

Mission Innovation Challenge CCUS

Invitation to Trondheim Workshop, June 19-20, 2019

Background

Mission Innovation Carbon Capture Challenge has the ambition “to advance CCUS technology innovation with the goal of reduced costs and improved performance” and supporting a long-term vision “to enable near-zero CO₂ emissions from power plants and carbon-intensive industries.”

A workshop was held in Houston, USA, September 26-28, 2017. The outcome was the April 2018 report, which identified early stage (TRL 1-3) R&D gaps and recommended PRDs (Priority Research Directions) for accelerating breakthrough innovation in CCUS. The report can be downloaded here <http://mission-innovation.net/wp-content/uploads/2018/09/Accelerating-Breakthrough-Innovation-in-Carbon-Capture-Utilization-and-Storage-0.pdf>

The time is now ripe to move ahead and follow up on the good and important work so far, to ensure continued progress in the direction of full-scale implementation and commercialization of CCUS technologies. A workshop is, therefore, held back-to-back with the [TCCS-10 Conference](#) in Trondheim (June 17-19, 2019) where 400-500 CCS experts are gathered.

Focus

While the Houston workshop focused on early stage research in CO₂ capture, utilization and storage, **this workshop** will focus on strengthening collaboration between industry sectors and research institutions, and public and private sector, by identifying RD&I gaps of common interest in technologies at higher TRL. The intention is to focus on potentials and possibilities, that could yield results and full-scale implementation in the short to medium-term perspective.

Objective and outcome

The workshop will build on and continue the work from the Houston workshop towards implementation and commercialization of CCUS technologies.

The objective of the workshop is to contribute in transferring early (low TRL) research activities to development and innovation activities (higher TRL) by developing guidance and development paths for emerging CCUS technologies, and suggestions for new and joint development activities, with the aim of accelerating the commercialization and implementation process.

The outcome will be a brief report consisting of:

- the guidance and development path documents produced during the workshop
- proposals for new and joint development and innovation activities
- a summary of the workshop discussions

Discussion topics

In supporting the objective of the workshop, some relevant discussion topics could be (but is not limited to):

- What are the status and challenges for the different PRDs?
- What prevents emerging technologies from being commercialized?
- How do we get most effectively from research to commercial product?
- What joint activities could be established to accelerate technology development and implementation?
- What funding instruments would be effective?
- What are the emerging projects around the world?
- How do we realize the low-hanging fruits first?
- What have we learned from projects in operation, what could have been done more effectively?
- What are the triggers for CCUS to be deployed, and how can joint action accelerate deployment?
- Which opportunities are identified from an industrial point of view?

Format and Structure

The first day starts with a plenum session giving background information and expectations about the outcome from this workshop. This includes knowledge sharing from the Houston workshop, taking stock of what has happened since Houston, and outlining status for the CCUS challenge #3 work. Then a two-hour working session follows where groups will be given concrete assignments. The day ends with a buffet style dinner.

Day 2 opens with a plenum session with a short recap of yesterday and information about today's program and expected outcome. There are two working sessions, each three hours, and a one-hour lunch. The day ends with a one-hour plenum session summarizing the workshop and suggestions for continuation of the work.

The participants are divided into four working groups based on industry sectors (e.g. oil & gas, energy intensive industries, hydrogen, transport, storage, and cross-cutting issues). Each group are assigned concrete tasks that will be worked during the working sessions. See workshop layout below.

Target Groups – participation

The workshop is primarily intended for individuals representing:

- Industry (sectors could be: oil & gas, power production, cement, hydrogen, iron and steel, fertilizers, transport, storage, cross-cutting)
- Government (national, regional, or local)
- Funding organizations
- Researchers institutes
- Universities

Participation and registration

Due to space limitations, the maximum number of attendees is 200. A good balance is desired between:

- participants from the different member countries
- industry sectors, government, decision makers, funding organizations, researchers and scientists
- genders

In order to obtain this balance, invitations are first sent for "registration of interest". The deadline for registration of interest is **April 22**. The organizers will then ensure the balance and the "confirmation of attendance" will be sent on **April 30**. Please, register your interest in participating here:

<https://events.provisoevent.no/sintefenergi/events/mission-innovation/register>.

Hotels

The organizers have made a block reservation at central Trondheim hotels, and hotel rooms are reserved for all who receive a "confirmation of attendance". Information about hotels will be sent to attendees together with the confirmation of attendance.

Costs

Attendance is free of charge, but attendees must pay own transport and accommodation.

Workshop format and structure

June 19



1700	Welcome and introduction			
	Expectations and workshop program			
1800	Background and follow-up from Houston workshop			
	Knowledge sharing - What has happened since Houston			
1900	Group A Session 1 (Room: TBA)	Group B Session 1 (Room: TBA)	Group C Session 1 (Room: TBA)	Group D Session 1 (Room: TBA)
2000				
2100	Dinner (buffet-style)			
2200				

June 20

0800	Good morning and recap from yesterday			
	Introduction to today's activities			
0900	Group A Session 2 (Room: TBA)	Group B Session 2 (Room: TBA)	Group C Session 2 (Room: TBA)	Group D Session 2 (Room: TBA)
1000				
1100	Lunch			
1200	Group A Session 3 (Room: TBA)	Group B Session 3 (Room: TBA)	Group C Session 3 (Room: TBA)	Group D Session 3 (Room: TBA)
1300				
1400	Summary, conclusion, wrap-up			
1500				
1600				