

Materials Science for Sustainable Development

MIRAI workshop, 12-14 Nov 2019, Stockholm, Sweden

WORKSHOP AIMS AND GOALS

The importance of bilateral collaboration in achieving scientific goals has been emphasized several times by Swedish and Japanese funding agencies. The agencies committed to strengthen the collaboration already at the MIRAI Seminar 2018 in Tokyo. The seminar in Linköping in May 2019 was an inventory and training session for researchers to prepare a joint application. The November MIRAI Seminar in Stockholm will continue with this trait.

The goal of the seminar will be to identify grand scientific challenges that require cooperative research and competences spanning multiple research areas. The seminar will help also understanding how to think about research from a user perspective, and how to present complex research problem in a compelling way.

The workshop will focus on the following areas:

- Materials for energy devices
- Advanced characterization of materials
- Low dimensional materials and surfaces
- Bio-and bioinspired materials

We will start with seminars by two keynote speakers presenting examples of how large collaborations enable solving difficult fundamental science challenges. After these presentations, the participants will be asked to form Swedish-Japanese teams to prepare an outline of a collaboration application.

During the parallel session on Wed (8:30-15:30, before the NABC session), the participants will work in small groups, and within these groups identify concrete scientific problems that if solved will advance the research field. Methods and techniques required to solve these problems shall be discussed as well.



The parallel session on Wed will finish with short 4-min pitches where the groups will present these problems and their joint approach to solve them. There will be 2-3 minutes after each pitch for other participants to question/discuss the problem and the solution method.

The pitches must address these four questions:

- Why is this research important?
- What is the research gap today?
- Why this question needs to be solved? What will be a long-term benefit for the community after the problem will have been solved?
- What exactly is needed to solve this problem? Why these methods/tools will work and other methods will (or did) not work?

The pitches will be an opportunity to reflect on the problems chosen by the research groups and connect directly to the NABC session. The NABC session will be further exploited during the Thu parallel session.

On Thu (09.00-16.00) the participants in groups will focus on drafting a very-short joint research proposal to funding agencies (max one-page-long) and prepare a short 5-mins pitch presenting the proposal. The groups may use what they have learned during the NABC workshop the day before. The proposal may use for example the four NABC fundamentals to define the projects' value: "Need", "Approach", "Benefits", and "Competition/alternatives".

The Thu session will end up with an evaluation. The groups will submit the proposal text to the moderator who will redistribute the texts to evaluating groups, and then present the proposals to all groups during a 5-min pitch. The proposal texts shall be handed in to the evaluating group 30-45 min before the pitch, so that the evaluators group can read and evaluate. The evaluating group will provide the feedback and evaluate the proposed project right after the pitch. Each groups will contribute to the session with a pitch and evaluation, everyone is allowed to question the projects but the evaluators will do it first.



Stockholm: Wednesday, Nov 13 th .			Location
08.30 – 08.40	Opening Remarks/Welcome	PM & KE	Session rooms at Aula Magna Stockholm University
08.40 – 09.20	Keynote speech – Japan	TBA	
09.20 – 10.00	Keynote speech – Sweden	TBA	
10.00 – 10.20	Fika & Photo		TBA
10.20 – 10.30	Intro to the Group Session	PM & KE	Session rooms at Aula Magna
10.30 – 12.00	Group Session: Work in Swedish-Japanese teams.		Session rooms at Aula Magna
	Goal: Define research problems for the proposal writing & prepare a 4-minutes-long pitch.		
12.10 – 13.10	Lunch		
13.20 – 15.20	<p>Pitch Session: Each team presents the problem they chose to solve jointly. A 4-min pitch followed by questions from the audience.</p> <p>Moderator: TBA</p> <p>Fika will be around 14:20-14:40.</p>		Session rooms at Aula Magna
15.30 – 18.30	Joint workshop: the NABC method with Innovation		Session rooms at Aula Magna
19.00 – 21.30	Reception hosted by the City of Stockholm		Stockholm City Hall

Stockholm: Thursday, Nov 14 th .		Location
09.00 – 09.50	Opening: Summary of the previous day & intro to the Group Session	PM & KE Session rooms at Aula Magna Stockholm University
09.50 – 10.20	Fika	Outside session rooms
10.20 – 12.00	Group Session: Work in the Swedish-Japanese teams.	Session rooms at Aula Magna
	Goal: Draft a one-page-long proposal & prepare a 5-min-long pitch for the after-lunch session. Submit the proposal draft to the moderator (PM).	
12.00 – 12.20	Group Session: Reading 1-page proposals	Session rooms at Aula Magna
12.30 – 13.30	Lunch	TBA
13.40 – 16.00	Pitch Session: Each team presents the research proposal. A 5-min pitch followed by questions from the evaluating group, and then the audience (10 min per pitch incl. questions). Moderator: TBA Fika will be around 14:40-15:00.	Session rooms at Aula Magna
16.15 – 17.00	Reporting from the parallel sessions. Closing speech by President Astrid Söderbergh Widding, Stockholm University.	Session rooms at Aula Magna
18.00	Farewell Reception hosted by the Embassy of Japan	Residence of the Japanese Ambassador, Djursholm, Stockholm