



SCAIEM



SCAIEM 2019

Scandinavian Academy of Industrial
Engineering and Management

KTH Stockholm, Sweden 14-16 October 2019

Sponsors:



Useful information

Address: Lindstedtsvägen 30 at KTH Campus (Sing-Sing)

Wifi: Choose network "KTH Conference"
and use the password: kykeryro.

Telephone: +46(0)8-790 61 91

Social media: Use [#scaiem2019](#), [#iem](#)

Travel to the conference venue by metro:

From T-centralen, red line (number 14) towards Mörby Centrum.
Approximately 5 min. Get off at "Tekniska Högskolan" and
chose the exit towards Kungliga Tekniska Högskolan.
For prices visit: [sl.se](#)

Organizing committee

Mats Engwall, Conference chair

Britta Forsberg, Project coordinator

Karolin Persson, Administrative Director

Cali Nuur, PhD Candidate Workshop

Matti Kaulio, Head of Department Summit

Andreas Feldmann, IEM Program Directors Council

Lars Uppvall, IEM Program Directors Council

Anette Hallin, PhD Training Directors Council

**“ Back to the core,
beyond the core ”**

Program Overview

Monday 14 October: Pre Conference Activities

11.00	Registration Opens, Sing-Sing, Lindstedsvägen 30
12.00	Lunch
12.30 – 17.00	Head of Departments Summit (by invitation only), incl lunch
13.00 – 17.30	PhD Candidate Workshop
14.00 – 17.00	IEM Program Directors Council
14.00 – 17.00	Head of Doctoral Education Council
17.30 – 19.30	Welcome Reception and registration (More info see: “Social Events”)

Tuesday 15 October

08.30	Registration
08.30 – 09.00	Morning Coffee
09.00 – 10.00	Welcome Address
10.00	Swedish Fika
10.30 – 11.30	Parallel Sessions 1
11.30 – 12.30	Lunch
12.30 – 14.00	Keynote Address
14.00	Swedish Fika
14.30 – 15.30	Parallel Sessions 2
15.30 – 15.45	Break
15.45 – 16.45	Parallel Sessions 3
16.45 – 17.00	Break
17.00 – 17.45	ScAIEM General Assembly
19.00 – 23.00	The IMIT Gala Dinner @ the Vasa Museum

Wednesday 16 October

08.30 – 09.00	Morning Coffee
09.00 – 10.00	Parallel Sessions 4
10.00 – 10.30	Swedish Fika
10.30 – 11.30	Parallel Sessions 5
11.30 – 12.30	Lunch
12.30 – 13.30	Keynote Address
13.30 – 14.30	Closing Address



Pre Conference Activities

PhD Candidate Workshop

Monday 14 October, 13.00 – 17.30

Host: Cali Nuur, KTH

Venue: Room 558, Room 358, Room 322, Hjärne, Hall K51, Hall K53

During the workshop, PhD candidates have the opportunity to present their research proposals, papers, and research plans, and get feedback from senior and junior opponents from the Nordic countries, providing constructive support and ideas. The workshop is deliberately designed to provide each candidate with enough time to really discuss their contributions in depth. All PhD students will receive a diploma certifying that the workshop equals 3 ECTS credits.

Head of Departments Summit (by invitation only), incl. lunch

Monday 14 October, 12.30 – 17.00

Host: Matti Kaulio, KTH

Venue: Room 643 Albert Danielsson

The theme of the conference – back to the core, beyond core – represents an opportunity for meeting to discuss both operative challenges and more long-term issues. Through the Summit, the heads for the IEM Departments in the Nordic countries share ideas and experiences in to be better prepared for future challenges.

The Summit is restricted to department heads, or equivalent, or to somebody assigned by the head to represent the department at the summit meeting.

IEM Program Directors Council

Monday 14 October, 14.00 – 17.00

Hosts: Andreas Feldmann, KTH, and Lars Uppvall, KTH

Venue: Room “Nordstjernen”

The council share insights and addresses issues related to the IEM educational programs in the Nordic region. This year we specifically focus how to cover issues like sustainable, ethics and gender in contemporary IEM-education. The aim is to facilitate an inclusive forum where the participants can share experiences and to get inspirations from how other IEM-programs have handle these highly relevant subjects.

Head of Doctoral Education Council

Monday 14 October, 14.00 – 17.00

Host: Anette Hallin, Mälardalen University and Åbo Akademi

Venue: Room 243

Industrial Engineering and Management (IEM) is an eclectic subject, gathering researchers with various empirical interests, methodological approaches and theoretical foundations. The purpose with this meeting is to find inspiration that will help us to further improve the quality of the Doctoral education in IEM at our different universities. During the council, we will explore differences and similarities between our programs, as well as discuss common challenges and possibilities for future collaborations.

Plenary sessions

Industrial Engineering and Management: knowledge for the future?

Tuesday 15 October, 12.30 – 14.00

Venue: Auditorium F2

Session leader:

Bo Karlson Director of Studies at INDEK. KTH

Expert panel:



Tuva Palm
Serial Entrepreneur, MSc KTH



Jane Walerud
Business Angel, Doctor h.c., KTH



Nils Gunnar Vågstedt
Director of Innovation at Scania, PhD KTH

Scandinavian Management – Still Valid in the Digital Era?

Wednesday 16 October, 12.30 – 13.30

Venue: Auditorium F2

Speakers:



Sofia Börjesson
PhD, Professor



Fredrik Lagergren
PhD

Comments:



Eric Ringertz
CEO NETLIGHT

Parallel seminars

PARALLEL SESSION 1

What's beyond Uber? Managing the complex infrastructure behind

Tuesday 15 October, 10.30 – 11.30

Venue: Hall K51

Session leaders: Nicolette Lakemond and Gunnar Holmberg, Linköping University

Format: Workshop

Management research has focused extensively on new types of market platforms such as Uber and Airbnb. Yet, when moving towards an AI enhanced society, future applications will be heavily dependent on a critical and increasingly intelligent infrastructure. This underlines that we need to proactively contribute to the shaping of future management of complex intelligent systems that enables organizations to responsibly contribute to and benefit from the emerging possibilities of AI.

PARALLEL SESSION 1

Qualitative research methods: perspectives, dilemmas, and open questions

Tuesday 15 October, 10.30 – 11.30

Venue: Hall K53

Session leader: Emrah Karakaya, KTH

Participants: Ebru Susur, Universidad Politécnica de Madrid and Politecnico di Milano, Simon Okwir, Uppsala University, Vikash Kumar Sinha, Aalto University.

Format: Round table

Qualitative research methods have been adopted by many scholars in the field of industrial engineering and management. Although there is no universal prescription of how to employ rigorous qualitative research methods, a number of traditions have been widely applied in the extant literature.

In this session, we reflect on how we apply, as well as teach, qualitative methods. We address questions, e.g., to which extent does one trust one's own results? how does one derive findings from qualitative data analysis? what are the promise and pitfalls of being systematic as Gioia or Yin prescribe? And iff reflexivity is aimed, to which degree we can really achieve it?

PARALLEL SESSION 1

Academic programs in Fintech

Tuesday 15 October, 10.30 – 11.30

Venue: Room 243

Session leaders: Mattias Wiggberg, Niklas Arvidsson
and Tomas Sörensson, KTH

Format: Workshop

Financial technology (Fintech) is an emerging field where software development, mathematical and statistical modeling, and practical problem-solving expertise meets the financial domain. Recent year, the Fintech interest from students can be visible in bachelor- and master thesis where students combine, for instance, machine learning algorithms with financial data.

The session aims to deepen our understanding of possible Fintech courses, tracks and master programs through an interactive workshop where we will ask participants to share their views on our ideas for possible collaboration options as well as some initial thoughts on pedagogical setup. Examples of issues addressed: which opportunities and challenges does the Fintech industries meet? How can universities collaborate with the industries to build strong programs meeting these opportunities and challenges? And what should the key building blocks in such programs be?

PARALLEL SESSION 1

PhD theses by papers

Tuesday 15 October, 10.30 – 11.30

Venue: Room 643

Session leader: Miia Martinsou, Tampere University

Format: Round table

A significant proportion of doctoral theses are carried out in the form of publications plus an introductory section. However, this format is still under discussion. The session revolves around the following issues:

What are the requirements in different Scandinavian countries and universities for such theses by publications? How to manage the publications in a reasonable timescale? How to write the introductory section? How explicating the unique contribution by linking the publications? And how can a PhD program enhance efficient thesis processes?

PARALLEL SESSION 2

Digitalization and the transformation of corporate organizations.

Tuesday 15 October, 14.30 – 15.30

Venue: Hall K51

Session leader: Solomaz Filiz Karabag, Linköping University

Participants: Christian Berggren, Linköping University; Daniel Rencrantz, VINNOVA; Johan Simonsson, Husqvarna; Nicolette Lakemond, Linköping University

Format: Panel

High impact digitalization challenges incumbent industry companies. However, there are few studies addressing how incumbent firms can structure the transformation to develop new digital-based offerings, in parallel with pursuing their existing products, customers and business models.

Consequently, the session will around a number of crucial questions, e.g. how are incumbent firms and business models challenged by digitalization? How do firms solve the contradictions between serving existing technologies and offerings, as well as future digital, disruptive technologies? How do national innovation strategy support the digital transformation of incumbents? And what kind of management models guide the development of the new organizational practices needed for digital transformation?

PARALLEL SESSION 2

From data analytics to action

Tuesday 15 October, 14.30 – 15.30

Venue: Hall K53

Session leader: Kathrin Kirchner, DTU

Format: Presentation

Data Analytics study programs or courses often emphasize different algorithms and to apply them in small projects. At DTU, we developed a course “From Analytics to Action”, which complements such courses by addressing challenges and solutions from a management perspective.

During the session we address several important issues, e.g. the business values of analytics projects, organizational structures, stakeholders, and technology, and discuss specific solutions and cases. An overview about this newly developed course is presented. Afterwards, there is time for presentations of similar approaches from all participants and for exchange of experiences.

PARALLEL SESSION 2

Continuous improvement through mutual auscultations

Tuesday 15 October, 14.30 – 15.30

Venue: Room 243

Session leader: Marcus Lindahl, Uppsala University

Format: Round table

A discussion of how we together, within SCAIEM could organize an auscultation program among our IEM-programs. The basic idea is to send teachers to other IEM-program to meet to teachers and to sit in on lectures for different years and topics in the education. This would provide us with a benchmarking function within SCAIEM.

PARALLEL SESSION 2

Publication strategies: finding what works for you

Tuesday 15 October, 14.30 – 15.30

Venue: Room 643

Session leaders: Gisela Bäcklander and Anna Svarts, PhD students at KTH

Format: Workshop

During this session we discuss topics related to the art of publishing: aiming for the stars or picking the low hanging fruits; locus or focus journals; methodological, epistemological, and theoretical fits; using bibliometrics to find good outlets, open access or not; and conferences and special issues.

PARALLEL SESSION 3

Meet the SCAIEM Editors

Tuesday 15 October, 15.45 – 16.45

Venue: F2

Session leader: Anders Broström; KTH and Associate editor Industry and innovation

Participants:

- Anna Bergek, Chalmers and Associate editor Research Policy
- Thomas Lennerfors, Uppsala University and Co-editor for Culture & Organization
- Saku Mäkinen, Tampere University and Editor-in-Chief, CERN IdeaSquare Journal of Experimental Innovation, Department editor IEEE Transactions on Engineering Management, Associate editor Technological Forecasting & Social Change.
- Miia Martinsuo, Tampere University and Associate editor International Journal of Project Management
- Jan Olhager, Lund University and Associate editor of Decision Sciences, International Journal of Operations and Production Management, etc.
- Ou Tang, Linköping University and Editor, International Journal of Production Economics

Format: Panel

The SCAIEM community hosts a large number of significant scholars. This year we are proud to present the first session of this type, where a panel of Nordic editors from leading academic journals will discuss their experiences of scientific publishing.

PARALLEL SESSION 3

Top Challenges facing Nordic Industrial Leaders

Tuesday 15 October, 15.45 – 16.45

Venue: Sing-Sing

Session leaders: Agneta Rinman and Niklas Gustafsson,
KTH Executive School

Format: Workshop

How is the match between the challenges facing industrial leaders and the academic disciplines within the field of Industrial Engineering and Management?

Join us in this explorative session, where we seek to find this out. We aim to distinguish between traditional disciplines and those emerging. Who knows, we might identify green fields - challenges not (yet) (sufficiently) covered by academia.

Featured by *KTH Executive School*

PARALLEL SESSION 3

Supporting entrepreneurial students

Tuesday 15 October, 15.45 – 16.45

Venue: Room 243

Session leaders: Lisa Ericsson and Donnie Lygonis, KTH Innovation

Format: Presentation

Students and researchers at KTH can take advantage of the free, early-stage innovation support offered by KTH Innovation, the support offices on campus.

KTH Innovation emphasized the individual development of the entrepreneurial student or researcher and “a love all, serve all” approach to all of its clients. This in turn has turned out a number of successful entrepreneurs (not only companies). These are students (or researchers) who have spent extracurricular time working on their own ideas and taking them through KTH Innovation’s proprietary innovation process. By doing so they have developed their entrepreneurial skills in a very hands-on manner.

In this session we will explore the early stage innovation support offered by KTH Innovation, both the tools and the mindset and culture that we try to foster in our community.

Featured by *KTH Innovation*

PARALLEL SESSION 4

ScAIEM Doctoral Thesis Award 2019

Wednesday 16 October, 09.00 – 10.00

Venue: Hall K51

Session leader: Lucia Crevani, Mälardalen University and
Chair of the Thesis Award Committee

Format: Presentation

Presentation of this year's award winning thesis by the laureate of 2019.

PARALLEL SESSION 4

Teaching ethics for IEM students

Wednesday 16 October, 09.00 – 10.00

Venue: Hall K53

Session leader: Thomas Taro Lennerfors, Uppsala University

Format: Presentation

IEM students will through their work practice have an impact, positive and negative, on people and the environment. How do we best train IEM students to identify ethical aspects of their work practice, take responsibility for consequences on people and the environment, critically think about alternative options, and then act?

In this session, experiences will be shared from the ethics education for IEM students at Uppsala University, and the course literature which was developed in that context. The aim of the session is to stimulate a discussion, and share ideas and experiences from different universities, about how to teach ethics for IEM students.

PARALLEL SESSION 4

Is it possible to make engineers entrepreneurial? If so, how?

Wednesday 16 October, 09.00 – 10.00

Venue: Room 243

Session leader: Kent Thorén, KTH

Participants: Matti Kaulio, KTH, Mirko Varano, KTH, Terrence Brown, KTH, Mette Svensson, KTH and participants from the partner universities.

Format: Presentation

Which are the best practices in Europe and the world with respect to entrepreneurship education? The presents findings from the EU Erasmus+ project E4T, aiming to provide more engineering students with an entrepreneurial ambition, entrepreneurial culture and skills.

PARALLEL SESSION 4

The professional life of an IEM-postdoc

Wednesday 16 October, 09.00 – 10.00

Venue: Room 643

Session leaders: Eva Lovén and Mimmi Gustafsson, Linköping University

Format: Presentation

During this session we present results from an interview study with postdocs and research fellows at a Swedish University. Women and men expressed differences concerning the task content and degree of research, the position initiative, course responsibility, experience to combine academic career with private life and future career. During this session we also discuss consequences for the career and how to improve the professional life of an IEM-postdoc.

PARALLEL SESSION 5

The effect of digitalizing company communication on psychosocial well-being

Wednesday 16 October, 10.30 – 11.30

Venue: Hall K51

Session leader: Kathrin Kirchner, DTU

Format: Presentation

As part of their digital transformation, companies adopt social platforms to support knowledge work and company communication. The degree of social support and the influence of a single employee might be improved, while higher demands on online availability might have a negative influence on employees' mental health. What is the effect of social platform communication on the psychosocial work environment for employees? How can social media in the enterprise be managed to avoid negative aspects on well-being? An overview about the research topic is given in the session. Afterwards, there is time for possible presentations of participants and a discussion of further research directions or collaborations in this field.

PARALLEL SESSION 5

Digital education in industrial innovation

Wednesday 16 October, 10.30 – 11.30

Venue: Hall K53

Session leaders: Leonid Chechurin and Janne Huiskonen, Lappeenranta University of Technology

Format: Presentation

Since 2017, the EU ERASMUS+ project CEPHEI has been executed, aiming to create a digital platform for industrial innovation curricula. This session will share experiences from the project as well as provide innovative examples of how to move the teaching, from classical PPT, to online formats.

PARALLEL SESSION 5

What can we do better and how in entrepreneurship education?

Wednesday 16 October, 10.30 – 11.30

Venue: Room 243

Session leader: Kent Thorén, KTH

Participants: Matti Kaulio, KTH, Mirko Varano, KTH, Terrence Brown, KTH, Mette Svensson, KTH and participants from the partner universities

Format: Round table

Which are the best practices in Europe and the world with respect to entrepreneurship education? The presents findings from the EU Erasmus+ project E4T, aiming to provide more engineering students with an entrepreneurial ambition, entrepreneurial culture and skills. The session is a free continuation of session 4c (see above).

PARALLEL SESSION 5

Systemic change in industrial networks

Wednesday 16 October, 10.30 – 11.30

Venue: Room 643

Session leader: Miia Martinsou, Tampere University

Format: Presentation

Radical technological innovations require also innovations in the business network to succeed and create business benefits. Such innovations are “systemic”, i.e., they require changes not just in products and technologies, but also in associated services, systems, and related material, information and financial flows, and ways of managing and organizing. How should industrial management research tackle these kinds of systemic changes? What are the major challenges and barriers to systemic changes? What are the hot topics, what are the hot and topical findings?

PARALLEL SESSION 5

Sustainable energy systems: Technical and business perspectives

Wednesday 16 October, 10.30 – 11.30

Venue: Hjärne

Session leader: Frauke Urban, KTH

Participants: Andrew Martin, KTH; Thomas Sandberg, KTH; Emrah Karakaya, KTH; Monica Bellgran, KTH

Format: Panel

In many parts of the world, energy systems are currently undergoing a global transformation, from predominantly fossil fuel-based centralized systems, to more renewable energy-based and distributed systems. This transformation is partly driven by the Paris Agreement's aim to limit global warming to below two degrees, by EU policy, as well as Sweden's goal to generate 100% of its electricity from renewable energy by 2040. To achieve this requires technological transformation, but also transformations of societies, economies, institutions and politics.

This panel will bring together different researchers from across KTH as part of an interdisciplinary research initiative on sustainable energy. The panel will and discuss current research on sustainable energy from various disciplines, such as engineering, economics, management and material science. We hope to be able to engage across the ScaIEM community and explore opportunities for potential collaboration.



The Vasa museum:

How to get to the Vasa Museum:
 From Östra Station - take bus 67 towards Skansen and get off at Nordiska Museet/Vasa museet. By bus it takes about 25 min depending on traffic. If you want to walk it takes around 35 min. Take a taxi and it takes about 15 minutes depending on traffic.

At the Vasa museum it's a constant temperature of 18 degrees. If you freeze easily bring an extra item of clothing.

Taxi Stockholm:

+46(0)8-15 00 00

Hjärne:

Osquars backe 31. Walk straight thru the library and when you get to the other side – take the stairs to the 3rd floor.

K51 and K53:

From the bottom of Sing Sing. Walk out thru the back entrance and walk thru the courtyard to Teknikringen 28.

1 KTH Library

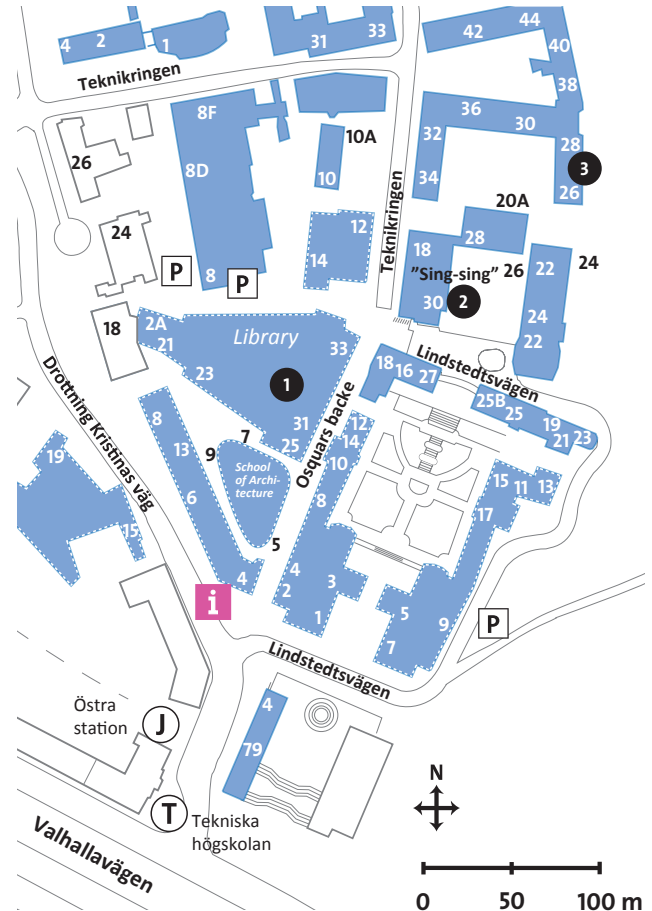
Rooms: Hjärne

2 Lindstedtsvägen 30 "Sing Sing"

Main Conference Area
 Rooms: 243, 322, 358, 558, 643,
 Nordstjernen, F2

3 Teknikringen 28

K51 and K53



Social Events

Welcome Reception and registration

Monday 14 October, 17.30 – 19.30

Venue: Sing-Sing

Come together and mingle with old and new friends in the IEM-building of KTH, which due to its architecture was nicknamed Sing-Sing by the students in the 1940's. Drinks and a light buffet are served together with entertainment in an informal environment.

Lunches, Swedish FIKA & morning coffee

Lunches, Swedish FIKA (break) and morning coffee will be served in the IEAM-building (Sing-Sing) and it is also an opportunity to mingle and socialize with old and new colleagues from different parts of our region.



The IMIT Gala Dinner @ the Vasa Museum

Tuesday 15 October, 19.00 – 23.00

We will enjoy a memorable dinner at the Vasa museum with delicious food, entertainment and conversations around the table.

The Vasa ship capsized and sank in Stockholm 1628. After 333 years on the sea bed the mighty warship was salvaged and the voyage could continue. Today Vasa is the world's best preserved 17th century ship and the most visited museum in Scandinavia.



Swedish FIKA

Swedes prefer not to translate the word *fika*.

They don't want it to lose significance and become a mere coffee break. It is one of the first words you will learn when visiting Sweden, right after *tack* (thank you) and *hej* (hello).

Fika is much more than having a coffee. It is a social phenomenon, a legitimate reason to set aside a moment for quality time.

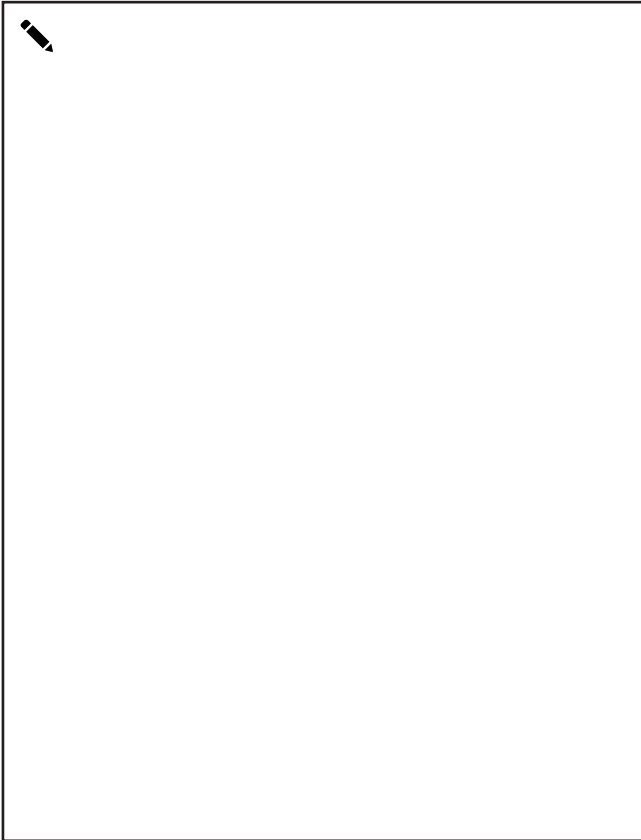
Fika can happen at any time, morning as well as evening. It can be savoured at home, at work or in a café. It can be with colleagues, family, friends, or someone you are trying to get to know. It is a tradition observed frequently, preferably several times a day.

Accompanying sweets are crucial. Cinnamon buns, cakes, cookies, even open-faced sandwiches pass as acceptable *fika* fare.

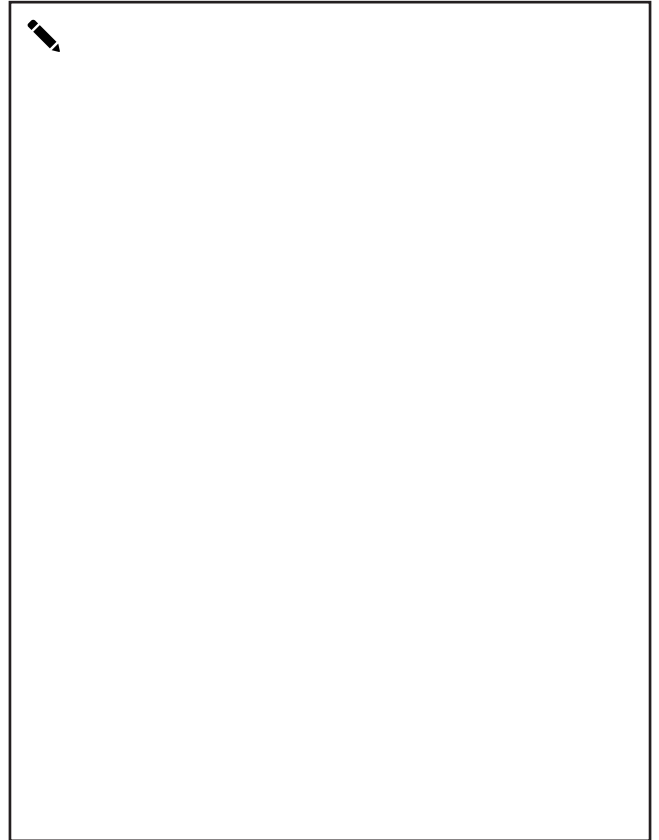
It comes as no surprise that Swedes are among the top consumers of coffee in the world.



Ideas

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Reflection

A large, empty rectangular box with a thin black border, intended for writing reflections. In the top-left corner, there is a small, black icon of a pencil pointing downwards and to the right.



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