



Curriculum Vitae

Sophie I. Hallstedt

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- <https://www.bth.se/staff/sophie-hallstedt-sht/>
- <https://kunskapsformedlingen.se/en/researchers/sophie-hallstedt/>
- <https://scholar.google.com/citations?hl=en&user=5nh3cHYAAAAJ>
- https://www.researchgate.net/profile/Sophie_Hallstedt

SHORT BIO AND AGENDA

Sophie I. Hallstedt is Professor at BTH. In 2008 she initiated the research area Sustainable Product Development (SPD). Since then, she has developed the research area together with her colleagues and is now supervising four PhD students within this research area and leads a research group of seven. Sophie is leading the research area SPD within the Profile project Model Driven Development and Decision Support as one of the prioritized and selected research tracks at BTH. Her research is about how a strategic socio-ecological sustainability perspective can be integrated and implemented on strategic, tactical and operational levels in companies in order to be able to bring forward sustainable solutions. Several methods, models and approaches have resulted from her research which for example, enhance the ability to measure: i) maturity level of sustainability implementation; ii) sustainability consequences of different solutions, and then; iii) quantify and visualize the progress of sustainability implementation. The purpose of her research is to increase the product design teams' capabilities to make strategic choices and contribute to a more proactive company regarding sustainability issues and make business advantages out of that.

Sophie has initiated and finalized several research projects, for example Sustainability criteria in concept evaluation methodology - a postdoc project of two years funded by Vinnova; and, Strategic, Tactical and Operational implementation of Sustainability into the Innovation Process (STOSIP) - a KKSHög project of three years. The research from the STOSIP project was one key reason to a sustainability prize awarded to one of the research partners from their most important customer. In 2020 her research within the research project "Modelldriven utveckling och beslutsstöd"- was awarded a place on the Royal Swedish Academy of Engineering Sciences (IVAs) 100-list 2020 of sustainable innovation research projects.

Sophie has also initiated and developed courses and programmes at BTH such as the Master programme in Sustainable Product-Service System Innovation, MSPI, and was the Programme Director during several years until she during two years had the role as Head of the department of Strategic Sustainable Development at BTH. Sophie devotes her teaching efforts to sustainable development and product development courses, both via BTH lectures and via lectures on other universities and in industry on national and international level. During her research she has contributed in some 70-peer-reviewed publications within her research area and has around 2100 citations and a h-index of 20 (according to google scholar).

AREAS OF EXPERTISE

- Sustainable product development
- Sustainability assessments
- Sustainability integration in early product innovation phases
- Strategic Sustainable Development Planning

LANGUAGES

- Swedish (mother tongue)
- English (fluent)
- German (beginner's level)

ADDITIONAL EDUCATION

- Pedagogy courses for higher education, BTH, Sweden
- Ph.D. Supervision Course, Linné University, Växjö, Sweden.
- Managing Product Development for Executives, Chalmers Professional Education
- Development- Group-Leader- education, Försvarshögskolan

ACADEMIC WORK EXPERIENCE

Below is a summary of different positions and roles during my employment at Blekinge Institute of Technology (BTH), followed by a detailed description over the years.

Appointed positions:

- Course responsible and/or Examiner for several courses: **since 2002**
- Project Leader for several research projects: **since 2006**
- Programme Director for the Master's Programme in Strategic Leadership towards Sustainability: **2008-2009**
- Programme Director for the Master's Programme in Product Service System Innovation: **2009-2011**
- Supervisor of PhD students: **since 2009**
- Head of Department of Strategic Sustainable Development, BTH: **2012-2013**
- Vice Head of Department: **2014-2019**
- Research Area Leader for Sustainable Product Development: **since 2014**
- Chairperson of the hearing process for vice chancellor recruitment at BTH: **2018**
- Teacher Representative in the Board of Governors for BTH: **since 2019**
- Advisory Board Member of the International Design Society: **since 2019**
- Main Chair of Design Society's Special Interest Group – Sustainable Design: **since 2020**

Employments:

- Teacher position: 1995-1997
- PhD student position: 1997-2007
- Lecturer position: 2007-2010
- Senior Lecturer position: since 2010
- Senior Lecturer and Associate professor: 2015-2020
- Professor: Since 2020

2020-present

- **Professor in Mechanical Engineering, with focus in Sustainable Product Development**
- **Research Area Leader** for Sustainable Product Development at BTH
- **BTH applicant** for project funds from Vinnova; "Challenge-driven innovation program" step 2
- **Research Track Leader** for Sustainable Product Development in the KKS-funded profile project "MD3S"
- **Main supervisor** for PhD-students Jesko Schulte, Matilda Watz and Carolina Villamil, and **supervisor** for PhD-student Patricia Lagun Mesquita
- **Examiner** in PhD courses
- **Teacher representative in the Board of Governors** for BTH
- **Advisory Board Member of the International Design Society**
- **Chair for the Special Interest Group in Sustainable Design in Design Society**

2018-present

- **Senior Lecturer, Associate Professor**
- **Research Area Leader** for Sustainable Product Development at BTH
- **BTH applicant** for project funds from Vinnova; "Challenge-driven innovation program" step 2
- **Applicant and Project Leader** for a Vinnova funded project called "SIP-step1"

- **Research Track Leader** for Sustainable Product Development in the KKS-funded profile project “MD3S”
- **Main supervisor** for PhD-students Jesko Schulte, Matilda Watz and Carolina Villamil, and **supervisor** for PhD-student Patricia Lagun Mesquita
- **Examiner and senior lecturer** in bachelor and master programme courses and in PhD courses
- **Vice Head of Department** (until 2019)
- **Chairperson of the hearing process** for vice chancellor recruitment at BTH
- **Teacher representative in the Board of Governors** for BTH
- **Advisory Board Member of the International Design Society**

2015 – 2018

- **Senior Lecturer, Associate Professor**
- **Research Area Leader** for Sustainable Product Development at BTH
- **Project Leader** for the KKS-funded “STOSIP” project
- **Research track leader in** one subproject in the KKS-funded profile project “MD3S”
- **Main supervisor** for PhD-students Jesko Schulte, Matilda Watz, Carolina Villamil and **supervisor** for PhD-student Patricia Lagun Mesquita
- **Examiner and senior lecturer** in bachelor and master programme courses and in PhD courses
- **Vice Head of Department** (since 2014)

2013 - 2015

- **Senior Lecturer, PhD**
- **Supervisor** for PhD-students Patricia Lagun Mesquita and Rachael Gould; Cecilia Bratt (until 2014)
- **Research Area Leader** for Sustainable Product Development at BTH (since 2014)
- **Applicant and Project Leader** for the KKS-funded “STOSIP” project
- **Examiner and senior lecturer** in bachelor and master programme courses
- **Vice Head of Department** (since 2014)

2011 – 2013

- **Senior Lecturer, PhD**
- **Head of Department of Strategic Sustainable Development, BTH** (since 2012)
- **Supervisor** for PhD-students Cecilia Bratt and Rachael Gould
- **Project Leader** for the KKS-funded project “Labelling and Procurement Support for Sustainable Product Innovation”
- **Project Leader and Post doc** for the Vinnova-funded project “Sustainability criteria in concept evaluation methodology”
- **Examiner and senior lecturer** in bachelor and master programme courses

2009 – 2011

- **Senior Lecturer** at the Dept. of Mechanical Engineering, BTH (from 2010)
- **Project Leader** for the KKS-funded “Labelling and Procurement support for Sustainable Product Innovation”
- **Supervisor** for PhD-student Cecilia Bratt
- **Programme Director** of the Master Programme in “Sustainable Product-Service System Innovation”
- **Project Leader** for the development project of the Master Programme in “Sustainable Product-Service System Innovation”

- **Examiner, Course Responsible and Senior Lecturer** in bachelor and master programme courses

2008-2009

- **Lecturer** in Mechanical Engineering, **PhD**
- **Project Leader** for the KKS-funded research project “Prioritisation Support for Sustainable Product Development”
- **Project Leader** for the KKS-funded research project “Sustainability-based product Labelling and Procurement”
- **Supervisor** for PhD-student Cecilia Bratt (from 2009)
- **Programme Director** for the Master Programme “Strategic Leadership towards Sustainability”
- **Programme Director** for the Master Programme “Sustainable Product-Service System Innovation”
- **Examiner, Course Responsible and Senior Lecturer** in bachelor and master programme courses

2006-2008

- **Lecturer** in Mechanical Engineering, **Licentiate**
- **Project Leader** for the research project “Prioritisation Support for Sustainable Product Development”
- **Project Leader** for the research project “Sustainability-based product Labelling and Procurement”
- **Lecturer** in bachelor and master programme courses

2002-2006

- **PhD student** in Mechanical Engineering, **Licentiate**
- **Examiner, Course Responsible and Lecturer** in bachelor and master programme courses
- Developed a course “Introduction to Sustainable Engineering”
- **Started up an exchange programme** with Kunming University of Technology in China
- **Took part in the development and teaching** of a new international Master Programme called “Strategic Leadership towards Sustainability”

1997-2001

- **PhD-student**
- **Ph.D. studies** at the Department of Mechanical Engineering (formally registered at the Department of Physical Resource Theory at Chalmers University of Technology)
- **Course development and teaching**

1995-1997

- **Teacher** in Mechanical Engineering
- **Integrated environmental aspects in courses** at the Department of Mechanical Engineering and at the Department of Spatial Planning
- **Developed the course** “Cleaner Technology” for an EU-exchange programme (Erasmus)
- **Teacher of the course** “Cleaner Technology” **at the University of Gdansk** in Poland

EDUCATION/EXAMS

- **Associate Professor (Docent)** in Mechanical Engineering with emphasis on Sustainable Product Development, Blekinge Institute of Technology, Karlskrona, Sweden, 2015.
- **Ph.D.** in Mechanical Engineering with emphasis on Sustainable Product Innovation, Blekinge Institute of Technology, Karlskrona, Sweden, 2008.
- **Licentiate** in Engineering in Environmental Sciences, Chalmers University of Technology, Gothenburg, Sweden, 2001.
- **M.Sc.** in Environmental Planning and Design (Civilingenjör), Luleå University of Technology, Luleå, Sweden, 1994.

OTHER EDUCATIONS

- Basic studies in pedagogy during 6 months at Luleå University of Technology, 1991.
- Studies in ecology, biology, environmental engineering and other subjects relevant for sustainability and environmental issues. These studies are additional studies to the formal exams and have taken place during one year at Curtin University of Technology, Perth, Australia, 1993.

PEDAGOGICAL ADVANCEMENT

1. Philosophy of Science with pedagogical application to higher education
 - 7.5 ECTS credit points; Course code: FI2402, 2009, BTH
2. Higher Education Pedagogy - project course,
 - 7.5 ECTS credit points; Course code: PE2403, 2010, BTH
3. Publications:
 - Scientific article in International Journal of Engineering Education
Broman G., Byggeth S. and Robèrt K-H. 2002. Integrating Environmental Aspects in Engineering Education, International Journal of Engineering Education, ISSN 0949-149X, Vol. 18, No. 6.*
 - Proceedings in EMSU- Environmental Management for Sustainable Universities, 2004.
Waldron, D., Byggeth, S., Ny, H., Broman, G., & Robèrt, K. H. 2004. Structured comprehension for systems thinking, learning and leadership towards sustainability. In: Proceedings of EMSU- Environmental Management for Sustainable Universities.
 - Proceedings in Pedagogical conference – ”Lärlärdom”, 2010.
Hallstedt Sophie. 2010. How can Master students be supported and evaluated on their Master thesis for a good learning result? (Extended abstract) Lärlärdom, Karlskrona, 18 August 2010.
 - Proceedings in the International Conference ERSCP & EMSU, 2010.
Hallstedt S., Thompson A. (2010) Integrating sustainability and innovation through a master's program in product-service systems. Conference ERSCP & EMSU, Delft 25-29 October 2010.
4. Teaching material:
 - Co-author of the course book "Sustainability Handbook". This book was used and is still widely used in courses at BTH. An estimated 200-250 students per year from BTH have benefited from the book.
Robèrt K-H., Broman G., Waldron D., Ny H., Byggeth S., Cook D., Johansson L., Oldmark J., Basile G., Haraldsson H., MacDonald J., Moore B., Connell T. and Missimer M. Sustainability Handbook, Studentlitteratur, Lund, Sweden, 2012. ISBN 978-91-44-07549-5.*
 - Co-author of the course book “Strategic Leadership towards Sustainability” In this course book, I contributed to a chapter (Chapter 12) on Sustainable Product Development.

Robèrt K-H., Broman G., Waldron D., Ny H., Hallstedt S., Cook D., Johansson L., Oldmark J., Basile G., Haraldsson H., MacDonald J., Moore B., Connell T., Missimer M., Daly E., Johnson P. (2018) Strategic Leadership towards Sustainability. Blekinge Institute of Technology, Psilanders grafiska, 10th Edition. ISBN: 978-91-7295-964-4.

5. Programme Development and Program Director.

- Programme Director of the Master programme in Strategic Leadership towards Sustainability (MSLS) during 2008/2009 (fall semester 08 and spring semester 09).
- Project Leader for the development project of the Master Programme in “Sustainable Product-Service System Innovation” (MSPI), 2009-2010.
- Programme Director of the Master Programme in “Sustainable Product-Service System Innovation” (MSPI), 2009-2011.

6. Experience of teaching and supervision of students:

- My teaching involvement during the last five years includes different courses on both basic and advanced levels. I have had responsibilities in several courses, and uses different teaching forms in the courses.
- Since 2009 I have supervised several student thesis work, licentiate work, doctoral dissertation work.

7. Research pedagogical development

- The completion of the research supervisor development course- “Forskarhandledarutvecklingskurs” (FLUS-2009)
- Completed Associate Professor Promotion Program (2009-2011)

SUPERVISOR & ADVISORS FOR RESEARCH STUDIES

- Principal Supervisor for PhD student **Carolina Villiamil** since 2017. Finalized her Licentiate Degree in 2020: Integration of sustainability aspects in product portfolio.
- Principal Supervisor for PhD student **Matilda Watz** since 2017. Finalized her Licentiate Degree in 2019: Utilizing requirements to support sustainable product development. Introductory approaches for strategic sustainability integration.
- Principal Supervisor for PhD student **Jesko Schulte** since 2016. Finalized his Licentiate Degree in 2019: Sustainability Risk Management in Product Development Companies – motivating change.
- Principal Supervisor for PhD student **Helena Zetterlund**, 2015-2016. Stopped her PhD studies because of family reasons.
- Supervisor for PhD student **Patricia Lagun Mesquita** since 2015. Finalized her Licentiate Degree in 2016: The missing pillar: Exploring social sustainability in product development.
- Supervisor for PhD student **Rachael Gould**, 2013-2015. Finalized her Licentiate Degree in 2015: Integrating sustainability into concept selection decision-making.
- Supervisor for PhD student **Cecilia Bratt**, 2009-2014. Finalized her Licentiate Degree in 2011: Assessment of Eco-labelling and Green Procurement from a Strategic Sustainability Perspective. Finalized her PhD Degree in 2014: Integrating a Strategic Sustainability Perspective into Eco-Labelling, Procurement and Supply Chain Management.
- In addition:
 - Informal mentor for postdoc Sze Yin Kwok since 2017.

- Collaborated with Anthony Thompson during his PhD studies, 2008-2012. Finalized his PhD Degree in 2012: Integrating a Strategic Sustainable Development Perspective in Product-Service System Innovation.

EXTERNAL OPPONENT/EXAMINER FOR PHD

- 2014 Examiner for Gunilla Clancy - PhD. Title: Assessing sustainability and guiding development of more sustainable products. Department of Chemical and Biological Engineering, Chalmers University of Technology, Gothenburg, Sweden.
- 2015 Examiner for Romain Allais – PhD. Title: Systematic transition for a sustainable development: between design and territory. University of Technology of Troyes, France
- 2016 Examiner for Sofia Pouligidou – PhD. Title: Assessing design strategies for improved life cycle environmental performance of vehicles. Department of Sustainable Development, Environmental Science and Engineering. KTH Royal Institute of Technology, Sweden
- 2017 Examiner for Narges Asadi – PhD. Title: Flexibility in assembly systems using product design. School of Innovation, Design and Engineering, Mälardalen University, Sweden.
- 2019 Examiner & Opponent for Raphaëlle Stewart – PhD. Title: Integration of Sustainability Approaches in Companies: an Exploration of Narratives and Internal Organizational Functioning. Department of Management Engineering, Technical University of Denmark & Department of Design, Norwegian University of Science and Technology.
- 2020 Opponent for Louise Lindkvist Haziri– PhD. Title: Improving design for remanufacturing through feedback from remanufacturing to design. Division of Manufacturing Engineering, Department of Management and Engineering, Linköping University, Sweden.

DEVELOPMENT & LEADERSHIP SKILLS

- 10 credits course in Product Development and Leadership: "Managing Product Development for Executives" by Chalmers Professionals (2012).
- Two full-day course in working environment and rehabilitation by Previa (2012).
- Leadership coaching and supervision by Previa and consultant Expandio (2012-2013).
- 1-day course in "Leadership and management" by consultant Expandio (2012).
- 2-day course in Art of hosting (2012).
- Literature study in coaching and leadership (2012-2013).
- Five full-days course in Development, Group, Leader (UGL in Sweden) by National Defence University (Försvvarshögskolan) (2013).

LEADERSHIP EXPERIENCES AT BTH

- Head of Department for Strategic Sustainable Development in two years (2011-2013).
- Research area leader for Sustainable Product Development at BTH (since 2014).
- Project leader for seven different educational- and research projects with external funding (since 2006).
- Appointed chairman of BTH's Hearing Committee for evaluating Vice Chancellor candidates (2018).

OTHER ENGAGEMENTS, MEMBERSHIPS & AWARDS

- Chair and Steering group member for Sustainable Design a Special Interest Group in the Design Society, <https://www.designsociety.org>
- Advisory Board Member of the International Design Society, <https://www.designsociety.org>
- Carried out a national PhD course in Sustainability in Engineering Product Development (together with 2 other researchers) as part of the course Engineering Product Development within the Product Development Academy.
- In 2020 her research within the research project "Modelldriven utveckling och beslutsstöd"- was awarded a place on the Royal Swedish Academy of Engineering Sciences 100-list 2020 of sustainable innovation research projects. <https://www.iva.se/projekt/research2business/ivas-100-lista-2020/>. A list of research projects focusing on sustainability with significant potential to benefit areas such as business and method development or to have a positive impact on society.

REVIEW AND OTHER EXTERNAL SCIENTIFIC DUTIES

Review of papers for Journals:

- International Journal of Production Economics
- Journal of Sustainable Engineering
- Journal of Cleaner Production - so far completed 35 reviews
- Journal of Design Research
- Sustainability Journal

Review of papers for International Conferences:

- 20th International Conference on Engineering Design (ICED15)
- 21th International Conference on Engineering Design (ICED17)
- 22nd International Conference on Engineering Design (ICED19)
- 23rd International Conference on Engineering Design (ICED21)
- 15th Design Conference (Design 18)
- 16th Design Conference (Design 20)

Assessing applications in the role of an international expert referee:

- November 2019: for the Research Council of Norway and the scheme Centres for Research-based Innovation (SFI). The project title: SFI Harvest - Technologies for sustainable biomarine value creation.

Chair at international conferences:

- International Society for Airbreathing Engines, 20th ISABE Conference, 12-16 September, 2011, Gothenburg, Sweden. (*Presentation session*)
- ASME, 18th Design for Manufacturing and the Life Cycle Conference (DFMLC) 2013 in the International Design Engineering Technical Conferences & Computers and Information in Engineering Conference. August 4-7, 2013 in Portland, USA. (*Presentation session*)
- International Design Conference – Design 2016, Dubrovnik, Croatia, May 16-19, 2016. (*Workshop organizer and chair*)
- 21th International Conference on Engineering Design (ICED17) Vancouver, Canada, 21-25.08. 2017. (*Presentation session and Workshop organizer and chair*)
- NordDesign 2018, August 14 – 17, 2018, Linköping, Sweden. (*Presentation session*)
- International Design Conference – Design 2018, Dubrovnik, Croatia, May 21-24, 2018. (*Presentation session and Workshop organizer and chair*)

- 22nd International Conference on Engineering Design (ICED19) Delft, The Netherlands, 5-8 August, 2019. (*Presentation session and Workshop organizer and chair*)
- 16th Design Conference (Design 20), on-line conference in October. (*Presentation session and and Chair*)

Keynote speaker/invited guest speaker:

- 23rd November 2016 in Gothenburg, Swedish Life Cycle Center's 20th anniversary – From thinking to action. Title of keynote speech: Life Cycle Thinking in Sustainable Product Development.
- 6th September 2018 in Gothenburg - The future of engineering design capabilities. Title of keynote speech – How can engineering decisions contribute to a sustainable society- as we move into the unknown?
- 5th December 2019 in Karlshamn – Frukostföreläsning at Netport [Breakfast lecture at Netport]. Title of speech: Sustainable Product Development – methods and tools for sustainable and resource efficient solutions.
- 6th March 2020 at Center for Complex Systems and Enterprises Lab in Stevens Institute of Technology, New Jersey, USA. Title of speech: Sustainable Product Development – A key role in Society's Transition Towards Sustainability.
- 9th December 2020 on-line keynote for Blue Science Park, Karlskrona, Sweden – Time for sustainability transformation – trends and pitfalls

APPLICANT AND ACCEPTED RESEARCH APPLICATIONS IN NATIONAL COMPETITION FROM RESEARCH FOUNDATIONS

- “Prioritisation Support for Sustainable Product Development”; 2006, accepted funding from the Knowledge Foundation (Dr#: 2005/0293). I was co-applicant and lead the project in practice.
- “Labelling and procurement support for sustainable product innovation”; 2009, accepted funding from the Knowledge Foundation (Dr#: 20120214) I was a co-applicant and lead the project in practice.
- “Märknings- och upphandlingsstöd för hållbar produktinnovation”; 2009, accepted funding from Blekinge forskningsråd. I was the **main applicant and lead the project**.
- “Post-doc for sustainable product innovation”; 2009 accepted funding from the Knowledge Foundation (Dnr 2008/0618) I was the **main applicant and lead the project**.
- ”Master i hållbar produkt-och tjänsteinnovation”; 2010, accepted funding from the Knowledge Foundation (Dnr 20100221) I was the **main applicant and lead the project**.
- ”Sustainability criteria in concept evaluation methodology”; 2011, accepted funding from Vinnova (Dnr 2011-01287) I was the **main applicant and lead the project**.
- Profile project – “Model Driven Development and Decision Support – MD3S”; 2013 accepted funding from the Knowledge Foundation (Dnr 20120278) I was a co-applicant, leading subprojects and the research track.
- “Strategic, Tactical and Operational implementation of Sustainability into the Innovation Process – STOSIP”; 2014, accepted funding from the Knowledge Foundation (Dnr: 20140154) I was the **main applicant and lead the project**.
- Profile project – “Model Driven Development and Decision Support – MD3S+”, 2019 accepted funding from the Knowledge Foundation (Dnr 2018015) I was a co-applicant, leading subprojects and the research track.
- “Sustainability Implementation Package – SIP step 1, 2018, accepted funding from Vinnova. (Dnr2018-0036). I was the **main applicant and lead the project**.

- “Digital Sustainability Implementation Package – DSIP step 2, submitted to Vinnova 2020. (Dnr BTH-6.1.1-0114-2019). I was a co-applicant.

In addition, I have been a co-applicant for international EU projects:

- ”An integrated solution for waste reduction, reuse and material recovery of engineered products”, submitted to H2020 - WASTE -6a- 2015, was not approved funding. (Dnr BTH-6.1.1-0020-2015).
- ” MEDISCY – submitted to H2020 - CIRC-01-2016-2017, was not approved funding (Proposal nr: 730295-1).

RECENT PROJECTS

- 2013—present **Model Driven Development and Decision Support – MD3S+**
 This research profile aims, in co-production mode develop, disseminate, and integrate relevant, user-friendly and efficient support methods and tools for sustainable product-service system innovation. Within the project, Sophie leads the Sustainable Product Development research area and supervises several PhD-students. She also leads a subproject that aims to integrate sustainability and value in the early innovation phases. The project is funded by Knowledge Foundation. <http://bth-collaboration.se/content/model-driven-development-and-decision-support-md3s>.
- 2018 **Sustainability Implementation Package – SIP step 1**
 Sophie initiated, applied and lead this project. It was an initiating project with the aim to create a base for developing an implementation package with methodology and interconnected methods and tools to systematically integrate and implement sustainability in product development companies. The project is funded by Vinnova and the project ran in 9 months, (2018). <https://www.bth.se/sip> step 1
- 2015 –2018 **Strategic, Tactical and Operational implementation of Sustainability into the Innovation Process – STOSIP.**
 Sophie initiated, applied and lead the STOSIP project. The overall project objective was to support manufacturing companies to integrate and implement sustainability on strategic, tactical and operational levels in the company. Within the project, Sophie has investigated how to guide decisions for down-selection and exploration of emerging technologies and materials from a sustainability and value perspective. Sophie supervised several PhD-students and lead work packages in the project. The project was funded by Knowledge Foundation. <https://www.bth.se/eng/stosip/>
- 2010-2013 **Sustainability criteria in concept evaluation methodology**
 The research aim was to clarify how to define sustainability features in the early product innovation phases and suggest an improved concept design and evaluation methodology, including sustainability aspects during the product life cycle. The project was funded by Vinnova.
- 2009-2011 **Post-doc for Sustainable Product Innovation**
 Sophie initiated and applied for a post-doc period of two years. During this period, she spent some of her working time in industry and at the same time developed her research profile more towards early phases of the product innovation process with the manufacturing industry as target group. The main purpose for this project was also to

further develop research in sustainable product development through application and implementation of support tools for Sustainable Product Development. The project was funded by Knowledge Foundation.

2009-2012

Labelling and Procurement Support for Sustainable Product Innovation

The main question for this project was a framework for strategic sustainable development that could aid development of criteria and guidelines for sustainability-based product labelling and sustainability-based procurement policies. Sophie was the initiator, project leader in practise and supervisor for the PhD student Cecilia Bratt. The project was funded by Knowledge Foundation.

2006-2009

Prioritisation Support for Sustainable Product Development

Sophie was one of the researchers initiating and lead the project in practise. Within the project she worked with the main question - how organizational understanding and adoption of a strategic sustainability perspective at senior management level permeate product and process development. The project was funded by Knowledge Foundation.

2005-2008

Effective and Sustainable Waterjet Cutting

This project took a multidisciplinary approach that involved fluid dynamics, machine dynamics/virtual prototyping and sustainability assessment as the main and interrelated areas. Within this project Sophie suggested an approach for sustainability-driven design optimization. The project was funded by the Knowledge Foundation.

1998-2000

Tool for Sustainable Product Development and Investment Planning

The project which was carried out in collaboration between the Department of Mechanical Engineering, BTH, and the Department of Physical Resource Theory, Chalmers University of Technology and Göteborg University. Within the project Sophie developed a method for sustainable product development. The project was funded by the Swedish National Board for Industrial and Technical Development.

LIST OF PUBLICATIONS

i) Journal articles

1. Broman G., Byggeth S. and Robèrt K.-H. 2002. Integrating Environmental Aspects in Engineering Education, *International Journal of Engineering Education*, ISSN 0949-149X, Vol. 18, No. 6.
2. Byggeth S. H. and Hochschorner E. 2006. Handling trade-offs in Ecodesign tools for sustainable product development and procurement. *Journal of Cleaner Production*, vol. 14, issue 15-16, 1420-1430.
3. Byggeth S. H., Broman G. and Robèrt K.-H. 2007. A method for sustainable product development based on a modular system of guiding questions. *Journal of Cleaner Production*, vol. 15, issue 1, 1-11.
4. Ny H., Hallstedt S., Robèrt K.-H. and Broman G. 2008. Introducing templates for sustainable product development through an evaluation case study of televisions at the Matsushita Electric Group. *Journal of Industrial Ecology*, vol 12, issue 4, 600-623.
5. Hallstedt S., Ny H., Robèrt K.-H. and Broman G. 2010. An approach to assessing sustainability integration in strategic decision systems. *Journal of Cleaner Production*. vol.18, 703–712.
6. Bratt, C., Hallstedt, S., Robèrt, K.-H., Broman, G. and Oldmark, J. 2011. Assessment of eco-labelling criteria development from a strategic sustainability perspective. *Journal of Cleaner Production*. vol.19, 1631-1638.
7. Bratt, C., Hallstedt, S., Robèrt, K.-H., Broman, G. and Oldmark, J. 2013. Assessment of criteria development for public procurement from a strategic sustainability perspective. *Journal of Cleaner Production*. vol. 52, 309–316.
8. Hallstedt S. Thompson A., Lindahl P. 2013. Key Elements for Implementing a Strategic Sustainability Perspective in the Product Innovation Process. *Journal of Cleaner Production*. vol. 51, 277-288.
9. Hallstedt, S., Bertoni M., Isaksson O. 2015. Assessing sustainability and value of manufacturing processes: a case in the aerospace industry." *Journal of Cleaner Production* vol. 108, 169-182.
10. Bertoni M., Hallstedt S., Isaksson O. 2015. A model-based approach for sustainability and value assessment in the aerospace value chain. *Journal of Advances in Mechanical Engineering*, Special Issue on "Environmentally Conscious Technologies in Mechanical Engineering".
11. Hallstedt* S. 2017. Sustainability Criteria and Sustainability Compliance Index for Decision Support in Product Development, *Journal of Cleaner Production*. vol. 140, 251–266.
12. Hallstedt S. and Isaksson O. 2017. Material criticality assessment in early phases of sustainable product development. *Journal of Cleaner Production*. vol.161, 40-52.
13. Villamil C. and Hallstedt S. (2018) Sustainability product portfolio – a review. *European Journal of Sustainable Development*.
14. Schulte, J. and Hallstedt, S., 2018. Company Risk Management in Light of the Sustainability Transition. *Sustainability*, 10(11), p.4137.
15. Schulte, J. and Hallstedt, S., 2018. Self-Assessment Method for Sustainability Implementation in Product Innovation. *Sustainability*, 10(12), p.4336.
16. Watz, M. and Hallstedt, S. I. (2020). Profile model for management of sustainability integration in engineering design requirements. *Journal of Cleaner Production*, vol. 247, 119115. <https://doi.org/10.1016/j.jclepro.2019.119155>
17. Bertoni, A., Hallstedt, S., Dasari, K. S., and Andersson, P. (2020). Integration of value and sustainability assessment in design space exploration by machine learning: an aerospace application *Design Science Journal*, 6, E2. <https://doi.org/10.1017/dsj.2019.29>

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* *This article was in 2019 among the top 1 % most cited in the world within its category - according to an external independent evaluator, Damvad Analytics, who assesses scientific quality and impact of research.*

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* Awarded best paper at the conference. Rated in the top 10% papers based on reviewers' scores.

** Awarded best paper of the conference. Rated in the top 5% papers based on reviewers' scores.

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v) Examples of popular science publications

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Note: Before 2007 my surname was Byggeth