

Finland Hosts CAETS 2024: Pioneering Carbon Neutral Technologies and Societal Integration

CAETS: We aim to leave the planet better than we found it!

The Council of Finnish Academies (CoFA) and the Finnish Academy of Technical Sciences (TTA) successfully hosted the annual CAETS conference from July 1 to July 4, 2024. The conference, themed *Carbon Neutral Technologies and Society*, brought together the world's leading engineering and technological science academies to discuss the prerequisites and technical solutions for achieving a carbon-neutral society.

Key Highlights:

- **Opening Ceremony:** The conference commenced with an opening ceremony featuring speeches by CAETS President, Professor Mika Hannula, Minister of Science and Culture, Ms. Sari Multala, and Professor Mikko Hupa, Chair of the Council of Finnish Academies. Keynote addresses were delivered by Professor Peter D. Lund from Aalto University and Professor Andrea Ramírez Ramírez from Delft University of Technology, emphasizing the importance of systems thinking in accelerating the energy transition and defossilizing industrial clusters.
- **Symposium:** The public symposium, held on July 2 and 3, focused on integrating carbon-neutral technologies into society effectively and equitably. Sessions covered a wide range of topics, including energy technology, transport, construction, and various engineering disciplines. The program also included discussions on the EU and global perspectives, with a spotlight on pioneering Finnish solutions.
- **Panel Discussion:** A notable panel discussion on "Carbon Neutral Technologies and Society" featured prominent speakers such as Juhani Damski (Ministry of the Environment), Petri Lehmus (Neste), Peter Lund (Aalto University), Ilona Lundström (Aalto University), and Andrea Ramírez Ramírez (Delft University of Technology). The session, moderated by Riikka Heikinheimo from the Confederation of Finnish Industries, delved into the challenges and opportunities in advancing carbon neutrality.
- **Industry Focus:** Sessions such as ExpandFibre and Neste highlighted the host country's expertise and industry capabilities, while the final day offered optional excursions organized by ExpandFibre and Solar Foods, showcasing practical implementations of discussed technologies.

Key Takeaways:

The CAETS 2024 conference concluded with a clear message: while progress is being made in adopting clean energy technologies, the pace needs to accelerate to meet the Paris Climate Agreement goals. The conference emphasized the need for systemic thinking and innovative solutions to address new challenges and achieve a just transition to net-zero emissions.

Conclusion:

The conference underscored that carbon-neutral technologies are vital for sustainable development and combating climate change. These technologies present significant opportunities for businesses and nations, fostering new industries and enhancing human well-being. The insights and connections made during the conference are expected to drive future advancements in carbon neutrality.

In advancing carbon neutrality, a holistic approach is needed from all sectors: academia, government, and business must collaborate to develop legislation and environmental permitting. Smart investments are crucial for the green transition. To solve the climate crisis, social and political dimensions are equally important. Key factors for a better future include evidence-based policies, justice between the global south and west, and education at all levels and in all countries.

The CAETS 2024 organizing committee extends heartfelt gratitude to all participants, speakers, and organizers for their invaluable contributions to making this event a resounding success.

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CAETS Member Academies

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Australian Academy of Technological Sciences and Engineering	Royal Society Te Aparangi of New Zealand
Royal Belgian Academy Council of Applied Sciences	Nigerian Academy of Engineering
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