



Report of the European Sustainable Energy Week 2018



Programme 05 June 2018

CHARLEMAGNE			RESIDENCE PALACE			RESIDENCE PALACE		
De Gasperi	Mansholt	Jenkins	Salle Polak	Salle Maelbeek	Salle Passage	Energy Fair	Energy Talks	
08:30								
09:00	Opening Session							
10:30	Awards Ceremony							
11:30								
12:00	Debate with Ambassadors							
12:30								
14:00	Innovation for a clean energy transition <i>United Nations Industrial Development Organization, AlcoaMetal Specialty Chemicals, RED Heat-to-Power project, CEP – Correlation of European Paper Industries</i>	Renewable energy in transport: ELFORES – European Forum for Renewable Energy Sources, Renewable Energy Policy Network for the 21st Century (REN21), Natural Gas Gas Vehicle Association – NGVA Europe	Sustainable energy and digital solutions for financial inclusion and job creation in developing countries <i>European Commission</i>	The architects' contribution to the clean energy transition <i>European Commission</i>	Active consumer – vulnerable consumer <i>ENTSO-E, National Energy Action</i>	The need for innovative financing for first of a kind low carbon fuel plants <i>European Commission</i>	<p>EF 01 The EU-MERC project, example of energy efficiency financing for first of a kind low carbon fuel plants <i>European Commission</i></p> <p>EF 02 Visualizing energy photo exhibition - REVOLVE</p> <p>EF 03 ENTROPY: addressing energy efficiency in buildings - University of Murcia</p> <p>EF 04 Stability, security and automation towards 100% renewables - RESERVE, SUCCESS & SOGNO</p> <p>EF 05 How renewable ethanol can drive clean mobility in the EU - ePURE</p> <p>EF 06 Decarbonising port business today - Dual ports</p> <p>EF 07 CESBA Alps innovative approach and assessment of the sustainability of territories - CESBA Alps</p> <p>EF 08 Marketplace of heating and cooling opportunities - ICLEI Local Governments for Sustainability</p> <p>EF 09 Smart solutions for urban districts - Smarter together</p> <p>EF 10 SMART-UP smart metering and vulnerable consumers - SMART-UP consortium</p>	<p>How renewable ethanol can drive clean mobility in the EU - ePURE 14:00</p> <p>Wireless Power Transfer solutions for energy efficient furnaces and industrial applications - NWE 14:30</p> <p>Energy targets: engaging with small giants - Association European Energy Award 15:00</p> <p>Energy StartUp Europe Awards 2017 - Innova 15:30</p> <p>Developing the low-carbon potential of commercial ports - AGHD Haven Oostende (Dual Ports) 16:00</p> <p>Citizen-driven circular economy in buildings - Homegrade 17:00</p>
15:30								
16:00	Energy transition in action: EU cities partnership and urban innovative projects <i>European Commission, Urban Innovative Actions (UIA)</i>	SET Plan implementation plans from a joint vision into investment <i>European Commission</i>	Paving the way for an ambitious uptake of e-mobility in the EU <i>berchok, Green IT Amsterdam, smartEN</i>	Energy Communities, pathway for the citizens leading a decentralised transition to energy democracy <i>RESCOOP, World Future Council, WP Renewable Energy</i>	Energy efficient products and market surveillance strengthening the internal market, achieving EU's energy efficiency goals <i>PROSAFE, Coolproducts campaign</i>	Lessons from the ground: what ticks with consumers on renewables? <i>BEUC – The European Consumer Organisation</i>		

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De Gasperi	Mansholt	Jenkins	Salle Polak	Salle Maelbeek	Salle Passage	Energy Fair	Energy Talks	
08:30								
09:00	Europe's vision for the energy system of the future <i>ETP-SNET/ENTSO-E/ELI, euelctric, Association of Energy Bodies, HYER – Hydrogen, Fuel cells and electro-mobility in European regions, Hincio, Renewables Grid Initiative (RGI), Henrich Ball Foundation EU office, Red District – RED</i>	Energy storage and sectoral integration <i>European Commission</i>	Energy poverty: inclusive clean energy transition and best practice <i>European Commission</i>	Smart finance to boost healthy, comfortable and accessible buildings <i>European Commission</i>	Electricity and gas: married forever or happy single? <i>Europe, Centre on Regulation in Europe</i>	Innovative technologies and regulatory schemes accelerating islands' decarbonisation <i>Network of Sustainable Greek Islands (ISAFI), Directorate of Energy and Climate Change (Baleas: Islands Government, Spain), Guatemal Regions Energy Network</i>	<p>EF 01 Energy StartUp Europe Awards - Innova</p> <p>EF 02 ADVANCEFUEL: removing barriers to sustainable transport fuels - GreenVote Europe</p> <p>EF 03 ICTFOOTPRINT: Green ICT – in practice - ICTFOOTPRINT.eu</p> <p>EF 04 Energyefficiency and the sustainable urban benefit - Green with IT eV</p> <p>EF 05 Sector coupling and the development of heating and cooling in the energy transition - EQN Energioslinga</p> <p>EF 06 From SmartH2O to enCOMPASS: stimulating citizen engagement for sustainable water and energy consumption - European Institute for Participatory Media</p> <p>EF 07 TOGETHER for energy efficiency: an integrated approach to energy saving in public buildings - Association of Municipalities Polish Network Energy Cities</p> <p>EF 08 The energy efficiency toolkit for energy communities - RECOOP Plus</p> <p>EF 09 Enabling energy efficiency in EU buildings - BUILD UP</p> <p>EF 10 Chemistry Can: facilitating the transition to a sustainable society - CEFIC – The European Chemical Industry Council</p>	<p>Energy morning - Meditation & light yoga 08:30</p> <p>SLAM: the advanced smart meter of NOBEL GRID H2020 project - ETRA 09:00</p> <p>How can seasonal climate forecasts help your business? - WEMC 09:30</p> <p>SMART-UP: smart metering and vulnerable consumers - SMART-UP consortium 10:00</p> <p>Europe - Africa: towards a strong partnership in Energy - EIT InnoEnergy 11:00</p> <p>The Triple-A approach: inspiring home owners to be more energy efficient - City of Rotterdam 11:30</p> <p>Supporting regions in the transition to a low-carbon economy - Intereg Europe Policy Learning Platform 12:00</p>
10:30								
11:00	Battienes' role in energy transition <i>European Commission</i>	Deep energy renovation <i>European Commission</i>	Watts in the water: advances in blue energy <i>European Commission</i>	Scaling up energy efficiency investments: lessons learned through different sustainable financing instruments <i>The World Bank, European Energy Efficiency Fund – eeffus, Global New Energy Finance (GNE Finance)</i>	Breaking down the barriers between local action and European policies <i>RUINER, Aul municipality, Regione Piemonte</i>	EU opportunities for the energy transition in the Mediterranean and the GCC regions <i>MEDENER - Mediterranean Association of National Agencies for Energy Management, EU-GCC Clean Energy Technology Network</i>	<p>10 project pitches in front of a panel of experts</p>	
12:30								
14:00	Clean energy transition on EU islands and beyond <i>European Commission</i>	Technology pathways: what will the energy system of 2050 look like and what does it mean for R&D priorities? <i>European Commission</i>	How do new technologies help communities engage and understand the local value of energy infrastructure projects <i>European Commission</i>	Energy plans and roadmaps for sustainable future <i>Tolu Regional Energy Agency, Ewaria, BPM SA</i>	Solidarity and energy communities, how community energy alleviates energy poverty both rural and urban <i>Friends of the Earth Europe, International Network for Sustainable Energy (INFORSE) – Europe Alliance for Rural Electrification (ARE)</i>	From here to there – the path to follow leading on national long-term renovation strategies to upgrade our buildings <i>EuroACE, EuroNet, JIN Climate and Sustainability/IECO, Future Climate</i>	<p>EF 01 Energy agencies leading the clean energy transition - ManagEnergy Service</p> <p>EF 02 WiseGRID: solutions for European SmartGrid - RESCOOP & ETRA I+D</p> <p>EF 03 NOBEL GRID H2020 project: new business models for smart grids - ETRA</p> <p>EF 04 Plan today, save tomorrow – the change begins locally - PLANHEAT and Sdkip2m project</p> <p>EF 05 Passive house: the nZEB that delivers - The International Passive House Association</p> <p>EF 06 SISMA – supporting innovative schemes in the MED area - SISMA</p> <p>EF 07 BRIDGE to smarter grids and better energy storage - TECHNOPY</p> <p>EF 08 The European Technology and Innovation Platform - ETP-SNET</p> <p>EF 09 Get your best energy technology ideas funded - EUROGA2020</p> <p>EF 10 TIDAL WAVE – offshore renewable energy in the max - H2020 Ocean Energy projects</p>	
15:30								
16:00	Digitalisation of the energy sector – challenges and benefits for consumers <i>European Commission</i>	EU and non EU Islands: showcasing best practice from around the world <i>European Commission</i>	Emission Trading Scheme in support of low-carbon transition of the EU energy system and industry <i>European Commission</i>	Energy efficiency management in industry and SMEs leading to more implementation of measures <i>CONNECTION Sector Forum on Energy Management (SEEM), Ecofly, a Navipart company, Province of Groningen, The Netherlands, CO-net BV</i>	The contribution of energy smart solutions to social cohesion in cities <i>ICLEI Architects' Council of Europe (ACE), Urban Innovation Vienna, Energy Center</i>		<p>Setting up a marine renewable energy farm: many skills at stake - Mercator Ocean 16:00</p> <p>Heat Pump & Solar Keymark: the need for quality in a growing market - European Heat Pump Association 16:30</p> <p>Building 4 People: healthy and sustainable buildings for all Europeans - Buildings 2030 Lighting Europe 17:00</p>	
17:30								
17:45	Corporate sourcing of renewables <i>European Commission</i>	Subnational governments working in partnership to deliver the clean energy transition <i>Convention of Scottish Local Authorities (COSLA), Catalan Energy Institute (ICREN) – Government of Catalonia, Scottish Government (EU Office)</i>	Energy storytelling: why stories matter to scientists and policy-makers in energy policy <i>European Commission</i>	ManagEnergy Talk: leading the energy transition – local action, large impacts <i>ManagEnergy</i>	Limiting methane emissions in the energy sector <i>European Commission</i>			

- Transformation of the energy system
- Energy islands
- Smart cities & regional development
- Clean energy finance
- Digitalisation
- Energy storage
- Renewables
- Energy efficiency
- Consumers

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08:30						Energy morning - Meditation & light yoga 08:30		
09:00	Leadership in renewables: how will European technologies take us there <i>European Commission</i>	Going CO2 negative through CCUS: current solutions and future perspectives <i>Energy Technologies Europe, Confederation of Norwegian Enterprise (NHO), Energy Watch Group</i>	Smart specialisation and interregional cooperation in energy: from planning to action <i>European Commission</i>	The value of people power: the case for decentralised solar and demand-side flexibility <i>REScoop, ESMG</i>	A fair transition? How can the EU post-2020 budget support local energy leadership? <i>Climate Alliance, Energy Cities</i>	Fresh tactics in the Western Balkans for activating energy efficiency investments in the residential sector <i>European Commission, European Bank for Reconstruction and Development (EBRD)</i>	<p>EF 01 To-Syn-Fuel: turning sewage sludge into fuels and hydrogen - <i>ETA Florence Renewable Energies</i></p> <p>EF 02 THE4BEES: energy is consumed by people not buildings - <i>CSI</i></p> <p>EF 03 ENERGY @ SCHOOL: empowering teachers and children to save energy - <i>City of Kolovrac</i></p> <p>EF 04 ECCO creates new energy community cooperatives - <i>InnovatEStaurpunt</i></p> <p>EF 05 Flexibility and system solutions for integrating 50% renewables by 2030 - <i>EU-SysFlex</i></p> <p>EF 06 COLD ENERGY: improving efficiency in refrigeration - <i>TURBOALGOR</i></p> <p>EF 07 Developing innovative heating, ventilation and air-conditioning technology - <i>ADWA</i></p> <p>EF 08 EMBERS: promoting clean tech in transport - <i>Ubwhere</i></p> <p>EF 09 A smarter way to renovate residential districts - <i>R2OTIES Project</i></p> <p>EF 10 Sustainable energy for coastal regions - <i>Cluster MEDGreen</i></p>	<p>Consumer stock ownership: an innovative and inclusive community energy model - <i>Kelso-Professorship, European - Kelso-Professorship, European University Viadrina</i></p> <p>The Deep Geothermal Implementation Plan - <i>COSiMG</i></p> <p>Paving and its influence on energy efficiency in transport - <i>European Cyclists' Federation</i></p> <p>What does 'interdisciplinary education, training and research' mean in practice for European universities? - <i>EUA Energy and Environment Platform</i></p> <p>Powering Europe's sustainable future through higher octane fuels - <i>European Fuel Oxygenates Association</i></p> <p>Fuels without the fossil: converting biomass to a renewable petrol and diesel equivalent - <i>WRC Europe & ETA Florence</i></p>
10:30								
11:00	Circular economy - energy and more <i>European Commission</i>	Hydrogen and fuel cells greening European industry <i>European Commission, The Fuel Cells and Hydrogen Joint Undertaking (FCH JU)</i>	Energy Performance Contracts to foster energy efficiency in the public sector - how to turn difficulties into success? <i>awesco, Factor4</i>	Smart grids, renewables and storage - leading the transition towards a new European energy system <i>EASE, Innogy, European Regions Research and Innovation</i>	Coal regions in transition - investing in renewables <i>European Commission</i>	Shaping an integrated market with hot findings and cool solutions <i>Aalborg University, H-Debiet (KU Leuven), The National Fund for Environmental Protection and Water Management, Union of Entrepreneurs and Employers</i>	<p>Transforming energy demand through digital innovation: energy feedback and beyond - <i>University of Edinburgh</i></p> <p>Policies for the energy transition and socio-economic benefits - <i>IRENA, IEA, REN21</i></p> <p>LIFE-DIADEME: a novel sustainable smart lighting system for the smart city - <i>LIFE-DIADEME</i></p> <p>Renewable liquid for heating: perspectives and concrete applications - <i>EuroFuel</i></p> <p>Can Energy Performance Certificates promote deep energy renovations? Practical answer: ENERFUND tool - <i>Valencia Institute of Building</i></p> <p>Horizon prizes for low-carbon hospital and Fuel from the Sun - <i>DG Research and Innovation</i></p>	
12:30								
14:00	Heating and cooling in Europe - how can we decarbonise the sector by 2050 and fulfil the Paris agreement? <i>European Commission</i>	The changing landscape of renewable energy financing and support <i>European Bank for Reconstruction and Development (EBRD), CEER (Council of European Energy Regulators)</i>	Big data, platforms and reference architecture for smart energy services of the future <i>European Commission</i>	How to make your City more liveable and climate friendly? The Smart Cities Information System can help you, by sharing knowledge and stories from Smart Cities projects worth replicating <i>European Commission, Smart Cities Information System (SCIS)</i>	The Mediterranean at the forefront of the energy transition <i>European Commission</i>	Learning from experience and involving energy-citizens, two ways of improving energy-related policymaking <i>Austrian Energy Agency, Fundación Tecnalia Research and Innovation - Representing the EU-funded ECHOES project</i>		
15:30								
16:00	CLEAN ENERGY 4.0: designing a new era for all Europeans together <i>ORGALINE - European Engineering Industries Association, CEER (Council of European Energy Regulators), Centre on Regulation in Europe, CEEED</i>	Unlocking the potential of energy efficiency for industry <i>European Commission</i>	Decarbonisation of the heating and cooling sector: coupling efficiency and renewables with security of heat supply <i>Mining and Geological Survey of Hungary (MGP-SC), European Federation of Geologists, IMEL - Institute for Infrastructure, Environment and Innovation, Energy Technologies Europe, ESWE7 - European Suppliers of Waste-to-Energy Technology</i>	Energy Union, Smart Cities and Covenant of Mayors: matching cities and finance <i>European Commission, BP-SCC, Marketplace</i>	The impact of the electrification of bus fleets on the electricity system <i>European Commission</i>	ITER and fusion: towards a new source of energy on Earth <i>European Commission</i>		

The summaries of the conferences were done by Celine Seince (green frame), Lou Ackermann (blue frame) and Adrian Querejazu (red frame).

11:00 to 12:30

Breaking down the barriers between local action and European policies

– RURENER, Municipality of Avia, Region Piemonte

Short introduction of the speakers and their structures:

- **Josep Subirana Jové**, Councillor for the environment, Municipality of Avia, Catalunya
- **Bernard Chaverot**, Association of Communities Les Monts du Lyonnais, France
- **Patrizia Nazio**, CESBA Alps project manager Regione Piemonte, Italy
- **Julije Domac**, President of the FEDARENE, Europe

What does it mean to conduct the energy transition for rural territories in Europe and how to change scale?

- To involve all stakeholders, including fellow representatives, citizens and private companies. It implies the definition of a local energy strategy
- To find the financial means to implement the actions
- To be aware of the technical, social, economic innovations best adapted to the local context
- Simple actions can be implemented at the local level with little means and have large impacts but to change scale the sharing of good practices in Europe is necessary
- The energy transition used to be a theory but it is not only a theory anymore, it is getting real and real means must be allocated at the local level to make it happen. “Money is concrete and concrete works at the local level”.

What are the barriers to overcome to reinforce the dialogue between local action and EU institutions?

- Economic challenge: make investment easier and quicker, create a platform to mutualize and reach critical mass more easily in rural areas
- Political challenge: initiate a multi-level governance, increase the coherence between the guidelines at the regional, national and European levels to encourage and legitimate local action. Include energy in the political agenda at all levels
- Administrative challenge: make easier the administrative procedures (less administrative layers) to facilitate the access to European programmes and funds for small communities. Harmonize procedures at the regional, national and EU levels.
- Visibility challenge: communicate on local action at EU level to reconnect EU policies and local needs and potentials. Role of the regions to facilitate the link between local and global levels
- Flexibility challenge: European policies and programme need to be more flexible to adapt to the diversity of contexts of rural territories in Europe

Third question: What is the role of the EU and of local communities in the coming years?

- Monitor and evaluate the impacts of local projects and communicate to the EU.
- Develop European projects to define tools to “close the circle” and link local action to global planning (CESBA Alps)
- Fund European cooperation and the exchange of experiences and transfer of knowledge to improve local capacity building
- Develop state aid rules and national tendering to support local initiatives and resources
- Harmonize procedures at the national and European levels to facilitate the link with the local level
- Build a European Rural Agenda to ensure the recognition of the needs and potentials of rural areas in Europe, and mobilize the synergies between urban and rural areas

Conclusion: rural areas are getting more recognition from the EU but they remain on the back stage because of the diversity of contexts that make it difficult to address rural development in a single manner. A better-informed dialogue can lead to more adapted tools to reach the common goals.



14:00 to 15:30

Solidarity and energy communities, how community energy alleviates rural and urban energy poverty

– Friends of the Earth Europe, International Network for Sustainable Energy (INFORSE)-Europe, Alliance for Rural Electrification (ARE)

Introduction of **Jagoda Munic** (Director Friends of the Earth Europe): energy communities are playing a major role in the energy transition, they reflect the social dimension of energy challenges.

- **Lynda Mitchell** (CEO AliEnergy): Scotland faces crucial energy challenges, linked to environmental (weather), social (low incomes, dispersed settlements), technical (grid constraints) and economic (energy poverty) issues. They also have potentials (innovation capacity, renewable resources, solidarity). The response of energy cooperatives in Scotland is illustrated by three examples:
 - o The Isle of Mull (Community owned) an hydro plant generates electricity to the grid, money goes to the Waterfall Fund to support local networks for people not connected to the grid.
 - o The Isle of Gigha: first community-owned grid-connected windfarm. Recent addition of vanadium redox flow battery energy storage system allows storage of excess energy and release when the wind drops and the capacity on the grid becomes available.
 - o The Isle of Eigg: Community owned Island with no connection to mainland electricity grid. They developed a standalone mini grid with wind, hydro, solar power, woodfuel and solar water heating, battery storage that allows the monitoring of energy flows (connected to a red/green light system). The community heating is free at times of excess.

These examples show how the community took ownership of the energy system and funded its own local solutions to provide renewable and affordable energy for local population (hydropower, wind plants, storage solutions). Some challenges remain, a big one is mobility.

- **Gunnar Boye Olesen** (coordinator INFORSE-Europe): success story in Denmark where 63% of heating is delivered by consumers cooperatives and municipally owned non-profit organizations and 60% comes from renewable energy. The new development is cooperative wind power that has a large potential. Barriers identified are national and European legislation (competition, end of preferential rule for cooperatives in 1998). The economic model of cooperatives is a good solution as they can manage large investments and increase community power and involvement.
- **Toni Vidan** (EESC and INFORSE Board Member): Citizens are now part of the European energy dialogue, “community energy” are recognized in official texts. The obstacles are (1) political will, (2) limited capacity of local government, (3) lack of self-organization of communities. The raises up the question of how to build an enabling framework for the civil society?
- **David Lecoque** (Policy & Business Dvpt manager, Alliance for Rural Electrification): ARE developed the LOGIC project to address “energy remoteness” in the EU’s peripheral areas and islands where there is a strong reliance on expensive fossil fuel imports. The goal is to bring cheaper, cleaner and more reliable energy to remoted areas through and a multi-stakeholders approach (local ownership, local policy), and to develop a standardized model for renewables-based decentral hybrid energy systems. 3 case study:
 - o Texel Island (the Netherlands): Solar PV, water-level storage, small-scale batteries for waste water management installation
 - o Meckenbach (Germany): Solar PV, wind and batteries for community energy in remote areas
 - o Orkney Islands (UK): Tidal power combined with battery storage. Blue print for future projects combining tidal energy and battery storage
- **Stanislas de Herbemont** (RESCOOP): RESCOOP is the federation of European renewable energy cooperatives, they developed a project to bring energy efficiency in energy cooperatives (generally focused on renewable energy production). The RESCOOP PLUS project is focused on the deployment of tools and the exchange of experiences for energy cooperatives. The three key words for RESCOOP are saving, sobriety and solidarity. With this project RESCOOP listens to the needs of its members, the local energy cooperatives, and provides the adequate tools to respond to these needs. It is crucial for cooperatives to keep in mind the bigger picture and not focus only on one aspect of the energy transition.

14:00 to 15:30

How do new technologies help communities engage and understand the local value of energy infrastructure projects?

– European Commission

Speakers:

- **Catharina Sikow-Magny**, Head of unit networks & regional initiatives, European Commission
- **Antonella Battaglini**, Founder and chief executive officer, Renewables grid initiative
- **Timm Krägenow**, Head of European office, Public Affairs, TenneT Holding B.V.
- **Victor Charbonnier**, Political advisor grids & power markets, WindEurope
- **Tilemahos Efthimiadis**, Research economist, Joint research center

Welcome from **Catharina Sikow-Magny** who introduces PCIs (Project of Common Interest) that aim at completing EU energy infrastructure while encouraging the sharing of good practices.

- Introduction of **Antonella Battaglini** (Founder and CEO of Renewable grid initiative): We now see an association of TSOs (Transmission System Operators) and NGOs (Non-Governmental Organizations) though the European Union, but they used to be enemies. A few decades back, environmental communities or NGOs used to block projects from TSOs. After the unbundling of energy suppliers, TSOs were confronted to a need to implement more renewables, so they decided to lead the transition and develop their own role. This initiative has speeded up renewable energies in a sustainable and collaborative way.
- **Tilemahos Efthimiadis** (Research economist): Around 180 billion euros are needed in investment. Projects of Common Interests must be improved in many domains: competition, market integration, security of the grid and supply. European households seem to take energy supply for granted on the short term but they don't see the long-term vision and the energy issues that could happen. Surveys on social appreciation of security of supply have been made in some European countries. The WTP (Willingness to pay) was higher in the Netherlands than in Portugal and Estonia to guarantee reliability and affordability of the grid. Normally people tend to increase their willingness to pay because there is no real money but here the results were very low (around 10 cts/KWh). But the study showed that households generally support long-term strategies. His conclusion was that we need to find ways to increase the engagement by making issues more relatable ("Stakeholders don't always know each other").
- **Tim Krägenow** (Head of European Office, TenneT): TenneT has developed a participation platform for citizens on territorial dialogue called "SuedLink WebGIS". The goal is to implicate citizens and allow them to decide where the grid should be. For now, TenneT has made twenty-eight modifications on the grid pathway due to citizens' manifestation. Their motivations can vary: distance from their homes, noise, visual pollution...
- **Victor Charbonnier** (Political advisor grids & power markets, WindEurope): their report says that every 1000€ invested in wind in Europe ends to a 250€ gain in other sectors such as construction or steel.
- Globally there is a need of transparency on how new infrastructures are built, but also more fairness and more solidarity. Also, a need to engage more people and more communities though knowledge transfer to increase engagement and understanding.

In Conclusion:

- It's all about human beings
- It's all about process
- We need tools to help this happen

14:00 to 15:30

Energy plans and roadmaps for sustainable future

– Tartu Regional Energy Agency, Estonia, BPM S.A

Introduction of the subject: Vision, roadmap and action plan: what role and what goals?

Vision: • Indicate the development objective of the region / municipality / organization • Aim for development scenarios beyond everyday business

Roadmap: • Identify priority areas to achieve the vision • Draw the development scenarios and identify the leverage of the required actions

Action plans: • Concrete measures • Respond to what, who, how and when • Monitor the success of individual projects.

⇒ The roadmap is a tool to transform a vision into actions.

Andreas Karner, Senior consultant, ConPlusUltra Austria, puts the emphasis on the importance of for-runners in road mapping as they (1) identify, encourage, sensitize the capacities of pilot regions; (2) help countries to develop "roadmaps" for a reduced transition to carbon; and (3) engage stakeholders through its capabilities. Andreas introduces the project "Panel 2050" and how, from a regional vision, we can move to a regional roadmap and then to action plans:

- **CEESEN (Central Eastern European Sustainable Energy Network)**, platform that connects present project ideas and find cooperation opportunities and facilitates access to project information, training, tools, reports. It also is a forum to exchange experiences and start discussions on regional energy development and the transition to a low-carbon economy, to get support to develop and implement ideas for a low-carbon economy in the region. The platform identifies precursors and provides them with capacity to plan, finance and implement the transition.
- **CEESEN Mapping Template** is the starting point of the project, it provides an analysis of the current state of energy (energy and emissions balances for different sectors) and an identification of potentials, challenges and obstacles

Presentation of anecdotes that have been successful in Czech Republic (South Bohemia that in 2022 will become the pilot in energy transition buildings for the CEE region) and Hungary (the development of a positive energy plant Borsod-Abauj - Zemplen and Heves)

Bernadette Bergsma (EU Policy & Project Adviser City of Eindhoven, EU Brussels Office Netherlands): presentation of the project R4E research for training. The approach of the project is to feed the present choices and actions with a vision of the future (roadmap) in order to create an constructive environment of stakeholders and allow long-term collaboration. Steps of road mapping: (1) Define a vision (2) Invent creative solutions (3) Choose priorities (4) Find a starting point (5) Set the ambitions according to a shared vision of development (6) Develop route sheets (7) Report on the process (final project file).

Cristina Vasilescu (Project manager, Istituto per la Ricerca Sociale Italy): ENLARGE is a Standard Deviation project that aims to generate and disseminate knowledge on participatory governance with focus on sustainable energy, through a process of dialogue and exchange involving policy makers, civil society actors and practitioners.

Ioanna Giannouli (Senior consultant Business and Project Management S.A (BMP) Greece) introduces elected representatives supporting the road map approach

- In Spain, **Angel Maria Marinero** (Director of Urban Planning Policy of the Regional Government of Castilla y León): Ingredients to present a roadmap: Key partners, Creation of values, Key activities, Key resources, Social segmentation, Relationships between stakeholders (in this case the cities that take part and responsibility).
- In Greece, **Vasileios Bellis** (Director General Development Agency of Karditsa Greece): The successful implementation of an energy and spatial planning practice coordinated by a Public, Private Producers Partnership (4P) will contribute to changing the centralized approach that prevails in strategic planning issues in Greece. Local stakeholders have decided to continue the operation of Karditsa RLL by signing a Memorandum of Understanding to coordinate the actions of the strategic plan, pursue new ways to achieve their ambitions for the future energy system, maintain a platform to exchange ideas/plans on energy planning.

Conclusion: The development of roadmaps starts with ambitions, and then detects actions to finally measure impacts. It is a way to link a political vision to concrete actions and involve all stakeholders.

16:00 to 17:30

Energy efficiency/management in industry and SMEs leading to more implementation of measures

– CEN/CENELEC Sector Forum on Energy Management (SFZM), Ecofys, a Navigant company, Province of Groningen, the Netherlands, CO2netBV

Introduction of the panelists of the discussion by **Bernard Gindroz** (CEN/CENELEC Sector Forum Energy Management Chair)

- **Stijn Stanten** (CO2 Net): He works at developing innovative solutions for large scale energy efficiency and CO2 reduction projects in energy intensive industries and the energy sector via connecting the interfaces of technology, finance and business models. He raises the stake of reaching national and EU goals while ensuring the competitiveness of our industries and makes the point the energy efficiency is the foundation of competitiveness. He takes 3 examples:
 - o Heatmatrix: there is a tremendous potential market related to heat loss in industries that is a weakness today but should turn into an opportunity.
 - o SmurfitKappa: Test technical solutions to lower energy consumption ((heat pump...)) at a large scale for industrial purposes and manage internal and external energy flows. Spin-of project to save energy and create further savings (virtuous circle).
 - o Engie: Turnover towards the development of renewable energy and coherence with an internal energy efficiency policy.

Working on energy efficiency gives a better understanding of it. A challenge remains: many technologies are ready but how can we make industries adopt them?

- **Izabela Kielichowska** (Ecofys): The EU has had a conservative behavior, protecting the European market against emerging economies. But now the EU realizes that there is a need for innovation, new products/solutions (more efficient), new business models and market integration. Efficiency is not the opposite of flexibility and as the share of renewable increases, the energy systems need to be more flexible. Energy efficiency must be seen as an extra revenue just as much as energy production. The energy saved is the cheapest!
- **Nerea Ruiz Fuente** (ECOS): approach of energy efficiency through ecodesign: energy labelling can deliver almost half of the 20% decrease in energy consumption. It applies to electronics, domestic appliances, industrial processes and other domains (windows...). An ECOS project seeks to define a network compliant with energy efficiency requirements.
- **Ettore Piantoni** (CEN/CENELEC SFEM): Energy efficiency tools will create 90 million jobs, with an added value of 3.9 trillion € related to 99% of European enterprises. It is a big deal. Ettore emphasizes on the importance of standards at EU level. Investing in energy efficiency is however quite risky for SMEs and CEN/CENELEC wants to develop a de-risking process (creating value, materializing a vision and financing it). The process is an integrated framework to capture value and continuous improvement (working in silo will not optimize the value chain).
- **Felipe** (EASME): Felipe presented the opportunities to finance energy efficiency in SMEs through the H2020 programme. He takes the example of the ENERWATER project that built a methodology to assess and improve overall energy performance of waste water treatment plants, and transform it into an EU standard. A new call for proposal on capacity building programs to support energy audits (10 million €) will run until the 1st of September.

Conclusion: Energy efficiency requires that companies have other companies look into their business and most companies are quite reluctant to do it, but the savings are an important incentive. Another incentive is the international standards, by defining new standards in Asia, it impacts the EU market... And vice-versa! We should not be the last to move to energy efficiency!

16:00 to 17:30

EU and non-EU islands: showcasing the best practices from around the world

– European Commission

Speakers:

- **H.E Ahmed Siaan**, Ambassador of the Maldives
- **Anne-Charlotte Bournoville**, Head of Unit international relations and enlargement, DG Energy
- **Antoni Vicens**, Head of EU Office, Balearic Islands
- **Elizabeth Press**, Director planning and program support, IRENA
- **Philippe Jean-Pierre**, Chairman of the regional committee of innovation, Reunion Island
- **Georgios Pantoulis**, Deputy Head of unit sustainable energy and climate change, European Comm.

Islands face many constraints today and are the first territories threatened by the rising of the sea. They seem to really put efforts into taking action on fighting climate change. Their situation could be critical in a few decades, that's why, as the Fidji islands at the previous COP, they want to raise awareness on the needs to invest in clean technologies and change our way of living. They also face other constraints, such as the absence of grid linked to the continent. They have their own grid and have to bear the entire cost of operation and maintenance.

- **H.E Ahmed Siaan** (Ambassador of the Maldives): this territory isn't well known from other populations. Maldives are made of around two hundred islands, making the surface of the territory bigger than the surface of Germany, but nobody knows it. They are very implicated in lowering their emissions though different policies (waste management, renewable energies...) even if they represent a tiny percentage of the World's emissions (less than 0,1%). Since 2013 the Maldives went from 2 MW to 6 MW in renewables. They will install 7,4 MW more by the end of 2018. They have recently build a 100% renewable energy five-star resort on an island.
- **Elizabeth Press** (IRENA): SIDS stands for "Small Islands Developing States" and are a group of small island countries that tend to share similar sustainable development challenges, including small but growing populations, limited resources, remoteness, susceptibility to natural disasters, vulnerability to external shocks, excessive dependence on international trade, and fragile environments. They are a moral superpower in the climate change context and support islands' energy sector transformation to a greener and cleaner energy mix. IRENA made the observation that access to financing is a major issue for islands, that is why they need to find ways to attract foreign investment. In order to align their NDCs targets (Nationally Determined Contributions), it is important that they structure a framework for renewables in the next years.
- **Philippe Jean-Pierre** (Reunion Islands, France): The Reunion island aims to be autonomous by 2030 for electricity and by 2050 for all energies. They have launched the first Task Force for energy transition mobilized by the European Commission in order to build a roadmap and reach their objectives though a concrete strategy.

In conclusion, islands' future depends on our capacity to adapt our society by making big changes and to reduce drastically our emissions. SIDS weigh for a very small share of the global GHG emissions but still they are the most vulnerable. They are taking important decisions on their energy mix, such as the Reunion island that targets a 100% renewable electricity mix by 2030.

16:00 to 17:30

Digitalization of the energy sector – challenges and benefits for consumers

– European Commission

Cooperation between communication tools and technological systems can create new benefits for the consumers and opportunities for the industry of energy (European companies).

The connected devices are producing data and although it requires energy to process, it also brings a new opportunity to have improvements in energy efficiency systems. This is the future of energy that the EU addresses in its new Smart grid roadmap. Providing new energy products and services to consumers will be critical in the coming years. Indeed, consumers are better informed about the energy markets and are able to make use of several demands, dynamic prices as well as better manage their energy consumption and bills (e-Health, security, crowd-funding, car-sharing).

The objectives of digitalization of the energy sector are: to make the EU the leader in renewable energy, to deliver a fair deal for the consumers and to encourage actions from citizens and communities.

The appropriation of energy by consumers comes with new challenges. Renewable self-consumers can generate, store, sell and consume their own electricity either on their own or jointly in communities. It allows to save a lot of money and to reduce energy dependence to fossil fuels. Such bottom-up change has to go with top-down changes as well, especially to transform the electricity networks in smart grids. Policy makers have an important role to secure the access to clean energy, and a smarter use of energy. Policy-making processes can also benefit from more timely and sophisticated collection and publication of energy data that greater access to digital data could facilitate. For example, digital data can revolutionize an evolving process known as “data fusion”, in which datasets are created which is far more powerful than a simple sum of their parts. European countries know how to combine data for local areas about annual consumption of electricity and/or gas with information on building stocks (type of buildings, floor area, and age of buildings), energy audits, and socio-economic indicators. Access to data can change the whole organization of the energy systems and its management at the local, regional, national and European level.

Advantages: The digital tool can provide and promote sustainability, using satellites to verify gas emission for country to facilitate the tracking and offer solutions.

Dangers: Treat of cyber attacks, responsibility (if a smart grid causes a problem)? Questions remain unanswered

Benefits to digitalization in industry and power generation:

Manuel Sanchez-Jimenez (Team Leader Smart Grids, DG Energy European Commission): Today, it is possible to think about the digitalization of Europe, as new legislations have been designed to address this question. This modernization calls for more flexibility, more efficiency of the system, and a better integration of renewables. Consumers are part of the energy system and they play a role in its regulation. Through the smart grids, the generation of energy, the market, the way the consumers use the energy will be integrated to the system.

George Kamiya (International Energy Agency): Digital technologies is all around us and it’s already impacting the future. Applications have allowed the development of many collaborative economy initiatives such as Uber and made data available for anyone almost instantly. For instance, artificial intelligence helps to know real time traffic, weather... Big data analysis will be the main tool in the future to integrate unstable renewable energies like wind and solar into the grids.

Conclusion: Key drivers of the digitalization of the energy sector are data centers, analytics and connectivity.

17:45 to 19:15

ManagEnergy Talk: Leading the energy transition local action, large impacts- *ManagEnergy Talk***Speakers:****Christiane Egger**, Deputy Manager OÖ Energiesparverband, Austria, vice-president of the FEDARENE**Julien Guerrier**, Director of the Executive Agency for Small and Medium-Sized Enterprises - EASME**Rob Hopkins**, Catalyst and Storyteller, Transition Network

Christiane Egger opens the talk and introduces a European Commission initiative for local and regional energy agencies in order to increase sustainable energy investments in regions and cities in Europe.

Julien Guerrier presents the contribution of local action to the energy transition by mentioning a few examples such as:

- Deep energy Renovation Program
- Energy efficient products and market surveillance
- Sustainable energy planning at local level

Rob Hopkins introduces the Transition Movement and how bottom-up change can make a real impact. He starts by stating that it's all about imagination, where everything begins, but the problem is that there is a creativity crisis. Is it due to new technologies? People, kids have more and more free time and it impacts the morphology of the brain, the hippocampus becomes smaller. Rob Hopkins makes the session interactive, by asking people for their opinions. He shows a cup of coffee and asks the audience what it might be used for. Stimulating creativity and the broadening of the mind. What some may call "thinking out of the box". But through the presentation the goal is also to provide information on current challenges that our societies are facing; encourage networking and improve visibility of agencies contributing to climate and energy.

He puts his talk in perspective with historical facts and goes back to the development of local money Faces of remarkable people who had led initiatives for the transition. For instance, he explains the Park cities, showing images of London without the rural districts and how an ancient bank could be used. These illustrations bring back to the central topic of the discussion: imagination. Imagination and how the brain (hypothalamus) works, tendencies and possibilities, and the need to support a collective imagination in order to have innovative ideas. Bottom-up movements for the energy transition can develop real impacts at the local and global levels. Some people, the "pioneers", started with small local actions and then they became bigger and bigger until they are really important for the transition where they have been implemented (cities, rural areas) and further. Although it is complicated to assess the impact of these actions, and it's not well documented, they have a non-negligible impact (social, cultural, ecological, economic) for the cities and for the planet. And more importantly, these actions create stories, and stories are shared, they stimulate creativity and inspire the people.

Finally, he takes the example of cities that have lots of green spaces, public spaces (parks and such), but also citizens owned spaces (gardens) that are rarely counted. But if we put them all together it represents a significant surface of the cities. Again, people's action, transforming their own houses, adding some plants or growing their gardens, can have a real impact in the end. For instance, with such an approach, London could become the first National Park City.

17:45 to 19:15

Subnational governments working in partnership to deliver the clean energy transition

– *Convention of Scottish Local Authorities (COSLA), Catalan Energy Institute (ICAEN) – Government of Catalonia, Scottish Government (EU Office)*

Angela Granström (Swedish European Committee of the Regions) introduces the session and highlights the work by local and regional governments for the energy transition.

Session 1: Local level approaches:

- **Solveig Standal Skaravik** (EU advisor for climate, Oslo Region, Norway): presentation of the initiatives in the Oslo region for climate change mitigation
- **Claudia Cowie** (Team lead for Sustainability and Climate Change, Aberdeenshire Council, Scotland): top-down and bottom-up approaches. The top-down approach consists of setting goals of CO2 emissions reduction for the council and to allocate reduction targets to each director. The bottom-up approach consists of identifying actions needed to meet reduction goals and reporting and monitoring the progress to the sustainability commission. The priorities defined are: behavioral change (use less), energy efficiency and renewable energy in buildings (over 500 public buildings and social housing), reuse and recycling facilities, mobility (changing the municipal fleet and improve charging infrastructures), use of LED for public lighting and generate electricity from landfill. The renewable energies available in Aberdeenshire are mainly on/offshore windfarms, PV, small hydro, biomass and anaerobic digestors. Actions and strategies must be coherent to implement a real change at the local level.

Session 2: Devolved Government Approaches:

- **Maria-Luisa Marsal Llacuna** (Catalan Institute for Energy, Government of Catalonia): Maria-Luisa develops the use of blockchain technology to overcome legislative barriers to the energy transition and promote a decentralized system. She differentiates programmable blockchain with smart contracts from public and private centralized “blockchains” (that are not real blockchains). The blockchain technology allows to have off-grid systems and encourages circular economy (closed loop). In Spain, it is not possible to sell back the surplus of renewable energy produced but through blockchain, the project by-passes this barrier, allowing the sharing of energy with existing buildings (dual-grid) or new buildings (micro-grid). The technology appears as a way to solve energy poverty and last mile challenge as it absorbs users struggling with their bills in a circular decentralized system. The project combines on-chain, off-grid and communities.
- **Katherine White** (Head of Strategy and Projects, Scottish Government): Scotland’s climate change and energy framework started to take shape in 2009 with the Climate Change Scotland Act. It set ambitious goals such as 68% of electricity coming from renewable sources and increase energy efficiency by 30% by 2032. They elaborated different scenarios to feed the pathway to 2032, including CO2 emissions decrease and use of electricity or hydrogen domination. They developed a comprehensive approach, emphasizing on partnerships with other communities (in Europe and beyond) and programmes such as the Covenant of Mayors.

Conclusion: Subnational governments are skilled to deliver the clean energy transition by working in partnership, but they need a supportive regulatory framework that the EU could provide.



9:00 to 10:30

Smart specialization and interregional cooperation in energy: from planning to action– *European Commission*

Alessandro Rainoldi (European Commission's Joint Research Centre, Directorate B – Growth and Innovation) introduces the Smart Specialization Platform on Energy (S3PEnergy) that was launched in May 2015 as a joint initiative of DG REGIO, DG ENER and JRC, with the main objective of supporting the effective uptake of the Cohesion Policy funds for energy as well as to help regions and Member States in the implementation of their smart specialization strategies (S3). The activity of the S3PEnergy has been centered on providing expertise and methodological support to all the agents engaged in energy and innovation, and in promoting mutual interregional learning activities to reduce innovation disparities. For that purpose the S3PEnergy has been deeply involved in the creation and consolidation of Partnerships in energy and energy related-related fields as instruments to articulate cooperative interests.

Bio-energy partnership, **José Ignacio Hormaeche** (general manager of the Basque energy cluster): move from industrial challenges to technology challenges to add value to industries at a competitive cost (6 pilot experimentations). The main issue is ownership of the data collected.

Smart-grid partnership, **Emmeline Allioux** (Head of EU Office representant of the Provence-Alpes-Côte d'Azur Region in Brussels): creation of a partnership to accelerate the development of smart grids through collaboration (4 pilots on renewable energy & storage, micro-grid, security). The main challenge is cyber-security of the grid.

Solar energy partnership, **Olga GARCÍA** (Regional Director General for Industry, Energy and Mines, Extremadura Regional Government): increase implementation of the cooperation mechanisms set up under the RES Directive across Europe, promote electricity exports from solar technologies from Southern to Central and Northern European countries (4 pilots projects: large-scale sustainable energy technology, research, cooperation and agro-industry).

Sustainable buildings partnership, **Joaquín VILLAR RODRÍGUEZ** (Head of internationalization and prospective, Agencia Andaluza de la Energía): Three main areas for cooperation: renewable energy integration, energy efficiency and eco-construction, bioclimatism and insulation. They are facing the challenge of a multi-level governance (top-down/EU and bottom-up/Regional approaches) and communication tools.

Conclusion: there is a need to align innovation roadmaps across European policies and territories. There is also an upcoming challenge in accompanying the implementation of innovation strategies with the appropriate methodological development and related tools, with regard namely to benchmarking, trans-national cooperation and mutual learning.

9:00 to 10:30

A fair transition? How can the EU post 2020 budget support local energy leadership?

- *Climate Alliance, Energy Cities*

Speakers:

- **Andy Deacon**, Climate Alliance
- **Markus Trilling**, Finance and subsidies policy coordinator, Climate Action Network Europe
- **Adrian Joyce**, Campaign director, Renovate Europe Campaign
- **Tine Heyse**, Mayor for Environment, climate, energy and North-South, City of Ghent, Belgium
- **Paula Abreu Marques**, Head of Unit, European Commission, DG Energy

Climate Alliance is a network of 1700 communities engaged in the cooperation between the European Union and COICA, the organization that represents the indigenous of Amazonia. They tackle climate change through a fair, nature-based, local, resource-saving and diverse approach, making it more sustainable.

- **Markus Trilling** (Climate Action Network Europe): The EU budget is a seven-year budget and represents around 1% of the EU GDP which is low. 25% of the 2021-2027 budget will be allocated to climate action, it represents 320 billion euros. This new budget
- **Tine Heyse** (Mayor of Ghent, Belgium): The city of Ghent is making more and more to limit its impact on the environment. It has now become a way of life for its citizens that live in a sustainable way. It has the largest low-traffic pedestrian zone in Europe and aims to create a fossil fuel free district. Soft mobility is encouraged, mainly bike though the entire city. For a few years now, they have decided to ban the use of diesel cars. They are also aware of the damages that can bring tourism, that is why hotels, museums, and public centers try to reduce their footprint by inviting tourist to fight against pollution and waste together with them.
- **Adrian Joyce** (Renovate Europe Campaign) : The RE Campaign asks to decrease of 80% the energy demand by 2050 with a base in 2005. It means full renovation work and not just small works. This campaign is apolitical because it needs time to survive change. They are already followed by 7 different political groups from extreme right to extreme left and 23 member-states. They search for coherence in Europe. There is a need of technical support to understand and use funds wisely.



11:00 to 12:30

Energy performance contracts to foster energy efficiency in the public sector – how to turn difficulties into success?

- *Eu.esco, Factor4*

Speakers:

- **Robert Pernetta**, Financial Instrument advisor, European Investment Bank
- **Theresa Griffin**, Labor MEP for NW England, European Parliament
- **Paula Rey Garcia**, Team leader energy efficiency in buildings and finance, DG Ener European Comm.
- **Oliver RAPF**, Executive Director, BPIE
- **Monica Frassoni**, President, EU-ASE
- **Volker Dragon**, Chair, EU ESCO
- **Bernard Thomas**, President, EFIEES
- **Kamila Waciega**, Director of Energy, Public Affairs Department, VEOLIA
- **Joan Vidal**, Honeywell Building Solutions
- **Javier Siguenza**, Secretary General, AMI
- **Pierre Langlois**, Chair of the Board, EVO
- **Geert Goorden**, Project Manager, Factor 4

Panel 1: *Challenges and opportunities for Energy Efficiency improvements in the EU public building stock*

- **Oliver Rapf** (BPIE): Public buildings seem to be more efficient than all buildings but there are too many data for only a few cities. He identifies different barriers to retrofitting: (1) Financial, (2) Legislative or regulatory, (3) Strategic, (4) Communication and (5) Technical. These barriers depend a lot on the country or region. In order to provide an effective and appropriate signal to the market, we need more data.
- **Theresa Griffin**: retrofitting is a win-win situation for economies. On the one hand, it provides jobs to the population, in public or private organizations, creates an economic dynamic and on the other hand countries can reach their objectives in terms of refurbishment and energy efficiency.

Panel 2: *EPCs as a solution - Benefits, barriers and recent developments to foster their uptake in the public sector*

- **Joan Vidal** (Honeywell Building Solutions): Energy Performance Contracts are energy efficiency programs for buildings, funded by the savings it generates. It deletes “cream-skimming” retrofitting which is not useful in the recent context and allows deep energy savings. ESCO stands for “Energy Service Company”. First, they are selected for a certain service, then an investment grade audit is made, then the project is implemented by the ESCO on the determined area and at the end is the guarantee phase which can last from 8 to 20 years, 25 years maximum). The benefits of ESCOs are that it pays for itself, it guarantees cost savings, it decreases vulnerability to cost impact and it increases the ability to plan budget. The potentials are a decrease of 14 MteCO₂/year, 4600M€/year of savings and 5500M€/year of jobs and growth at the European level.
- **Kamila Waciega** (VEOLIA): VEOLIA has invented the “CREM” contracts that stand for “Conception, Réalisation, Exploitation, Maintenance” (Design, production, operation, maintenance)
- **Bernard Thomas** (EFIEES): A strong importance of de-risking these mechanisms because it can remove barriers. It means using smart finance.

14:00 to 15:30

Learning from experience and involving energy citizen; two ways of improving energy-related policymaking

- Austrian Energy Agency, Fundacion Tecnalia Research and Innovation – Representing the EU-funded ECHOES project

Speakers:

- **Didier Bosseboeuf**, ADEME
- **Wolfgang Eichhammer**, Fraunhofer ISI
- **Johannes Thema**, Wuppertal Institute for Climate, environment and energy
- **Gregor Thenius**, Austrian Energy Agency
- **Christian A. Klöckner**, Norwegian University of Science and Technology
- **Thomas Pellerin Carlin**, Jacques Delors Institute
- **Frances Fahy**, National University of Ireland
- **Niall Dunphy**, School of Engineering, University College Cork
- **Siward Zomer**, ODE Decentraal

The speakers talked about different projects that are being implemented in Europe:

ADEME: *Odysee* and *MURE* are two databases that aim to spread best practices in Europe on energy efficiency indicators and policies. *Odysee* makes a decomposition analysis that is very interesting, it allows us to understand how energy efficiency really helps to decrease the energy consumption through years.

COMBI: Calculation and Operationalizing the Multiple Benefits of Energy Efficiency in Europe. It quantifies the multiple joint effects that can happen while making the energy transition. For example, refurbishing a building can reduce the energy consumption but also ameliorate the air pollution, so the health of the population, and reduce stress on the ecosystems. High energy efficiency measures are not a threat to the economy but they rather help it. <https://combi-project.eu/>

EPATEE: Evaluation into Practice to Achieve Targets for Energy Efficiency. It is a European project that aims to give EU member states tools and knowledge for the better evaluation of their own energy efficiency policies. <https://epatee.eu/>

ECHOES: The objective of ECHOES is to unlock the policy potential of an integrated social science perspective on energy behavior. This includes socio-cultural, socio-economic, socio-political, and gender issues that influence individual and collective energy choices as well as social acceptance of the energy transition in Europe. Energy choices happen at three levels : individual consumers / cultural impact, energy history, practices / formal social units. <https://echoes-project.eu/>

Enable-EU project: The project focuses on citizens-oriented energy transition to a low-carbon EU energy system. It aims to define key determinants of individual and collective energy choices in three key consumption areas - transportation, heating & cooling, and electricity – and in the shift to “prosumption” (users-led initiatives of decentralized energy production and trade). There is a lack of trust in public bodies and companies from citizens. High preference in car sharing for electric vehicles rather than fossil-based.

Energise-EU Network: European Network for research, good practice and innovation for sustainable energy. <http://www.energise-project.eu>

Entrust H2020: Energy system transition through stakeholder activation, education and skills development. We never define ourselves as “consumers”, we define us as man, woman, father, wife, but very rarely we put ourselves in the consumer case. Decarbonization gives a new role for citizens, we are now discovering which role. It is our role to decarbonize our way of living, the technology is just to help us do it. <http://www.entrust-h2020.eu/>

Clean energy 4.0: Designing a new era for all Europeans together

- *ORGALIME – European Engineering Industries Association, CEER, Center on Regulation in Europe, CECED*

Speakers:

- **George Kamiya**, Sustainability, technology and outlooks, IEA
 - **Annegret Groebel**, Vice President, CEER
 - **Malte Lohan**, Director, ORGALIME
 - **Aurélie Jardin**, Public Affairs and Partnerships director, Schneider Electric
 - **Claire Roumet**, Director, EnergyCities
 - **Per-Olof Grandström**, Director of energy, CERRE
 - **Frauke Thies**, Director, SmartEN
 - **Marco Signa**, Chairman Smart Living Group, APPLIA/EHI
 - **Sonja Van Renssen**, Moderator, Energy Post
- **George KAMIYA** (IEA): There has been a decrease of the costs of energy from 100\$ in 2008 to 0-30\$ in 2016. In buildings for example, everything is smart and we might decrease the energy consumption by 10% by 2030. For transport, we are now implementing smart road freight and intelligent transport. For the industry, energy decrease at the plant level, A.I, 3D printing and robotics. And last, for the supply of energy, the cost of oil and gas will decrease, there will be improved processes in coal and smart electronics. Digitalization will connect production and infrastructures all together, by bringing more flexibility and reducing costs. So now the question is about risk and how to manage it. It includes risks on:
- o Data privacy
 - o Cybersecurity + digital resilience
 - o Jobs and skills → truck drivers?
 - o ICT energy consumption
 - o Rebound effect

Conclusion: We are living a new digital era. It represents lots of opportunities but also risks for consumers and policymakers.

- **Annegret Goebel** (CEER): “3Ds” = Decarbonize at least cost, dynamic regulation, digitalization for consumers. It puts consumers at the center. New challenges for data protection (used to be for other regulation but not energy is entering the data privacy game).
- **Claire Roumet** (Energycities): Digitalization of the energy system will imply democratic decisions or choices if we want to unplug fossil fuels. We should make efforts to get supply and demand close, not as today. There is a general mistrust between consumption/production and local/national decision. We need to find ways to empower decisions. For now, in France, mayors are scared to get technical so they just don't invest in projects. When the economy is based on mainly fossil fuels, changing to renewable means a complete shift. Digitalization is a great tool to help these cities.

