

Engineering a **Better World** – the Next 100 Years

Programme CAETS 2019

Tuesday June 25

Opening Session

09:00–09:30

Tuula Teeri, Chair of CAETS and President of IVA
Ruth A David, Secretary General – Treasurer CAETS
Ibrahim Baylan, Minister for Enterprise

PROGRESS

09:30–12:10

The First 100 Years

Johan Norberg, Author, lecturer and documentary filmmaker

Internet – Engineering for Society

Olaf Kolkman, Chief Internet Technology Officer, the Internet Society

LIGO – Engineering for Science

Dennis C. Coyne, Chief Engineer LIGO, California Institute of Technology

Lunch

12:10–13:30

CHALLENGES

13:30–17:00

Energy System of the Future – Evolution or Revolution

Marie-Noëlle Semeria, Chief Technology Officer of TOTAL

Unequal Cities

Edgar Pieterse, Director of African Centre for Cities

Antibiotic Resistance – a Multiple Systems Failure

Otto Cars, Senior Professor, Infectious Diseases, Senior Adviser – ReAct, Uppsala University

Water as Leverage – from Risk to Reward

Kaveh Madani, Environmental Scientist, Educator and Activist

Drink reception at the City Hall

19:00–21:00

Hosted by the City of Stockholm

Wednesday June 26

MORPHING

Creative Chaos

08:30–11:20

Engineering the Climate?

Jesse Reynolds, Frankel Fellow in Environmental Law and Policy,
University of California, Los Angeles School of Law

Panel Discussion:

Future Health – are New Business Models Required?

Kevin Outersson, Executive Director and Principal Investigator, CARB-X
Anna Sandström, Science Policy and Relations Director Europe at AstraZeneca
Aled Edwards, Founder and current CEO of the Structural Genomics Consortium (SGC)

Sustainable Transition Pathways for Plastics

Rajni Hatti-Kaul, Professor in Biotechnology, Lund University

Digital Dawn

11:20–12:10

Productivity and Performance in a Digital Age

Erik Brynjolfsson, Professor at the Massachusetts Institute of Technology

Lunch

12:10–13:30

Effective Education

13:30–14:50

The Changing Face of Global Engineering Education

Ruth Graham, Higher education consultant, R H Graham Consulting

Logic and Landscape of the Knowledge System – Implications for the Educational System

Li Jinghai, President of National Natural Science Foundation of China (NSFC)

Wednesday June 26

Inclusive Infrastructure

15:20–17:00

The All-Embracing Transportation System

Dan Work, Professor, Vanderbilt University

Design and Engineering for Sustainability Transitions

İdil Gaziulusoy, Professor of Sustainable Design, Aalto University

Society 5.0 – a Human-Centric Strategy

Yuko Harayama, Former Executive Member of the
Council for Science, Technology and Innovation

Dinner at Solliden,
Skansen

19:00

Thursday June 27

CONCLUSIONS

09:00–12:00

Policy Advice for the Future

Tuula Teeri, Chair of CAETS and President of the
Royal Swedish Academy of Engineering Sciences

Darja Isaksson, General Director at Sweden's Innovation Agency Vinnova

Li Jinghai, President of National Natural Science Foundation of China (NSFC)

Robert-Jan Smits, Senior Adviser for Open Access and
Innovation at the European Political Strategy Centre

Dan Arvizu, Chancellor and the 28th Chief Executive
of the New Mexico State University System

Industry-Academy Collaboration for the Future

Carl-Henric Svanberg, Chair of the European Round Table
and the Royal Swedish Academy of Engineering Sciences

Alton D. Romig, Jr., Executive Officer of
the National Academy of Engineering

David Thomlinson, Member of the Royal Academy
of Engineering in the United Kingdom

Hideaki Koizumi, Executive Vice President of
the Engineering Academy of Japan

Sanja Vraneš, Director General of the Institute Mihajlo Pupin

*Throughout the conference a number of speakers
will appear as an intermezzo, giving us a broader
perspective on the discussed topic.*

INTERMEZZI

Linda Liukas, Author and Illustrator

Brian Mwenda, Founder & CEO, Hope Tech Plus Limited

Yewande Akinola, Principal Engineer, Laing O'Rourke

Eva Glaumann, Project Manager IVA

Friday June 28

Technical Tour

09:00–14:00

We welcome you to join us on a tour of Slussen and beautiful Stockholm

Slussen in the immediate centre of Stockholm city is one of the biggest and most startling ongoing projects in Stockholm at the moment. This €1.2 billion project is a combined urban redevelopment and infrastructure project with high architectural ambitions. Slussen is located at the narrow strait between the world heritage site Old Town and the steep cliffs of Södermalm and therefore requires several complicated and unconventional technical solutions when building the new Slussen. Slussen is in every sense a historical site which gives the project an extra dimension with for example archaeological excavations.

Technical Tour Program (pre-registered delegates only)

09:00

Technical Tour Session at IVA

10:15

Walking from IVA to boat for sightseeing tour

11:00

Boat trip including lunch and sightseeing

13:30

Return to Nybrokajen, bus transfer
back to the hotel (Clarion Sign)

End of CAETS 2019



Organisation Committee

Veronika Aspvall, Former Chair of IVA's Student Council
Hans Bergström, Member of IVA's Division XI – Education and Research Policy
Anne-Marie Eklund Löwinder, Member of IVA's Division XII – Information Technology
Magdalena Gerger, Member of IVA's Division VI – Management
Pontus Johnson, Member of IVA's Division II – Electrical Engineering
Åsa Söderström Winberg, Member of IVA's Division III – Built Environment
Tuula Teeri, President of IVA, Member of IVA's Division IV – Chemical Engineering
Magnus Breidne, Vice President International Affairs IVA

International Programme Committee

Pere Brunet, Real Academia De Ingenieria, Spain
Ruth David, Secretary-Treasurer CAETS
Reinhard Hüttl, National Academy of Science and Engineering, Acatech
Kazuhide Ito, Engineering Academy of Japan
Inkyu Lee, National Academy of Engineering of Korea
Ulrich W. Suter, Swiss Academy of Engineering Sciences
Kayo Takahashi, Engineering Academy of Japan
Nick Tyler, Royal Academy of Engineering, UK
Siegfried Wu, Chinese Academy of Engineering
Magnus Breidne, Vice President International Affairs IVA



**Royal Swedish Academy of
Engineering Sciences**