

## 1. Cover sheet

### **Summary of Application for Associate Professor (Docent) in Strategic Sustainable Development at Blekinge Institute of Technology (BTH)**

Applicant: Henrik Ny, 720915-3555

Email: [henrik.ny@bth.se](mailto:henrik.ny@bth.se)

Phone: + 46 701 43 51 31

Personal Research Web page: [www.bth.se/staff/henrik-ny-hny/](http://www.bth.se/staff/henrik-ny-hny/)

Own Research Team (SustainTrans) Web page: [www.bth.se/sustaintrans](http://www.bth.se/sustaintrans)

LinkedIn Web Page: <https://www.linkedin.com/in/henrik-ny-938ba9/>

Google scholar Web Page: <https://scholar.google.se/citations?user=-6D53YUAAAAJ&hl=sv>

This is a summary of my application for the position of Associate Professor (docent) in Strategic Sustainable Development at BTH, supported by Prof. Göran Broman. This application provides a brief account of my experience and scientific achievements relevant for the promotion based on the following criteria defined by BTH<sup>1</sup>:

- R1: Scientific merit to the extent of two doctoral dissertations
- R2: Independent production of research of international quality
- R3: Demonstrated pedagogical skills
- R4: Completed research supervision course
- R5: Shown ability to supervise doctoral students from hiring until the exam. Shown ability to take the main supervisor responsibility.

The application was structured in six sections (only section 2 included here):

- Section 2. Account of scientific and other work relevant for the promotion      2
- *Section 3. Curriculum Vitae (CV) as required for this application.*
- *Section 4. The full categorized list of my publications*
- *Section 5. A justified selection of ten publications (full texts in appendix C)*
- *Section 6. Account of pedagogical expertise*

*The application also had some appendices added (none of these included here):*

- *Appendix A. The supervision course completion diploma.*
- *Appendix B. Recommendations letters*
- *Appendix C. The ten selected publications described in Section 5*

With kind regards,

Dr Henrik Ny

---

<sup>1</sup> Riktlinjer för anställning av lärare och utnämning av docent vid Blekinge Tekniska Högskola, Dnr: BTH-1.2.1-0060-2017 R018/17, 2017-04-04

## 2. Account of scientific and other relevant work

**My career route** to my present position as established researcher in the Swedish sustainability transition field has been somewhat unusual. I started with two master's degrees in Lund but rather than moving straight to PhD studies I took some years in industry to gain practical experience before returning to academia through BTH. My industrial years were spent at Perstorp AB where I first worked at the corporate environmental department with environmental reporting and analysis. Later on, I got promoted to run the recycling and waste management department for the whole Perstorp AB main site with 20 factories and 2000 employees. These experiences have proven crucial for my later successes in popular science and societal outreach. I am passionate about engaging with the surrounding society for maximum impact of my research and teaching efforts. This is particularly suitable since my research has developed to primarily revolve around identifying how key societal actors - in particular within the transport and energy sectors - could better collaborate to accelerate societal change towards sustainability.

**My own academic schooling** led to my PhD that I got at BTH in 2009 and besides this I hold two master's degrees. The first one was in Chemical Engineering with environmental and energy focus at Lund Institute of Technology and the second one in Environmental Management and Policy from the International Environmental Institute at Lund University. The focus in my PhD was on showing how life cycle analysis, systems analysis and other methods and tools could be systematically combined with a methodology for strategic sustainable development. The result was a preliminary "toolbox" for sustainable product innovation that is now used both in industry and academia. The new tools quickly and cost effectively deliver both a wide overview of sustainability problems and business implications and issues that need more attention from decision makers. I have built further on this toolbox in my later projects and it has also found application areas where I have been less active myself (e.g. within the BTH KKS research profile project Model Driven Development and Decision Support).

**My efforts in societal outreach and popular science** have consistently during the last eight years put me among the most visible BTH researchers in media and I regularly get contacted by newspapers and radio to comment on the development within my field. A partial list of my research-related media appearances is given in my CV in Section 3 under 'Invited Lectures and collaboration with surrounding society'. This includes a new pod radio series revolving around my research. I also write opinion pieces and make analyses for some of the leading Swedish sustainability magazines and I have eight times been at the Swedish political week in Almedalen to present my research and to strengthen my network. Another exciting achievement is that I from its start have been a juror for the prestigious Environmental Strategy Prize that is delivered yearly to prominent Swedish sustainability transition frontrunners. In all, these outreach activities have strengthened my research network and I am regularly asked to join new projects and to give keynote lectures. The latest external lecture I gave was for the Bridge foundation located in conjunction to Malmö University.

**My fulfilment of all five formal requirements of the associate professor** is justified in the coming paragraphs. While doing this I relate to the publication numbers of my full categorized publication list (see section 4)<sup>2</sup>.

**R1: Scientific merit to the extent of two doctoral dissertations.** After completing the doctoral studies I have published 11 peer reviewed conference or workshop publications (C7-C18) and 8 peer reviewed journal publications (J3-10). I have also published a few bigger technical reports in book form (in particular TR8-TR9). The licentiate thesis included papers J1 and J2 and a Journal manuscript while the doctoral thesis included papers C6, C5, J1, J2 and a Journal manuscript. Before and during my doctoral studies I did some complementary work that resulted in several peer reviewed publications not included into licentiate or doctoral theses (C1-C4, J3 and BC1). My current H-index is 14 with over 1010 citations and the number of citations after the dissertation year 2009 is 907. The number of citations per year has been constantly increasing since 2007 and now lies at about 130-160 per year.

**R2: Independent production of research of international quality.** My research focus has remained within the broad area of strategic sustainable development but after the doctoral thesis I have also zoomed-in substantially towards some application areas. This shows my independence as a researcher and ability to explore new research. From 2010 to 2015 I initiated and ran a major regional research effort called GreenCharge. This was done independently from my former supervisors and at the time GreenCharge became the biggest regional electromobility research co-production effort in Sweden and it was conducted with some 20+ companies, 25 municipalities, and 4 regions in Southeast Sweden and generated upwards of SEK 100 million in research, working hours and investments. I set up the whole research approach within this effort and I have based on this then built a new research team called SustainTrans that I run within our department (see [www.bth.se/sustaintrans](http://www.bth.se/sustaintrans)). We are focused on identifying affordable ways to accelerate a transition to sustainable transport and energy systems. I have made strong connections with regional, national and international actors that I now cooperate with in follow-up projects both in Sweden and abroad.

As a result, I also regularly get offers to participate in doctoral grading committees, give keynote speeches and edit special issues of major scientific journals. Please see Appendix B for the recommendation letter from my department manager professor Göran Broman that supports this. As can be seen from my CV below (see section 3), I have published one journal paper (J9) and four Conference papers (C8, C12-C14) as the most senior researcher and without my former doctoral supervisors. For 14 conference papers and 1 journal paper I was not only the most senior but also the first author leading the research and publication efforts. I have also published 5 journal and 12 conference publications as a result of supervising doctoral and master level students. Some examples of my independence as a researcher are also visible through the paper topics I have initiated as the main senior researcher. The latter includes sustainable bus and car systems (e.g, papers C12-C16 and TR1-TR10) and electric roads (paper J9).

**R3: Demonstrated pedagogical skills.** I have taken the required 15 ECTS course credits in pedagogy and my key pedagogical results include that I have taught, written course books and developed courses and programs within sustainable product development and innovation.

---

<sup>2</sup> The publications are coded with the ID prefixes Cx for conference and workshop publications, Jx for journal publications, Bx for Books and EBx for Edited books, BCx for Book Chapters, PSx for Popular Science, TMx for Teaching Material and TRx for Technical Reports.

More specific topics include industrial ecology and life-cycle assessment, economics for sustainability, systems analysis and dynamics and integrated transport and energy systems. I have also supervised 20+ master's theses on these and related topics and I am now examiner for the thesis course at the BTH master's Program in Strategic Leadership towards Sustainability (MSLS). As I describe in more detail in my account of pedagogy (see section 6), I always make an effort in the classroom to meet the students where they are while relating both to the research front and industrial practice.

**R4: Completed the research supervision course**

The course completion diploma is attached in Appendix A.

**R5: Shown ability to take the main supervisor responsibility for doctoral students from hiring until the exam.** I have been formally involved as a supervisor with six doctoral students. The first two were Anthony W. Thompson and Pia Lindahl that were active within the project called 'Decision Support for Sustainable Value Chains'. This was the first project that I independently acquired funding for and became project leader for from 2010-2012. I co-supervised these doctoral students with my former supervisors and we all designed and wrote several papers together. While building up the GreenCharge projects I recruited the two new PhD students Lisiana Nurhadi and Sven Borén. As described above I designed the whole research approach of these projects and also led the practical supervision as acting main supervisor. The formal main supervisors were professors Tobias C. Larsson and Göran Broman, respectively. I am currently acting main supervisor for the PhD student Varvara Nikulina within the research track that I have developed for the SustainTrans team. I do this together with Prof. Göran Broman and previously also together with Prof. David Simon from Mistra Urban Futures and Prof. Henrikke Baumann from Chalmers. Varvara Nikulina defended her licentiate thesis in January 2019 and she is planning to present her doctoral thesis in Spring 2021. I am also currently supporting supervisor for Matilda Watz (with Associate Professor Sophie Hallstedt as main supervisor). I refer to the recommendation letter from Professor Göran Broman for more details on my supervision roles in these cases.

**To sum up and look forward,** with the account above I think I have shown that I have met the formal requirements for associate professor at BTH and that I would likely be able to contribute positively to the development of BTH if I would be promoted to this position. In particular, my profile, and the work that I expect to do, should be very interesting to BTH that has a focus on IT, innovation and sustainable growth. On top of this, as can be seen from my CV (see section 3), I also have management experience, both from projects and line organizations within both industry and academia. As associate professor I would therefore expect to be able to continue to build strong stakeholder networks and research projects to ensure relevant and action-related sustainability transition research. In line with this, I have already initiated some strategic research collaboration with other departments within BTH. One of these is my current exploration of how my team's experience with pathways for fossil free and sustainable mobility could be combined with spatial planning expertise to pave the way for the future sustainable society.