Name: Erik Sterner CV

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Education

Chalmers University of Technology

Ph.D. – Energy and Environment/Space, Earth and Environment	2011 –2018
(60% of the MSc teacher education Learning and Leadership)	2015 - 2017
M.Sc. in Physics - Complex Adaptive Systems CAS)	2009 - 2011
(90% of a B.Sc. in bioengineering)	2005 -2009

The University of Gothenburg, 2003 – 2005 & 2009

B.Sc. In mathematics

Work

University of Gothenburg	2019-
Researcher and pedagogical developer (half-time, permanent position)	

Klimatkoll Guldheden AB
Pedagogical developer and marketing (part-time)

Chalmers University of Technology

Researcher and pedagogical developer (part-time)	2018-2019
Responsible for a project that created a web page for the master's programme CAS.	2010-2011

2019-

2006-2009

Intize (A student driven organization)

Vice director, responsible for development and recruitment of mentors. (full-time)
Responsible for recruitment and project manager for high school mentors. (part-time)

Languages and programming

Swedish

English Fluent in speech and writing, Cambridge Certificate of Proficiency in English (2003)

Awards and Prizes

Individual: Best Entrepreneurship, the Bert-Inge Hogsved prize (2011). Best poster award at Gothenburg Atmospheric Science Centre's 5:th conference (2012). Recognition by Intize, at its ten year anniversary, of individuals who were key-contributors to building Intize and the work resulting in Chalmersmedaljen (2015).

Group (Intize): Chalmersmedaljen (2012), SIFE spirit award(2007) and Guldtummen (2007).

Publications

Sterner, EO, Adawi, T, Persson, UM, Lundqvist, U (2019) **Knowing how and knowing when: unpacking public understanding of atmospheric CO2 accumulation**, *Climatic Change*,

Sterner, E (2018). Climate Change: Models, Metrics and Meaning Making. (PhD Thesis)

Sterner, EO, Robinson, EJ, & Albers, HJ (2018) Location choice for renewable resource extraction with multiple non-cooperative extractors: a spatial Nash equilibrium model and numerical implementation. Letters in Spatial and Resource Sciences, 11(3), 315-331.

Sterner, E, Hagvall Svensson, O, Toivonen, S, Bill, J, & Adawi, T (2017) Evaluating the flipped classroom approach in engineering education: Students' attitudes, engagement and performance in an undergraduate sustainability course. *In 45th SEFI Conference*, September 2017, Azores, Portugal (pp. 1-8).

Sterner, EO, & Johansson, DJA (2017) **The effect of climate–carbon cycle feedbacks on emission metrics.** *Environmental Research Letters*, 12(3), 034019.

Sterner E (2015) Comparing climate forcers on a common scale, Licentiate thesis, Chalmers.

Sterner E, Johansson DJA, Azar C (2014) Emission metrics and sea level rise. Climatic Change 127:335–351.

Albers, HJ, White, B, Robinson, EJ & Sterner, EO (2019) **Spatial Protected Area Decisions to Reduce Carbon Emissions from Forest Extraction**, Spatial Economic Analysis

Other publications incl. popular science, interviews and course material

- "Vad har störst klimatpåverkan?" Popular science article/educational material by E Sterner & D Olsson in "Kemilärarnas Informationsbrev" nr 2, 2019. <u>Link</u>
- "Rädda klimatet en pedagogisk utmaning" (2019) Interview by Christian Löwhagen on the news pages for Chalmers Dept. Space, Earth and Environment. Link
- *"Han vill göra klimatfrågorna lättbegripliga"* (2019) Interview by Anna Skoog in Syre. (<u>Link</u>) Short video interview of me by Hugo Gustafsson (GMV) on SDG 13 (<u>Link</u>).

Pedagogics and Teaching

Member in a experts committee for the development of a new engineering programme Global Systems (2018-) at Chalmers. Responsible for the pedagogical approach and facilitating the creation of the successful application. Member in a reference group/experts committee for the development of a master's programme in leadership and Co-founder of two 7.5 ECTS university courses (1-2), involved in the total restructuring of another 7.5 ECTS university course (3) and the pedagogical development towards active learning in a yet another (4). 1. Mathematics and Society, 2. Game Theory and Rationality, 3. The Environment and Mathematical Modelling and 4. Environmental policy instruments.

Building the mathematics mentorship program Intize during the period 2006-2013 (incl. having several different leadership positions such as chairman of the board).

Climate communication work in creating and managing two rapidly growing start-ups: Klimatkoll Guldheden AB and Svalna AB. Which together have reached and engaged 50 000-100 000 people (mostly in sweden).

Funding received

Intize – engaged in getting funding for the organization 2006 to 2011 – in total ~ 8 MSek.

Studycas.com – initiating the project and securing funding for it's development and maintenance – \sim 100 KSek Course development money (through application at Chalmers) for MVE345 - 200 KSek.

Minor research grant from Adlerbertska for my climate change pedagogics work – 100 KSek.

Research grant from Area of Advance Energy for climate change pedagogics work I supervise – 250 KSek. Kortspelet Klimatkoll - Funding for part of development from Chalmers AoA Energy and IKV – 400 KSek and ~1.9 MSek from Formas to get the game out and in use with at least 20 000 pupils in school.

Svalna - involved in strategic advice and applications that received funding from Swedish Energy Agency, Swedish EPA and Vinnova (Sweden's innovation agency) - 2 MSek.

International experiences

Lived in the US for one year. I've for the last four years been engaged in transnational collaborative educational pilot projects and in sharing pedagogical tools and coaching teachers in improving their teaching. Currently heading a cross-continental capacity building group for the creation of the proposed type of educational programs.