



Trondheim CCS Conference

CO₂ Capture, Transport and Storage

Sponsor Prospectus

The 10th Trondheim Conference on
Carbon Capture, Transport and Storage
17-19 June 2019

Mission Innovation Workshop Challenge #3
19-20 June 2019

TRONDHEIM, NORWAY



Organized by:
NCCS – Norwegian CCS Research Centre,
under the auspices of NTNU and SINTEF



THE CONFERENCE

The Trondheim Conference on Carbon Capture, Transport and Storage is staged for the 10th time in Trondheim, Norway, on June 17-19, 2019. The Conference is organized by NCCS – Norwegian CCS Research Centre under the auspices of The Norwegian University of Science and Technology (NTNU) and SINTEF. Conference venue is the campus of NTNU.

WELCOME

The bi-annual Trondheim CCS Conference series is established as a leading scientific CCS technology conference. Since its inception in 2003 it has developed to become a globally important meeting place for more than 400 CCS experts. The conference typically holds 150 oral presentations, five parallel sessions, more than 100 posters and world leading keynote speakers.

TCCS-10 will be our biggest and most ambitious conference to date, building on the heritage of previous TCCS conferences. The selection of presentations is based on submission of extended abstracts. Provided worthy candidates are found, the fifth SINTEF and NTNU CCS Award will be presented.

We take pride in welcoming you to Trondheim during bright midsummer nights this June!



Nils A Røkke
*(SINTEF) Chair,
Conference*



Johan E. Hustad
*(NTNU) Co-Chair,
Conference*



Hanna Knuutila
*(NTNU) Chair,
Scientific Committee*



Rune Aarli
*(SINTEF), Chair,
Organizing Committee*

CONFERENCE OBJECTIVE AND SCOPE

TCCS-10 will focus on research and development within CO₂ capture, transport and storage (CCS). The objective of the Conference is to bring forward, present and discuss work undertaken by universities, R&D institutes and industry. The scope includes, but is not limited to:

- **Pre-combustion capture**
 - Absorption/adsorption and membranes
 - Combustion
- **Post-combustion capture**
 - Absorption/adsorption and membranes
 - Other techniques
- **Oxy-fuel capture**
 - Oxygen production
 - Combustion
- **CCS and hydrogen combinations**
- **CO₂ utilization with permanent storage and industrial CO₂ applications**
- **CO₂ negative solutions**
- **Transport**
 - Effects of gas impurities
 - Corrosion and materials
- **Storage**
 - Site screening and site monitoring
 - Leakage detection, mitigation, remediation
 - Well drilling and completion
- **International R&D activities (pilot, large-scale activities, etc.)**
- **Novel technologies**
- **Public acceptance and communication**
- **CCS whole system issues**
 - Techno-economic
 - Risk and value chain assessment, and system analysis
 - Policy
- **Business models**

ORGANIZING COMMITTEE

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Johan E. Hustad, NTNU Co-Chair, Conference
Rune Aarlién, SINTEF Chair, Org. Comm.
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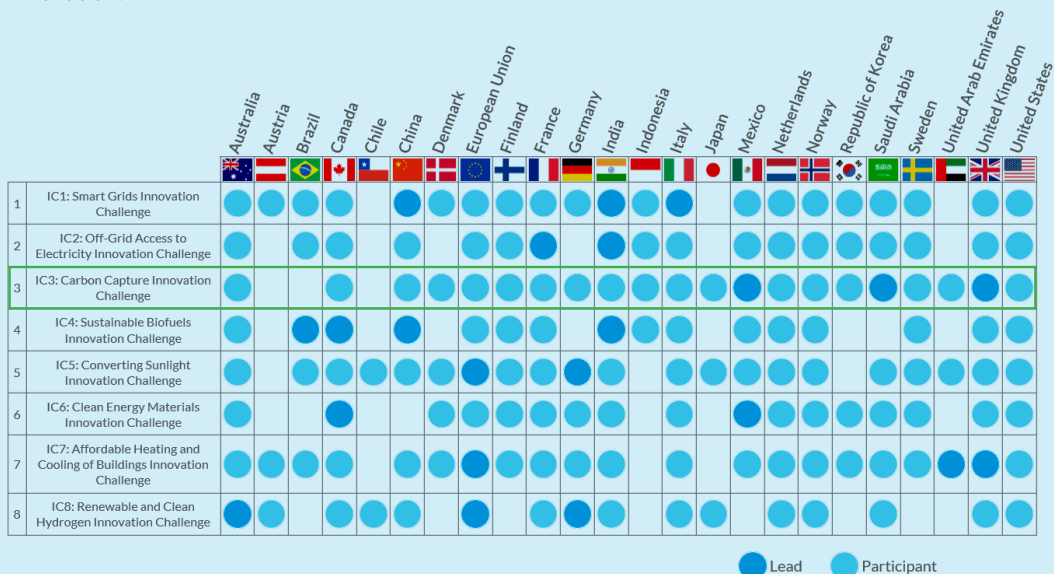
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NCCS will host a full-day Mission Innovation Workshop on Innovation Challenge #3: CCUS, on June 20, 2019, the day after the TCCS-10 conference. There will be a reception for the participants in the evening on June 19.

Mission Innovation (MI) is a global initiative of 23 countries and the European Union, announced on November 30, 2015, as world leaders came together in Paris to undertake ambitious efforts to combat climate change. The goal of MI is to dramatically accelerate global clean energy innovation.



MI INNOVATION CHALLENGES

Innovation Challenges are *global calls to action* aimed at accelerating research, development, and demonstration (RD&D) in technology areas where MI members believe increased international attention would make a significant impact in shared fight against climate change (see figure below).





Innovation Challenge #3 is the Carbon Capture Innovation Challenge, and the goal is to enable near-zero CO₂ emissions from power plants and carbon intensive industries. The Challenge is co-lead between Mexico, Saudi-Arabia and UK.

PURPOSE OF THE WORKSHOP

The purpose of the Trondheim workshop is to bring forward the work and initiate concrete activities under Challenge #3. That would include to take stock of what has been achieved since the last expert workshop (Houston, October 2017). The outcome of the Houston workshop was the report of April 2018 with selected Priority Research Directions (PRDs) for CCUS. The next step is to initiate activities towards these PRDs and when possible explore joint programming initiatives, new project opportunities using mixed funding and vehicles.

The workshop is open by invitation to individuals from Mission Innovation member countries. Around 150 attendees are expected.

Innovation Challenges: Midterm Results:

<p>Smart Grids</p> <p>#1</p>  <p>Objective Enable future grids powered by affordable, reliable, decentralised renewable electricity systems.</p> <p>Co-leads CHINA INDIA ITALY</p>	<p>Off Grid Access to Electricity</p> <p>#2</p>  <p>Objective Develop systems that enable off-grid households and communities to access affordable, reliable renewable electricity.</p> <p>Co-leads FRANCE INDIA</p>	<p>Carbon Capture, Utilization, and Storage</p> <p>#3</p>  <p>Objective Enable near zero CO₂ emissions from power plants and carbon-intensive industries.</p> <p>Co-leads SAUDI ARABIA MEXICO UNITED KINGDOM</p>	<p>Sustainable Biofuels</p> <p>#4</p>  <p>Objective Develop ways to produce at-scale widely affordable, advanced biofuels for transportation and industrial applications.</p> <p>Co-leads BRAZIL CANADA CHINA INDIA</p>
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Top Accomplishments in 2017

<ul style="list-style-type: none"> India & Australia launched calls for proposals in June to support effective collaboration among IC1 members. Collaboration agreements (India, US, UK, Italy) were announced on Nov. 16-18. 14 members contributed to the publication of the 2017 Country Report. 	<ul style="list-style-type: none"> India & France launched calls for proposals in June/July and each selected 9 winning projects. Winners of the French competition focused on access to energy in African countries while winners of the Indian competition partnered with at least one MI country. 	<ul style="list-style-type: none"> A CCUS experts workshop was held in Houston with 257 academic and industry participants from 22 countries and across 13 panels to establish the current state of CCUS technology. The workshop report will serve as an important signpost for future R&D activities in carbon capture, utilization, and storage technologies. 	<ul style="list-style-type: none"> Launched survey in partnership with Biofutures Platform and IEA to better understand the landscape of biofuels technology and identify research gaps, priorities, and collaboration activities. India launched a funding call worth USD \$5 million, which can be replicated in other MI countries.
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<p>Converting Sunlight</p> <p>#5</p>  <p>Objective Discover affordable ways to convert sunlight into storable solar fuels.</p> <p>Co-leads EUROPEAN COMMISSION GERMANY</p>	<p>Clean Energy Materials</p> <p>#6</p>  <p>Objective Accelerate the exploration, discovery and use of new high-performance, low-cost clean energy materials.</p> <p>Co-leads CANADA MEXICO</p>	<p>Affordable Heating and Cooling of Buildings</p> <p>#7</p>  <p>Objective Make low-carbon heating and cooling affordable for everyone.</p> <p>Co-leads EUROPEAN COMMISSION UNITED ARAB EMIRATES UNITED KINGDOM</p>	<p>new Hydrogen</p> <p>#8</p>  <p>Objective Accelerate the development of a global hydrogen market by identifying and overcoming key technology barriers to the production, distribution, storage, and use of hydrogen at gigawatt scale.</p> <p>Co-leads AUSTRALIA GERMANY EUROPEAN COMMISSION</p>
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Top Accomplishments in 2017

<ul style="list-style-type: none"> The EC launched an inducement prize called "Fuel from the Sun" to produce useful fuels using artificial photosynthesis. 	<ul style="list-style-type: none"> Mexico hosted the inaugural workshop in September, which catalyzed subsequent workshops hosted by Canada and laid the foundations for a collaborative research project to accelerate the discovery of clean energy materials. 	<ul style="list-style-type: none"> An Extreme Efficiency Cooling Prize is being developed in conjunction with the Rocky Mountain Institute. A collaborative research project with the IEA is underway to develop an integrated heating, cooling, and power system for buildings.
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Current Status

<ul style="list-style-type: none"> Launched at the third Mission Innovation Ministerial in May 2018. A deep-dive workshop is planned for October 2018.

SPONSOR INFORMATION

The below levels of sponsorship include prominent exposure to industry, regulators, researchers and research institutions at both the TCCS-10 Conference and the Mission Innovation Workshop.

We seek contributions from organizations with a vested interest in CCS. Your contribution will help the continued development of the CCS and CCUS fields.

The three levels of sponsorship grant the following benefits:

	Silver NOK 100.000	Gold NOK 200.000	Platinum NOK 300.000
Promotional material distributed to participants (1)	X	X	X
Acknowledgement and company logo in conference material and on website (2)	X	X	X
Complementary conference registration(s) (3)	1	2	4
Free exhibition booth (4)		X	X
Free use of meeting rooms (5)			X
Option to organize side-event (6)			X
Sponsor of the conference dinner - option for dinner speech			X
Company logo on banner at conference venue entrance			X

1. Promotional material or effects should be sent to the organizers in advance of the conference.
2. Sponsors will be acknowledged at the welcome reception, at the conference opening and closing sessions, and at the conference dinner. Company logos will be displayed in all auditoriums, on the conference website.
3. The registration fee is NOK 6,600 (regular) and NOK 5,500 (early bird).
4. The exhibition booth area is roughly 6 m². The booth, electricity, tv screen, table and chairs will be provided. See pictures for layout of the exhibition booths.
5. A meeting room will be kept available for sponsors throughout the conference period.
6. Location will be made available. Contact the organizers well ahead of the conference to discuss options.

Return services are subject to negotiations. Please, contact us if you have specific ideas for how we most effectively can maximize your exposure at TCCS-10. We will try our best to satisfy your needs.



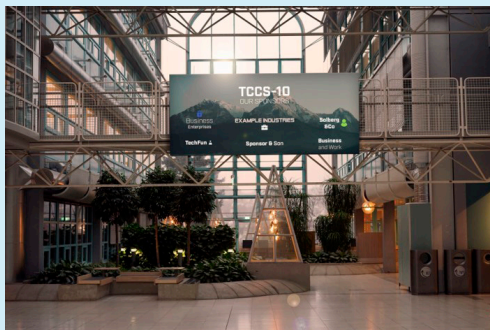
SPONSOR VISIBILITY



Sponsor booths



Sponsor booths at main entrance



Company logo on banner at conference venue



Company logos in auditorium



Company logos in a larger auditorium



Company logos in a smaller auditorium

The above pictures are just to give an idea of how sponsor information could be displayed. Poster design and exhibition booths can be slightly different at the conference.

IN SHORT, WHAT'S IN IT FOR YOU?

Prominent exposure to industry, decision makers and researchers spearheading the CCS development

Your company will:

- make an important contribution to advance CCS development
- help maintain important meeting places

www.tccs.no



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