

How will you innovate for a better world?

bth.se/mspi



“BTH conducts world-leading research and education in strategic sustainable development and sustainable product innovation. This work is of great value to industry and society. The knowledge and methods being developed and taught provide good directions for investments and product development decisions.”

*– Dr. Leif Johansson,
President, Volvo Group*

AT A GLANCE

Start: 2009-08-31

Finish: 2011-06-09

Director: Dr. Sophie Hallstedt

Campus: Karlskrona, Sweden

Degree: International Master of Science Programme in Sustainable Product-Service System Innovation (MSc)

Credits: 120 ECTS credits

Prerequisites: Bachelors degree in engineering, industrial economy, or equivalent. Engelska B

Language: English



Contact us

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Master's Programme in Sustainable Product-Service System Innovation

The challenge

The results of unsustainable product design are evident worldwide. Products often contribute to global sustainability problems such as climate change, landfill waste and inhumane work environments during manufacturing. These are some of the challenges that our students will prepare to meet.

Programme Focus

Blekinge Institute of Technology (BTH) in Sweden is now offering a comprehensive master's programme to prepare people to be sustainable product innovators. A product's socio-ecological impacts are largely determined by decisions made during the early phases of the innovation process. These decisions can have positive and negative effects on society through the product's life cycle. Companies will gain competitive advantages in the evolving sustainability-driven market by building competence in innovation for sustainability. However, there is currently a shortage of sustainable product innovators and this programme is intended to fill that gap.

A participant will gain

- Unique competence in developing products and services for a sustainable society
- Experiential learning from a community at the leading edge of research and industry
- A concrete framework for addressing the greatest challenge for human civilization
- Excellent job opportunities

Programme specifics

The programme is focused around BTH's new profile areas; sustainability, innovation and systems engineering. Supporting areas such as strategic leadership, management and economics are also included. Learning occurs through:

- Lectures by leading edge BTH staff and guests
- Dialogue during group work on current real-world problems among partner companies
- Study visits and workshops exposing leading edge Swedish examples
- Internship opportunities with partner companies and universities
- Course examination and tasks based on real-world problems
- Thesis projects with partner companies

Career Paths

The programme provides academic training as well as professional skills and career enhancing credentials, drawing on Swedish and international experience. Graduates will be prepared to:

- Analyze sustainability challenges of an organization in a scientific way
- Incorporate a strategic sustainability perspective into a company's innovation process
- Utilize new methods and tools and previous engineering specialization for working with companies on sustainable product-service system innovation
- Advance the global shift to a more service-based economy



“I have felt that the sustainability movement all around the globe was lacking overview and a strategic approach necessary to achieve an entire paradigm shift. Not only have I been taught this strategic approach I was looking for, but I feel empowered and a renewed hope that, through this, we will be able to create the change we need.”

– Merlina Missimer,
Germany, MSLS 2007

Research at BTH

The Sustainable Product Innovation Research IniTiative (SPIRIT) group uniquely merges competencies in strategic sustainable development, strategic life cycle modeling and simulation, methodology for sustainable product development, modeling and simulation-driven design and specialist engineering disciplines – all with the unifying purpose of supporting industrial capacity for sustainable product-service system innovation. For more than a decade, this research group has been pioneering such work and has received excellent reviews in international scientific evaluations and from leading industry representatives. The group has a strong international network of university, business and societal partners that will be engaged also for this new master’s programme.

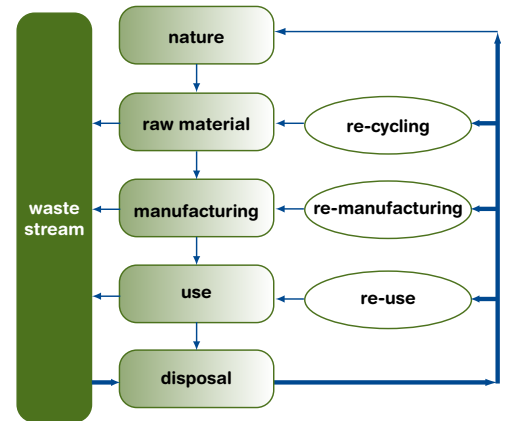


Diagram of product life cycle

APPLY TODAY

Online: www.bth.se/apply

Deadlines:

Feb. 1 (International students)
April 15 (Swedish students)



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Themes

Methodology for Sustainable Product-Service System Development

Students will learn about product-service system development methods and tools that support a full socio-ecological sustainability perspective and which are integrated with and utilize advanced IT support for product data management, knowledge enabled engineering, multi-criteria prioritization, etc. This draws directly from the leading edge research performed at BTH within this field. Students will be engaged in ongoing projects. Upon completion, students will have practical experience in using such methods and tools as well as a thorough theoretical understanding as a basis for development of new supplementary methods and tools as necessary.

Economics and Management of Innovation

Delivered in collaboration with the School of Management. Students will learn about economic theory, industrial dynamics, entrepreneurship and innovation systems in general.

Strategic Sustainable Development

Students will become familiar with a framework for strategic sustainable development by applying it to different topics. Leadership and organizational learning concepts are embedded because a person cannot act for sustainability alone. Facts about the state of the world and major sustainability challenges are also included.

Engineering for Sustainability

Students will put their previous engineering specialization (such as mechanical engineering, electrical engineering, software engineering, etc.) into the context of, and into use for, sustainable product-service system innovation around concrete current problems among our partner companies

Thesis

This is a full semester project around concrete current problems among our partner companies.