



EUROPEAN COMMISSION

Directorate-General for Communications Networks, Content and Technology
Directorate-General for Energy

WORKSHOP ON

OPEN ENERGY MARKETPLACES AND THE ENABLING TECHNOLOGIES.

BEYOND SECURITY, MONETISATION AND CONNECTIVITY.

JOINTLY ORGANISED BY THE EUROPEAN COMMISSION, ALLIANCE AIOTI, ENTSO-E,
EIT INNOENERGY AND ETIP-SNET

8 March, Brussels, European Institute of Technology, Rue Guimard 7, 4th floor
Hosted by EIT InnoEnergy

Digital technologies have proven instrumental in enabling innovations across all sectors of the economy. The combination of open Internet of Things and Blockchains with new data-driven business models will create opportunities for data marketplaces.

In the energy sector, digitisation is helping keep the transmission grid stable by balancing reserves from intermittent sources like wind and solar. At the micro level, connecting objects through the Internet of Things (IoT) makes every electric device a contributor to the energy system by bundling distributed energy resources into larger ecosystems. New technologies like distributed ledger technology (DLT) or blockchains will enable new possibilities for storing and sharing data. It will allow for trading flexibility at the edge and spur the emergence of open marketplaces that open up the data silos across energy, home, comfort, security and related domains, that currently keep data limited to the control of a few entities and prevent proliferation of community-centered services (P2P) and seamless transactions using blockchains and alike.

The European Commission, namely DG CONNECT and DG ENER, organise this dedicated workshop jointly with the alliance AIOTI. The workshop will tackle opportunities for blockchain as a means to realise the energy transition, from smart energy services based on IoT for connected appliances, smart mobility, to P2P energy trading and smart utilities. It will discuss in particular the role of blockchains as an enabler for data marketplaces and trading of energy, demand response and flexibility services, and for (community-based) investments in renewables.

This event builds on previous seminars organised by the European Commission and blockchain and energy, firstly on 21 March 2018 that presented a broad overview of possible and practical (test) applications of blockchain in energy, and the workshop on the 22nd of October 2018 on OPEN MARKETPLACES TO SPUR INNOVATIVE ENERGY SERVICES. Key conclusions for follow-up, in the form of a paper, that were identified in the seminar of 22 October were:¹

¹ Full conclusions of the workshop of 22 October can be found here: https://aioti.eu/wp-content/uploads/2018/11/20181022-Summary-of-outcomes-Workshop-on-open-marketplaces-to-spur-innovative-energy-services_Final.pdf

1. Regulatory questions:
 - a. GDPR? Security?
 - b. What are the issues that require sandboxing?
 - c. Impact on Balancing Responsible Parties and roles in the electricity market;
2. Scale-up through projects & commercially
 - a. Interoperability of platforms
 - b. Blockchain & speed of data handling
 - c. Quick steps/actions in the next 2 years?
3. Competitiveness:
 - a. Platform governance;
 - b. Involve SME's;
4. What's not covered? What are the issues that are coming?

Based on these conclusions, AIOTI, ENTSO-E, ETIP SNET and EIT InnoEnergy jointly worked on a paper to elaborate on the key issues that came out of the last seminar of 22 October.

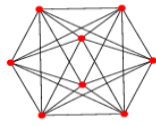
This next seminar will present the draft paper to a wider audience, organised according to the 3 key themes in the paper (regrouping the outcomes of the last workshop), and discuss recommendations for actions that will promote the use of open market places that will enable innovative digital solutions and services to grow. The 3 themes are:

1. Outlook Energy Marketplaces 2030. Role of enabling digital technologies (Blockchain, DLT, IoT, Digitalisation, AI) in the EU's energy transition;
2. Open Energy Marketplaces: governance of platforms and data exchange, GDPR, architectures, operational principles, interoperability and beyond;
3. Scaling up investments in digital technologies and services: Opportunities and roadblocks, investors and market trends;

The agenda also reserves quite some time to share perspectives from projects and SMEs that propose solutions for Demand response, Energy Efficiency, Mobility, Power sector interfaces (gas, heat etc), providing input to the question how to transition from piloting to well-orchestrated energy marketplaces in 2030 and communities.

The aim is to make the workshop interactive: therefore we have reserved sessions for policy discussions as well as for discussion with SMEs and project developers, and throughout the day we have reserved time to discuss with the audience.

This workshop is part of a series of IoT events related to data marketplaces. The workshop will take place on in Brussels.



March 8, 2019

No.	Time	Description	Speaker
1	08.30	<i>Registration and coffee</i>	
2	09.00	Welcome and introduction	Haitze Siemers, DG ENER/C2 Rolf Riemenschneider, DG CNECT/E4
4	09.20	Open Energy Marketplaces Evolution – presentation of the vision and key elements of the paper	Natalie Samovich, AIOTI Norela Constantinescu, ENTSOe Pierre Serkine, EIT InnoEnergy Maher Chebbo, ETIP SNET Presentations (5 min each)
5	09.40	<p>Outlook Energy Marketplaces 2030.</p> <p>Role of enabling digital technologies such as Blockchain, DLT, IoT, Digitalisation and AI in the EU’s energy transition.</p> <ul style="list-style-type: none"> IRENA’s Blockchain report – Francisco Boshell SOFIE project - ‘Secure Open Federation for Internet Everywhere’, Ivo Löhmus, Guardtime & Pekka Nikander, Aalto University <p>Moderator: Rolf Riemenschneider, DG CONNECT</p>	Presentations (10 minutes each) Feedback on the paper’s recommendations: Panel discussion
6	10.10	<p>Feedback from projects and SMEs that propose solutions for: Demand response, Energy efficiency, Mobility, Power sector interfaces (gas, heat etc.)</p> <ul style="list-style-type: none"> EUSysFlex & Interface projects on governance of platforms and TSO-DSO cooperation, Georg Rute, Elering Bruno Flinois, CLEM EV Charging Platform From flexibility management towards new markets, Venios GmbH, Maximilian Wurm Flexidao, Simone Accornero Enedis, Karima Boukir CoordiNet project, on TSO-DSO cooperation, Marco Baron, Enel, Massimo Bertoncini, Engineering Ingegneria Informatica Entropy project, monitoring of consumption and consumption behaviour, Antonio Skarmeta, Universidad de Murcia <p>Moderator: Mark van Stiphout, DG Energy</p>	Presentations (5 minutes each) Feedback on the paper: discussion with the audience: Panel discussion
7	10.45	<i>Coffee break</i>	
8	11.00	Continuation of the session	
9	11.45	Open Energy Marketplaces: governance of platforms and data exchange,	Presentations

		<p>GDPR, architectures, operational principles, interoperability and beyond.</p> <ul style="list-style-type: none"> • Reference Architectures for the digital energy age: COSMAG, Antonello Monti, RWTH Aachen • Exchanging data across sectors, Klaas Hommes, Douwe Lycklama, InnoPay, TenneT • GDPR and open digital energy markets, Hielke Hijmans, Centre for Information Policy Leadership/Vrije Universiteit Brussel • Regulatory sandboxes, Alexandra Schneiders, UCL Energy Institute <p>Moderator: Mikolaj Jasiak, DG Energy</p>	<p>(10 minutes each) Feedback on the paper's recommendations: Panel discussion</p>
10	12.45 ÷ 13.45	<i>Networking Lunch</i>	
11	13.45	<p>Feedback from projects and SMEs that propose solutions for operational enablement such as Security, Monetisation, Operations, Trading, Forecasting of energy operations.</p> <ul style="list-style-type: none"> • Securing IoT, Mirko Ross, ASVIN.io • Enabling Utility roaming through open marketplaces catalysed by blockchains and 5G, Giampaolo Fiorentino, Engineering Ingegneria Informatica • TNO, Richard Beekhuis • Epex Spot, Delphine Strunski • Ecosystem, Ocean Protocol, Irene Lopez de Vallejo • Marketplaces, IOTA, Wilfried Pimienta <p>Moderator: Ruud Kempener, DG Energy</p>	<p>Presentations (5 minutes each) Feedback on the paper's recommendations: Panel discussion</p>
13	15.00	<p>Scaling up investments in digital technologies and services: Opportunities and roadblocks, investors and market trends</p> <ul style="list-style-type: none"> • Market perspectives, Kai Polak, CGI • ABN AMRO, Finance perspectives for digital solutions and transactions, Peter van Ees • Investors perspective, Zdenek Pekarek, independent advisor for Inven Capital (the VC Fund of CEZ and the European Investment Bank) • Investors perspective, Demeter partners, VC-Fund Benjamin Wainstain <p>Moderator: Lukas Repa, DG CONNECT</p>	<p>Presentations (10 minutes each) Feedback on the paper's recommendations: discussion with the audience</p>
12	16.00	<i>Coffee break</i>	
13	16.15	From piloting to well-orchestrated energy marketplaces in 2030: what are other or upcoming issues?	Open discussion on recommendations
14	16:50	Wrap-up & closing	<p>AIOTI, ENTSOe, EIT InnoEnergy, ETIP SNET Rolf Riemenschneider, DG CNECT/E4 Mark van Stiphout, DG ENER/C2</p>
	17:00	End	