



Integrated Environmental Assessment

Towards Integrated Sustainability Assessments



EEAcademy ENI Summer School Course Information

27 August - 29 August 2019
Copenhagen, Denmark



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ENI SEIS II East



PBL Netherlands Environmental
Assessment Agency

FLANDERS
ENVIRONMENT AGENCY



Flanders
State of the Art



Sapienza University of Rome





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Welcome to the ENI Summer School 2019

The **European Environment Agency (EEA)**, the **EEAcademy** and the **ENI Summer School Team** would like to welcome you to the **ENI Summer School 2019 on Integrated Environmental Assessment** in Copenhagen.

We are delighted to be able to welcome a selection of excellent candidates from the Eastern Partnership countries, the Eionet network, EEA staff and international agencies to this knowledge sharing and skills developing event focused on **Integrated Environmental Assessments**.

About The ENI Summer School

The EEAcademy ENI Summer School is designed to support experts with direct involvement in integrated environmental assessments in the transition towards more holistic sustainability assessments, seeking to gain a broader understanding of challenges and methodological advances.

In 2019, the Summer School will be primarily targeted at Eastern Partnership country experts from Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine, Eionet experts and staff of international agencies for whom strengthening their competencies in integrated assessment is beneficial in their current role. This includes especially contributors to the state of environment report and report on sustainable development.

The **ENI Summer School on Integrated Environmental Assessment** is an EEAcademy activity with the objective to strengthen the current knowledgebase on integrated assessments, improving coherence across assessments through establishing a common, foundational understanding of key theories, concepts and approaches.

The overall programme covers the why, what and how of Integrated Environmental Assessment and will go in depth on how to advance from an Integrated Environmental Assessment to an Integrated Sustainability Assessment.



Faculty

We are delighted to introduce the following experts in the field of **Integrated Environmental Assessment** as part of our Faculty who will contribute to **the ENI Summer School 2019: Hans Bruyninckx, Filomena Maggino, Marleen Van Steertegem, Bruno Smets, Wim Clymans Cathy Maguire, Roberta Pignatelli and Lars Mortensen.**

The ENI Summer School team will guide the hands-on training sessions.



Dr. Hans Bruyninckx is the Executive Director of the European Environment Agency (EEA) since 2013. From 2010 until his appointment at the EEA, he was head of the HIVA Research Institute in Leuven, Belgium, a policy-oriented research institute associated with the Katholieke Universiteit Leuven, where he was also head of the Political Science department from 2007 to 2010. In the past 20 years, he has conducted and managed policy-oriented research in the areas of environmental politics, climate change, and transition for sustainable development. He was responsible for research in the domains of policy evaluation, monitoring and reporting, methodology development, environmental policy integration, and more recently also on long-term transition policies.

Dr Bruyninckx studied undergraduate and master's degrees in political science specializing in international relations at Antwerp and Leuven Universities. He also completed an additional programme in development studies at the University Catholique de Louvain-la-Neuve. He completed a PhD degree in 1996 at Colorado State University on the topic of international environmental politics, subsequently teaching at several other universities in the United States and Europe, including Colorado State University, Canisius College and Wageningen University. His academic expertise lies primarily in the field of European and international environmental policy, studying the effects of globalisation on the global governance of environmental issues and sustainable development. From this perspective, he has also studied global production and consumption systems, as well as issues relating to distribution and justice. He has taught courses on the topics of global environmental politics and global environmental governance in relation to the European Union (EU), publishing extensively on EU environmental policies and its role as an actor in global environmental governance.



Prof. ssa Filomena Maggino is a Professor of Social Statistics at the Sapienza University of Rome. Her research covers mainly four fields: indicators construction and synthesis (focusing their application in the field of quality of life and sustainability), data production (with particular reference to subjective data assessment), data analysis (with particular reference to multivariate and dimensional analysis and analytical procedures related to scaling models and complex indicators construction), and data presentation and dissemination (with particular reference to defining a model aimed at assessing their quality). Former President of the International Society for Quality-of-Life Studies (ISQOLS), Former board member of the Research Committee on "Social Indicators" RC55 of the International Sociological Association. – President and Co-founder of the Associazione Italiana per gli Studi sulla Qualità della Vita (Italiana Association for Quality-of-Life Studies), Member of several national and international Associations (ISI – International Statistical Institute, European Association of Methodology, European Survey Research Association, Human Development and Capability Association, Società Italiana di Statistica, Società Italiana di Economia, Demografia e Statistica). Invited all over the world as keynote speakers on topics of her expertise by international organizations and universities.



Cathy Maguire works in the Integrated Environmental Assessment programme at the EEA focusing on integrated assessment, environmental accounting and indicators. She is a lead author of the EEA Flagship report SOER 2020 (the European environment state and outlook report) and part of the SOER 2020 coordination team. Prior to joining the EEA in 2011, she was Director of Research and Senior Policy Analyst at Comhar Sustainable Development Council (2008-2011), Research Fellow at Queens University Belfast (2002-2011) and Principal Researcher at EnviroCentre Ltd. (2005-2008). She is trained as an ecologist with a BSc (Hons), MSc and PhD from Queens University Belfast. She specialised in multi-disciplinary applied research that provides an evidence base for policy and decision-making. Previous appointments include the Northern Ireland Waste Management Advisory Board (01-04), Comhar SDC council (06-08) and the Irish National Waste Prevention Committee.



Marleen Van Steertegem is head of the Environmental Reporting Unit at the Flanders Environment Agency (Belgium). She is trained as a biologist and environmental scientist and holds a PhD in Environmental Sciences (ecotoxicology) from Ghent University, Belgium. Before joining the Flanders Environment Agency, she worked at the CES&T (Centre Environmental Sciences & Technology) at the Ghent University as co-ordinator for the MSc programmes in Environmental Sciences. In 1993 she joined the Flanders Environment Agency, first as a researcher and from 1999 on as project leader of Flanders Environmental Report.



Roberta Pignatelli is a senior researcher in transport and sustainable development, and an expert in environmental statistics. She is a trained social statistician from the University of Rome, with a post-graduate specialisation in Transport Economics and Policy. She has almost 30 years' experience in managing environment indicators in support of local, national and international policies and strategies. She is working at the EEA since 2009, where she is responsible for indicator management and development. Prior to joining the EEA, she worked at the Italian Institute for Environmental Protection and Research (ISPRA) cooperating with the European Commission, the OECD, and several UN bodies. She was also a post-graduate specialisation course lecturer at a number of universities and advanced schools.



Dr. Wim Clymans graduated in 2007 as an MSc in Physical Geography, and completed his PhD in 2012 at the University of Leuven (Belgium). As a researcher in Belgium and Sweden (2008-2016), Wim focused on modelling the effect of land use and climate change on nutrient dynamics in various ecosystems and by extension water quality. As a consultant, Wim supported impact-driven institutes CIMMYT (Mexico) and BeDataDriven (The Netherlands) with statistical and GIS technical support in their efforts to create standard reporting to policy-makers. In 2017, he started at Earthwatch Europe (Oxford, UK) as project manager for the citizen science project FreshWater Watch. FreshWater Watch is unique information gathering tool as it allows citizens to monitor and report on freshwater quality in areas without statutory monitoring. Together with UN GEMS Water, he initiated the inclusion of citizen science (i.e. FreshWater Watch) as information source within the proposed monitoring methodology for SDG 6.3. Since 2018, he develops spatially-explicit decision support systems within the Environmental Modelling team of VITO. Here he focuses on supporting policy-makers, governments and industrial partners in the policy domains



environment, spatial planning, energy and water management with a new generation of indicators and tools for assessment and reporting.



Ing. Bruno Smets graduated in 1988 as an MSC in Electronics Engineering. Bruno worked with teams across the world in the field of multimedia processing in the digital as well as the mobile phone domain. Bruno has gained experience in software engineering ranging from small to large systems in sound and image processing and participated in standardization bodies. In 2009, he started at VITO in the remote sensing department and from 2013 leads the Copernicus Global Land Service. His main work has been in automating workflows (LAI/fAPAR, NDVI, Land Cover, Phenology) and deploy them into an operational production environment, applying state-of-the-art technologies (Hadoop Spark, ElasticSearch) using a diverse set of Earth Observation data inputs (Proba-V, Sentinel-2, Sentinel-3, MODIS). In his most recent work he is trying to extract more information from remote sensed data in combination with other data sources, as is for Sustainable Development Goals reporting and Natural Capital Accounting.



Lars Fogh Mortensen has worked for the EEA since 2003 as an expert and manager on many elements of integrated sustainability assessments. He is currently responsible for international relations and the SDGs, and moving to undertake assessments on sustainability of consumption-production systems within the EEA as of 1 September. Lars is a trained economist from the University of Copenhagen with 25 years of international experience on sustainable development assessments. Prior to joining the EEA, he was the lead author of the first OECD Environmental Outlook in 2001 after having lead the work on sustainable development indicators in the UN headquarters. He is the author of a number of EEA reports, scientific articles and book chapters on sustainability, focusing mainly on measuring sustainability and wellbeing, and assessments of systems of sustainable consumption and production.

EEAcademy-ENI Summer School Team



Luis CASTANHEIRA DOS SANTOS PINTO

Luis works at the European Environment Agency (EEA) as an Organizational Learning and Knowledge Innovation Expert. Part of his current responsibilities include the coordination of the European Environment Academy (EEAcademy).

Graduated in economics, Luis has dedicated most of his professional career to the fields of learning, knowledge, education, competence and organizational development. He worked with a variety of stakeholders, from NGO's, to national administrations, multinational companies and international organisations. Luis completed a masters' degree on "Education and Society" and a series of executive education programmes on organisational learning and talent development, at the London Business School and IMD.

Email: Luis.Pinto@eea.europa.eu



Kees SCHOTTEN

Kees Schotten works in the Integrated Environmental Assessment programme at the EEA focusing on integrated assessment. He is the coordinator of the Eionet National Reference Centers (experts) involved in State of the Environment reporting in the EEA countries. He is also part of SOER2020 coordination team. Prior to joining the EEA Kees worked at the PBL Netherlands Environmental Assessment Agency and amongst others project manager of the agencies GIS and member of the coordination team that produced the Netherlands SoE-report 2016.

Email: Kees.Schotten@eea.europa.eu



Dr. Jana TAFI has worked for the EEA since 2016 as an expert in environmental assessment, statistics and accounting. She brings the EEA knowledge and best EU practices to the Eastern Partnership countries to develop a regular environmental reporting harmonized with European and international standards. Jana has an academic background as an economist and statistician. Before joined the EEA, she worked at the UN ESCAP as an adviser in statistics and accounting to assist the countries in using the UN System of Economic-Environmental Accounts (SEEA) and Framework for the Development of Environmental Statistics (DFES) for reporting to the SDGs. Jana has been involved in international and European projects including with the EEA and Eurostat, OECD and the UN.

Email: Jana.Tafi@eea.europa.eu

ENI Summer School 2019 Participants

The **ENI Summer School 2019** sought to achieve a good mix of participants with diverse experiences, levels, views and backgrounds as well as different angles of approaching **Integrated Environmental Assessment** from within the Eastern Partnership countries, the EEA and the Eionet network in order to allow knowledge sharing and co-creation.

	Name	Country
1	Ani Hambardzumyan	Republic of Armenia
2	Armine Gabrielyan	Republic of Armenia
3	Garik Grigoryan	Republic of Armenia
4	Goncha Bayramli	Azerbaijan
5	Tarana Shahbalayeva	Azerbaijan
6	Amin Mammadov	Azerbaijan



7	Natalya Sviridovich	Republic of Belarus
8	Alena Kaminskaya	Republic of Belarus
9	Katsiaryna Navitskaya	Republic of Belarus
10	Keti Chokuri	Georgia
11	Lasha Akhalaia	Georgia
12	Kakha Lomashvili	Georgia
13	Ludmila Lungu	Republic of Moldova
14	Rodica Adascalita	Republic of Moldova
15	Silvia Nelipovschi	Republic of Moldova
16	Nataliia Husieva	Ukraine
17	Nataliya Nagorneva	Ukraine
18	Olena Maister	Ukraine
19	Lenka Zetochová	Slovakia
20	Jiří Přeč	Czechia
21	Elisabeth Aubrecht	Germany
22	Magnhild Sletten	Norway
23	Gabriella Dalmas	Malta
24	Özlem Durmus	European Environment Agency
25	Lana Schertzer	UNEP DTU
26	Katerina Nikolovska	North Macedonia



Programme Outline

Tuesday, 27 August 2019

Time	Description
9.00-10.30	<p>Session 1: Introduction</p> <p>Learning and expectations @ ENI Sumer School Luis Pinto, EEA <i>Official Welcome & Introduction</i></p>
10.30-11.00	BREAK
11.00-12.30	<p>Session 2: Setting the Scene</p> <p>Perspectives on transitions to sustainability Hans Bruyninckx, EEA <i>Presentation & Discussion</i></p>
12.30-13.30	LUNCH
13.30-15.30	<p>Session 3: Advancing from an Integrated Environmental Assessment to Integrated Sustainability Assessment</p> <p>Perspectives on SDGs Filomena Maggino, Presidenza del Consiglio dei Ministri - Ufficio del Presidente <i>Presentation & Discussion</i></p> <p>The principles, conceptual frameworks, assessment approaches and key features of integrated assessments Cathy Maguire and Kees Schotten, both EEA <i>Introduction to Group Work</i></p>
15.30-16.00	BREAK
16.00-17.30	<p>Session 4: Integrated Assessments: the National Approach</p> <p>SOER reporting at the EEA and the EEA countries Kees Schotten, EEA</p> <p>SOER-reporting in the East Jana Tafi, EEA</p> <p><i>Introductory presentation & Group Exercise</i></p>
17.30	END OF DAY



Wednesday, 28 August 2019

TIME	DESCRIPTION
09.00	Recapping from previous day & reconnecting the learning process
9.15-10.30	<p>Session 5: Innovative Country Examples</p> <p>The 2017 System Balance and 2018 environmental Outlook Marleen Van Steertegem, Flemish Environment Agency <i>Presentation & plenary discussion</i></p>
10.30-11.00	BREAK
11.00-12.30	<p>Session 6: Participatory stakeholder engagement and stakeholder management</p> <p><i>Introduction and Group Exercise: Stakeholder mapping and stakeholder matrix</i> Kees Schotten and Jana Tafi, both EEA</p>
12.30-13.30	LUNCH
13.30-15.30	<p>Session 7: Indicators as Tools towards Integrated Assessments</p> <p>Indicators, their definition, construction and use in policy context Filomena Maggino, Presidenza del Consiglio dei Ministri - Ufficio del Presidente</p> <p>EU Environmental Indicators, SDGs Indicators Roberta Pignatelli, EEA <i>Presentation and discussion</i></p> <p><i>Interactive session and Group Exercise</i> <i>focussed on SDG 2 (zero hunger), 7 (affordable and clean energy), 12 (responsible consumption and production), 14 (life below water) and 15 (life on land)</i></p>
15.30-16.00	BREAK
16.00-17.30	<p>Session 8: Sustainability Assessment applied to SDGs</p> <p>Assessments of SDG 2, 7, 12, 14 and 15 Jana Tafi and Kees Schotten, both EEA <i>Introduction and Group Exercise</i></p>
17.30	END OF DAY



Thursday, 29 August 2019

TIME	DESCRIPTION
09.00	Recapping from previous day/ re-connecting the learning process
9.15-10.30	<p>Session 9: Innovative tools, information and indicators</p> <p>New generation of indicators and tools for assessments and reporting Bruno Smets and Wim Clymans, both VITO <i>Presentation and plenary discussion</i></p>
10.30-11.00	BREAK
11.00-12.30	<p>Session 10: Complementing a 'problems' focus with a 'responses' approach in Integrated Environmental Assessments for transition to sustainability – transforming the way we produce knowledge,</p> <p>Case Study example: Plastics Lars Mortensen <i>Presentation and plenary discussion</i></p> <p><i>Continuing the Group Exercise</i></p>
12.30-13.30	LUNCH
13.30-15.30	<p>Session 11: Sustainability Assessment reporting and communication</p> <p><i>Finalizing the Group Exercise and presentations of results</i></p>
15.30-16.00	BREAK
16.00-17.30	<p>Session 12: Programme evaluation and closing</p> <p>Transfer of knowledge Luis Pinto, EEA <i>Recap of learning, formulation of take-home experiences</i></p> <p>Closing Ceremony EEA Management</p>
17.30	END OF DAY

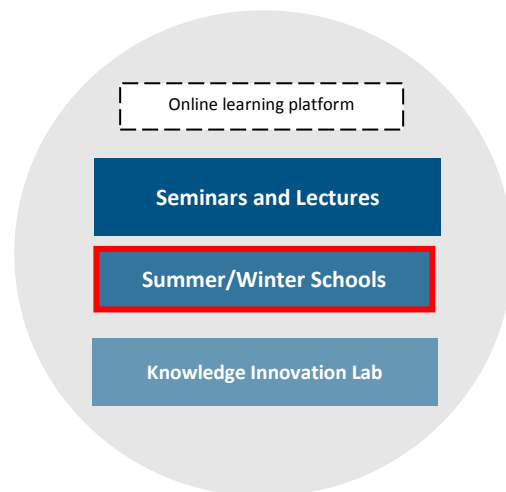


Learning @ the EEAcademy ENI Summer School

In the context of the EEAcademy, a summer / winter school is distinct from the “lecture series”, to a great extent precisely because of its learning approach. The summer school aims not only at strengthening our current knowledge base, but also at integrating new knowledge and practices – ultimately re-adjusting our competencies set in a capacity-building mode.

Seeking such a new type of knowledge requires shifting our modes of learning. If we replicate the same good-old training/education models, we will most probably, competency-wise, end-up with very similar outcomes and therefore simply reproduce and reinforce existing perspectives and practices, with very little room for knowledge innovation.

A summer school is thus NOT a sum of lectures condensed over a period of time. Rather, it is conceived as a learning *process*, and an exercise of mutual learning, where participants can experience and compare different approaches to what they already know.



A combination of learning methods is used – from lectures to case-studies analysis and practical exercises. Participants are called upon to make use of their creative potential, in a critical and reflexive attitude towards their own personal and organizational experience. A diverse group of participants is expected. The learning approach enables the contents to link to participants’ specific contexts and backgrounds and particular attention is devoted to knowledge transferability into working realities.

The learning strategy underlying the Summer School programme is therefore based on a couple of key guiding (pedagogical) principles:

Learner centred: great concern to learner preferences, practices and cultural meanings; focused on learner needs.

By saying it is ‘learner-centred’ we are also saying it is not only ‘content-centred’. Although fundamental, it is not only the knowledge (or the information) that matters; the learning process (competence development) as a whole and the need of the learner assumes a great relevance in the overall development process.

Reflexive: there is attention for questioning our own underlying assumptions such as social values, and the willingness to change; a process through which “un-learning” and “re-learning” takes places.

It requires a great effort to reflect critically about our own perspectives, mental models and beliefs (where they come from) and to open up to those of others. “... *by opening up to other ways of defining a problem or reality and developing a broader more encompassing way to*

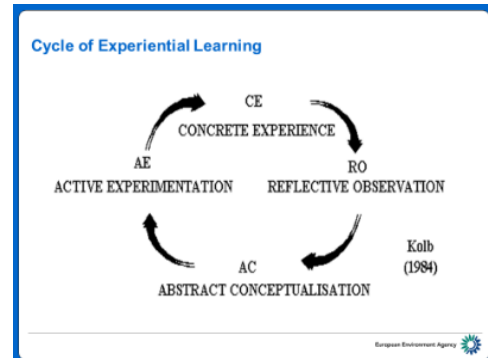


define a problem to which individuals can relate their frame, they open up mentally to a wider array of solutions as well as accepting the existence of other ways to address a similar problem.” (Wittmayer et al. 2011)

Experiential: learning is embedded in reflexive practical experience and application – we look at what happens (to us) in a constant trial mode.

Experience in this account “is not just what happens to us; it is what we do with what happens to us.” (A. Huxley)

Learning reflexively from experience is even more critical when we intend to develop competences that encompass not only knowledge, but also skills and most importantly a new set of attitudes.



Social: making individual perspectives and paradigms explicit and confronting these with others in a creative process. Learning processes designed as open knowledge systems.

In fact, we intentionally expect that through multiple actors’ interactions each learner develops an alternative perspective on reality. It is in this process that “un-learning” and “re-learning” takes places. Under this approach, participants engage in mutual-learning exercises and learning is in this account intrinsically social.

Transdisciplinary: natural sciences, physical sciences, social sciences, humanities and other should be integrated from the beginning when tackling complex, systemic challenges.

In this account, knowledge is not limited by existing disciplinary boundaries; instead, we seek for sources of knowledge in areas that are not defined by specific disciplines – dealing as well with what is between, across and beyond all disciplines. A context like the summer-school provides a unique space to seek such type of knowledge without the limitations of academic disciplines, policy domains or project boundaries. It requires the learner to be able to take a distance from his/her own professional roles and academic ties.

Participatory: it calls for participation in activity, proactively; in this account, there is no such a thing as “passive learners”.

Participation is understood in this context in its broad sense: from plenary questioning and debating, to group work engagement and active listening. Participation is understood as participation of ALL – which calls for a shared responsibility in making sure each and every Summer School participants are included in discussions, do get involved in group work and are listened to. It presupposes two key beliefs: (1) my experience, views and questions are good enough to share with others; (2) any of my colleagues’ experiences, views and questions represent a valuable source of learning to me.



Background Readings

The following background readings were selected to provide overall information on the different sessions during the 3-day ENI Summer School course. As visible in the programme outline, each session focuses on a different knowledge or exercise building area of **Integrated Environmental Assessments**.

Background readings per session:

SESSION	TITLE	DESCRIPTION	LINK
2	Sustainability transitions: Now for the long term	EEA REPORT	https://www.eea.europa.eu/publications/sustainability-transitions-now-for-the
3.	The Italian Alliance for Sustainable Development (ASviS)		https://asvis.it/asvis-italian-alliance-for-sustainable-development
4.	Frameworks for Environmental Assessment and Indicators at the EEA		http://wedocs.unep.org/bitstream/handle/20.500.11822/18902/Frameworks_for_environmental_assessment_and_indicators.pdf?sequence=1&isAllowed=y
5	Systems Balance 2017	The Flanders Environmental Systems Balance 2017 For a short overview look at the pdf-file with the contents and introduction. To get in depth insight in the Energy, Mobility and Food system see the whole report.	See pdf-file "Flanders Environment report Systems Balance 2017 toc" The Whole report
5	Environmental Outlook 2018	Environmental Outlook 2018	See pdf-file "VMM Environmental Outlook 2018 - Introduction and insights "



		<p>For a short overview look at the pdf-file with the Introduction and insights.</p> <p>To get in depth insight in the Energy, Mobility and Food system see the whole report.</p>	The Whole report
8	Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development	The Global indicator framework was adopted by the General Assembly on 6 July 2017 and is contained in the Resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development (A/RES/71/313). The list includes 232 indicators on which general agreement has been reached.	https://unstats.un.org/sdgs/indicators/indicators-list/
9	Copernicus in support of the UN sustainable development goals	Overview of the use of Copernicus data for SDG report	https://www.copernicus.eu/sites/default/files/2018-10/Copernicus_SDG_Report_July2018pdf.pdf
9	Satellite earth observations in support of the Sustainable Development Goals: Special 2018 edition	Description of where and how Earth observation supports SDG report	http://eohandbook.com/sdg/files/CEOS_EOHB_2018_SDG.pdf
9	Indicators and a Monitoring Framework for the Sustainable Development Goals	Overview of the early phase in the development of SDG indicators with an emphasis on the use of innovative data sources	http://unsdsn.org/wp-content/uploads/2015/05/150612-FINAL-SDSN-Indicator-Report1.pdf
9	WEISS Water Emissions Inventory Support System	Flemish example (WEISS) of how models are used by policy makers for reporting, and guide their policy agenda	See file "Text Weiss.pdf"



Practical Information and Venue

The 2019 EEAcademy ENI Summer School on Integrated Environmental Assessment will be held from **27 August to 29 August 2019** (3 full days) at the **EEA venue in Copenhagen:**

European Environment Agency (EEA), Auditorium, 8.1.1.

Kongens Nytorv 6, 1050 Copenhagen K, Denmark

Meeting times:

Tuesday 27/08/2019 09:00-17:30

Wednesday 28/08/2019 09:00-17:30

Thursday 29/08/2019 09:00-17:30

Lunch/Coffee:

During the 3-day Summer School, the EEA will of course provide for the catering of coffee breaks in the morning and the afternoon. All other meals will have to be covered by the participants themselves. For lunch, the EEA canteen offers a buffet for 95 DKK (12.78 EUR). Alternatively, cafes and restaurants are surrounding the EEA.