TEC Temporary
Alpbach Technology Symposium
Fundamentals
August 27 – 29, 2020
Alpbach, Tyrol | #efatec20

As of: July 6, 2020
EUROPEAN FORUM ALPBACH
2020 TECHNOLOGY SYMPOSIUM

Fundamentals

August 27 to 29, 2020, Alpbach/Tyrol

Preliminary programme

Organizers:
AIT Austrian Institute of Technology GmbH
Austrian Broadcasting Corporation – Programme Radio 1

in cooperation with and sponsored by

Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology
Austrian Federal Ministry for Digital and Economic Affairs
Austrian Federal Ministry of Education, Science and Research

Industrial partner:
Federation of Austrian Industries

Scientific partner:
Helmholtz-Gemeinschaft Deutscher Forschungszentren

Media partners:
Die Presse

Information Technology partner:
APA

Please find the full programme of EFA20 on:
https://www.alpbach.org/
The event is being supported by the following institutions:

Austrian Federal Ministry of Defence  
Climate and Energy Fund  
Falling Walls Foundation gGmbH  
Forschung Austria  
ITG Innovations- und Technologietransfer Salzburg GmbH  
Joanneum Research Forschungsgesellschaft mbH  
The Province of Lower Austria  
TU Austria  
VFFI/Federation of Austrian Industries  
Virtual Vehicle Research GmbH

as well as:

Steirische Wirtschaftsförderungsgesellschaft mbH (tbc)
THURSDAY, AUGUST 27, 2020

Presentation of plenary sessions
Andreas Jäger
Presenter and Journalist, Austrian Broadcasting Corporation, Vienna

13.00

Plenary session
Welcome and opening
Live session / online streaming

Artistic prelude (tbc)
Fundamentals – moving images and artistic visualizations as a prelude to the Technology Symposium.

Gerald Bast
Rector, University of Applied Arts, Vienna

Franz Fischler
President, European Forum Alpbach, Vienna

Wolfgang Knoll
Scientific Managing Director, AIT Austrian Institute of Technology GmbH, Vienna

RTI Talk
Live session from the APA Press Center, Vienna
At the opening session of the Technology Symposium, the summit of Austria’s research, technology and innovation community, leading representatives from the ministries, the Federation of Austrian Industries and the Austrian Council for Research and Technology Development will discuss how Austria can become an “Innovation Leader” in Europe and make the location fit for the future.

Chair: Gerald Groß
Managing Director, gross:media e.U., Vienna
Hannes Androsch  
Industrialist; Chairman of the Board, AIT Austrian Institute of Technology GmbH; Chairman, Austrian Council for Research and Technology Development, Vienna

Heinz Fassmann  
Austrian Federal Minister of Education, Science and Research, Vienna

Leonore Gewessler  
Austrian Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Vienna

Georg Knill  
President, The Federation of Austrian Industries, Vienna

Margarete Schramböck  
Austrian Federal Minister for Digital and Economic Affairs, Vienna

14.30  
**Plenary session**  
*Civic systems in the digital age*  
*Pre-produced video or live streaming*  
*Description*

**Chair:** N.N.  
tbc

Alex ‘Sandy’ Pentland  
Professor of Media Arts and Sciences, Toshiba Professor, Media Lab Entrepreneurship Program Director, MIT Media Lab, Cambridge/Massachusetts

14.30  
Breakout Session 1 (Congress Centrum Alpbach)

15.30  
**Plenary session**  
*A new policy for technology, innovation and industry*  
*Live session with online participants from Brussels and Vienna*  
There is an increasing debate in Europe about a renewed industrial policy. How can European industries hold their own in an increasingly fierce global competition while also addressing current challenges? With our guest we will discuss new approaches to European industrial policies.

**Chair:** N.N.  
tbc
Hannes Androsch  
Industrialist; Chairman of the Board, AIT Austrian Institute of Technology GmbH; Chairman, Austrian Council for Research and Technology Development, Vienna

Sabine Herlitschka  
Chief Executive Officer, Infineon Technologies Austria AG, Villach; Member, Austrian Council for Research and Technology Development, Vienna

Kerstin Jorna (tbc)  
Director-General, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (GROW), European Commission, Brussels

Eva Stejskalová  
Managing Director, MicroStep, spol. s r.o.; Member of the Horizon 2020 High-level Strategy Group on Industrial Technologies

Plenary session in cooperation with Austrian Council for Research and Technology Development

18.00  
**Plenary session**  
**Tickets to Berlin: Summer School on Entrepreneurship**  
**Live session / online streaming**  
Young scientists and entrepreneurs have precisely three minutes to convince the Alpbach audience of their innovative ideas, research and business projects. The prize is two tickets for the renowned Falling Walls Conference in Berlin in November. Falling Walls promotes visionary ideas and connects creative minds. The presentations will break down walls.

**Chair:**  
Philipp Marxgut  
Secretary General, Complexity Science Hub, Vienna

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tbc
FRIDAY, AUGUST 28, 2020

Presentation of plenary sessions
Andreas Jäger
Presenter and Journalist, Austrian Broadcasting Corporation, Vienna

9.00 Breakout Session 5 (APA Press Center, Vienna)
9.00 Breakout Session 6 (Congress Centrum Alpbach)
9.00 Breakout Session 10 (Congress Centrum Alpbach)

9.30 Plenary session
Climate and the environment – European perspectives
Live session / online streaming
The dramatic developments in connection with SARS-CoV-2 and
the resulting illness of COVID-19 have somewhat overshadowed
the important topic of climate change. With its ambitious
European Green Deal the European Commission is trying to
address the situation. In this plenary discussion we will examine
this complex from a European perspective and try to present
options for dealing with it.

Chair: Otmar Wiestler
President, Helmholtz-Gemeinschaft Deutscher Forschungszentren, Berlin

Pascale Ehrenfreund
Chair of the Executive Board, DLR German Aerospace Center, Cologne

Leonore Gewessler
Austrian Federal Minister for Climate Action, Environment, Energy, Mobility,
Innovation and Technology, Vienna

Christian Haas
Head, Sea Ice Physics Division Alfred Wegener Institute, Helmholtz Centre for
Polar and Marine Research, Bremerhaven

Martin Visbeck
Head, Physical Oceanography, GEOMAR Helmholtz-Centre for Ocean
Research, Kiel

Plenary session in cooperation with Helmholtz-Gemeinschaft Deutscher
Forschungszentren

11.30 Breakout Session 3 (live session from APA Press Center)
11.30 Breakout Session 7 (Congress Centrum Alpbach)
11.30 Breakout Session 8 (Congress Centrum Alpbach)
11.30 Breakout Session 12 (Congress Centrum Alpbach)
11.30 Plenary session
Complexity science – Corona and the consequences
Live session / online streaming
Description

Chair: Helga Nowotny
Member, Austrian Council for Research and Technology Development; Chair, ERA Council Forum Austria, Vienna

Vittoria Colizza
Research Director, INSERM and University of Sorbonne, Faculty of Medicine, Paris

Ricardo Hausmann
Rafik Hariri Professor of the Practice of International Political Economy; Director, Growth Lab, John F. Kennedy School of Government, Harvard University, Cambridge/Massachusetts

Dirk Helbing
Professor of Computational Social Science, Department of Humanities, Social and Political Sciences; Affiliate, Computer Science Department, ETH Zurich

Stefan Thurner
President, Complexity Science Hub Vienna

Plenary session in cooperation with Complexity Science Hub Vienna

14.00 Plenary session
TU Austria Innovation Marathon
Live session / online streaming
24 hours of product development: 5 tasks, 10 teams, participating from all over the world and collaborating online to solve challenging tasks given by enterprises. In this plenary session, the solutions and the challenging way to get there will be presented.

Chair: Mario Fallast
Project Manager, TU Austria Innovation Marathon, Graz University of Technology, Graz

Introduction: N.N.
Federation of Austrian Industries, Vienna

14.00 Breakout Session 2 (Congress Centrum Alpbach)
14.00 Breakout Session 4 (Congress Centrum Alpbach)
14.00 Breakout Session 9 (Congress Centrum Alpbach)
15.30  **Plenary session**  
**Living with AI**  
**Live session / online streaming**  
Scientists and researchers working on artificial intelligences (AI) hope to eventually create a form of AI that will be able to solve real everyday problems by using intuition, fantasy and causal relationships in the same way as human beings. The obvious question raised by this vision of the future is: What does it mean to live and work with such a form of “intelligence”?

**Chair:** Andreas Jäger  
Presenter and Journalist, Austrian Broadcasting Corporation, Vienna

Gerald Bast  
Rector, University of Applied Arts, Vienna

Anab Jain (tbc)  
Leiterin Design Investigations

Saadia Zahidi (tbc)  
World Economic Forum

N.N.  
tbc

16.30  **BOS 11 (Congress Centrum Alpbach)**

18.00  **Career lounge for students and young professionals**  
**Online streaming (tbc)**  
Networking for (aspiring) young high potentials with top-level representatives from research and economy

Organized in cooperation with Club Alpbach Südtirol Alto Adige, supported by Siemens AG Österreich (tbc)
SATURDAY, AUGUST 29, 2020

Presentation of plenary sessions
Andreas Jäger
Presenter and Journalist, Austrian Broadcasting Corporation, Vienna

10.00  Plenary session
tbc
Live session / online streaming
Description

Chair: N.N.
tbc

N.N.
tbc

N.N.
tbc

11.00  Plenary session
Closing remarks
Online streaming (tbc)

Wolfgang Knoll (tbc)
Scientific Managing Director, AIT Austrian Institute of Technology GmbH,
Vienna

13.15  End of event
BREAKOUT SESSION 1

Life Science
(in cooperation with Austrian Federal Ministry for Digital and Economic Affairs)

Description

Chair: N.N.
tbc

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Coordination: Gabriele Schmid
Department of Key Technologies, Austrian Federal Ministry for Digital and Economic Affairs, Vienna
BREAKOUT SESSION 2

Water, the origin of life
(in cooperation with ecoplus)

Do we handle this valuable asset with care? Water is not only a fundamental aspect of life but today has become an enormously important economic factor. In Austria we value this asset, delivered to our doorsteps at the highest quality and at low cost. We take for granted that water is available in unlimited supply, free from harmful germs and inexpensive.

Chair: Claus Zeppelzauer
Head of Department, Company and Technology, ecoplus. The Business Agency of Lower Austria, St. Pölten

Introductory statement: Jochen Danninger
Member of the Provincial Government of Lower Austria for Economic Affairs, Tourism, Technology and Sports, St. Pölten

Martin Brandl
Head of Center for Water and Environmental Sensors, Department for Integrated Sensor Systems, Danube University Krems

Franz Dinhobl
Managing Director, EVN Water, Maria Enzersdorf

Andreas Farnleitner
Head, Unit for Water Quality and Health, Department of Pharmacology, Physiology and Microbiology, Karl Landsteiner Private University, Krems

Martin Kainz
Group Leader Water Ecology, Water Cluster Lunz Biological Station GmbH, Lunz am See

Regina Sommer
Head, Institute of Hygiene and Applied Immunology, Medical University, Vienna

Coordination: Karin Herzog
Assistant to the Department and Project Manager, Company and Technology, ecoplus. The Business Agency of Lower Austria, St. Pölten
BREAKOUT SESSION 3

Responsibility. Production. Europe
(in cooperation with VFFI)

Today’s prosperity is fundamentally grounded in research, technology and innovation. But what about Europe’s future as a production location? How can we combine high standards in environmental, health and social sectors with competitiveness and sovereignty also in the future?

Chair: N.N.
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Coordination: N.N.
tbc
BREAKOUT SESSION 4

Feeding the city – or is the city feeding you?
(in cooperation with Climate and Energy Fund)

Increasing urbanization in times of climate change puts cities all over the world to the test. In order to guarantee the security of supply, public and private players are called upon to find innovative ways to supply citizens with food. But is an ‘edible city’ a realistic scenario for the future?

Chair: Theresia Vogel
Managing Director, Climate and Energy Fund, Vienna

Coordination: Katja Hoyer
Public Relations Manager, Climate and Energy Fund, Vienna
BREAKOUT SESSION 5

The Return on Investment – excellence and relevance in science and research
(in cooperation with Austrian Federal Ministry of Education, Science and Research)

Novel insights in science are like truffle: difficult to plan for. But calls for impact get ever louder. This session by BMBWF and FWF will address assumed contradictions between academic freedom and return on investment and the interplay between excellence and relevance.

Chair: Klement Tockner
President, FWF – Austrian Science Fund, Vienna

Eva Maria Binder
Director of Executive Board, Erber Group, Tulln

Tan Eng Chye
President, National University of Singapore

Eveline Crone
Vice-President, European Research Council, Brussels

Merle Jacob
Director of Third Cycle Studies, Department of Business Administration, Lund University, Lund

Kerstin Krieglstein (tbc)
Rector, University of Konstanz

James Wilsdon
Digital Science Professor of Research Policy; Director, Research on Research Institute, Department of Politics, University of Sheffield

Coordination: Patrick-Svensson-Jajko
Advisor, Directorate General for Scientific Research and International Relations, Austrian Federal Ministry of Education, Science and Research, Vienna
BREAKOUT SESSION 6

Future mobility – ecological, economic and social value solutions
(in cooperation with Virtual Vehicle Research GmbH)

It isn’t technology leadership, but value opportunities sensibly captured that makes mobility concepts future proven. This enables mobility to fulfil its underlying human need as well as economic constraints without compromising further on climate goals and resource scarcity in the future.

Chair: N.N.
tbc

Jost Bernasch
Managing Director, Virtual Vehicle Research GmbH, Graz

Niels de Boer
Programme Director Future Mobility Solutions (Autonomous Vehicles), Energy Research Institute, Nanyang Technological University, Singapore

Leonore Gewessler (tbc)
Austrian Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Vienna

Michael Holzner
Founder and Managing Director, iCONDU GmbH, Ingolstadt

Mark Topal-Gökceli
Head Systems Technology and Production; Corporate Coordinator for Security, ÖBB Holding AG, Vienna

N.N.
tbc

Coordination: N.N.
tbc
BREAKOUT SESSION 7

Research in times of crisis: what is the role of applied research?
(in cooperation with Forschung Austria)

We will discuss the role of applied research before (e.g. foresight studies), during (e.g. vaccine research) and after (e.g. acceleration of change) crises. How can crises and challenges in general lead to more sustainable societies and economies and how can research, technology and innovation contribute to this?

Chair: N.N.
tbc

Klaus Pseiner
Managing Director, FFG Austrian Research Promotion Agency, Vienna

Siegfried Reich
Managing Director and Head of Research, Salzburg Research Forschungsgesellschaft mbH, Salzburg

Matthias Weber
Head of Center Innovation Systems and Policy, AIT Austrian Institute of Technology GmbH, Vienna

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Coordination: N.N.
tbc
BREAKOUT SESSION 8

Hydrogen – a key technology for renewable energy systems  
(in cooperation with TU Austria)

Hydrogen is a safe and efficient energy carrier of unlimited availability produced from renewable resources. Thus, hydrogen offers the prospect of a healthy and livable environment as well as the economic opportunity for innovative know-how and technological leadership.

Chair: Alexander Trattner  
CEO and Research Director, HyCentA Research GmbH, Graz

Laurent Antoni  
President, Hydrogen Europe Research, Brussels

Philipp Braunsdorf  

Martin Hackl  
Global Director, Business Unit Solar Energy, Fronius International GmbH, Wels

Markus Lehner  
Head of Chair & Research Group Energy Process Engineering, Montanuniversität Leoben

Horst Steinmüller  
Managing Director, WIVA P&G Energy Model Region, Linz

Theresia Vogel  
Managing Director, Climate and Energy Fund, Vienna

Coordination: Marie Macherhammer  
Key Researcher and Project Leader, HyCentA Research GmbH, Graz
BREAKOUT SESSION 9

Climate neutrality 2040 – disruptive innovations for CO2 neutrality
(in cooperation with Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology)

“Let us paint a sun on gray cobblestone”, words of a children’s song in the former GDR. When published in 1976, life in a united Europe without walls was unimaginable, but became reality only 20 year later. In this session we will paint the future, asking: can we realize a climate-neutral Austria in 2040? Is it unimaginable or possible?

Chair: Henriette Spyra
Director Science & Innovation, Environment Agency Austria, Vienna

Leonore Gewessler
Austrian Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Vienna

Maja Göpel
Secretary-General, German Advisory Council on Global Change, Berlin

Marleen Roubik
Expert on Legal Experimental Spaces, Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Vienna

Katja Schechtner
Advisor to the Secretary General ITF, OECD, Paris; Research Fellow, MIT Senseable City Lab, Cambridge

Maria Vassilakou
Member, Mission Board Climate Neutral Cities 2030, European Commission, Vienna

Coordination: Silvia Benda Kahri
Head of Dialogue & Innovation, Environment Agency Austria, Vienna
BREAKOUT SESSION 10

Resilience and digital future: synergy or discrepancy?
(in cooperation with ITG Innovations- und Technologietransfer Salzburg GmbH)


Chair: Manfred Tscheligi
Professor of Human-Computer Interaction, Center for Human-Computer Interaction, University of Salzburg; Head of Center Technology Experience, AIT Austrian Institute of Technology GmbH, Vienna

Coordination: N.N.
tbc
**BREAKOUT SESSION 11**

**Critical technology trends in security sectors**  
(in cooperation with Austrian Federal Ministry of Defence)

Humankind lives in the fastest, most technologically innovative time ever! Join us in exploring those trends in emerging disruptive technologies which have critical effects in security fields. Focus on the greatest technological challenges and benefit from expert speakers and interactive workshops.

**Chair:** Friedrich Teichmann  
Head, Institute of Military GeoScience, Austrian Armed Forces, Vienna

**Coordination:** N.N.

tbc

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2020 ALPBACH TECHNOLOGY SYMPOSIUM (English)

22
BREAKOUT SESSION 12

Europe as a production location in times of climate change
(in cooperation with Joanneum Research)

We will discuss the opportunities and challenges of “climate neutrality” on the example of the steel industry, which accounts for about 10% of global greenhouse gas emissions. How can Europe’s “Green Deal” support the industry to meet emissions targets and make sure that Europe remains a strategic production location at the same time?

Chair: Franz Pretthenthaler
Director, LIFE Institute for Climate, Energy and Society, Joanneum Research Forschungsgesellschaft mbH, Graz

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Coordination: N.N.
tbc
DIGITAL PARTNER PROGRAMME

THURSDAY, AUGUST 27, 2020

19.00 Digital Patent Cocktail
Hosted by Austrian Patent Office

CULTURAL PROGRAMME
(tbc)

THURSDAY, AUGUST 27 UNTIL SATURDAY, AUGUST 29, 2020

ARTTEC 2020 with:

Living with AI
In cooperation with University of Applied Arts Vienna

Description
GENERAL INFORMATION

Registration form
Online on www.alpbach.org.

Participation fee
€ 90,- including participation in the Technology Symposium and information material. Hotel and accommodation cost not included.

On registration you will receive a confirmation via e-mail and the invoice. In case you cancel your participation until July 30, 2019, a handling fee of € 70,- will be charged. In case of cancellation between July 31 and the beginning of the Technology Symposium 50% of the price will be charged, in case of cancellation after the beginning of the event or no-show 100% of the price will be charged. Please find detailed information on: https://www.alpbach.org/en/forum2019/participation2019/.

Hotel bookings
tbc

Public transport in Alpbach
tbc

Venue
A-6236 Alpbach, Tyrol

Plenary sessions
Alpbach Congress Center

Breakout sessions
Alpbach Congress Center

Conference languages
tbc

Check-in
tbc

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Cooperation partners
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Austrian Federal Ministry of Education, Science and Research
Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology
Die Presse
Federation of Austrian Industries
Helmholtz-Gemeinschaft Deutscher Forschungszentren

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Prof. Wolfgang Knoll

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