

EVENT HIGHLIGHTS | How to make Europe's energy transition a reality with the help of smart technologies



In mid-February, the [European Smart Energy Solution Providers – ESMIG](#) held an evening [discussion at the European Parliament](#) exploring **how to make Europe's energy transition a reality with the help of smart technologies**, co-hosted by Ms **Maria Carvalho** MEP (EPP/PT), Mr **Ville Niinistö** MEP (Greens/FI) and Ms **Claudia Gamon** MEP (Renew/AT). Mr **Thor-Sten Vertmann**, Member of the Cabinet of Commissioner for Energy Kadri Simson, Mr **Zeljko Krevzelj**, Counsellor for Energy, Croatian Presidency of the EU and Mr **Mark Van Stiphout**, Deputy Head of Unit, New Energy Technologies, Innovation and Clean Coal, DG ENER, European Commission delivered keynote speeches. Mr **Dieter Brunner**, President of ESMIG and President of the board of Directors at Iskraemeco, presented the views of ESMIG in the introductory and concluding remarks while Mr **Willem Strabbing**, Managing Director at ESMIG, moderated the discussion.

Ms **Maria Carvalho** MEP began her introductory speech by appreciating the timing of the discussion as the European Commission released, among others, the White Paper on artificial intelligence and the EU Data Strategy on the same day. She remarked that these new EU stances are not only of high importance for the next five years, but also crucial for the upcoming 25 years as they are going to transform the way the EU industry and the European economy, and society as a whole, function. She continued by highlighting the role the energy sector has played as a precursor in collecting data for the public benefit and added that the recently released EU Data Strategy is adopting a similar approach to other policy areas.

Indeed, Ms Carvalho added, data analysis is a primary tool for overcoming the challenges the European economy and society are faced with and she expressed the hope that the new multiannual financial framework of the European Union will be aligned to the priorities of the new European Commission regarding both the digital and energy transition. The speaker stated that the discussion on the budget gives a window of opportunity to implement policy actions for sectors which are technologically developed. Ms Carvalho continued by elaborating on the [Clean Energy Package](#) and the fact that, in her opinion, ***“member states are now in the best conditions to foster the shift from a consumer-centred approach to a “prosumer”- centred approach, namely the setting in which citizens are both consumers and producers of energy.”***



In fact, Ms Carvalho explained, the fostering of energy communities and any other decentralised ways of energy production results in the empowerment of European citizens. The MEP subsequently stated that the digital transformation should align with the shift from consumer to “prosumer” as both phenomena are strictly related to the EU Green Deal as a means to fight climate change. She also pointed out that **the use of smart meters and their uptake by European citizens is central to this approach as data analysis is the foundation for science-based decisions**. Ms Carvalho concluded her introductory remarks with a renewed plea for an EU budget that will comply with the needs of the digital and energy transformation, as also highlighted by the recently released Commission’s documents.

Ms **Claudia Gamon** MEP began her introductory remarks by expressing her views on the energy transition and stated that the most important point emerging from the debate on the transition is the achievements for individual consumers once significant progress will be attained. She continued by highlighting that this process will both change the interactions within the energy market and transform the energy production by allowing consumers to become “prosumers”. Ms Gamon explained that as the prosumer is simultaneously consuming and producing energy, this new model will increasingly foster a new type of player in the energy market. Referring to the stance which maintains that through the use of prosumers’ data it would not only be possible to assess their consumption and production levels, but also the storage capabilities that they might have, the MEP explained how data analysis also allows every stakeholder to understand and adjust to prosumers individual demands and trade potentials.

Ms Gamon subsequently stressed the necessity of an *“appropriate regulatory framework which considers, on the one hand, the security and protection of personal data and, on the other hand, the fact that decentralised energy systems will bring forward different questions regarding cybersecurity.”* In reference to her work as a rapporteur of the ITRE committee for the European Parliament’s own-initiative on energy storage, Ms Gamon also highlighted that the increasing demand for electricity, which is estimated at being around 55 percent by 2050, needs to be compensated by renewable energy sources in order to fulfil EU climate goals. As a consequence, the question of volatility in the grid and storage capabilities will also become a crucial challenge that would need to be addressed at an early stage. The speaker concluded by remarking that the solutions are often different depending on the technology in question, however, as the prosumer plays a very important role in this debate, **it would be interesting to go deeper not only regarding the question of efficiency of means, but also with respect to both the possible user-friendly solutions in place or sight and to the security, and the perception of security, of citizens’ data.**

Mr **Dieter Brunner** opened his speech with an overview of ESMIG’s history and objectives. Founded in 2008 as an association of meters manufacturers, throughout the years ESMIG adapted to new trends in the energy sector and soon started to work with legislators in order to integrate smart meters in EU legislation. As a result of these efforts, the smart meter roll-out in Europe was recognised as an important goal and enshrined into EU legislation with the aim of having an EU-wide coverage of 80% by 2020. Mr Brunner continued by describing, on the one hand, the uneven roll-out of smart meters across member states, while, on the other hand, expressing his optimism regarding a swift finalisation of this process.



The ESMIG President continued by outlining that ESMIG has welcomed companies from other sectors as a result of the challenges emerging from the energy transition process. In the course of this development, he stated, companies which are dealing with data, telecommunications and home appliances have come to play an important role. He further explained that this process has extended the cooperation which has in turn allowed ESMIG to provide more precise information for electricity utilities and regulators. Going into more detail about the scope, he pledged for a timely introduction of energy transition-related measures and continued by pointing out that *“providing efficient, scalable and consumer friendly products in order to enable citizens to gain as many benefits as possible is a key priority for ESMIG.”* As an association consisting of members engaged in the energy sector, the speaker stated that ESMIG is indeed *“willing to provide valuable expertise in order to accomplish the energy transition in a sustainable, affordable and consumer-friendly way.”*

At the end of his introductory remarks, Mr Brunner introduced the recently released ESMIG manifesto that explores **how we can work to create the new energy market**. To achieve the full benefits of smart meters we must consider the associated impact of communications technologies, flexible demand, data, security, interoperability and consumer engagement. As such there are four main points to be considered and implemented: **creating the right market conditions; placing the consumer at the heart of the energy system; guarding privacy and security; and implementing the existing regulatory framework regarding the adoption of smart technology solutions.**

Mr **Thor-Sten Vertmann** began his keynote speech by pointing out the priorities emerging from the work of Commissioner for Energy Kadri Simson. Mr Vertmann explained that climate change and energy prices have emerged as the two main concerns for citizens of EU energy-related policies and as a result, the Commission will have to consider the interactions between these two factors in the upcoming legislature.

Furthermore, Mr Vertmann explained that the Commission is looking for the most cost-efficient ways of decarbonisation, while aiming for fair competition on the market, which is necessary to create a level-playing field for competitive technologies, and continued by highlighting the important role of the European Union’s efforts for a climate-neutral future at an international level. The speaker subsequently expressed the Commission’s commitment to the implementation of the Clean Energy Package and listed several related tertiary acts of this legislature that he highlighted as important for an energy transition based on smart technologies, namely the rules on the demand side response, on cybersecurity measures for the energy sector, on interoperability and data access and on smart readiness indicator for buildings.

Mr Vertmann subsequently explained that the initial assessment of the national energy and climate plans showed improvement in the development of the renewable energy sector, while the issue of energy efficiency is emerging as a significant challenge in the transition. In order to implement the “energy efficiency first” principle, the speaker advocated for considering energy efficiency at a systemic level.



In addition to improving energy efficiency by product design, as occurred with eco-design and energy labelling, the speaker pointed at an enhanced focus on sector integration. Indeed, Mr Vertmann remarked that such an approach would defy the treatment of different but interconnected economic sectors as silos. As there is the possibility that energy efficiency goals will not be met, Mr Vertmann pointed at the need of ensuring an abundant quantity of renewable energy.

The speaker then elaborated on how the already existing energy infrastructure can be used to build the energy system of the future, by making use of the efficiency of the current EU gas infrastructure; especially the possibility of using them to carry hydrogen should be considered as a means to secure the energy transition. In addition, he further advocated for continued work at the level of buildings and products, as pointed out by both the “renovation wave” initiative included in the EU Green Deal and the eco-design and energy labelling work programmes.

Mr Vertmann concluded his speech by highlighting that *“the Commission is aiming to give citizens the best conditions to manage their energy consumption and keep energy costs under control, increase their uptake of new tools and technologies for energy production and invest in building renovation, however it will be up to legislators to guarantee a sustainable and affordable energy system within the EU”*.

Mr **Zeljko Krevzelj** started his speech by introducing the priorities of the Croatian Presidency of the European Union, namely *“the integration of the energy market, the further implementation of the Energy Union, as well as strengthening of energy security including energy infrastructure and diversification, while focusing on renewables and low-carbon energy sources.”* He continued by elaborating on the question of how the objectives of the European Green Deal can be met and what role member states play in reaching these objectives.

With regard to the priority of the implementation of the Energy Union, Mr Krevzelj mentioned the Clean Energy Package, renewable energy sources development, energy efficiency, as well as the electricity market design as key factors for a successful implementation of this strand of EU policies. The speaker also advocated for cost efficiency and inclusiveness in the implementation of the Clean Energy Package and underlined the responsibility of the Croatian Presidency in supporting member states in reaching the goals enshrined into EU law. He further highlighted the need for a reduction of the energy demand in combination with an electrification based on an increased share of renewable energy sources.

In addition, the speaker explained that the Croatian Presidency is going to engage not only with smart technologies, but also with new technologies such as hydrogen and capture storage. In terms of engagement in the energy transition, Mr Krevzelj pointed out that a special focus of the Croatian Presidency will include the clean energy for EU islands initiative.



The speaker consequently stated that, as several of the 2000 EU islands rely on fossil fuels for their energy supply, their transition towards renewable energy sources has a large potential to contribute to climate neutrality by 2050. Mr Krevzelj concluded his remarks by expressing the Presidency commitment to foster the EU energy transition efforts based on these priorities.

Mr **Mark van Stiphout** began his speech by describing the Clean Energy Package as the base of every effort for making the energy market work for consumers and to make them gain the most out of the benefits of smart technologies. The speaker firstly stated that smart metering is *"necessary in order to create the best value for the consumer as it enables energy consumption when the costs are low."* Mr van Stiphout added that smart metering also gives the *"flexibility for grid operators to optimise their infrastructure and allows the grid to be stabilised by compensating congestions."* He subsequently praised a market model which provides a high level of accessibility to data in order for the system to function in a cost-efficient manner. Mr van Stiphout further stated that a smart market that creates value for flexibility is a prerequisite for a cost-efficient energy transition. As data and data access become increasingly important, he added, the energy market will transform its way of operating from an energy supply-based approach to an energy service-oriented approach. This principle, he precised, would allow citizens to take more independent decisions on energy use as a result of real-time price developments.

Mr van Stiphout pointed out that the systemic innovation that is needed to reach the transformation of the market is particularly challenging, as several stakeholders need to work together and coordinate their efforts, while an increase in both investments and exchange of data has to be guaranteed in order for the energy transition to succeed. Mr van Stiphout further explained that the role of the legislators in this process is also to standardise the way data is collected and shared in order to make it accessible for the whole market and concluded his speech with an invite to every stakeholder involved to converge towards a shared vision for the EU energy market of the future.

Mr **Willem Strabbing** opened discussions with a presentation about data access and availability based on a study showing how providing the consumers with their data for gas and electricity consumption in real-time impacts their consumption behaviour. Furthermore, he provided an overview of smart meters rollout across EU member states. According to ESMIG's research (see *'The Role of Data for Consumer Centric Energy Market and Solutions'* below), *"consumers can save 7-9% on gas and electricity consumption based on real-time insight. Although the roll-out of smart meters that can provide real-time data is progressing, the offering of tools and services based on this data is lagging."*

The discussion included the following questions: *The readiness of the EU grid infrastructure for the energy transition, the linkage of investments to the vision of a clean energy transition, the state of the implementation of the Clean Energy Package across member states, the role of the regulators in creating the right market conditions, the tradition of the EU in terms of centralisation of energy distribution, the impact of market liberalisation on the energy transition, how to build a regulatory system with standardised data access and its compliance with GDPR, the access of private energy production to the grid network, how to improve energy efficiency, the question of interoperability of systems data, the role of storage in interoperability.*



Mr **Ville Niinistö** MEP opened his concluding remarks with an outlook for the upcoming decades. He explained, that a smart energy system is crucial in order to decarbonise energy production by 2040. He also explained that a phase-out of fossil energy sources and the enhanced use of renewable electricity supported by renewable hydrogen are important steps for reaching this goal. The MEP subsequently pointed out that the increase of energy efficiency is crucial to decrease the amount of total energy needed, thus keeping the level of investment needed for renewables. Mr Niinistö consequently highlighted the deficiencies regarding the implementation of energy efficiency measures in several member states and advocated for enhanced efforts in reaching the goals set for 2030.

The MEP furthermore mentioned the relevance for end users of data regarding smart charging of electric vehicles and household batteries in order to give consumers insights on their carbon balance and actual consumption real time. These practices allow operators to both balance consumption peaks and reduce fossil fuel from use as a backup energy source.

Thereafter, Mr Niinistö shared his views on the importance of the use of smart technology in households, as consumers will perceive the increased insight into their consumption as an incentive to save money and lower energy demand. However, in several member states, he continued, grid operators are still relying on their monopoly and are opposed to decentralised energy production. Mr Niinistö concluded his speech by emphasising ***“the need for a lower GHG intensity energy system, which is a difficult goal to reach unless smart energy systems with standardised and interoperable data become the norm”***.

Ms **Claudia Gamon** MEP started her concluding remarks by summarising the outcomes of the discussion and elaborated on how smart energy solutions still have a large untapped potential for development. Subsequently, she raised the issue of science scepticism. According to the speaker ***“there is a clear need for more information and transparency when it comes to smart metering, its functionalities and added value”***. The speaker also mentioned the importance of a consistent implementation of energy transition measures across EU member states in order to set the basis for future actions. Ms Gamon concluded her final remarks with an optimistic outlook of the upcoming legislature and its potential in terms of fostering the energy transition and accelerating the adoption of smart technologies.

In closing the evening, Dieter Brunner recalled the importance of cooperation between the industry and regulators for the benefit of EU. To this end, Mr Brunner stated that ***“ESMIG and its members will continue to foster the dialogue between industry, policy-makers and citizens at the EU, national and local level.”***

Do you want to know more about the issues discussed in this debate? Then, take a look at the selected ESMIG sources provided below

Making Europe's energy transition work with the help of smart technologies - our key priorities for a consumer-focused energy system, ESMIG Manifesto

The Role of Data for Consumer Centric Energy Markets and Solutions, ESMIG

AMI Cloud Data Services - Enhancing your Customer Experience, ESMIG



About ESMIG

ESMIG is the European voice of the providers of smart energy solutions. Our members provide products, information technology and services for multi-commodity metering, display and management of energy consumption and production at consumer premises.

Our activities are focused around systems for Smart Metering, consumer energy management and safe and secure data transfer.

We work closely with EU policy makers and other EU associations to make Europe's energy and water systems cleaner, reliable, more efficient and the European consumer informed, empowered and engaged.



To find out more about who we are and what we do, please visit our [website](#) or contact us at communications@esmig.eu

