



Gothenburg Centre for Sustainable Development

Annual Report 2017



CHALMERS
UNIVERSITY OF TECHNOLOGY



UNIVERSITY OF GOTHENBURG



Gothenburg Centre for Sustainable Development*

Annual Report 2017

*In December 2017, Centre for Environment and Sustainability, GMV, changed its name to Gothenburg Centre for Sustainable Development, GMV.



Katarina Gårdfeldt, Director of GMV
2009-2017, and **Anders Ekbom**, Acting
Director of GMV.

From Environmental Science to Sustainable Development

In the end of the year, Katarina Gårdfeldt left her position as director of GMV, a post she had held for eight years, to instead become head of the Swedish Polar Research Secretariat. Anders Ekbom was appointed acting director of GMV. In this foreword they summarise 2017 and look ahead.

In December, the heads of Chalmers University of Technology and the University of Gothenburg signed a new cooperation agreement in the field of sustainable development along with a plan for the operations. The new policy documents clarify that aspects of sustainable development will become even more clearly integrated into the environmental perspectives that the organisation has focused on since the 1990s. It was also decided that the organisation should be renamed the Gothenburg Centre for Sustainable Development – a name that better reflects the direction for the future.

A central task of GMV is to host the Sustainable Development Solutions Network (SDSN) Northern Europe, an action-oriented network focusing on mobilising Nordic scientific expertise in the efforts to achieve the UN Sustainable Development Goals (SDGs) in Agenda 2030. In 2017, SDSN Northern Europe introduced the SDG Impact Assessment Tool, which makes it possible to self-assess impact of sustainable solutions on the SDGs in an interdisciplinary learning process. The first Solutions Initiative Forum – SIF was held in May and included presentations of solutions assessed by means of the new tool. In the SIF concept, a panel of experts work together with specialists and innovators to better understand the holistic and transformative aspects and barriers to scalability of the solution. The theme of the

SIF event was ‘Oceans’. The event launched the Oceans Solutions Report that was presented in June at the UN Ocean Conference in New York.

Strengthening the ties between research and practice by supporting researchers to cooperate and to practically implement their research results is a central aspect of what we do. In order to increase their knowledge, we organise trainings on research-policy interaction and host courses targeting both PhD students and researchers, in Gothenburg as well as African and Asian countries. These are courses designed for researchers who want to reach out with their work. Thus, the courses have focused on increasing the researchers’ knowledge about decision-making processes, identification of actors with a potential interest in their research and development of plans for increased targeted co-operation. There is an obvious need for this type of knowledge and these types of trainings, and it is our ambition to further reinforce our and others’ competences and practices in this area.

2018 will be an exciting year as a new director will be appointed and the Gothenburg Centre for Sustainable Development now stands ready to concretely implement its new plan. We are certain that this will add important energy to our work to ensure a sustainable development of society, within and between the universities and with other actors.

Anders Ekbom
Acting Director of GMV

Katarina Gårdfeldt
Director of GMV 2009-2017



The Gothenburg Centre for Sustainable Development, GMV, is Chalmers University of Technology's and the University of Gothenburg's joint organisation to promote sustainable development within research, education and cooperation. It is not part of another unit or entity, but answers directly to Vice-Chancellor of the University of Gothenburg **Eva Wiberg** and President and CEO of Chalmers University of Technology **Stefan Bengtsson**.

Together for a Sustainable Future

The core task of Gothenburg Centre for Sustainable Development, GMV, is to facilitate cooperation, between and within Chalmers and the University of Gothenburg, with an aim to generate and practically implement knowledge about sustainable development. In order to develop solutions to global challenges, we need to bring academic disciplines together to create new knowledge. Moreover, practical implementation of the knowledge that is available at the universities requires collaboration between academia and other actors in society. To this end, we create meeting places and bring together different types of expertise in order to promote sustainable development within research, education and cooperation.



Seventeen Goals for One Future

At the United Nation's summit in the autumn of 2015, top policymakers from around the world adopted 17 challenging goals for the future that are to be achieved by 2030: the global goals for sustainable development, also known as the Sustainable Development Goals (SDGs). The SDGs are part of Agenda 2030, a document signed by 193 countries. The signatories are currently working to achieve all of the agreement's 169 targets, and GMV is assisting in this process by facilitating cooperation between researchers and other actors in society in order to ensure that knowledge about sustainable development is implemented in practice. The SDGs specify what sustainable development means in practice and that it is necessary for researchers and practitioners to meet and find solutions together. Some of GMV's activities in 2017 had a particular focus on the global goals and all of GMV's projects and initiatives are in some way related to the achievement of the goals. In this annual summary, you can read about some examples of the work performed and how they relate to the different global goals.

Network Seminar on the Climate and Knowledge Resistance

How can researchers convey their knowledge about forests and the climate so that various actors will accept facts as being true? This was one question discussed by researchers at Chalmers and the University of Gothenburg at a network seminar arranged by GMV in 2017. Researchers from various disciplines presented their research on forests and addressed the issue of communicating research to different target groups. The participants included Gró Einarsdóttir, environmental psychologist from the University of Gothenburg, who talked about how behavioural science research can be utilised to gain support for climate interventions. She stressed the importance of talking about concrete benefits of combating climate change, such as cleaner air and less crowding, rather than benefits that may seem unrelated to daily life and will not be noticeable for many, many years.



Border-Crossing Network and Platform for Collaborative Projects

500

About 500 researchers and PhD students from over 40 departments at Chalmers and the University of Gothenburg are members of the research network for sustainable development.



2 out of 500. Alexandre Antonelli from the Department of Biological and Environmental Sciences at the University of Gothenburg and Ulrika Palme from the Department of Technology Management and Economics at Chalmers are members of the research network for sustainable development and presented their research at a lunch meeting on SDG 15 about biodiversity.

The projects, networks and initiatives of Gothenburg Centre for Sustainable Development, GMV, bring together a wide range of academic disciplines and areas of expertise. Our ambition is to create meeting places both for researchers from various disciplines within the universities and also for academia, business, authorities and civil society.

Multidisciplinary Research Network



Around 500 researchers and PhD students at Chalmers and the University of Gothenburg are part of the research network for sustainable development administrated by GMV. The network members represent a wide range of disciplines, from science and technology to the humanities and social sciences, and a total of about 40 different university departments. All members are searchable in an open network database via keywords and descriptions of research fields. Throughout 2017, GMV worked actively to develop the collaboration between network members, for example by arranging thematic discussions for cooperation across disciplinary boundaries.

Helps Implement Research on Sustainability in the Labour Market in Practice



In 2017, the *Work and Employment Research Centre*, WE, run by GMV, drew hundreds of people to seminars to learn about current research on for example the labour market and immigration, work time reduction as well as power and influence in the workplace.

In November, researchers and practitioners met at *Conference on Immigration and Labour Market Integration – A European Challenge for the 21st Century* to discuss research findings and integration projects in the area of immigration and the labour market. The conference gave researchers insights about the vast complexity that practitioners face. A panel discussion also addressed different models for successful integration, stressing the importance of simultaneously focusing on jobs, vocational training and language learning.

From Knowledge to Action



In 2012, UN Secretary-General Ban Ki-moon launched the global initiative *Sustainable Development Solutions Network, SDSN*. Through GMV, Chalmers and the University of Gothenburg host the regional network *SDSN Northern Europe*, which aims to mobilise Nordic

scientific, scholarly and technical expertise to solve problems and create a more sustainable society.

Prior to *The Ocean Conference* in New York in June, SDSN Northern Europe and the Maritime Cluster of West Sweden arranged the *Solutions Initiative Forum (SIF) Oceans*. More than 100 entrepreneurs, business representatives, investors, researchers and decision-makers gathered to discuss sustainable solutions for our seas. Before the conference, SDSN Northern Europe launched a communication campaign to bring attention to SDG 14 about oceans, seas and marine resources. The campaign was a collaboration between marine experts from various organisations and the members of SDSN Northern Europe, including *Environment for Development Initiative, EfD*.

Two new members joined SDSN Northern Europe's Leadership Council in 2017: Carl Folke, science director and professor at Stockholm Resilience Centre, and John Kornerup Bang, head of sustainability strategy at Maersk.

Supports Young People's Engagement



SDSN Youth in Northern Europe, which is coordinated by GMV, is part of the Sustainable Development Solutions Network with a focus on young people's engagement in and contributions to the SDGs. In 2017, SDSN Youth in Northern

Europe has carried out a project involving sustainability coaches who bring university students together with upper secondary students enrolled in a nationwide programme for young entrepreneurs. The university students are coached on how to support and train the upper secondary students, who in turn gain knowledge and ideas regarding sustainable business solutions linked to the SDGs. The network also arranged a panel discussion during the national, political forum Almedalen Week on the theme of young people's opportunities to influence local and global food production.



“By linking academic institutions together in the SDSN, we provide a bridge between new knowledge generation and sustainable development. I believe this bridge to be so critical that I happily use time on the SDSN.”

Katherine Richardson, co-chair SDSN Northern Europe and professor at the University of Copenhagen.

36

SDSN Northern Europe is a network comprising 36 universities and centres of knowledge in Sweden, Finland, Denmark, Norway and Iceland.

21

SDSN Youth in Northern Europe has 21 member organisations.

It is very inspiring to take part of all these different, smart solutions that really could be part of saving our oceans.

Isabella Lövin, Sweden's Minister for International Development Cooperation and Climate, when she received *The Oceans Solutions Report*, which SDSN Northern Europe had produced to communicate that Nordic solutions are viable ways to protect the marine environment, at SIF Oceans in Gothenburg, May, 2017.

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Swedish Life Cycle Center is a center of excellence to advance applied life cycle thinking in industry, policy and other parts of society. It is a joint platform for knowledge building and collaboration with the aim to spread and develop life cycle thinking globally. The center's 14 partners are frontrunners from the business sector, academia, research institutes and government agencies.



Lars Mårtensson, Director of Environment & Innovation at Volvo Trucks, became new chair of the Swedish Life Cycle Center Board in 2017.

Expertise on the Life Cycle Perspective



Research on the effects of various products throughout their life cycles has been carried out for a couple of decades. Knowledge and methods have been developed and adopted by large multinational companies and there is a growing demand among businesses and organisations in a variety of sectors. *Swedish Life Cycle Center*, hosted by GMV until the end of 2017, carried out a project titled *Swedish Platform for the Life Cycle Perspective*, funded by the Swedish Energy Agency, along with numerous activities with various partners to develop, disseminate and increase the knowledge about life cycle issues. Among other things, in collaboration with the research institutes IVL and RISE, the Center developed a training on applied life cycle perspective, which was then offered on two occasions. The Swedish Life Cycle Center also initiated collaboration with a number of government agencies. Seven agencies have joined to date and meet on a regular basis to discuss life cycle issues. Life cycle data has also been an important topic on the global agenda, and Swedish Life Cycle Center worked actively throughout the year to bring attention to the field nationally.

Cooperation to Reduce the Climate Impact of Freight Transports



The network *Climate Neutral Freight Transportation, KNEG*, which is headed by GMV, continued their work to reduce CO₂ emissions from freight transports in the following sub-areas: more efficient transportation, more efficient vehicles and increased use of renewable fuels. Sweden's national strategic plan for the transition of the transport sector towards fossil-fuel independence was presented in the spring, and in the autumn KNEG arranged a workshop together with

relevant government representatives to contribute with ideas to the commitments in the plan related to freight transportation. The research project *Energy Efficient Freight transportation*, run in collaboration with Chalmers and IVL Swedish Environmental Research Institute, ended in 2017, concluding that the distribution traffic can be made more efficient by altered distribution pattern and by better packed goods.



“In order to achieve the national emissions goals, we're facing an enormous challenge as the CO₂ emissions from freight transport by road must be reduced by 70 percent by the year 2030. KNEG plays a very important role in this context by disseminating information about best practice, and by highlighting areas which need additional action.”

Dan Andersson, Department of Technology Management and Economics at Chalmers and KNEG board member.

Initiative and forum around Agenda 2030 in West Sweden



The *Gothenburg Action for Management of the Environment, GAME*, network is headed by GMV and connects businesses with government actors, research organisations and civil society with an aim to create new opportunities for cooperation and innovations around sustainable development in West Sweden. In 2017, GAME arranged information seminars with a particular focus on available investment grants, calls for applications and cooperation projects in the area of circular economy, smart sustainable cities, IT solutions and electric mobility. Towards the end of the year, it was decided that GAME will focus on cooperation around the global goals and Agenda 2030, for example by hosting discussions on a *Forum for Agenda 2030 in West Sweden*. An information meeting and a workshop on Vinnova's grant programme *Challenge-driven Innovation* with a focus on Agenda 2030, hosted by GAME in cooperation with Chalmers Innovation Office, was a concrete step in this direction.



“Agenda 2030 and the global goals are everybody's business. Research institutions, academia, businesses and public actors in West Sweden have good opportunities to become important players in this work. I'm convinced that we have a lot to gain from an active dialogue around how the global goals can be integrated into the development of business and industry. GAME is a great platform for innovation in sustainable development. It is a unique network for gathering and utilisation of knowledge.”

Åsa Wilske, chair of GAME.



GAC collaborates with several universities and research institutes in Beijing and Hong Kong within the framework of a research programme focusing on photochemical smog in China. The 5-year programme is funded by the Swedish Research Council.



“We need to continue the dialogue between different sectors in order to address the issues of deforestation and imports of food. This type of seminar has started a process where we can work together to ensure deforestation-free trade. The knowledge from the seminar can be brought into the participants’ organisations, and as a researcher I have been able to learn how government actors, businesses and environmental organisations look at these issues. Focali has served an important function in establishing this type of dialogue.”

Martin Persson, Focali member and researcher at Chalmers, about Focali’s seminar titled *How Do We Make Supply Chains Free of Deforestation?* which drew representatives from several sectors connected to food production and trade.

Gathers Atmosphere and Climate Researchers



The over 200 members of *Gothenburg Air and Climate Centre, GAC*, represent around 20 different research groups, businesses and government agencies associated with the Gothenburg region. The Centre is run by GMV and strives for increased cooperation and better coordination of resources and activities in air quality and climate research. In 2017, GAC arranged several international workshops, for example on atmospheric radiative transfer and biophysical atmospheric processes. GAC has also contributed to the establishment of a research station in India that continuously measures air pollution with special focus on emissions from biomass burning. Field campaigns have also been carried out together with researchers in Beijing and Hong Kong. The goal is to understand how big cities affect both climate and air quality.

Connects Forest, Climate and Poverty Issues



Focali – Forest, Climate and Livelihood Research Network, coordinated by GMV, is a growing multidisciplinary research network with more than 60 members from a wide range of academic fields and Swedish universities. Focali collaborates closely with the Sida-funded international *SIANI network* on issues related to forests, landscapes and food security. This has among other things led to closer cooperation with other key actors and helped bring attention to the importance of forests and landscapes for sustainable development. Focali is part of the *Agroforestry Network*, which aims to promote collaboration between research and development cooperation with a focus on international agroforestry. In 2017, Focali shed light on connections between women’s rights, forests, property rights and food security for example through successful events during the national, political forum Almedalen Week and the *Agri4D conference* at the Swedish University of Agricultural Sciences in Uppsala. Focali also promoted closer collaboration between research, the public sector and business on issues related to the connection between food import and tropical deforestation.



Implementation of Research Findings and Provision of Knowledge

Gothenburg Centre for Sustainable Development, GMV, strives to increase the implementation of research findings in society and provide knowledge for sustainable development, both within Chalmers and the University of Gothenburg and to other organisations, businesses and public actors.

Integrates Climate and the Environment in Swedish Development Assistance



Experts at GMV serve as advisors to Sida in order to help them to better integrate environmental perspectives in Swedish development cooperation.

This support is provided together with colleagues at the Swedish University of Agricultural Sciences in Uppsala through a joint *Helpdesk for Environment and Climate Change*. The assignment includes expert support in Sida projects and programmes, international processes, gathering and development of analytical material for country and regional strategies and support to the development of methods and skills. In 2017, the helpdesk organised several trainings on environmental and climate integration for staff at Swedish embassies in Africa, Asia, Eastern Europe, the Balkans and Latin America and local partner organisations.



200 assignments. In 2017, GMV and the Swedish University of Agricultural Sciences carried out over 200 assignments for Sida, with the overarching aim to support integration of climate and environmental considerations in Swedish development cooperation. This contributes in a concrete way to Sweden's and the partner countries' operationalisation of Agenda 2030.

Coaching on Sustainable Urban Water and Sanitation in Asia



GMV contributes to the Sida-funded international training programme *Sustainable Use of Urban Water and Sanitation, SUWAS*, through a

mentorship role for participants from Asia. The programme aims to help the countries to achieve the SDG 6 by supporting individuals and key organisations in adopting more sustainable, inclusive and integrated water and sanitation solutions for people living in poor urban areas. SUWAS started 2016 and when the programme ends in 2020, the organisations of around 500 individuals from five Asian and five African countries, will have increased capacity to provide universal and equitable water and sanitation services.

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The background of the page features a large, white, sans-serif number '30' centered in the upper half. Below the number, the background transitions into a soft-focus landscape. The bottom portion of the image shows a hazy, golden-yellow horizon, likely representing a sunset or sunrise over a body of water or a distant landmass. The sky above the horizon is a clear, light blue.



Roksana Tarannum, Senior Assistant Secretary at the Ministry of Environment and Forests in Bangladesh, was one of the 30 participants of the Sida-financed *International Training Programme on Strategic Environmental Assessment*. Here discussing stakeholder participation at a group work in Hoi An, Vietnam, March 2017.

Capacity building on Strategic Environmental Assessment in Africa and Asia



In 2017, GMV and the international consultancy firm NIRAS carried out an international training programme on strategic environmental assessment for government officials in Asia and Africa. About 270 people have completed the 18-month programme since 2014. The purpose of the programme, which is funded by Sida, is to contribute to increased environmental integration in key sectors in each respective country. Researchers from the University of Gothenburg participate as lecturers, and mentors from GMV support the participants' individual change projects. The trainings also lead to the creation of networks for continued sharing and development among the participants. Participants have described the programme in very positive terms. Through this initiative, GMV has contributed to long-term capacity development among key institutions in these countries.

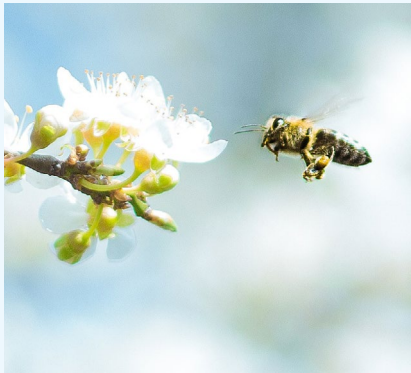
Research in the Intersection between Health and the Environment



The graduate school *Environment and Health* engages in research in the intersection between health and the environment. The graduate school, a collaboration between Chalmers, the University of Gothenburg and Region Västra Götaland, is coordinated by GMV. Three of the school's PhD students completed their degrees in 2017. One of them, economist Daniel Slunge, based his doctoral thesis on a nationwide survey of 1 500 people's risk perceptions and protective behaviour related to ticks and tick-borne diseases. Over 40 per cent of the respondents believed that tick bites constitute a fairly or very high health risk – an attitude that makes people worry and affects their enjoyment of being outdoors. 2017 was the final year of the graduate school, that 24 PhD students have been part of. Results and reflections will be presented in a final report during 2018.

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14 doctoral students from various disciplines and departments participated in the interdisciplinary course *From Research to Policy for Sustainable Development*, organised by GMV in 2017. The course gives doctoral students an understanding of political decision-making as well as tools to place their research in a policy- and decision-making context and improve their communication skills.



Guidance for Increasing the Contribution of Research in Policy Processes

In collaboration with researchers in the strategic research field *BECC – Biodiversity and Ecosystemservices in Climate Change*, GMV produced and published a guide for researchers who want to develop more strategic and systematic outreach work. The guide is available on GMV's website.

Strengthening Researchers in Strategic Cooperation for Sustainable Development



Research plays an important role in the implementation of Agenda 2030. GMV has the ambition to disseminate and strengthen knowledge and support researchers who want to bridge the gap between research and decision-making. In 2017, GMV arranged courses and workshops in various contexts. Within the framework of the Sida-funded programme *AgriFoSe2030 (Agriculture for Food Security 2030) – Translating Science into Policy and Practice*, GMV organised a 3-day course in Nairobi about research-policy interaction for 30 African researchers. In the autumn, GMV facilitated a workshop in Addis Ababa on research-policy interaction for those in charge of communication at environmental economics centres within the *Environment for Development (Efd)* initiative at the University of Gothenburg. GMV also arranged a workshop for researchers at the Department of Biological and Environmental Sciences at the University of Gothenburg, with an aim to help research groups at the Department improve their efforts to put research findings to practical use.

Drivers and Obstacles for Sustainable Development in Inter-disciplinary PhD Course



Together with teachers and researchers at Chalmers and the University of Gothenburg, GMV has developed the interdisciplinary PhD course *Sustainability Opportunities – Exploring Sustainability at the Cross-roads of Science and Society*. The course has a focus on identifying solutions to the global challenges and analysing drivers of and obstacles to change. In 2017, preparations were made for offering a second round of the course in 2018.

Carbon Offsetting Funding New Projects



The University of Gothenburg carbon offsets all work-related air travel through an internal climate fund administered by GMV. Staff and students can apply for

grants from the fund to finance projects designed to reduce the University's climate impact. In 2017, 15 different projects were granted funding.

Sustainable Students Travelled to Iceland by Sea



In June, 13 students from the School of Business, Economics and Law at the University of Gothenburg travelled to Iceland to study the country's green energy transition. The trip was funded through the University's internal climate fund. The project started with a series

of lectures and workshops, and then the students travelled by ferry Gothenburg-Denmark-Iceland and by car from the east coast of Iceland to Reykjavik, where they spent one week visiting the major actors in Iceland's energy sector. Through their travelling blog the students shared knowledge and insights about renewable energy and sustainable travel. Travelling by ferry and car, the transport related emissions of green-house gases were reduced by 38 per cent compared to flying according to the carbon emission calculator Svalna.

Supports the Integration of Sustainable Development in Education



GMV promotes integration of sustainable development in courses and study programmes and arranged workshops for teachers at Chalmers and the Uni-

versity of Gothenburg in the autumn of 2017. The workshops *Sustainable Development as a Pedagogical Challenge* were led by Arjen Wals, professor of transformative learning for socio-ecological sustainability and senior advisor at GMV. Researchers and teachers from Chalmers and the University of Gothenburg discovered new ways of learning – by 'walking the talk and talking the walk'.

No. 1!

For a **second** straight year, the University of Gothenburg topped the Swedish Environmental Protection Agency's ranking of Swedish government actors' environmental management efforts after receiving a nearly perfect score – 22 out of 23 possible points. GMV is in charge of the University's environmental management, and thus carries the operative responsibility for the development and follow-up of the environmental management system.



Sustainable Study Tour on Energy and Travel

Students from the University of Gothenburg learning about geothermal energy and other renewable energy sources in Iceland.



Arjen Wals holds a UNESCO Chair of Social Learning and Sustainable Development. He has during 2017 led workshops organised by GMV with the overall objective to explore, together with teachers from different scientific areas, methods to engage students meaningfully in sustainable development in the context of higher education at Chalmers and the University of Gothenburg.



Podcast about Agenda 2030, Research and Cooperation in Conversation Relay Race

GMV produced a podcast where researchers from Chalmers and the University of Gothenburg talk to each other about research, cooperation and the SDGs. The intention with the podcast is to spread knowledge about the global goals to new target groups. In the podcast, the researchers themselves invite other researchers that interest them to a dialogue, and each participant brings one of the SDGs to the meeting. The podcast series is funded through a global goals communication grant and premiered in 2018. In the picture Sverker Jagers, University of Gothenburg, has invited Sverker Molander, Chalmers, for a conversation about SDG 16 and SDG 7.



Public lecture on SDG 8. Researchers **Lotta Dellve** from the Department of Sociology and Work Science at the University of Gothenburg and **Cecilia Berlin** from Department of Industrial and Materials Science at Chalmers, gave a presentation of their respective research fields in relation to SDG 8: Decent Work and Economic Growth. The lecture was part of GMV's lecture series on Agenda 2030 where researchers from Chalmers and the University of Gothenburg talk about an SDG and what we can do to achieve it from the perspectives of their research.

National Evaluation of Sustainable Development in Education



Higher education institutions play a key role in the transition to a sustainable society by training and educating our citizens and future leaders. In 2017, the Swedish Higher Education Authority carried out an evaluation of Swedish universities' efforts to promote sustainable development in accordance with the Swedish Higher Education Act. The Authority chose to focus on the integration of sustainable development in courses and study programmes. As part of the evaluation, 47 higher education institutions submitted a self-assessment of their work. Chalmers and the University of Gothenburg belonged to the 12 institutions that were rated as having 'a well-developed process in place for integrating sustainable development into courses and study programmes'.

Knowledge and Inspiration for Teaching about the Global Goals



GMV provided continuing education for teachers in cooperation with the Universeum science centre, the Museum of World Culture and the Swedish Council for Higher Education's programme *The Global School*. The training expands the teachers'

knowledge about the global sustainable development goals. Through seminars with researchers from Chalmers and the University of Gothenburg and at follow-up workshops, the teachers receive the tools they need to teach schoolchildren about the global goals.

The training focusing on SDG 11: Sustainable Cities and Communities led to the formation of a network for teachers and academics with an interest in sustainable urban development as well as the association of municipalities in the Gothenburg region. The new network is coordinated by Mistra Urban Futures.

Agenda 2030, Inclusion and Mingling with Sustainability Pros at Inspiration Day for Students



In October, all students at Chalmers and the University of Gothenburg were invited to the *Act Sustainable!* inspiration day to get inspired, discuss and gain new insights about sustainable development. The theme of the event was the United Nation's 17 Sustainable Development Goals. The participants were able to attend interactive workshops where they among other things could experience sustainable engineering and innovation for sustainable development. Through lectures and meetings, the students gained knowledge and tools to be able to contribute to sustainable development locally and globally. The event was attended by award-winning legal expert and inspirational speaker Milad Mohammadi along with a large number of sustainability pros whom the students were able to 'speed date'. *Act Sustainable!* was arranged by GMV in collaboration with *Gothenburg Students for Sustainability Alliance*, *GSSA*, and the Faculty of Education at the University of Gothenburg.

Increasing Impact of Student Engagement



Chalmers and the University of Gothenburg have several active student associations in the field of sustainable development, all of which work together within the framework of Gothenburg Students for Sustainability Alliance, *GSSA*, coordinated by GMV. In November, a platform for Integration of Sustainability in Education was initiated with a workshop. The platform will make it easier for students and teachers to meet and involve students to a greater extent than today. The workshop was arranged by the student coordinators, who, alongside their studies, are hired by GMV to contribute with student perspectives in the University's sustainability work.



“To me, the award means that the role of young people in the sustainability work nationally and internationally is being acknowledged as increasingly necessary and gives non-profits like SDSN Youth and all our partners more strength in the work to develop and implement new ideas and innovations for a better present and future.”

Linnéa Lundmark, project manager at GMV and Network Coordinator for SDSN Youth in Northern Europe. She was appointed one of 33 young outstanding sustainability talents by the Swedish magazine *Aktuell Hållbarhet*.



Jörgen Larsson, researcher at the Division of Physical Resource Theory, Chalmers, attended the *Act Sustainable!* inspiration day and lectured on the climate impact of air travel and what we can do about it.



Moa Persson, project leader and student collaboration coordinator at GMV, was awarded the 2017 Guldummen prize, which students in Gothenburg each year give to a person, organisation or company that has done something remarkably good for them. Moa Persson received the award for supporting students interested in sustainable development and building bridges between Chalmers and the University of Gothenburg.



Events and Meeting Places

Facilitating cross-boundary meetings, disseminating knowledge and sharing experiences in the area of sustainable development are important parts of Gothenburg Centre for Sustainable Development, GMV's work. Here are some examples of activities that GMV participated in or arranged in 2017.



Sustainability Science Day in Helsinki – Pathways to Sustainability Transformation

President Tarja Halonen and **Jeffrey Sachs**, head of the global SDSN, opened the conference at which the Helsinki Institute of Sustainability Science (HELSUS) was launched. Anna Nordén, network manager at SDSN Northern Europe, and Maria Svane, member coordinator at SDSN Northern Europe, also gave presentations.



Public Lecture on SDG 6 about Clean Water and Sanitation for All

Madeleine Prutzer from Gothenburg Research Institute at the University of Gothenburg and **Ekaterina Sokolova** from the Department for Architecture and Civil Engineering at Chalmers gave a public lecture on SDG 6: Clean Water and Sanitation for All. The lecture was part of GMV's open lecture series about the global goals.



SDG Lunch Meetings for Researchers: Researchers Discussed Gender Equality and the Global Goals

GMV and the Centre for Interdisciplinary Gender Research, *GI/G*, invited researchers, teachers and doctoral students at Chalmers and the University of Gothenburg to discuss gender equality and SDG 5. The speakers included **Helene Ahlborg** from Chalmers, who presented her research on electrification and rural development in eastern Africa and how SDG 5 and SDG 7 about sustainable energy for everybody are connected. The lunch meeting offered an opportunity to discuss gender equality issues as being part of sustainable development and to identify new opportunities for collaboration between researchers from different disciplines.



Strategies and Good Examples of How We Can Achieve a Fossil-Free Transportation System

The participants at the KNEG network's annual results conference were given presentations on conclusions with a focus on developments in the transport sector and the outcome of the network's activities. Various experts from the private and public sectors discussed what businesses and policymakers can and should do to make faster progress and what we are doing today to reduce the CO₂ emissions from road transports. One of the speakers was **Victor Eriksson**, PhD student at Technology Management and Economics, Chalmers.



Food Security in Sub Saharan Africa – Bridging the Research Policy Gap

Better farming practices could boost food production among small holder farmers. Many African governments invest in agriculture as a key means to grow the economy and reduce poverty. But many of these investments or policies have not sufficiently incorporated research findings even when those are available. Therefore, a group of 30 agricultural researchers from Sub Saharan Africa met for three days in Nairobi to learn and to discuss how knowledge exchange between researchers and policymakers can be improved. The workshop was organised by the AgriFoSe 2030 programme and implemented by experts at GMV, among others **Madelene Ostwald**, researcher at Chalmers.

**Concrete Solutions for the Seas at
the Solutions Initiative Forum Oceans**

How can we reduce the amount of plastic waste in the seas? This was one of the main issues discussed when world leaders met at the *UN's Ocean Conference* in New York in June. Prior to the conference, SDSN Northern Europe and the Maritime Cluster of West Sweden organised a pre-conference in Gothenburg, *Solutions Initiative Forum (SIF) Oceans*, where new solutions and innovations to save the world's seas and oceans were discussed. Isabella Lövin, Sweden's minister for international development cooperation and climate, gave an opening speech where she urged the world leaders to develop a 'to-do list' for saving the oceans. A number of invited businesses and other actors presented solutions and products, and all solutions were presented in a report. The report, titled the *Oceans Solutions Report*, was given to Isabella Lövin at SIF Oceans before she left for the UN conference. The document has been well received and presents concrete solutions from Northern Europe that can be upscaled globally.





Veggie at My Place

Meeting new people, sustainable cooking and having a good time together. This is the thought behind *Veggie at My Place*, organised by GMV through Gothenburg Students for Sustainability, GSSA, and the student coordinators. More than 150 students participated in 2017 and the feedback has been excellent.



Agenda 2030: An Ocean of Opportunities for Academia

In October, SDSN Northern Europe arranged a workshop titled *Agenda 2030: An Ocean of Opportunities for Academia* at KTH Royal Institute of Technology in Stockholm. Among the speakers was **Johan Kuylenstierna**, Executive Director, Stockholm Environment Institute. Representatives from higher education institutions in Sweden, Norway, Finland and Iceland took part in the workshop, which focused on the question: How do we know that our activities for utilisation of research contribute to sustainable development?



The Final Round of Forest Contest for Children

More than 450 schoolchildren in grades 5 and 6 attended the finals of the forest contest *Ålska Skog*, with the Focali research network at GMV serving as co-host. The aim of the contest is to boost the awareness of Swedish forests as an important resource and to create a positive interest in Swedish forests and stimulate a desire to explore them. **Anna Nordén**, network manager SDSN Northern Europe and member of the Focali network, represented GMV in the prize jury.



Microplastics – an Environmental Threat?

Microplastics are a subject receiving much attention, both in the scientific community and in society at large. But what is the current state of knowledge concerning microplastics? What effects do they cause? These issues were discussed at a well-attended seminar led by **Bethanie Carney Almroth**, Department of Biological and Environmental Sciences at University of Gothenburg, and organised by *Centre for Future Chemical Risk Assessment and Management Strategies, FRAM*, and GMV. GMV is part of FRAM with a mission to communicate and disseminate research results and promote research-policy interactions.



Learning from Failing Dialogues for Sustainable Urban Development

In November, SDSN Northern Europe launched the *Failure Lunch* concept – a public forum where failures and lessons learned from failures are shared. Among others, 2017 Gothenburg Award for Sustainable Development winner **Alejandro Aravena** and four partners from the 'Do Tank' firm Elemental shared inspiring stories about when dialogues for urban development didn't go as expected and what they have learned. SDSN Northern Europe hosted the event together with the GAME Network and Mistra Urban Futures.

**Supply Chain Transparency:
A Green Light to Sustainable Consumption?**

Globalisation and trade are, perhaps, the most defining features of our times. As demand for certain agricultural commodities goes up, forests are cleared to satisfy the global urge for palm oil, beef, soy and wood products. These commodities alone are responsible for 70 per cent of deforestation in the tropics, particularly in the Amazon and the forests of Southeast Asia. These were the issues discussed at the seminar jointly organised by Focali and SIANI, held in Gothenburg in December. In the picture oil palm fruits.





GMV's Advent Calendar 2017: The Global Goals

Each day from 1 December to 17 December, GMV presented one of the global goals, where researchers from Chalmers and the University of Gothenburg in short film clips talked about why the respective goal is important to them and who they would like to talk to about the goal. Some of the researchers that participated in the Advent Calendar were **Joakim Larsson**, Institute of Biomedicine at University of Gothenburg, **Christian Munthe**, Philosophy, Linguistics, Theory of Science at University of Gothenburg, **Lena Blom**, Water Environment Technology at Chalmers, **Maria Grahn**, Physical Resource Theory at Chalmers, **Cecilia Soler**, Business Administration at University of Gothenburg and **Deliang Chen**, Earth Sciences at University of Gothenburg.

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The Swedish Life Cycle Center

arranged more than 80 activities in 2017, including research project meetings, working group meetings, meetings with government agencies, webinars and network conferences.

International Conference on Immigration and Work

In November, researchers and practitioners gathered at the *Conference on Immigration and Labour Market Integration – A European Challenge for the 21st Century* to discuss research findings and integration projects in the area of immigration and labour market, linked to SDG 8: Decent Work and Economic Growth. The conference was arranged by the Work and Employment Research Centre, WE, a centre of expertise and research at GMV that promotes and supports research, education, innovation and implementation of research findings in the area of sustainable work and employment.



Nordic workshop on environmental footprint

When the Nordic workshop regarding Product Environmental Footprint took part hundreds of LCA experts and practitioners came together in Stockholm, mainly from the Nordic countries. The aim was to collect experience and input on the method to the EU Commission. The workshop was organized by Swedish Life Cycle Center, the Nordic Environmental Footprint group of the Nordic Council of Ministers and IVL Swedish Environmental Research Institute. **Sara Palander**, director, was representing Swedish Life Cycle Center in the workshop.



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The meetings between researchers and practitioners in the field were very fruitful. I think the researchers gained a good understanding of the complexity that the practitioners have to deal with.”

Tomas Berglund, Department of Sociology and Work Science at the University of Gothenburg and director of WE.




The Influence of Aerosol Particles on Clouds and Climate

Clouds are scientifically challenging because their formation requires both knowledge about the large-scale meteorological environment as well as an understanding about the details of cloud droplet and ice crystal formation on the micro-scale. A lecture organised by Gothenburg Air and Climate Centre, GAC, addressed the progress that has been made in understanding the influence of aerosol particles on clouds and climate. **Jan Pettersson** from Department of Chemistry and Molecular Biology at the University of Gothenburg, is the director of GAC.



Sustainability Coaches in Gothenburg 2017. The Solution Initiative Sustainability Coach is a collaboration project with Junior Achievement in Gothenburg and Stockholm, Sweden, connecting university students with young entrepreneurs to support them in developing sustainable business ideas for the SDGs. SDSN Northern Europe and its youth division, hosted by GMV, run the project.



The core task of Gothenburg Centre for Sustainable Development is to facilitate cooperation with an aim to generate and practically implement knowledge about sustainable development. To this end, we create meeting places and bring together different types of expertise in order to promote sustainable development within research, education and cooperation.