Study trip, Dublin, 2019



After exams, 2023



Career dinner, 2022



Boat party, 2024



Study trip, California, 2016



Annual ball, 2024



Sitz, 2025



Hike, 2021

Study paths

On aaltobt.fi

So, what are you interested in?

 General Business Analytics Revenue, forecasting, dashboards, ROI, predictive models... Unlock the power of data-driven business decisions. See full study path	 Marketing Analytics SEO, SEM, churn rate, impressions, automation, bounce rate... Dive into the world of marketing data. See full study path	 Financial Analytics Gain the high-in-demand quantitative tools for analysing financial markets and making financial decisions. See full study path
 Accounting Analytics Understand the financial processes of a business and how to analyse data to optimise accounting operations and decision-making. See full study path	 Supply Chain Management Understand the logistics of a business and how to analyse operations throughout the supply chains. See full study path	 Project Management Learning strategic management for IT or other contexts is a great match for anyone interested in IT consulting or general leadership positions in tech spaces. See full study path
 Product Management Understand what customers want from digital services and how to design high-quality user experiences. See full study path	 Artificial Intelligence Be a business person on the cutting edge of technological innovation by combining AI with a thorough knowledge of analytics. See full study path	

Example - Financial analytics

☆ = mandatory course, cannot be substituted with any other courses

+ = minor course

2nd Bachelor's Year

This is a complete sample study path recommended for a student interested in financial analytics that includes all credits needed for Bachelor's graduation from ISM. In the example below, a Bachelor's minor in Finance is assumed.

Autumn (I-II)

+ [FIN-A0103](#) (I)
Fundamentals of Corporate Finance, 6cr

[ISM-C1003](#) (I-II)
Mathematical Tools for Analytics, 6cr

[ISM-C1004](#) (II)
Business Analytics I, 6cr

[CS-A1111](#) (I-II)
Basics Course in Programming YI, 5cr

+ [FIN-A0104](#) (III)
Fundamentals of Investments, 6cr

Spring (III-IV)

+ [FIN-A0105](#) (III)
Fundamentals of Financial Markets and Institutions, 6cr

☆ [ISM-C1002](#) (III-IV)
Advanced Course in Statistics and Data Analytics, 6cr

[37C00100](#) (IV)
Management Information Systems, 6cr

[ISM-C2003](#) (V)
Capstone: Business Process Management in the Digital Era, 6cr

[30C02000](#) (V)
Negotiation Analytics, 6cr

+ [FIN-A0106](#) (V)
Personal Finance, 6cr

+ language courses, 11cr total

3rd Bachelor's Year

Autumn (I-II)

☆ [BIZ3130.kand](#) (I-II)
Bachelor's Thesis and Seminar, 10cr

Spring (III-IV)

[Exchange Studies](#) (III-V)
[Exchange to partner destination](#), 20cr

+ language courses, 11cr total

Fall 2025 Event Calendar

Our events:

13.9. New Student Opening

19.9. Event with Deloitte

7.10. Event with Accenture

17.10. Case Cracking Event

22.11. Annual Ball

23.11. Sillis

25.11. Fall Meeting & New Board Elections

5.12. *Keep this day free if applying for the board*

Our partners' events:

3.9. EY-Parthenon Trainee Event

9.9. Bain Exclusive Dinner

9.9. August Associates Dinner

10.10. BCG Platinion Women in Digital Mentorship Program

15.10. Futurice excursion

22.10. Columbia road excursion

...And more to be announced on our channels!

First event of the semester

New Student Opening!

When: Saturday 13.9., Doors open 18:00

Where: Rantasauna (Vastaranta 1)

Price: Free!

Sign up!





Don't miss out on future posts!

1. Join as a member <- Exclusive newsletter
2. BT Chat <- General discussion
3. BT Career <- Job postings
4. BT Events <- Our and partners' events
5. Facebook
6. Instagram



Aalto
Business
Technology



**We wish you a great
fall semester!**

@aaltobt –
aaltobt.fi

Where to seek advice?

- **Planning of studies:**

- Academic advisor: Juuso Liesiö
- Aalto BT club study paths online at: <https://www.aaltobt.fi/study-paths/>
- Guidance with Sisu, general questions: Planning officer Elli Hämäläinen
- Aalto.fi student guide (degree structure, general questions)

Career planning / motivation / wellbeing etc.:

- Support and guidance: <https://www.aalto.fi/en/support-services-for-students>
- Starting Point of Wellbeing, Career Design Lab, etc.

Contact information



Prof. Juuso Liesiö

**Director of Master's
programme in
Business Analytics**

juuso.liesio@aalto.fi

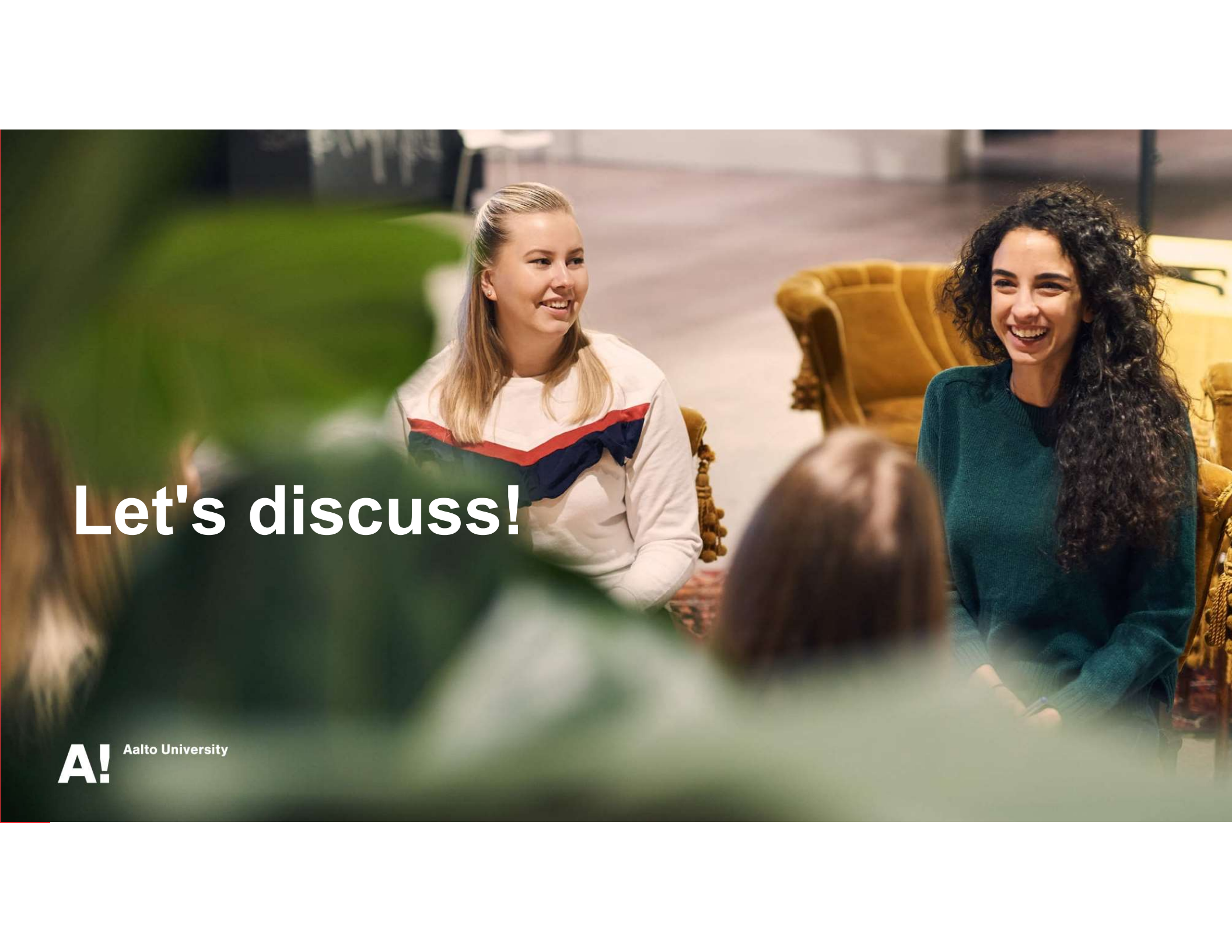


Elli Hämäläinen

**Coordinator of the
Master's programme in
Business Analytics**

Elli.hamalainen@aalto.fi

**Meetings can be booked
via MyStudies**

A photograph of two young women sitting in a room with large potted plants in the foreground. The woman on the left has blonde hair and is wearing a white sweatshirt with a red and blue stripe. The woman on the right has dark curly hair and is wearing a green sweater. They are both smiling and looking towards the camera. The background is slightly blurred, showing a yellow armchair and a white wall.

Let's discuss!



Aalto-yliopisto
Aalto-universitetet
Aalto University

Welcome to Aalto BIZ!



aalto.fi