

International Conference

# World Sustainable Energy Days 2021

21 – 25 June 2021  
Wels, Austria

**HYBRID EVENT**

## Conferences:

- European Energy Efficiency Conference
- European Pellet Conference
- Young Energy Researchers Conference
- Industrial Energy Efficiency Conference
- Innovation Workshops
- Smart E-Mobility Conference

[www.wsed.at](http://www.wsed.at)



# World Sustainable Energy Days 2021

## Programme overview



### European Pellet Conference

The world's largest annual conference on pellets with a focus on technologies, markets, policies and financing



### Smart E-Mobility Conference

Market overview • Building integration • Energy management • Storage and charging solutions • Best practice examples



### European Energy Policy Conference

Green Deal • Policy • Markets • Energy Efficiency Watch



### Young Energy Researchers Conference

A conference presenting the work of young energy researchers. Best Young Energy Researcher Awards



### Industrial Energy Efficiency Conference

Accelerating decarbonisation: Innovation • Green Deal • Best Practices



### Poster Presentation

An opportunity to display online successful energy projects and products as well as results of EU projects to international experts



### Innovation Workshops: Green Finance • Buildings • Technologies

Interactive workshop on financing instruments for buildings, transport and public infrastructure



With the World Sustainable Energy Days, Upper Austria is the meeting place in June for the energy transition. Europe has set itself the ambitious target of becoming the first climate-neutral continent. We present and discuss solutions to practically implement the Green Deal. With highly-efficient and renewable energy systems, we will achieve economic growth, create new jobs and make the energy transition happen!

**Markus Achleitner, Regional Minister for Economy and Energy, Upper Austria**

Timetable	Online Event	Onsite Event	Monday 21 June	Tuesday 22 June	Wednesday 23 June	Thursday 24 June	Friday 25 June
European Pellet Conference	✓	✓					
European Energy Efficiency Conference	✓	✓					
Energy Efficiency Policy Conference	✓	✓					
Industrial Energy Efficiency Conference	✓	✓					
Smart E-Mobility Conference	✓	✓					
Young Energy Researchers Conference	✓						
Innovation Workshops	✓						
Poster Presentation	✓						

Energy transition ↔ Green recovery

## What are the World Sustainable Energy Days (WSED)?

Becoming the first climate-neutral continent by 2050 is an ambitious goal which requires ambitious measures. Energy efficiency and renewable energy are at the centre of this roadmap for making the EU's economy sustainable.

In 3 days, the event offers delegates 6 dedicated conferences, including the European Energy Efficiency Policy Conference, the European Pellet Conference, the Industrial Energy Efficiency Conference and the Smart E-Mobility Conference.

## Who attends the event?

- A wide range of **business** actors engaged in the energy transition: technology and equipment companies, energy companies, service providers, planners, developers, financing sector etc.
- the sustainable energy **research community**
- representatives from **public bodies** (e.g. EU institutions, national, regional and local governments, energy agencies)

**Over 600 experts each year from more than 60 countries!**

## When does it take place?

21 - 25 June 2021

## How to join?

Mark your calendar and register today ([www.wsed.at](http://www.wsed.at)).

This "special edition" of our annual conference will be held as a **hybrid event**: You can participate online from anywhere in the world. According to current planning, on-site participation will also be possible (following COVID rules in place at the time of the event). Registered participants will receive detailed guidance prior to the conference. On-site conference days in Wels/Austria will be 22 - 24 June.

## Where does it happen?

Wels/Austria. The region of Upper Austria is an ideal location for this conference: Through significant increases in energy efficiency and renewable energy, greenhouse gas emissions from buildings have been reduced by 39 % in 10 years. Over 60 % of all space heating and 31 % of the primary energy in Upper Austria already come from renewables.

### NEW in 2021

- Energy transition & green recovery
- Climate neutrality
- Update Green Deal



# European Pellet Conference 2021

22 June 2021



22 June | 09.00

## Strategy session: A green recovery with bioenergy

Learn how we can make a green recovery happen in practice and how the pellet sector can profit from this deep transformation! We present the policies, technologies and markets that can get us there!

- **Opening and welcome**  
Silvia Huber, Vice Mayor, City of Wels, Austria  
Gerhard Dell, OÖ Energiesparverband, Austria
- **The role of bioenergy in the EU energy and climate policies**  
Giulio Volpi, European Commission, DG Energy
- **Update on European pellet markets**  
Gilles Gauthier, Bioenergy Europe / European Pellet Council
- **Best Young Biomass Researcher Award**
- **A global look at bioenergy**  
Bharadwaj Kummamuru, World Bioenergy Association
- **A green recovery with pellets - a business perspective**  
Thomas Meth, Enviva, USA



**22 June | 11.00**

## **Driving out 17 million oil heating systems in the EU**

There are still 17 million oil heating systems in the EU emitting over 150 million tonnes of CO<sub>2</sub> every year. Pellets can play a key role in phasing out fossil fuels. This session presents concrete examples and solutions on how to make this happen.

- **Ambitious policies and programmes for phasing out oil-heating**
  - **Upper Austria:** Christiane Egger, ÖÖ Energiesparverband
  - **Germany:** Martin Bentele, Deutscher Energieholz- und Pellet-Verband (DEPV)
  - **France:** Axel Richard, SER/Flamme Verte
- **Addressing the air quality challenge: flameless pellet combustion**  
Stefan Ortner, ÖkoFEN, Austria
- **New approaches in ensuring pellet supply: Biomass Exchange**  
Andrius Smaliukas, Baltpool, Lithuania
- **How can digitisation help?**  
Volker Lenz, German Biomass Research Centre (DBFZ), Germany

**22 June | 14.00**

## **World of Pellets Session**

Leading experts from around the world share their views and insights on the development of pellet markets, which topics are key, and where. They provide market updates and outlooks.

- **Opening**  
Gordon Murray, on behalf of the European Pellet Council
- **Spain:** Pablo Rodero Masdemont, AVEBIOM / European Pellet Council
- **Italy:** Matteo Favero, AIEL
- **Russia:** Olga Rakitova, Infobio
- **South Africa:** Yaseen Salie, GreenCape
- **China:** Ming Shan, Tsinghua University

### **Chairperson:**

Gordon Murray, Wood Pellet Association of Canada

**22 June | 15.30**

## **Pellet Innovation Factory**

Learn about innovative technologies, projects and solutions for pellets across the bioenergy value chain!

- **Innovations from Upper Austria: mass roll-out of pellet heating**
  - Gottfried Baumann-Leitner, Windhager Zentralheizung, Austria
  - Werner Emhofer, Fröling, Austria
- **Digitising the pellet supply chain for more efficiency**  
Lina Emilsson, MCD, Sweden
- **Increasing drying process efficiency with heat pumps**  
Alessandro Guercio, Guercio Energy & Environment/Turboden, Italy
- **Novel technology for producing high quality straw pellets**  
Javier Gil Barnó, CENER, Spain
- **Understanding decision making processes for pellet boiler investments**  
Neil Harrison, re:heat, UK
- **A container solution for pellet production**  
Christophe Garnier, Prodesa, France
- **Quality range and combustion behaviour of ENplus A1 certified pellets**  
Robert Mack, Technology and Support Centre (TFZ), Germany
- **Developing marginal land for bioenergy**  
Péter Gyuris, Geonardo Environmental Technologies, Hungary



# Energy Efficiency Policy Conference

23 June 2021



23 June | 09.00

## Policy and Financing Session: A green recovery through the energy transition

Europe is aiming for a 55 % reduction of CO<sub>2</sub> emissions by 2030 as a milestone on its way to climate neutrality by 2050. It is crucial that the investment decisions made in the next few years put us on the path of being "fit for 55" by the end of this decade. This session shows how we can make a green recovery happen in practice and how energy efficiency can contribute as an investment engine. We present the policies and financing solutions.

- **Welcome and opening**  
Markus Achleitner, Regional Minister for Economy and Energy, Upper Austria
- **Energy efficiency policies and programmes for a green recovery**  
Carlos Sánchez Rivero, European Commission, DG Energy
- **Energy Efficiency 2020: a global update and outlook**  
Brian Motherway, International Energy Agency
- **Best Young Energy Efficiency Researcher Award**
- **Home renovation services: a boost for the green recovery**  
Anette Jahn, European Commission, CINEA
- **The energy transition investment boom in Upper Austria**  
Gerhard Dell, OÖ Energiesparverband, Austria
- **The "Green Recovery Tracker": recovery packages under scrutiny**  
Helena Mölter, Wuppertal Institute, Germany
- **Shifting the trillions: a finance system fit for the energy transition**  
Karsten Löffler, Green and Sustainable Finance Cluster, Germany
- **Financing the Green Deal**  
Ralf Goldmann, European Investment Bank

**23 June | 11.30**

## **Best practices in energy efficiency policy - solutions for the post-pandemic era**

The pandemic and resulting societal changes offer opportunities for new narratives for energy efficiency and the energy transition. This session presents how such narratives can be developed and how innovative policies make energy efficiency the new normal.

- **Energy Efficiency Watch: New narratives for energy efficiency**

- **The missing WHY: insights from 1,270 energy efficiency experts**

Christiane Egger, OÖ Energiesparverband, Austria

- **Case Studies for energy transition narratives**

Daniel Becker, Guidehouse, Germany

- **Energy efficiency and the digitisation of the economy**

Benoit Lebot, Ministère de la Transition Écologique, France

- **Better policies for better lighting**

Ourania Georgoutsakou, LightingEurope

- **Energy Efficiency First: What does it mean in practice?**

Jean-Sébastien Broc, Institute for European Energy and Climate Policy, NL

This conference is organised in the context of the H2020 "Energy Efficiency Watch 4" project:  
[www.energy-efficiency-watch.org](http://www.energy-efficiency-watch.org)



# Industrial Energy Efficiency Conference

23 June 2021

23 June | 14.00

## Competitive through the energy transition: A new paradigm for Europe's industry

As Europe moves towards becoming the first climate-neutral continent, industry is at the core of this transformation. A new paradigm is emerging from policy, finance and global supply chains: the industrial energy transition and independence from fossil fuels as a crucial factor for competitiveness. This session presents the new policy framework and key innovations for the industrial energy transition.

- **The new EU Industrial Strategy: competitiveness and climate neutrality**  
Henning Ehrenstein, European Commission, DG GROW
- **The implementation of the Energy Efficiency Directive in Austria**  
Heidelinde Adensam, Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Austria
- **Spotlight on the industrial energy transition**  
Gerhard Dell/Christiane Egger, OÖ Energiesparverband, Austria
- **Energy flexibility - new opportunities for industrial decarbonisation**  
Alexander Sauer, Institute of Energy Efficiency in Production at the University of Stuttgart, Germany
- **Processes4Planet: the industrial net-zero challenge**  
Àngels Orduña Cao, A.SPIRE, Belgium
- **Key technologies for a climate-neutral European industry**  
Stefan Lechtenböhmer, Wuppertal Institute, Germany
- **The role of energy storage in the industrial energy transition**  
Anneli Teelahk, European Association for Storage of Energy





23 June | 16.00

## Technology Session: Industrial heat and cold - renewable and energy-efficient

When addressing the net-zero challenge in industry, the decarbonisation of industrial heat and cold is crucial. This session presents innovative technologies and solutions for energy efficiency and renewable energy in industrial processes from all over the world.

- **Renewable energy options for industrial process heat**  
Keith Lovegrove, IPT Renewables, Australia
- **Renewable and efficient cold for industry**  
Thomas Führer, STIWA, Austria
- **Best practice examples: biomass for industry**  
Jaap Koppejan, Pro Biomass, NL

## The industrial energy transition in practice

This session showcases best practice examples of how energy efficiency and renewable energy can be implemented in the daily reality of industrial companies and highlights key approaches.

- **Photovoltaics for companies - a success story**  
Christoph Panhuber, Energie AG Oberösterreich Renewable Power, Austria
- **The world's first "Net Zero Carbon certified" apparel manufacturing facility**  
Akila Fernando, Brandix Lanka, Sri Lanka
- **Examples of successful energy management solutions**  
Luis Marqués Almanza, GEN Europe Soluciones Energéticas, Spain

18.00 Conference end

19.00 Evening programme



# Smart E-Mobility Conference

24 June 2021



24 June | 09.00

## Trend Session: E-mobility boom despite the pandemic

While automotive markets around the world were heavily disrupted by the Corona pandemic, sales of electric vehicles rose sharply and e-mobility achieved a market breakthrough in many countries. In this session, learn about the status, trends and global prospects for e-mobility!

- **Opening and welcome**  
Gerhard Dell, OÖ Energiesparverband, Austria
- **30 million electric cars by 2030**  
Aleksandra Klenke, European Commission, DG MOVE
- **The IEA Global EV Outlook 2021: Entering the decade of electric drive**  
Elizabeth Connelly, International Energy Agency
- **Booming e-mobility market China**  
Jian Liu, Energy Research Institute, China
- **Turning European transport innovation into local action**  
Gabriela Barrera, POLIS Network, Belgium



**24 June | 10.30**

## **Innovation Session: Solutions for mainstreaming e-mobility**

Mainstreaming e-mobility requires up-scaling across the value chain. This session presents technology solutions, business models and best practice examples that can act as game changers.

- **Market scale-up of batteries**  
Egbert Figgemeier, Forschungszentrum Jülich, Germany
- **Smart rethinking of e-mobility**  
Patrizia Ilda Valentini, Renault Austria
- **E-mobility in urban apartment buildings - the URCHARGE project**  
Andreas Reinhardt, Linz AG, Austria
- **Success factors for electric vehicles in urban areas**  
Amela Ajanovic, Technische Universität Wien, Austria
- **Converting to an electric fleet**  
Jürgen Rennar, SAP, Germany
- **Fleets go electric**  
Axel Schäfer, Bundesverband Fuhrparkmanagement, Germany

**12.30 Conference end**



# Innovation Workshops

25 June 2021  
Online only

6 Workshops

Green Finance • Buildings •  
Technologies



25 June | 09.00 – 11.00

Six workshops presenting the latest results from EU funded projects in the fields of green finance, sustainable buildings, renewable energy in industry and innovative technologies

## Managing "active buildings" with Energy Performance Contracting

Organised in the context of the H2020 project AmBIENCE

- **Welcome and introduction**  
Jesse Glicker, BPIE, Belgium
- **The Active Building Energy Performance Contract (AEPC) concept, methodology and tool**  
Nilufar Neyestani, INESC TEC, Portugal
- **Value creation of the AEPC business model: actors and interactions**  
Lieven Vanstraelen, VITO, Belgium
- **Key lessons learned from pilot tests in Belgium and Portugal**  
Ricardo Manuel Santos, EDP CNET, Portugal  
Christophe Szypt, Engie Solutions, Belgium

**Chairperson:** Jesse Glicker, BPIE, Belgium

## Deep renovation of residential buildings made easy (4RinEU)

Organised in the context of the H2020 project 4RinEU

- **The 4RinEU building renovation approach**  
Roberto Lollini, Eurac Research, Italy
- **Innovative solutions for deep energy renovation**  
Riccardo Pinotti, Eurac Research, Italy
- **A rating tool to support decision making**  
Adrian Werner, SINTEF, Norway
- **Interactive demonstration of the 4RinEU tool**  
Adrian Werner, SINTEF, Norway
- **Discussion on further tool development**
- **Examples of real-life applications:**
  - **Multi-family building in Norway**  
Kari Thunshelle, SINTEF, Norway
  - **Nursing home in the Netherlands**  
Chiel Boonstra, Trecodome, NL

**Chairperson:** Roberto Lollini, Eurac Research, Italy

**25 June | 11.30 – 13.30**

## Public-backed financing schemes to leverage energy efficiency investments

Organised in the context of the H2020 project CitizEE

- **CitizEE and the implications of the EU Renovation Wave: a regulatory overview**  
Maximilian Wimmer, SUER, Germany
- **CitizEE investment platforms and financing schemes**
  - **Using public financing instruments to leverage private finance**  
Jean-François Marchand, ENERGINVEST, Belgium
  - **Structured financial solutions using public and private funds**  
Miguel Casas, ENERGINVEST, Belgium
- **Citizen financing schemes: status of pilot countries**
  - **Lithuania: lending arrangement & crowdfunding for PV**  
Renata Adomaviciene / Asta Gladkauskiene, VIPA
  - **Belgium: co-financing EPC for deep renovation in the education sector**  
Miguel Casas, ENERGINVEST
  - **Portugal: Loan Fund & crowdfunding for the community building sector**  
Luis Couto, GO PARITY
  - **Croatia: lending arrangement & crowdfunding for PV**  
Velimir Segon, REGEA
- **Discussion and conclusions**

## Innovative pay-for-performance (P4P) business models for building renovation

Organised in the context of the H2020 project SENSEI

**Take part in the development of future EPC/ESCO models**

- **The SENSEI Business Model**  
Sotiris Papadelis, HEBES, Greece
  - **Codesigning the SENSEI Dissemination Platform**  
Emil Sigbrand, DBT, Denmark
  - **Interactive session on platform development**  
Sotiris Papadelis, HEBES, Greece
  - **Closing statement**  
Sotiris Papadelis, HEBES, Greece
- Chairperson:** Sotiris Papadelis, HEBES, Greece

**25 June | 14.00 – 17.00**

## Hybrid systems for industrial solar cooling

Organised in the context of the H2020 project HYCOOL

- **HYCOOL: project overview**  
Silvia Jané, Veolia Serveis Catalunya, Spain
  - **Hybrid heat pumps for industrial applications of solar cooling** Eliza Nowak, Fahrenheit, Germany
  - **Latent heat storage up to 400 °C for industrial applications** Christoph Zauner, AIT, Austria
  - **Solar steam generation for process heat & cooling** Antoni Castells/Akshay Kumbhar, Ecotherm, Austria
  - **Expert round table: industrial renewable heating & cooling programmes** Vincent Berrutto, European Commission / Pedro Dias, Solar Heat Europe / Uli Jakob, Green Chiller, Germany / Guglielmo Cioni, TVP Solar, Switzerland
- Chairperson:** Marco Calderoni, R2M Solution/RHC ETIP

## Innovative renewable solutions for residential buildings

Organised in the context of the H2020 projects HYBUILD, SCORES and GEOFIT

- **Welcome and workshop overview**  
Johann Emhofer, AIT, Austria
  - **The HYBUILD project in a nutshell**  
Miquel Morata Royes, COMSA, Spain  
Gabriel Zsembinszki, University of Lleida, Spain
  - **HYBUILD: Key project results**
    - **Advanced PCM thermal storage modules for the refrigerant cycle** Andreas Strehlow, AKG, Germany
    - **DC bus controller solution for the heat pump market**  
Nelson Koch, CSEM, Switzerland
    - **Adsorption heat exchanger with high surface area**  
Ursula Wittstadt, Fahrenheit, Germany
  - **The SCORES project in a nutshell** Erwin Giling, TNO, NL
  - **SCORES: Key project results**
    - **Heating with air heat pumps and PCM storage**  
Luis Coelho, IPS, Portugal
    - **PVT water-to-water heat pumps**  
Clement Dumont, Heliopac, France
    - **Electric battery storage**  
Julien Sarazin, Forsee Power, France
    - **Chemical looping heat storage** Pavol Bodis, TNO, NL
    - **Building energy management system**  
Hans Hennig, Siemens, Germany
  - **The GEOFIT project in a nutshell**  
Thomas Messervey, R2M Solution, Italy
  - **GEOFIT: Key project results**
    - **Designing geothermal heating and cooling projects**  
Henk Witte, Groenholland, NL
    - **Challenges for heat pumps and innovative components** Michael Haas, Ochsner, Austria
    - **Optimal heating and cooling technologies**  
Qian Wang, Uponor, Finland
  - **Discussion and conclusion**
- Chairperson:** Johann Emhofer, AIT, Austria

# Young Biomass Researchers Conference

21 June 2021  
Online only

21 June | 09.00

This conference presents the work and the achievements of young biomass researchers from all over the world.

- **Opening and welcome**  
Gerhard Dell / Christiane Egger,  
OÖ Energiesparverband
- **The energy transition needs young people!**  
Theodor Zillner, Federal Ministry for Climate Action,  
Environment, Energy, Mobility, Innovation and  
Technology, Austria
- **Conversion of biomass materials to biochar through  
slow pyrolysis**  
Elif Gödekmerdan / Benginur Baştabak / Günnur  
Koçar, Ege University, Turkey
- **Review of the energy efficiency of Fischer-Tropsch  
fuels**  
Anne van den Oever, Vrije Universiteit Brussel,  
Belgium
- **A novel horizontal microalgal photobioreactor:  
design and performance**  
Atenea Berumen-Solórzano, University of Glasgow,  
United Kingdom
- **Lifecycle GHG emissions from hydrothermal  
liquefaction of algae**  
Pratham Arora, Indian Institute of Technology  
Roorkee, India
- **Valorising grape stalks: A biorefinery approach**  
Sevim Özgül / Pinar Büyük Taban / Ahmet Eryaşar /  
Günnur Koçar, Ege University, Turkey
- **Solid rhenium catalysts for converting mucic acid to  
renewable adipic acid**  
Florian M. Harth / Brigita Hočevár / Miha Grilc,  
National Institute of Chemistry, Slovenia
- **Catalytic pyrolysis of lignin in the presence of  
different catalysts**  
Richard Nadányi, Slovak University of Technology in  
Bratislava, Slovakia



- **Upgrading biomass-derived furfural to industrially important compounds**  
Aleksa Kojčinović / Miha Grilc, National Institute of Chemistry, Slovenia
  - **Key operational parameters for fermentative chain elongation**  
Laura Rovira Alsina / Meritxell Romans Casas, University of Girona, Spain
  - **Catalytic conversion of 5-HMF using nickel as active transition metal**  
Brett Pomeroy / Miha Grilc, National Institute of Chemistry, Slovenia
  - **Solid biofuel markets in the EU - development and current status**  
Niels Kirstein, DBFZ - German Biomass Research Centre, Germany
  - **Design and performance of a thermoelectric cogeneration cooking stove**  
Lionel Faysal Koska Mbraogue / Guy Bertrand Tchaya / Achille Nchamo Tchouambou, Maroua National Higher Polytechnic School, Cameroon
  - **Efficient power generation from waste heat of biomass cookstoves**  
Oscar Ivanov Flores Gaitán / Diego Alejandro Quan Reyes / Avishek Goel, University Galileo / Delft University of Technology, Guatemala / The Netherlands
  - **Production, distribution and acceptability of biomass briquettes**  
David Kisakye, Global Green Growth Institute, Uganda
  - **Bioenergy and food self-sufficiency: Can we have both?**  
Ehsan Tavakoli Hashjini / José Luis Vicente-Vicente, Leibniz Centre for Agricultural Landscape Research, Germany
- Chairperson:**  
Lukas Kranzl, Technische Universität Wien, Austria



# Young Energy Efficiency Researchers Conference

21 June 2021  
Online only



21 June | 14.00

This conference presents the work and the achievements of young energy efficiency researchers from all over the world.

- **Opening and welcome**  
Gerhard Dell / Christiane Egger, OÖ Energiesparverband
- **Case Study Analysis: Observed effects of ISO 50001 on energy-intense industry**  
Douglas Nelson, Clemson University, USA
- **Carbon Contracts for Difference: an economic analysis for low carbon steel production**  
Tobias Lechtenböhmer, University of Cologne / Wuppertal Institute, Germany
- **Resource efficiency decision-making tools for industry**  
Ana Morgado, University of Cambridge, UK
- **A social values-based methodology for peer-to-peer energy sharing systems**  
Lurian Pires Klein, University of Coimbra, Portugal
- **The role of energy efficiency and demand-response in renewable electricity systems**  
Géremi Dranka, University of Minho, Portugal





- **Potential for demand response programmes under high penetration of electric vehicles**  
Paseka Mabina, Council for Scientific and Industrial Research, South Africa
  - **Comparative analysis of electricity market prices based on forecasting models**  
Nikhilkumar Poshya / Mustafa Abunofal, University of Freiburg, Germany
  - **Drivers of the economic feasibility of building renovation ("Nul op de Meter")**  
Srinivasan Gopalan, Ogni Esco, India
  - **Reducing energy demand in multi-family nZEBs with passive approaches**  
Essam Elnagar / Benjamin Köhler, University of Liege / Fraunhofer ISE, Belgium / Germany
  - **Data-driven estimation of demand flexibility in a commercial building** Mattia Barbero / Victoria Rebillas-Loredo / Roger Valdés / Cristina Corchero García, Catalonia Institute for Energy Research / Universitat Politècnica de Catalunya, Spain
  - **Willingness-to-pay for energy efficiency in rental markets - A tenant's perspective**  
Ines Stelk / Steven März / Franziska Stelzer, University of Wuppertal / Wuppertal Institute, Germany
  - **Evaluating collective heat/cold distribution systems with decentralised booster heat pumps**  
Stef Jacobs, University of Antwerp, Belgium
  - **Serial renovation as key to accelerating home renovation and a green recovery**  
Janne Rieke Boll, Buildings Performance Institute Europe, Germany
  - **Enhancing the performance of building-integrated PV with phase change materials**  
Johannes Greß / Andreas Stephan / Stephan Weismann / Bastian Büttner, Bavarian Center for Applied Energy Research (ZAE), Germany
  - **COVID-19 & the renewable energy transition in Africa: Challenges and opportunities**  
Jeremiah Thoronka, African Leadership University, Rwanda
  - **Creation of a photo-thermal carbon fibre reinforced polymer**  
Christos Mytafides / George Karalis / Nektaria Barkoula, University of Ioannina, Greece
  - **Solar chimney power plants: environmental benefits and energy efficiency**  
Kanti Kafle, Gandaki Engineering and Environmental Solutions, Nepal
  - **Novel wind turbine design to improve wind farm efficiency**  
Emilia Chojkiewicz, Duke University / EIT InnoEnergy, USA / Belgium
- Chairperson:** Gerald Steinmaurer, University of Applied Sciences Upper Austria



## Upper Austria - a leader in the clean energy transition

Upper Austria, one of Austria's nine regions, is a leader in the clean energy transition, making the region an ideal location for this conference. Through significant increases in energy efficiency and renewable energy, greenhouse gas emissions from buildings were reduced by 39 % in 10 years.

60 % of all space heating and 31 % of the primary energy in Upper Austria already come from renewables. Over 2 billion Euro are invested annually in the energy transition.

- 31 % of the primary energy is supplied by renewables
- 39 % reduction of greenhouse gas emissions in the buildings sector in the last decade
- 2.3 billion Euro invested annually in renewable energies and energy efficiency

[www.energyleaders.eu](http://www.energyleaders.eu)

## The conference organiser OÖ Energiesparverband

The OÖ Energiesparverband (ESV) is the energy agency of Upper Austria. The agency, which was established by the regional government, drives the energy transition by promoting energy efficiency, renewables and innovative energy technologies.

It provides comprehensive services to households, businesses of all sizes and municipalities. It also supports energy technology companies in the context of the Cleantech-Cluster.



**ENERGY  
LEADERS  
UPPER AUSTRIA**

## The audience – the whole energy transition sector!

A wide range of business actors engaged in the energy transition:

- technology and equipment companies, energy companies, service providers, planners, developers, financing community etc.
- the sustainable energy research community
- representatives from public bodies (e.g. EU institutions, national, regional and local governments, energy agencies)

**The World Sustainable Energy Days attract over 600 experts from over 60 countries!**

## Practical information

### Hybrid Event:

- Online participation from anywhere in the world
- On-site participation: following COVID rules in place at the time of the event, registered participants will receive detailed guidance prior to the event. On-site conference days in Wels/Austria will be 22 - 24 June.

### Conference venue

Stadthalle Wels, Pollheimerstrasse 1, 4600 Wels, Austria

### Conference fees

All fees include conference documentation.

All fees plus 10 % VAT

- 70 Euro for all WSED events (online and presence)
- 30 Euro for the European Energy Efficiency Conference, 23 - 25 June (online and presence)
- 20 Euro each for the conferences: Policy, 23 June, Industry, 23 June, E-Mobility, 24 June (online and presence)
- Free participation for the Young Energy Efficiency Researchers Conference and the Innovation Workshops (online)
- Students can apply for free participation to [office@esv.or.at](mailto:office@esv.or.at)

### Conference languages

Simultaneous translation in English and German



# World Sustainable Energy Days 2021

21 - 25 June 2021  
Wels, Austria

600 participants  
60 countries  
6 conferences



## Conference office

OÖ Energiesparverband  
Landstrasse 45, 4020 Linz, Austria  
Tel. +43/732/7720-14386  
office@esv.or.at, www.esv-en.at,  
www.wsed.at

## Registration

Online at [www.wsed.at](http://www.wsed.at)

## How to reach Wels?

- by railway: direct connections from Vienna and Vienna airport, Linz, Salzburg, Munich, Paris, Brussels, etc.
- by road: A1 and A25 motorways
- by air: airports in Linz (17 km from Wels), Vienna (222 km), Salzburg (110 km), Munich (247 km)



[f](#) [t](#) [in](#) #WSED2021

[WWW.WSED.AT](http://WWW.WSED.AT)



Federal Ministry  
Republic of Austria  
Climate Action, Environment,  
Energy, Mobility,  
Innovation and Technology

