Expertise
and insight
for the future

Metropolia University of Applied Sciences

Expertise and Insight for the Future

Metropolia
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Where in the world is Finland?

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Why Finland, Helsinki and Metropolia

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Welcome to Finland, one of the best countries in the world!

#1 in education
(Better Life Index: Education OECD)

#1 in human capital
(Human Capital Index 2016, World Economic Forum)

#1 in sustainable society
(Main results 2016, Sustainable Society Index)

#1 in safety
(Travel and Tourism Competitiveness Report 2015, World Economic Forum)

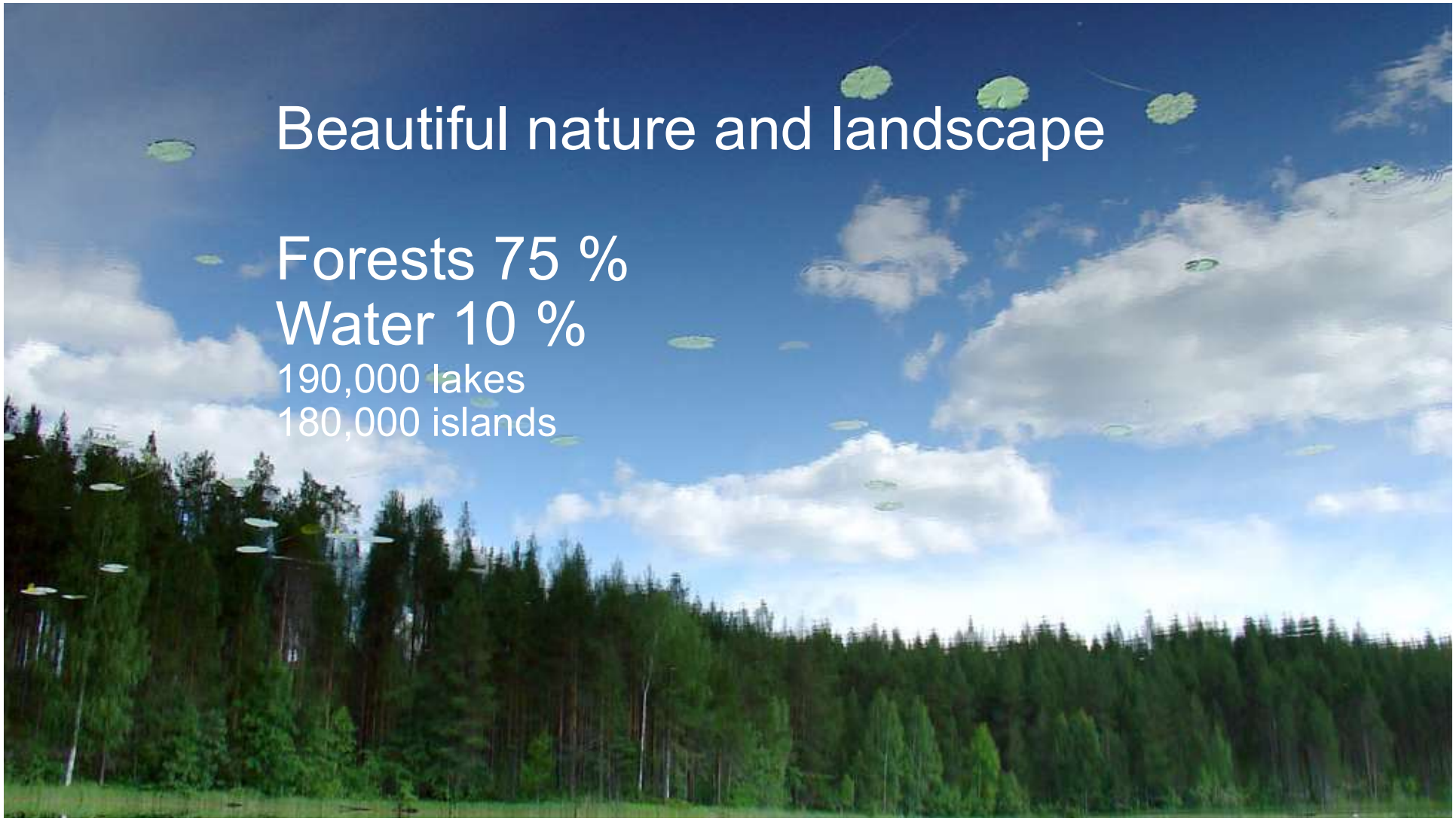
#1 in happiness
(World Happiness Report 2018, Sustainable Development Solutions Network)

#2 in gender equality
(Global Gender Gap Index 2916, World Economic Forum)

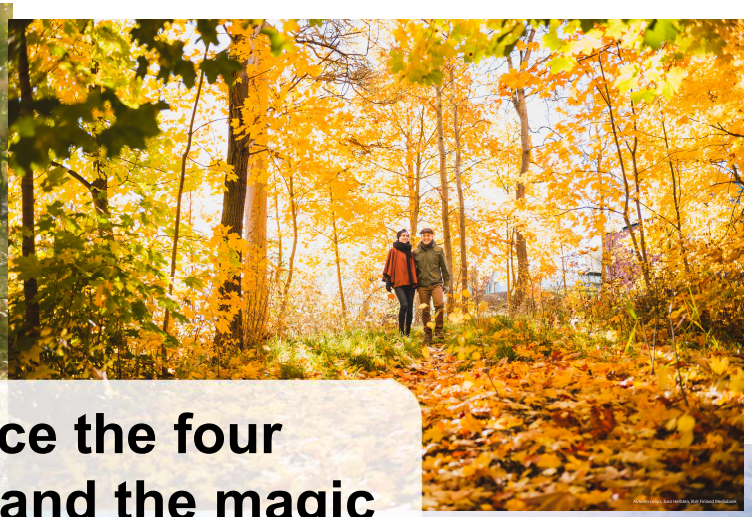
#3 in innovation
(Global Competitiveness Report 2016-2017, World Economic Forum)

Finland

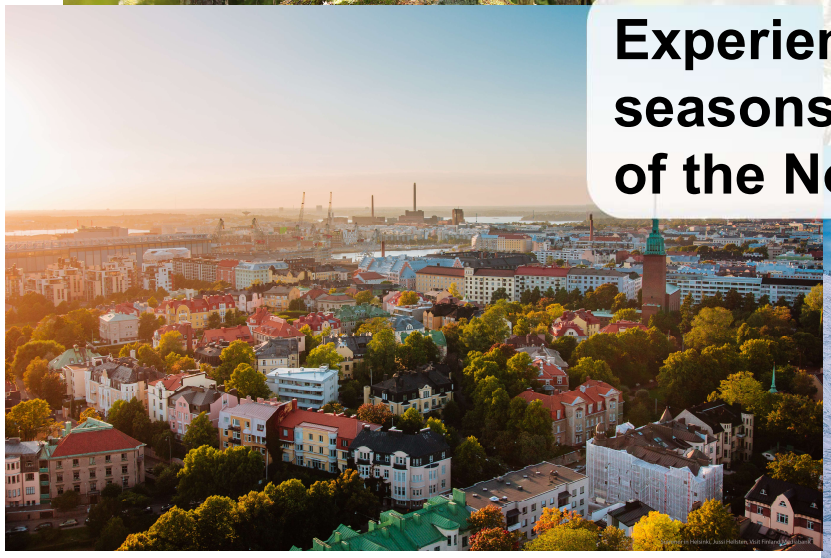
- Neighbouring countries: Sweden, Norway, Russia and Estonia
- 6th largest country in Europe for land mass
- ¼ of Finland north of the Arctic Circle
- Biggest cities are Helsinki, Espoo, Vantaa, Tampere, and Turku
- Europe's largest archipelago

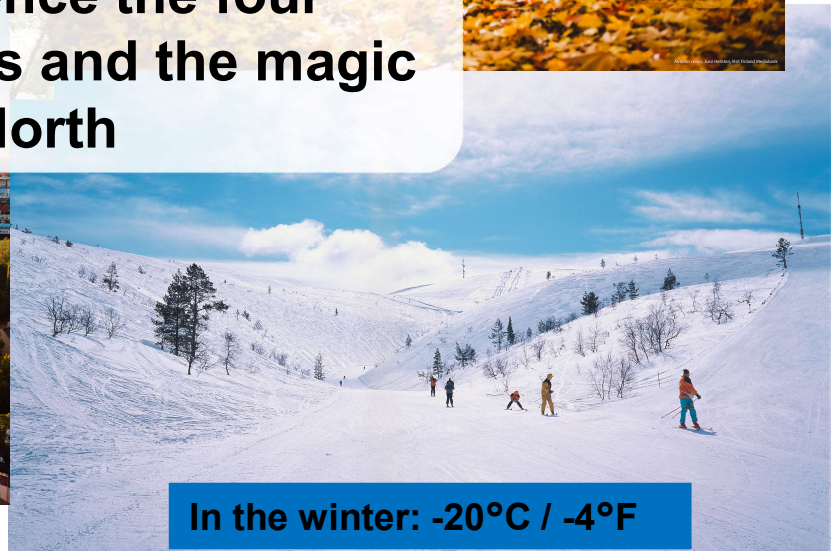

Beautiful nature and landscape
Forests 75 %
Water 10 %
190,000 lakes
180,000 islands

In the summer: +30°C / +86°F



Experience the four seasons and the magic of the North





In the winter: -20°C / -4°F

…and *tervetuloa* to Helsinki, a vibrant and urban design city!
#1 in life quality (Creative City Index 2014)
#9 The most livable city in the world (Economist Intelligence Unit 2017)
#3 The best city to live in the world in terms of technology, innovation and entrepreneurship (CITIE – City Initiatives for Technology, Innovation and Entrepreneurship, 2015)

“Helsinki is a very interesting and spirited city. There is always something to do. Also the location is great. Within a few hours or an overnight cruise you’re in a completely different country, without spending too much money.”

- Former Metropolia exchange student

Read more:
12 reasons to fall in love with Helsinki
by Visit Helsinki

Metropolia University of Applied Sciences

Finland's largest university of applied sciences

and the most popular UAS in Finland

in terms of applicants

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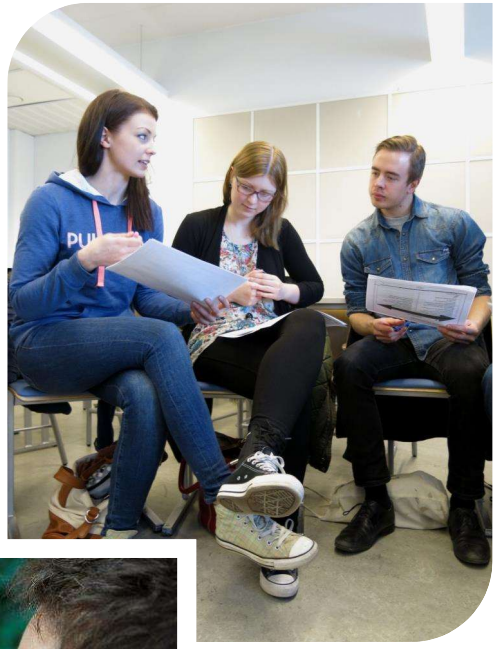
Recommended by former exchange students

”Metropolia offers a nice atmosphere to study – I really felt at ease.”

- Former Metropolia exchange student



“The practical learning methods are really motivating. The teachers and staff are kind and helpful and willing to go the extra mile for you. I would highly recommend Metropolia for study abroad.”

- Former Metropolia exchange student

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Metropolia – an international university of applied sciences in the capital of Finland

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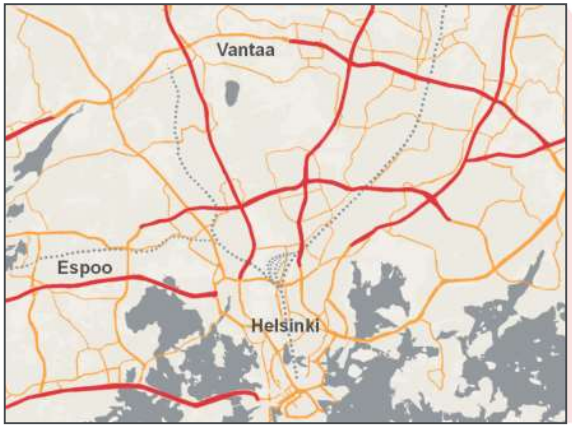
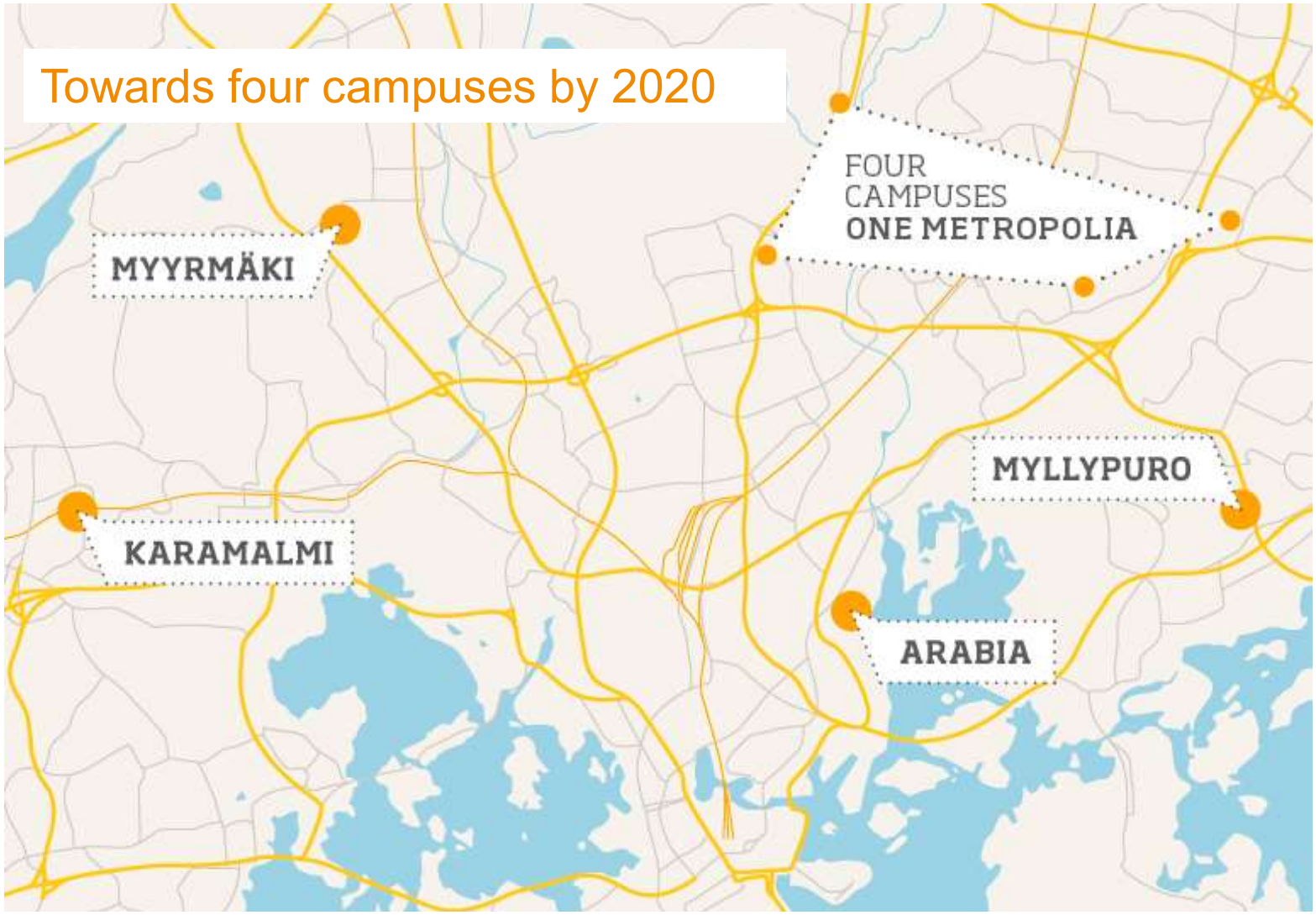
Metropolia - in the Helsinki Metropolitan Area

- Operating out of Helsinki, Espoo and Vantaa
- Appr. one million inhabitants in the area, i.e. 20% of the whole population



Towards four campuses by 2020



Metropolia in brief

- A multidisciplinary university of applied sciences, the largest in Finland

- 16,400 students
- 2,840 Bachelor's and 420 Master's graduates in 2018
- Staff 920

- Four fields of study:
  - Culture
  - Business
  - Health Care and Social Services
  - Technology

FINEEC
AUDITED

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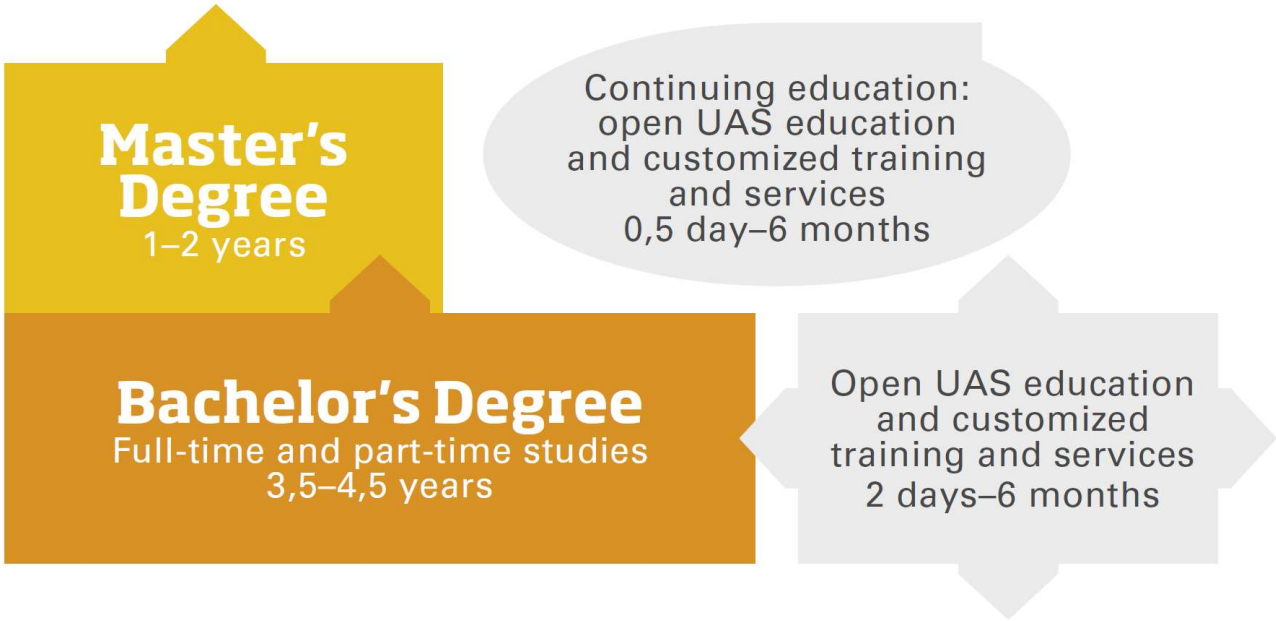
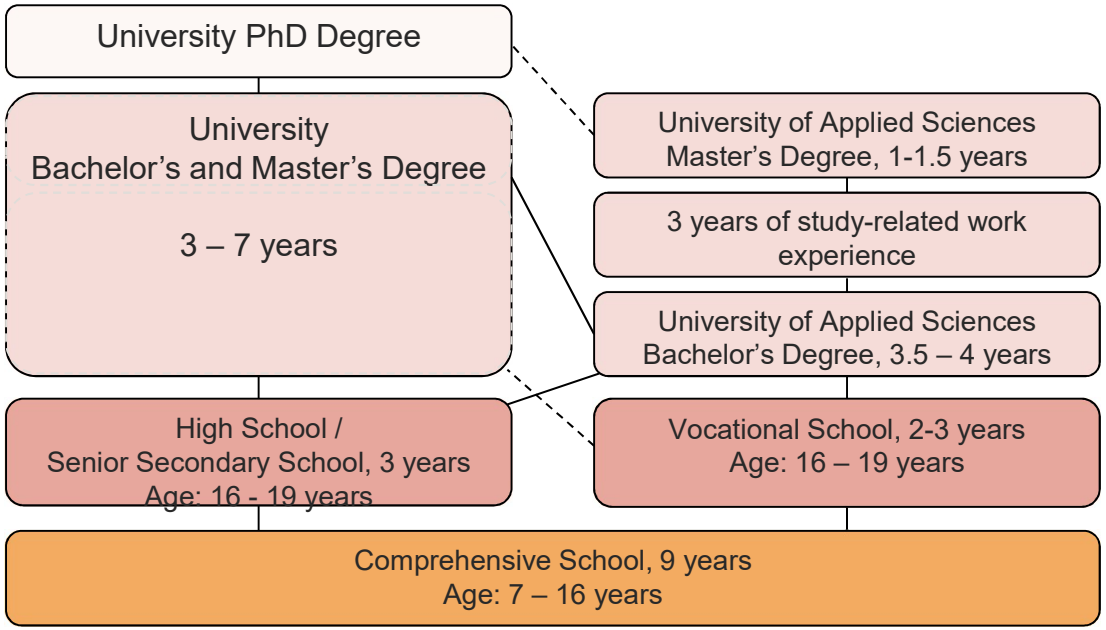
69 degree programmes – 11 of them in English



Dual System of Higher Education



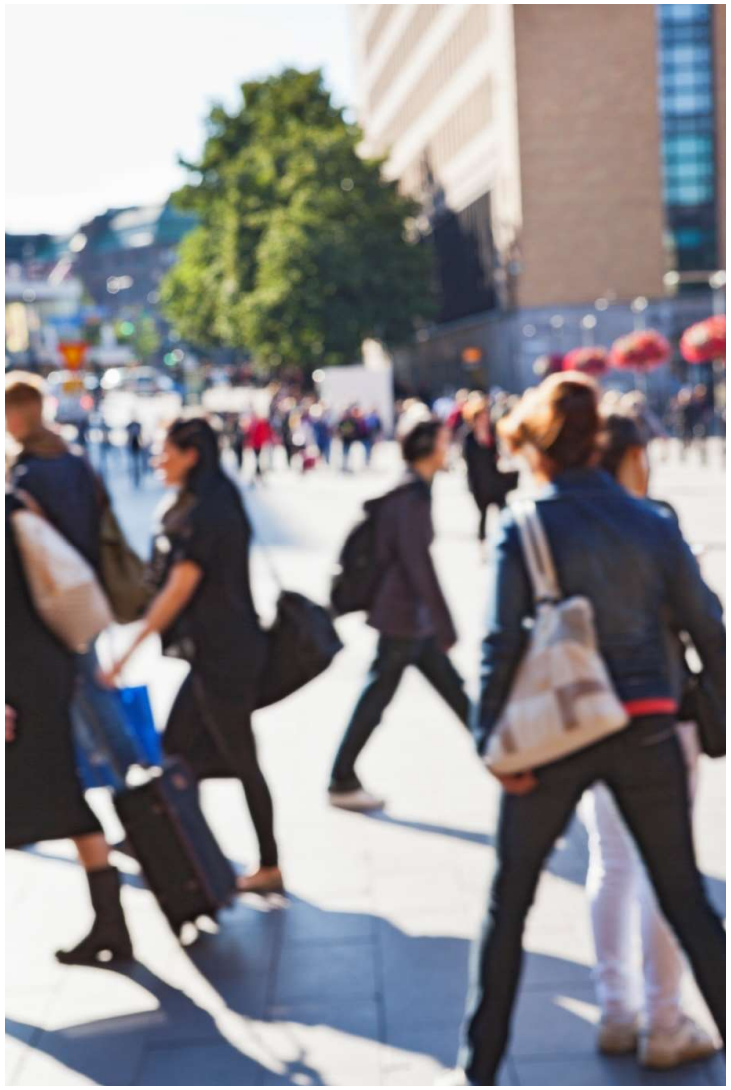
UAS Features at Metropolia

Innovation through projects

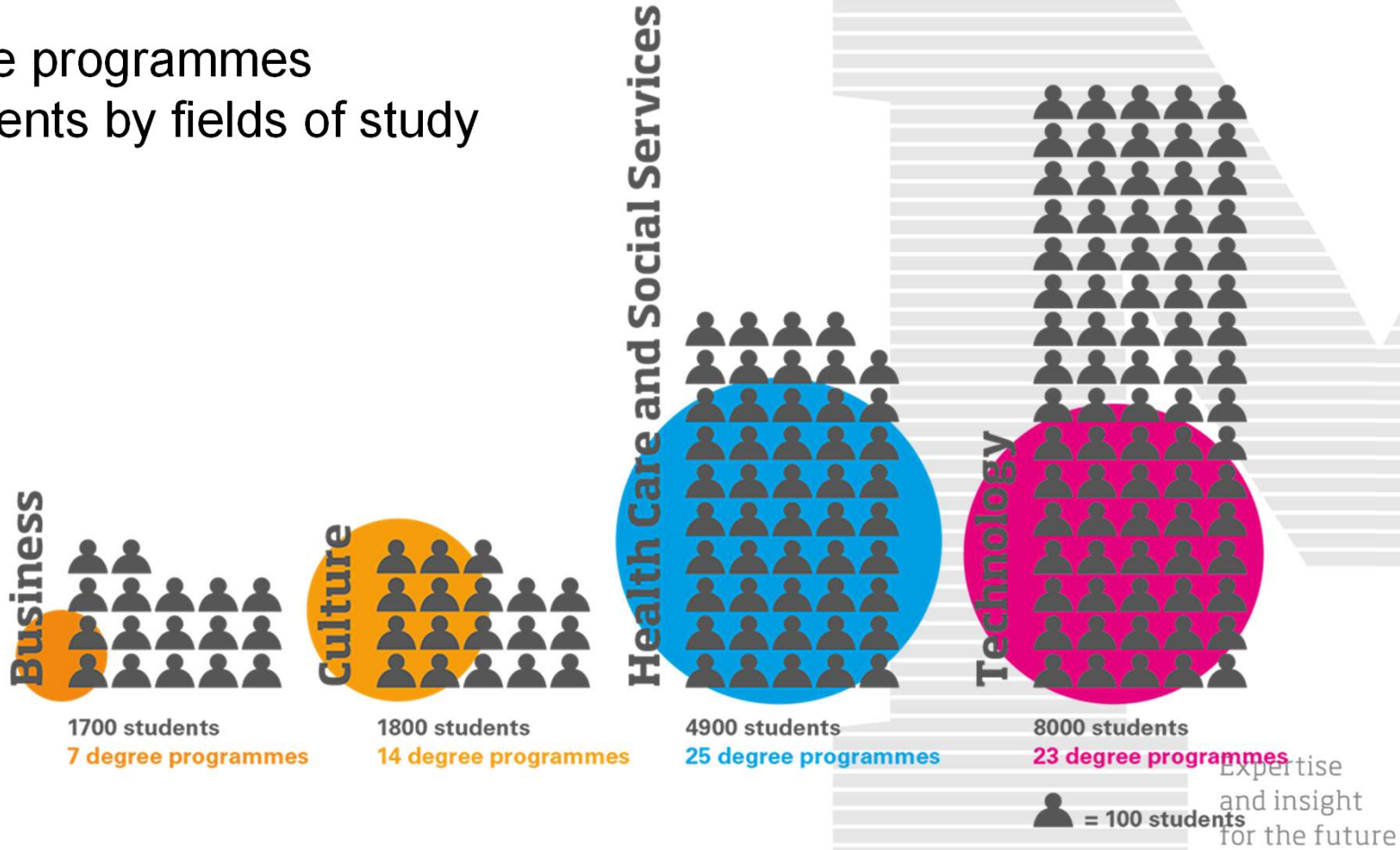
- Every undergraduate takes part in a 10 ECTS credit innovation project (MINNO)

Practical training periods and a thesis as part of the degree

Projects in close cooperation with local business and industry



Degree programmes
& students by fields of study



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Studying in Metropolia

Diverse student community

- Bachelor’s and Master’s Degrees
- Degrees in Finnish and English
- Daytime and evening studies

Methods of teaching

- Theory applied to practice
- Small teaching groups
- Focus on collaboration projects with the local business and industry

In the core of education

- Study paths that match the student’s needs
- Wellbeing in and outside of campus

International Metropolia

- 1,300 international degree students in 12 international programmes, 90 nationalities

- 400 partner institutions around the world
- 500 of students go on long-term exchange every year, and 450 exchange students come to Metropolia
- 500 go on teacher and staff exchange programmes annually, and 470 come to Metropolia

- International projects and programmes

Intercultural competence as a core competence for all students

Exchanges strongly encouraged

Support for intercultural learning in orientations and courses

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Student life

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Metropolia Academic Year

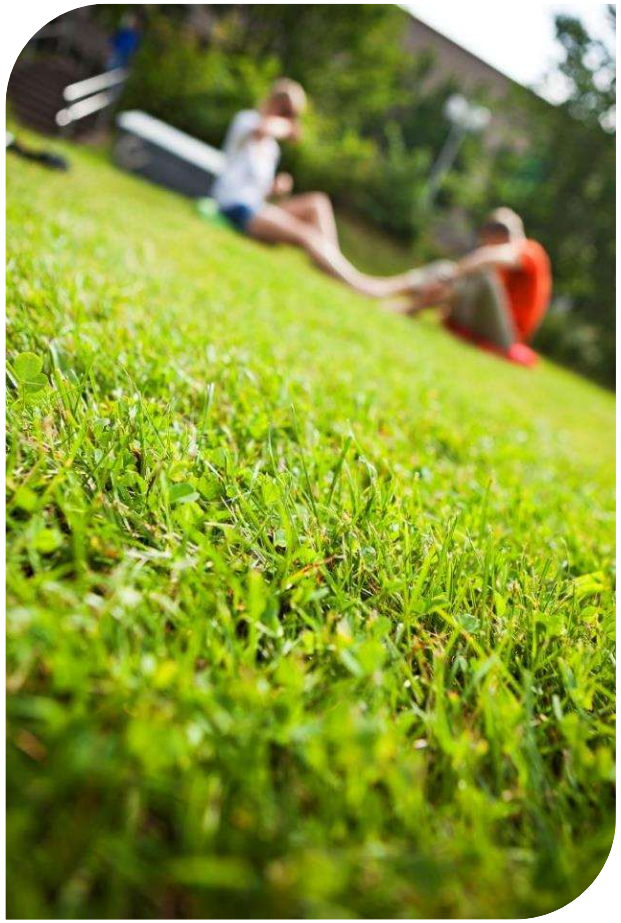
Autumn Semester:

- Period 1: August – October
- Period 2: October – December

Spring Semester:

- Period 3: January – March
- Period 4: March – May

Summer Schools in June and August



Services for Exchange Student

Metka Student Union

- Tutor services
- Events
- Support
- Sports (appr. 40€/semester)

ESN Metropolia

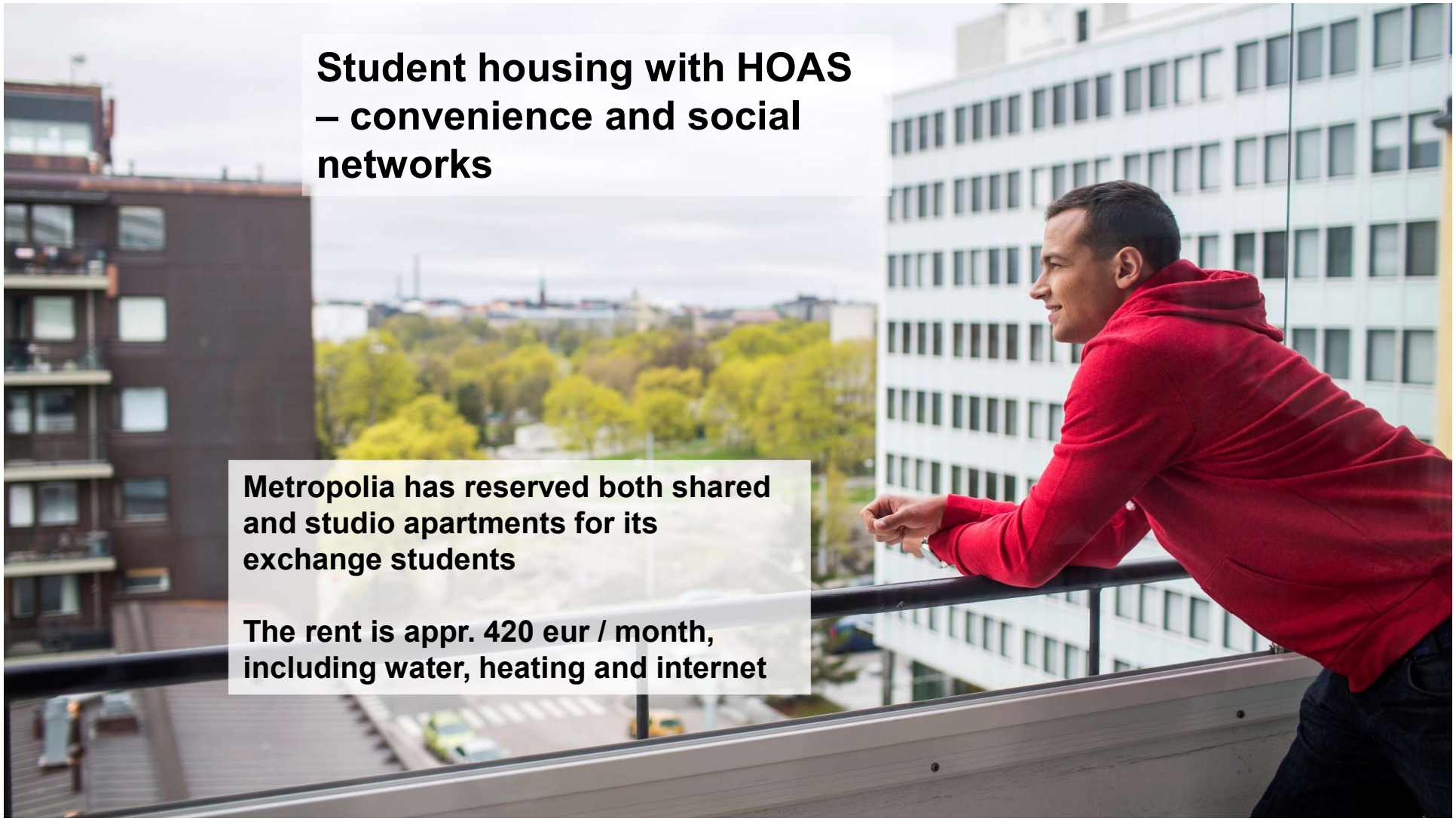
- Events, parties and excursions
- Trips to neighbouring countries and Lapland

Arrival orientation
Finnish course (3 ECTS)

All Metropolia support services available in English

Student-friendly prices at campus cafeterias

Healthy hot lunches for appr. 2,6 €



Student housing with HOAS – convenience and social networks

Metropolia has reserved both shared and studio apartments for its exchange students

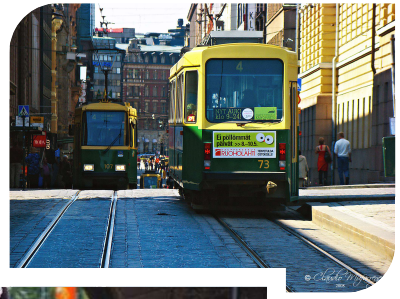
The rent is appr. 420 eur / month, including water, heating and internet

Getting around

- 50% discount for exchange students
- Monthly ticket appr. 25 € in Helsinki and 45 € in the whole metropolitan area

“Public transport works perfectly and the price is really good for students. If you feel lost somewhere you can be sure that there is always someone that can speak English to help you.”

- Former Metropolia exchange student



Further information

Metropolia and services:
http://www.metropolia.fi/en/apply/

Exchange:
www.metropolia.fi/exchange

Courses available for exchange students:
http://www.metropolia.fi/en/apply/studies/exchange-studies/

Useful links about Finland

- This is Finland: www.thisisfinland.fi
  - Interesting things about Finnish life, business, arts; links to news in English
- Study in Finland (Centre for International Mobility CIMO): www.studyinfinland.fi
  - About studying and living in Finland
- Study in Helsinki: www.studyinhelsinki.fi/
  - About studying in the Helsinki region
- On Finnish language see:
  - Finnish for Foreigners (University of Helsinki Language Centre): http://donnerwetter.kielikeskus.helsinki.fi/FinnishForForeigners/parts-index.htm
  - Easyfinnish (YLE Public Broadcast Company): oppiminen.yle.fi/easyfinnish/

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THANK YOU!

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Field of Technology at Metropolia

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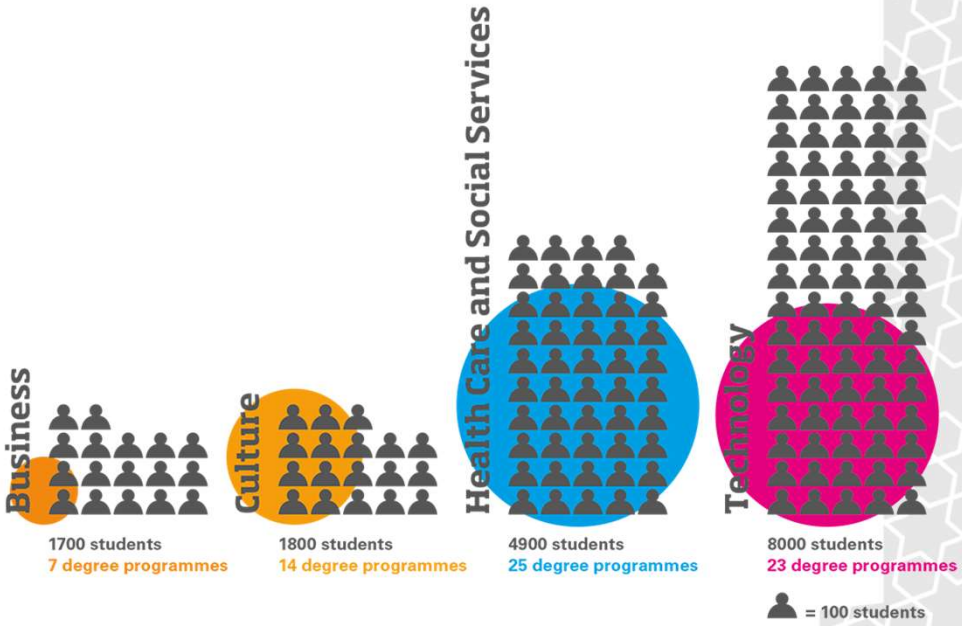
Technology: Largest Field of Study at Metropolia



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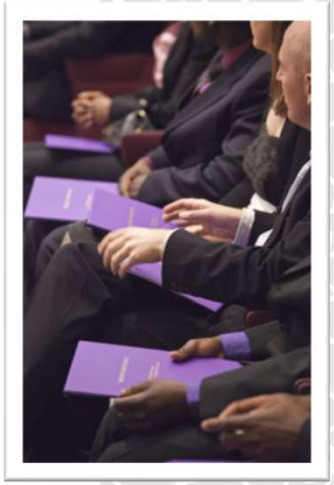
Bachelor of Engineering

- 240 ECTS
- 4 years
- Content of studies:
  - basic studies, professional studies, elective studies, practical training, Bachelor's Thesis
- Selection criteria:
  - success in studies, work experience, entrance examination
- Forms of studying:
  - lectures, practical project work, laboratory work
- Internationalisation:
  - part of the studies and the practical training can be carried out abroad



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Master of Engineering

- 60 ECTS
- 2 years (part-time)
- Content of studies:
  - basic studies 5 ECTS, professional studies 25 ECTS, Final Year Project (Master's Thesis) 30 ECTS
- Selection criteria:
  - Bachelor's Degree with the suitable major/specialisation option, work experience (min. 3 years of post-Bachelor), entrance examination
- Forms of studying:
  - lectures, project work, laboratory work, independent studying
- Internationalisation:
  - tuition in English; international lecturers and research topics

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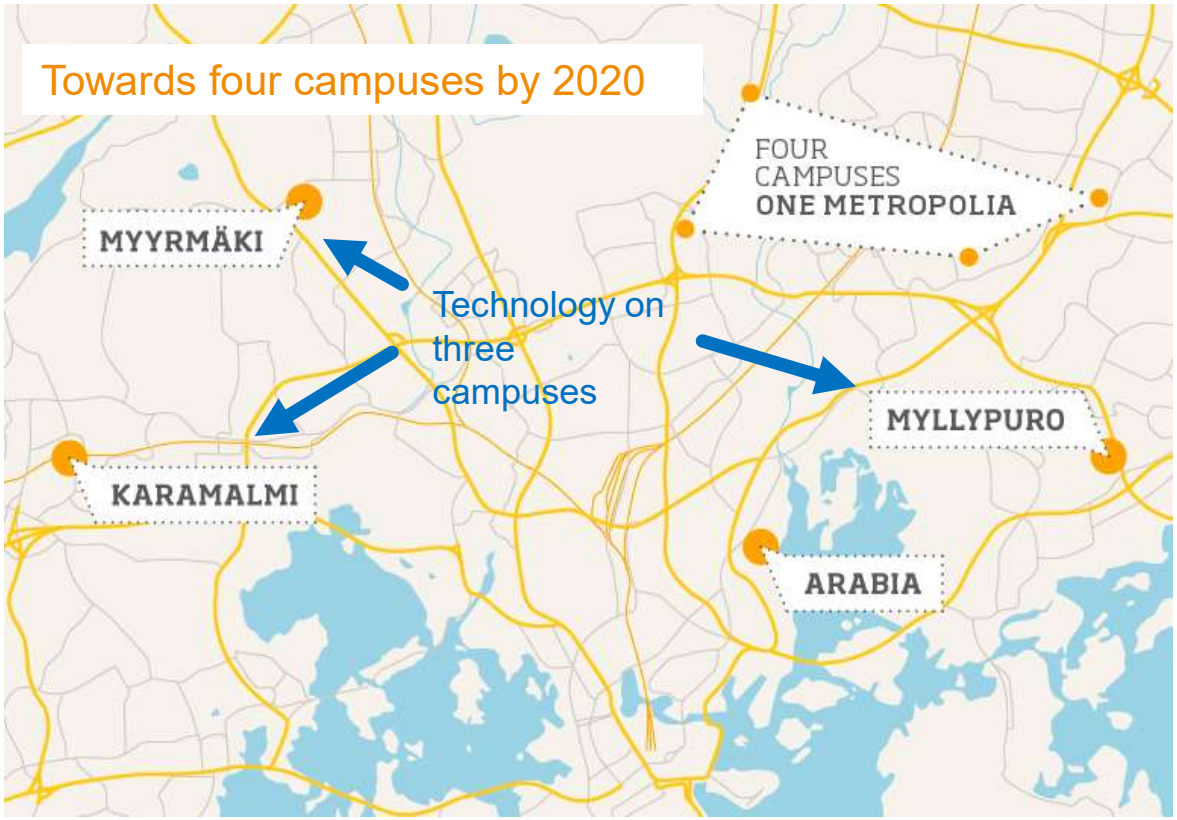
Towards four campuses by 2020
FOUR
CAMPUSES
ONE METROPOLIA
MYYRMÄKI
Technology on
three
campuses
MYLLYPURO
KARAMALMI
ARABIA

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Degree Programmes in the Field of Technology

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Degree Programmes in Technology

Degree programme	Bachelor's degrees
Automotive Engineering	Bachelor of Engineering
Biotechnology and Chemical Engineering	
Building Services Engineering	
Civil Engineering	
Construction Architecture	Bachelor of Engineering Construction Architecture
Construction Site Management	Bachelor of Construction Management
Energy and Environmental Technology	Bachelor of Engineering
Information Technology	
Industrial Management	
Land Surveying	
Mechanical Engineering	
Sustainable Building Engineering*	

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Degree Programmes in Technology

Degree programme	Bachelor's degrees
Laboratory Sciences	Bachelor of Laboratory Services
Electrical and Automation Engineering	Bachelor of Engineering
Electronics	
Environmental Engineering*	

Degree programme	Master's degrees
Automotive Engineering	Master of Engineering
Building Services Engineering	
Business Informatics	
Civil Engineering	
Construction and Real Estate Mgmt	
Health Business Management	
Information Technology	
Industrial Management	
Intelligent Industrial Solutions	
Land Surveying	
Supply Chain Management	

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Degree programmes in English 1/2

Bachelor’s Degree Programmes:

- Electronics
- Information Technology

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Degree programmes in English 2/2

Master's Degree Programmes:

- Industrial Management
- Information Technology
- Construction and Real Estate Mgmt (double degree with HTW-Berlin)

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Studies on Offer for Exchange Students

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Studies Offered for Exchange Students

Myyrmäki Campus

- Electronics
- International Semesters
    - Virtual Product Design (autumn)
    - Biotechnology and Chemical Engineering and Energy and Environmental Technology (autumn)
    - Sustainable Society & Circular Economy (spring)
    - Laboratory Sciences (autumn)

Karaportti Campus (Myyrmäki as back-up)

- Information Technology
- Industrial Management
    - Semester in Global IT Business (autumn and spring)
    - Semester in Supply Chain Management (”Industrial Processes”) (autumn and spring)

Myllypuro Campus

- Semester in Sustainable Building Engineering (spring)
- Semester in Construction Architecture (spring)
- Coming soon! Semester in Land Surveying (spring)

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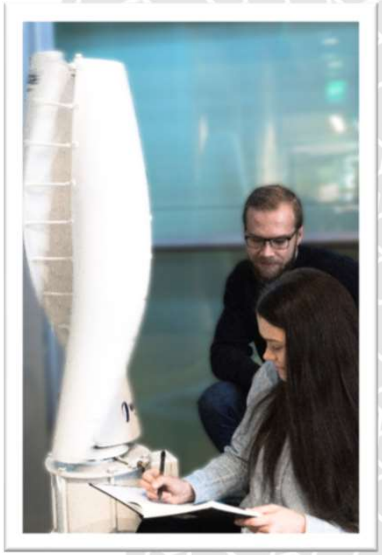
Biotechnology and Chemical Engineering and Energy and Environmental Technology

- International semester offered by the aforementioned degree programmes
- On offer during autumn



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Courses in Biotechnology and Chemical Engineering and Energy and Environmental Technology

TX00BQ07	Current Topics in Materials and Surface Engineering	5 cr
XX00BH18	Innovation Project	10 cr
TX00BP98	Lab workshop, Chemical engineering	5 cr
TX00CN39	Resource effective society -project	5 cr
TX00DF60	Special assignment in Energy and Environmental Engineering	5 cr

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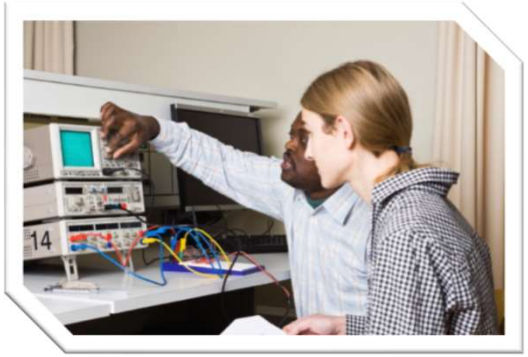
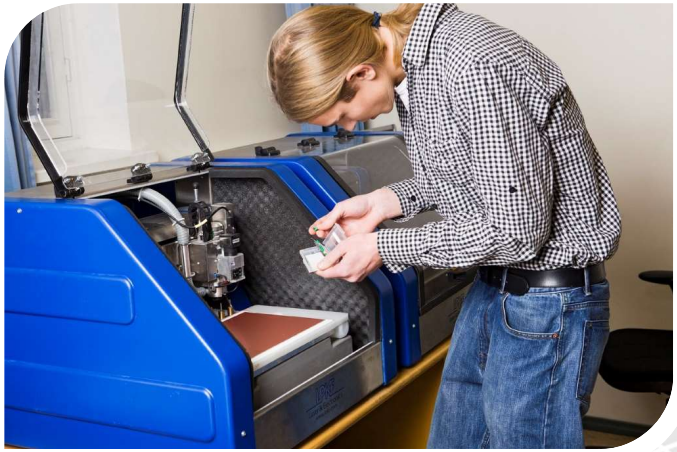
Electronics

- Degree programme fully taught in English
- Studies available during both autumn and spring





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Courses in Electronics

TX00CY48	Electromagnetic Combatibility	15 cr
TX00CY44	Microcontrollers and Programming	15 cr
TX00CY46	Sensors	15 cr
TX00CY45	Telecommunication and Radio Technology	15 cr

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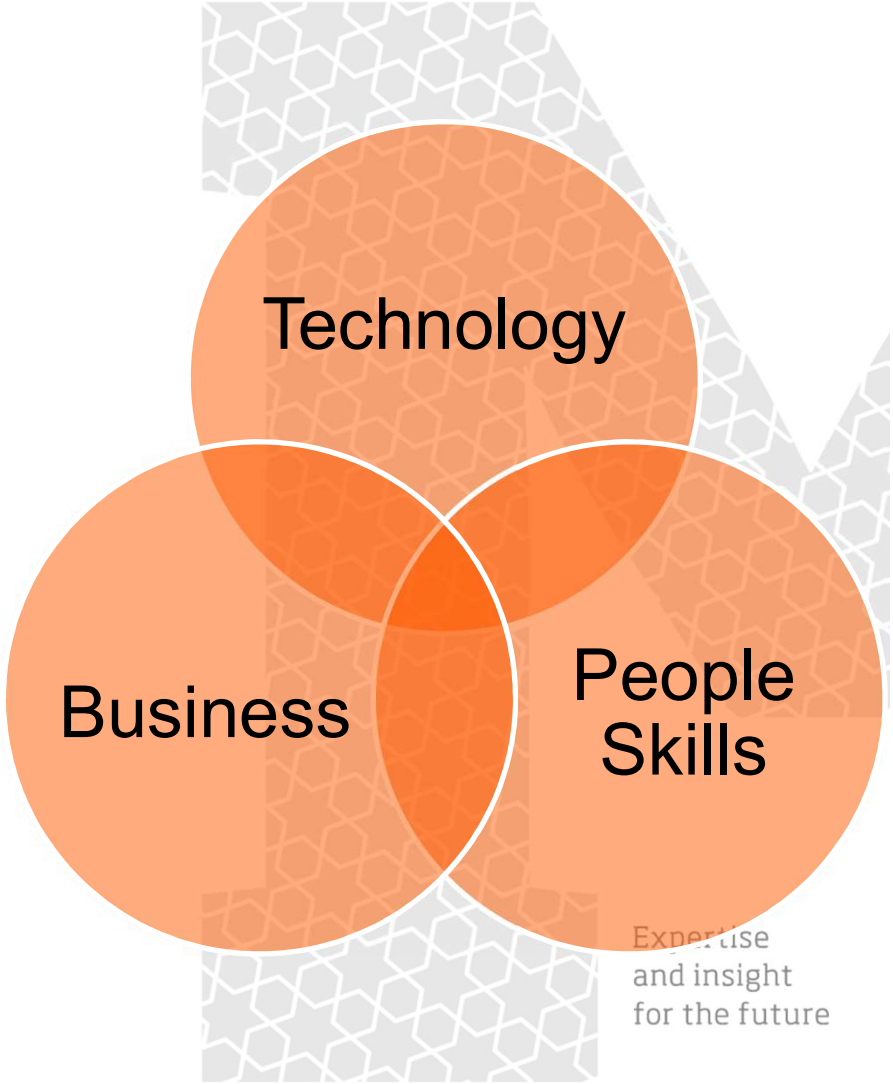
Industrial Management

- International semesters offered by the degree programme
  - Semester in Global IT Business
  - Semester in Supply Chain Management (”Industrial Processes”)
- On offer during both autumn and spring



Courses in Industrial Management

TU00CH00	Business Game	5 cr
TX00CN91	Business Strategies and Global Networks	5 cr
TX00CN68	Industrial Management: Advanced Studies (Changing Topic)	5 cr
XX00BH18	Innovation Project	10 cr
TX00CN71	IT Consultancy Skills	5 cr
TX00CN69	IT Service Management	5 cr
TX00CN70	IT Service Management Project	5 cr
TX00CN67	Leadership in Context	5 cr
TX00CN93	Lean in Processes Development	5 cr
TU00BB97	Process Simulation	5 cr
TX00CN82	Sales Project	5 cr
TX00CN52	Supply Chain Management	5 cr
TX00CN72	Thesis Project	5 cr
TX00CN87	Utilizing Business Analytics	5 cr
TX00CN74	Warehousing Technology and Economics and Warehousing Management Systems	5 cr

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Information Technology

- Degree programme fully taught in English
- Studies available during both autumn and spring
  - Majors:
    - Smart Systems
    - IoT and Cloud Computing
    - Mobile Solutions
  - Minors:
    - Media Engineering (spring)
    - Game Applications (spring)
    - Mobile Solutions (spring)
    - Health Technology (spring)

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Courses in Information Technology 1/2

	Finnish Language Studies	
XXXAB02	Finnish for Exchange Students	3 cr
	Game Applications	
TX00CD87	Game Design	5 cr
TX00CD89	Game Engines	5 cr
TX00CG87	Game Project	5 cr
	Health Technology	
TX00DG16	Cognitive Systems for Health Technology Applications	5 cr
TX00DG17	Cognitive Systems Mathematics and Methods	5 cr
TX00CR72	Medical Product Research and Development	10 cr
	IoT and Cloud Computing	
	2nd year studies	
TX00CP86	Wireless and Mobile Project	15 cr
TX00CP87	Cloud Networking Project	15 cr
	3rd year studies	
TX00DP60	Cybersecurity Operations	5 cr
TT00AC23	Multilayer Switching (CCNP Switch)	5 cr
TT00AC24	Network Troubleshooting (CCNP Tshoot)	5 cr
TX00CS29	Next Generation Firewalls	5 cr
TX00DP59	Mobile Networks	5 cr
	Media Engineering	
TX00DG11	3D Modelling and mixed reality applications	15 cr
TX00DG10	Hybrid Media and additive manufacturing	10 cr

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Courses in Information Technology 2/2

	Mobile Solutions	
TX00CR78	Native Application Development with iOS and Android	15 cr
TX00CR77	Server-side Scripting Frameworks	15 cr
	Smart Systems	
	2nd year studies	
TX00CI61	Embedded Systems Programming	5 cr
TX00CD35	Internetworks	5 cr
TX00CI62	Mathematics and Physics for Smart Systems	5 cr
TX00CI66	Virtual Instrumentation	5 cr
TX00CI67	Smart Systems Engineering	5 cr
TX00CE00	Probability, Statistics and Discrete Mathematics	5 cr
	3rd year studies	
TX00DG08	Managing Linux Systems with Embedded Perspective	5 cr
TX00CS04	Realtime Programming for Embedded Systems	5 cr
TX00DG09	Embedded Linux Basics (Using Yocto Project)	5 cr
TX00DQ05	Reinforcement Learning	5 cr
	Software Engineering	
TX00CR59	Cloud Programming	5 cr
TX00CS17	Data Science and Big Data Fundamentals	5 cr
TX00CS04	Realtime Programming for Embedded Systems	5 cr
TX00CR58	Database Solutions	5 cr
TX00DQ05	Reinforcement Learning	5 cr

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Laboratory Sciences

- International semester offered by the degree programme: Environmental and Forensic Analysis
- On offer during autumn

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Courses in Laboratory Sciences: Environmental and Forensic Analysis

TX00BU26	Environmental Analysis	10 cr
TX00BU25	Forensic Analysis	10 cr
XX00BH18	Innovation Project	10 cr

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Sustainable Building Engineering and Construction Architecture (Land Surveying coming soon!)

- Semester in the field of Sustainable Building Engineering, with the option to specialise in Construction Architecture or Land Surveying (coming soon)
- On offer during spring

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Courses in Sustainable Building Engineering and Construction Architecture

TX00CT06	Building surveying	5 cr
XXXAB02	Finnish for Exchange Students	3 cr
TX00DH09	Near zero-energy buildings	5 cr
TX00DH10	Utilization of building information models in construction	5 cr

TR00BZ63	Architectural competition	5 cr
TX00CT06	Building surveying	5 cr
XXXAB02	Finnish for Exchange Students	3 cr
TX00DH09	Near zero-energy buildings	5 cr
TR00BZ49	Project 9 renovation design of a public building	5 cr
TX00DH10	Utilization of building information models in construction	5 cr

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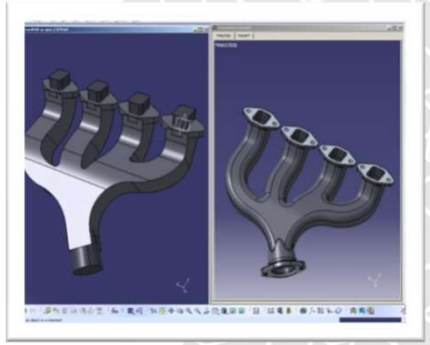
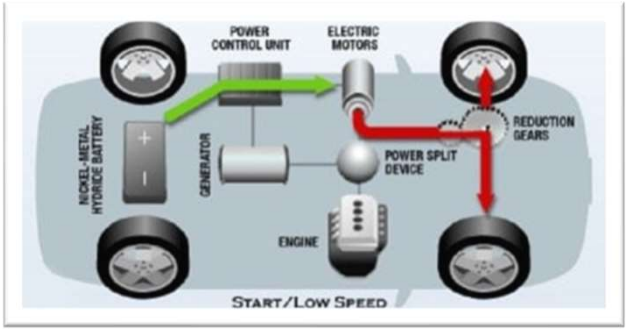
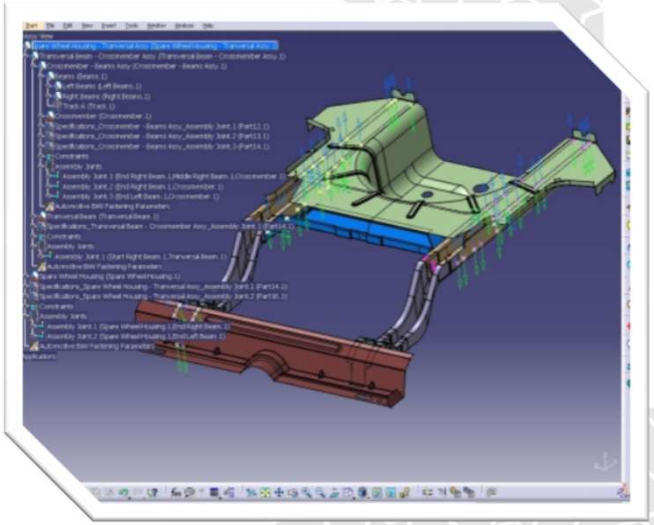
Virtual Product Design

- International semester offered by the degree programmes in Mechanical and Automotive Engineering
- On offer during autumn







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Courses in Virtual Product Design

TX00DP13	Advanced 3d-modeling and optimization	5 cr
XX00BH18	Innovation Project	10 cr
TX00DT77	Mechanical simulation	5 cr
TX00DP12	Product design, robustness and usability	5 cr
TX00DP15	Structural analysis and FEM	5 cr

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Short-term Exchange Possibilities in Technology

ICT Summer School

- In August
- Courses are available to all students from Metropolia's partner institution free of charge.
- All ICT Summer School courses are taught in English.
- Courses are not limited only to ICT and some might be suitable also for students studying other subjects.

Professional Summer School

- In August
- Organised jointly with two other universities of applied sciences of the Helsinki region, Haaga-Helia University of Applied Sciences and Laurea University of Applied Sciences.
- The focus is on digital wellbeing and professional studies.

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