

## SUMMARY OF THE 35<sup>TH</sup> IETS EXECUTIVE COMMITTEE MEETING 30 NOVEMBER – 1 DECEMBER 2022 ONLINE IN COPENHAGEN

This first onsite meeting in three years was hosted by DTU (day 1) and the Danish Energy Agency (day 2). Task Managers and some delegates/alternates attended the meeting online. The meeting was chaired by Vice-Chairs Eric Soucy and Clemente Pedro Nunes, since Chair Thore Berntsson could not attend the meeting onsite.

ExCo members (delegates and/or alternate delegates) from ten member countries and one sponsor organizations, the IEA Desk Officer, all Task Managers and the IETS Secretariat staff participated in the whole or parts of the meeting. The theme for the preceding workshop was “IEA Industry Programs in Denmark”, open for participants involved in IETS Task work and other stakeholders.

### SUMMARY OF THE EXCO MEETING

**The most important event for the IETS TCP during 2023** will be the open conference [Energy Future in Industry](#), which will take place in Gothenburg, Sweden, 9-11 May. Preparations are ongoing and several speakers confirmed. The conference website is up and running and the IETS network can start spreading the news.

**Gathering onsite again** offered the opportunity to discuss strategy and new ideas more in depth. For example, ExCo discussed the risk of overlapping between different Tasks and also what can be included in open reports without risking ”self-plagiarism” and copyright infringement.

### Task Reporting

#### ***Task XI - Industry-based biorefineries towards sustainability***

Task Manager Paul Stuart presented an update on current work with the following take away messages:

- The Task XI Steering Committee is preparing to maximize value from the face-to-face IETS Conference
  - Intra-Task event to be organized for 8 May
  - Inter-Task event to be organized for the afternoon of 11 May
- The DSS Ex-Ante Sub-Task is planning its third meeting following the IETS Conference
- The Net Zero Sub-Task is planning its next meeting for January

The Circular Bioeconomy and Industrial Symbiosis Sub-Task will refine and submit their proposal for approval to the IETS ExCo.

#### ***Task XIV - Energy-efficiency in the Iron and Steel Industry***

Has been on hold for some years, but efforts are being made to restart. Although a successful workshop with country experts was held 18 May, it seems difficult to establish a Task organization to pursue the work.

#### ***Annex XV (Industrial Excess Heat Recovery)***

Task 3 is completed and the Final Report has been approved. Task Manager René Hofmann presented an outline for a new Subtask, consisting of three Activities:

1. The role of excess heat in industry and industrial symbiosis
2. (How to use) Process integration/intensification (strategy/benefits)
3. Ongoing Big projects and Experiences

The suggestions will be further developed and presented as a formal proposal at the next intermediate ExCo meeting in March.

#### ***Task XVII - Membrane processes in biorefineries***

The Final Report of the current Subtasks was presented and approved with some changes. Task Manager Frank Lipnizki also presented suggestions for a continuation of the Task. A formal proposal will be submitted to ExCo for approval at the next meeting.

#### ***Task XVIII - Digitalization, Artificial Intelligence and Related Technologies for Energy Efficiency and GHG Emissions Reduction in Industry***

Task Manager Mouloud Amazouz presented a status update and results so far from the ongoing Subtasks:

- Methods and Applications of Digital Twins (<https://www.youtube.com/playlist?list=PLuitK2C8j5-s0PHLDMYRD7GQgNeuSZgwI>)

- Lessons Learned and Created Values by Digitalization  
(<https://www.energyinformatics.academy/projects-ia-ets-xviii-sub-task3>)

One more Subtask is under preparation:

- Road mapping the implementation of digitalization in the energy intensive process industries

#### **Task XIX - Electrification in Industry**

Task Manager Jonathan Moncada Botero gave a status update and presented results from the current Subtask, which was scheduled to finish in December 2022 but will run until end of May 2023. Results/achievements so far:

Repository of project contributed to the Task

- Classification of projects
- Workshop on technology development
- Joint collaboration with HPT TCP
- Workshops on
  - systems evaluation, impacts of flexibility
  - defining the role of flexibility and process integration
  - infrastructure and sector coupling

#### **Task XX - Knowledge sharing on Industry Transition Roadmaps**

Task Manager Elliot had submitted a Final Report from this Task to the ExCo and presented the findings and results of the Task. Some changes pertaining to reviewers' comments will be made and a new version will be up for approval at the next meeting. For now, there will be no continuation of this Task, but it has paved way for an interesting non-IETS project.

#### **Task XXI (Decarbonizing industrial systems in a circular economy framework)**

The final report from the first Subtask was approved at the intermediate meeting in September. Task Manager Simon Moser presented a status update regarding the two recently started Subtasks:

- Subtask 2 Circular Carbon
- Subtask 3 Industrial Symbiosis

**Suggestion for a new Task** on "Experiences of large projects for decarbonization" was discussed but not approved. Exco wanted more motivation to start a new Task and at the next meeting a summary of a Swedish seminar within this area will be presented.

**A survey of the following international reports** covering deep decarbonization had been performed and was presented by the Secretariat:

- [Decarbonization of industrial sectors, McKinsey, 2018](#)
- [Net Zero by 2050. A Roadmap for the Global Energy Sector, IEA 2021](#)
- [Achieving Net Zero Heavy Industry Sectors in G7 Members, IEA 2022](#)

#### **Election of Chair for 2024-2025**

Johanna Mossberg from RISE Research Institutes of Sweden, was elected new Chair. Her term will start on 1 January 2024, i.e., the same date she will take over as alternate delegate for Sweden after the present Chair Thore Berntsson. During 2023, The Chair Elect will be a permanent observer to the IETS ExCo.

**The next IETS ExCo meeting** will be held in connection to the IETS conference Energy Future in Industry, i.e., on 12 May in Gothenburg. There will also be a short intermediate online meeting in March.

#### **CONTENTS OF THE WORKSHOP: "IEA INDUSTRY PROGRAMS IN DENMARK"**

##### **About The IETS TCP**

Per-Åke Franck, IETS TCP

##### **IETS Task XI - CCUS in waste-to-energy**

Ebbe Hauge Jensen, Rambøll

##### **IETS Task XV - Efficient Energy Mapping and Analysis for Optimization and Green Transition of Industrial Processes**

Fridolin Holm, Viegand Maagøe

##### **IETS Task XVIII - Digitalization in industry**

Bo Nørregaard, University of Southern Denmark

##### **IETS Task XIX - High Temperature Heat Pump for industrial electrification**

Wiebke Brix Markussen, Danish Technological Institute

##### **IETS Task XX - Mapping of Danish industrial energy use**

Steffen Dockweiler, ENS

##### **IETS Task XXI - Greenlab Skive Industrial Symbiosis**

Eoghan Rattigan, Greenlab Skive