

STOA

Science and Technology Options Assessment

STOA Panel meeting
Thursday, 6 July 2017, 09:30 - 11:00
LOW N1.4, Strasbourg

Draft minutes

The meeting started at 09:41 with Eva KAILI, MEP and STOA Chair.

1. Adoption of the draft agenda

- The Chair announced that interpretation was available in the following languages: English, French, German and Spanish; and the meeting was being web-streamed
- The Chair recalled that the draft agenda was in the dossier and proposed to add the following item to the agenda: ‘6.3. *Visit to EU Networks and Information Security Agency (ENISA), 19-20 September 2017, Athens*’.
- The Chair announced that, as there were no further requests, the agenda was deemed adopted.

2. Approval of draft minutes - STOA Panel meeting of 6 April 2017

- The Chair informed the meeting that the draft minutes of the Panel meeting of 15 June 2017 were in the dossier, with one of the speakers at that meeting having requested the addition of a short passage to the summary of his talk provided in the minutes. In the absence of any further requests for changes or additions, the Chair announced that the minutes were deemed approved.

3. Presentation of the outcomes of the Technology Assessment study ‘Decarbonisation and energy resilience’

- The Chair underlined that the aim of this study was to draw attention to the challenges lying ahead for Europe in achieving the ambitious goals of reducing greenhouse gas emissions by as much as 95% by 2050, and obtain an overall picture of the technology options available and of how to best combine them in order to drive decarbonisation efforts and ensure resilience of the energy system in Europe in the medium to long term.
- The Chair also informed Members that the project started in December 2016 and the final report would be delivered by November 2017. She then welcomed the expert, Bettina KAMPMAN from CE Delft, to present the intermediate outcomes of the study and answer questions after the presentation.
- Ms KAMPMAN emphasised that the aim of this presentation was to provide an overview of current trends, and discuss new opportunities and challenges, and the way forward. The main project objective was to obtain an overall picture of what technology options were available and how they could be combined to ensure energy resilience in Europe – she defined ‘resilience’ as energy systems continuing working. She explained that there were various trends in the energy sector, such as hydro, wind, solar and biomass, but the growth potential differed greatly, with solar and wind energy showing an extremely high growth potential as compared with the others.
- Ms KAMPMAN then spoke about electricity generation and how its use could be optimised. The current 28% share of renewable energy has to go up to 50% in 2030; despite the progress made, there is a need for further work in order to achieve these goals. There are also some difficulties limiting the rate at which renewable energy could be deployed – for example, renewable heating and cooling was much more difficult – with only 18% percent of heating in the EU coming from renewable sources. This means that the task of getting to 80% is going to be a big challenge. Transport is a field that needs vast improvement with regard to renewable energy, due to the growth almost levelling off in the last couple of years. She also raised a concern, as aviation and shipping still poses an issue as to how to be decarbonised. She also reiterated that solar photovoltaic and wind were by far the most effective and efficient, but are limited in what they could provide and are dependent on weather.
- Ms KAMPMAN then discussed the future by using different scenarios. A different energy mix is needed in order to meet the goal of an 80-95% decrease in CO₂ emissions. From observing these multiple scenarios, it is clear that energy demands have to go down and energy efficiency has to improve significantly. The scenario also included carbon capture and storage (CCS) mechanisms.
- She then drew attention to a Greenpeace study that explored options for going 100% renewable. In that study they used no nuclear, no coal and no fossil gas, and they achieved that goal by increasing overall efficiency, and focussing on obtaining their energy needs from geothermal, wind and solar.

- In her conclusion, Ms KAMPMAN argued that the EU needed to: reduce its energy use, while increasing the share of renewables in all sectors; develop flexible energy storage solutions to accommodate the wind and solar energy production; develop CCS; and adapt the infrastructure to these new technologies.
- As an example, she explained that industry needed to become more energy efficient, among other things by: making better use of waste heat and waste products; electrification of industry; wind and solar use; switching from natural gas to electricity; and rolling out CCS for suitable processes.
- She finally argued that policy was an integral part of change. Policies needed to be flexible, so as to conform to different futuristic conditions. She stressed that the future would be made through policies, but also through research and development. She announced that in November there would be a workshop on this topic at the European Parliament showcasing all findings of this study.
- Mady DELVAUX, MEP and Panel member, asked about the rising demand for energy, due to advancements in new technologies. She noted that corporate Chief Executive Officers claimed that the energy required for artificial intelligence was one of the biggest issues they were facing, and they needed to find a way to make it more efficient.
- Ms KAMPMAN argued that the increased demand might in the end not pose a problem, as technology could also become more efficient, as shown by laptop and screen advancements: current technologies require less energy than their earlier counterparts. We need more wind and solar, and we need to be more efficient overall as a society. People also have to be incentivised to switch to cleaner energy (electric cars etc.).
- Christian EHLER, MEP and Panel member, raised a concern as to why nuclear fusion, for which the EU was spending €50 billion, was not included in the 2050 perspective. He also asked, when the study mentioned the need of a mix between economic and technological factors, how competitiveness was defined, and if the study was based on different scenarios or was working on a plausible projection.
- Ms KAMPMAN replied that the study focussed on renewables, efficiency and CCS. If nuclear fusion proved successful, then it could be revisited, but for now it was not cost effective and was outside the scope of the study. She also mentioned that no new technology scenario for the future was developed in the study; all scenarios were taken from other studies. The aim of this study was to showcase the different options available.
- Ms GIMENEZ BARBAT, MEP and Panel member, asked the speaker to clarify why, according to many studies, some countries found that solar and wind were actually inefficient. She further asked if the study did not dismiss certain energy sources for purely ideological reasons.
- Ms EHLER referred to a scenario, presented on page 11 of the presentation, which claimed that CCS could contribute to carbon reduction by around 6% by the year 2030. He asked where this figure came from, as no EU Member State had a CCS policy framework in place.
- Ms KAMPMAN stated that carbon production should decrease due to the Paris agreement, and no technologies that helped achieve that objective should be discarded. The scenarios shown in the study were not based on any ideological assumptions, but on economic, technological and policy assessments, and on models with numerous inputs and variants. She agreed with Mr EHLER that there was a need to move fast with CCS, but these models were not a prediction, but suggestions as for how we could get to the end-goal of lower carbon production.
- The Chair explained that the presentation was based on a preliminary draft of the study. The final version of the study will have to address the concrete challenges and policy options more in depth and more comprehensively, so as to better answer Members' questions.
- Mr EHLER cautioned against mixing data relating to Europe and the rest of the world, as they were two different markets. He suggested creating scenarios only for Europe and taking out any data relating to the rest of the world.
- Mr RÜBIG, MEP and First STOA Vice-Chair, argued that CO₂ along with hydrogen, could be an attractive alternative for e-mobility, and asked the speaker to examine whether this was suitable not only for transport, but also for energy efficiency in homes.
- Ms KAMPMAN mentioned there was a lot of research on this topic at the moment, and using CO₂ to transform hydrogen into methane was a very attractive prospect to fuel production. The problem remained that, when methane was used, the CO₂ would still be released into the air. One could only talk of a carbon-free route, if the CO₂ originated as a biological bi-product, rather than from burning fossil fuels.
- Mr EHLER referred to a recent proposal aiming to convert the steel sector into a carbon-free zone, which unfortunately failed to obtain support from the European Commission, but nonetheless offered great promise. He

suggested that this study should look at every industry in more detail and analyse if it is technologically feasible to be carbon-free or not; in his opinion this would make the study more concrete.

- The Chair thanked the Members for the questions and the speaker for the presentation.

4. Ongoing and new STOA projects

- The Chair informed Members that all ongoing STOA projects were running to schedule and provided details about important milestones in the execution of certain projects:
 - The study '*Horizon scanning and in-depth analysis of techno-scientific trends*' was published in early July; a copy of it was in the dossier.
 - The project '*Technological innovation for humanitarian aid and assistance to the most vulnerable people*' was approved by the STOA Panel in May 2015, based on a proposal of the Committee on Development (DEVE). Following renewed discussions with DEVE staff and Members, the study would start with a high-level expert meeting taking place on Thursday, 7 September 2017, at the European Parliament in Brussels.
 - The project '*New technologies and regional policy*', based on a proposal of the Committee on Regional Development (REGI), approved by the Panel in June 2015 and updated drawing on input from Lambert VAN NISTELROOIJ, MEP, and Constanze KREHL, MEP, would be implemented as a STOA workshop.
- She then announced that, as there were no objections, the projects would continue to be implemented as described.
- The Chair then recommended, on behalf of the STOA Bureau, the approval by the Panel of a new STOA project on '*New technologies for the exploitation of natural gas reserves in the Eastern Mediterranean*' [based on a proposal by Neoklis SYLIKIOTIS, MEP and Panel member] aiming to explore new methods and scientific techniques to allow gas exploration and extraction to take place, while ensuring environment protection and health and safety of local populations and workers. The Bureau was proposing to first conduct a preliminary exploratory study by an expert in the field, and then – depending on the outcomes – to proceed with a fully-fledged study.
- She then announced that, as there were no objections, the project would be implemented as described.

5. STOA workshops and joint activities with external organisations

5.1. Forthcoming events

- The Chair referred Members to the table of forthcoming STOA events in the dossier.

5.2. STOA workshop on '*New technologies and regional policy*', 25 September 2017

- The Chair announced that the workshop was to take place on Monday, 25 September 2017; it would focus on the relevance of technologies in regional policy and contribute to the discussions on the future cohesion policy.

5.3. STOA workshop on '*Establishing a sovereign and trustworthy ICT¹ industry in the EU*', 27 September 2017

- The Chair announced that the event, scheduled for Wednesday, 27 September 2017, as part of the ongoing STOA project by the same name, would consider the challenges, risks and opportunities related to the development of a sovereign, trustworthy and cyber-resilient European ICT industry. It would also address the state of reciprocity between search engine companies and individual customers: how could users retain possession of their personal data, and be able to decide with whom and how they wanted to share them, including for commercial purposes.
- The Chair announced that, as there were no objections, the preparations would proceed as described.

6. Visits / External activities

6.1. EPTA2 Council meeting and Conference, 7-8 November 2017, Lucerne, Switzerland

- The Chair announced that the Council meeting and Conference would finally take place on 7-8 November 2017. The meeting was taking place under the 2017 Swiss Presidency of EPTA in Lucerne (the seat of the Swiss Transport Museum), an appropriate venue for this year's thematic conference, dedicated to the future of mobility. The overall event would comprise two sessions:
 - The Council meeting at Pilatus Kulm, near Lucerne, in the afternoon of 7 November.
 - The EPTA Conference on 8 November, entitled '*Shaping the future of mobility*', which would address the question of how to enhance mobility while reducing pollution, congestion, infrastructural bottlenecks and accidents, with the participation of parliamentarians, scientists and other experts from across Europe

¹ Information and Communication Technologies

- She then announced that, at the end of the conference on 8 November, the presidency would pass to STOA which would hold it until the end of 2018.
- The Chair invited Panel members to join the delegation. Any interested Members were invited to come forward or inform the Secretariat.
- The Chair announced that, as there were no objections, the preparations would proceed as described.

6.2. STOA delegation to Internet Governance Forum (IGF), 18-21 December 2017, Geneva

- The Chair reported that the Chairs of the ITRE, IMCO, CULT, JURI and LIBE Committees² and STOA were addressing a joint letter to the President to request authorisation of a nine-Member delegation (19-21 December 2017). The exact composition of the delegation would be decided by the political groups and it would comprise at least two Members from ITRE and at least one Member from each of the other Committees and STOA.
- She then informed Members that Danuta JAZŁOWIECKA, MEP and Panel member, had already expressed an interest in taking part in the event. Any other interested Members were invited to come forward or inform the Secretariat as soon as possible. The preparations for the delegation would continue as described.

6.3. Visit to ENISA³, 19-20 September 2017, Athens

- The Chair reminded Members that the Secretariat had written to them inviting them to join the delegation. One Member (Claudia SCHMIDT) has so far expressed an interest. Two more places are available. Any other interested Members were invited to come forward or inform the Secretariat by Wednesday, 12 July 2017.
- The Chair announced that, as there were no objections, the preparations would continue as described.

7. Any other business

- The Chair proposed, on behalf of the STOA Bureau, to hold only one Panel meeting in October, on the 26th (October II), dropping the meeting on 5th (October I).
- She also reported that the Advanced Nuclear Knowledge Unit of the Joint Research Centre (JRC, Karlsruhe) had contacted STOA with a request to meet Members and staff, preferably in Strasbourg. She proposed, on behalf of the Bureau, that this meeting take place on 5 October in Strasbourg, at the time and venue of the Panel meeting. Evžen TOŠENOVSKÝ, MEP and Second STOA Vice-Chair, would be Lead Panel Member for this activity.
- The Chair announced that, in the absence of any objections, the meeting with the JRC staff would take place as described, in the place of the October I Panel meeting.
- The Chair also announced that the latest STOA Newsletter (July 2017) had been distributed and would be further made widely available within and beyond the Parliament.

8. Date and place of next meeting

- The Chair announced that the next Panel meeting was scheduled for Thursday, 14 September 2017, at 9:30 a.m. in the same room (LOW N1.4) and would feature a presentation of the results of the Technology Assessment study ‘*New ways of financing new transport infrastructure projects in Europe*’.

The meeting ended at 10:54.

ANNEX

List of participants

STOA Panel members

Ms Kaili, Mr Rübzig, Mr Coelho, Ms Delvaux, Mr Ehler, Ms Giménez Barbat, Ms Schmidt.

Scientific Foresight (STOA) Unit

Mr Karapiperis, Mr Pataki, Ms Van Woensel, Mr Evrard, Mr Kurrer.

Other participants

Isidoros Sakkas (Assistant to Mr Sylikiotis), Robert Schichl (Assistant to Ms Schmidt), Birgit Wulz (Trainee to Ms Schmidt), Alberto Manzi (ECR/ITRE Advisor), Gerasimos Katsikogiannis (Assistant to Ms Kaili).

² ITRE: Industry, Research and Energy; IMCO: Internal Market and Consumer Protection; CULT: Culture and Education; JURI: Legal Affairs; LIBE: Civil Liberties, Justice and Home Affairs.

³ EU Networks and Information Security Agency