

Introduction and Scope

The PICASSO project organised a participatory webinar on ” **Spectrum issues affecting EU/US ICT development collaboration**”.

With this webinar, PICASSO brought forward policy recommendations designed to improve EU/US ICT-orientated collaborations – specifically in the technological domains associated with 5G networks, Big Data, and IoT/CPS. The focus was on connectivity and the interactions among EU and US spectrum policy, technology development and research that challenge existing spectrum management rules (esp. on licensing and access) and create a need for research to establish the possibilities and the impossibilities that determine the balance among different spectrum access control policies.

Background Notes

The participatory and interactive webinar intended to validate initial conclusions based on a [Spectrum issues affecting EU/US ICT development collaboration](#) prepared by the [PICASSO ICT Policy Expert Group](#). The Policy Briefing shall be updated with content stemming from the webinar discussions and beyond and published shortly.

Agenda

PICASSO Welcome and purpose of the call

Maarten Botterman, PICASSO Policy Expert Group Chairman

Introduction to EU-US Spectrum policy issues relating to ICT development

*Maarten Botterman, PICASSO Policy Expert Group Chairman
Dr. Jonathan Cave, GNKS Consult and University of Warwick*

Introducing the three domains - 5G, Big Data, IoT/CPS

*Yaning Zou, PICASSO 5G Expert Group
Christian Sonntag, PICASSO IoT/ CPS Expert Group*

Introduction and Participatory discussion:

Focus per domain

Preliminary conclusions (Briefing Document validation)

Organizing Committee

Policy Expert Group Chair: *Maarten Botterman*, GNKS Consult, The Netherlands

Policy Expert Group Member: *Jonathan Cave*, Warwick University, United Kingdom

Marta Calderaro, APRE, Italy

Margot Bezzi, APRE, Italy

Invited Speaker

Yaning Zou, Technische Universitaet Dresden, Germany

Christian Sonntag, Technische Universitaet Dortmund, Germany

Technicalities

Webinar Date: 28th March 2018

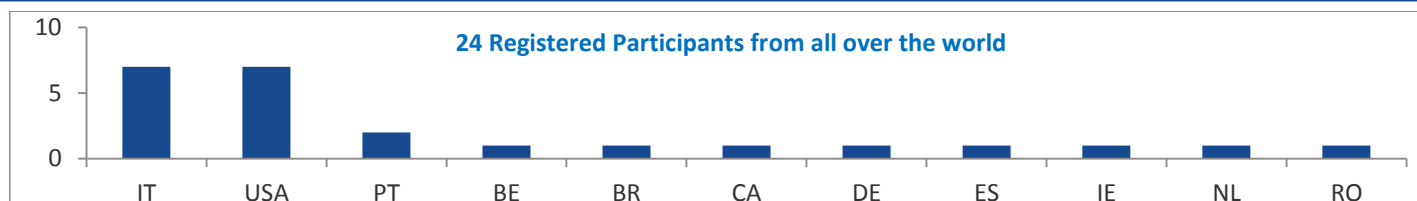
Duration: approx. 90 minutes

Participation: Free of Charge

Technical System: Adobe Connect

Recording, Presentations and Policy Brief at:

www.picasso-project.eu



Webinar Results

Connectivity is key for whatever we do, nowadays, and in ensuring connection. Spectrum policy is of particular importance because it deals with the allocation and management of wireless frequency bands. Spectrum issues have fundamentally changed, in particular the continued increase of the amount of communications, with more intelligent ways supporting spectrum allocation, and with increased use of unlicensed spectrum. During the webinar we explored:

- The ‘fit’ between existing spectrum allocation and management policies and the implications of technological development. Many of these policies are internationally coordinated to harmonise spectral bands and usage conditions, foster global markets and make interoperability smoother and more efficient.
- Changes to research programs and outputs arising from spectrum policy. Spectrum policy influences the socio-economic roles and profitability of technological and service approaches and thus the eventual ‘winners’ and ‘losers’. These outcomes are of national and international importance; nationally-based policies should not unduly inhibit or distort technology development.

Jonathan Cave explained the underlying thinking, pointing out the challenges including economics underlying and influencing spectrum allocation and use. Francisco Medeiros, a former European Commission official with responsibilities in spectrum allocation, questioned whether Spectrum Policies as such had fundamentally changed – as in his experience spectrum allocation processes are largely still functioning as before. Maarten Botterman recognized this and explained that the “fundamental change” is much more in the increased uptake of spectrum use, the increasing intelligence in connecting, and the increasing use of unlicensed space. Yaning Zou presented the current developments in 5G networks, focusing on spectrum relevant aspects, also eluding to the use of both licensed spectrum, unlicensed spectrum, and shared spectrum, emphasizing the need to technology-neutral spectrum allocation. She called for enabling new possibilities to support different use cases, and for joint research including on combinations with fixed and satellite communications. After that Jonathan Cave explained the relation between Big Data and spectrum: both in terms of the need for guaranteed rapid data exchanges for specific applications. In addition, big data can help with better spectrum management. Christian Sonntag pointed at the huge growth in uptake of IoT devices that are connected and depend on connectivity to function. Many of these are “bolted upon” existing infrastructures such as electricity grids, oil and gas pipes, buildings, etc. which leads to challenges relating to the many different applications, the quality of services and ownership of specific parts of the value chain due to the many players being involved

Main Conclusions

Conclusion of the webinar was that spectrum management modalities will shift from static, long-term licenses to dynamic and less-controlled regimes, within broad limits on interference, and that spectrum allocation will be less restricted to specific uses or band ‘owners’. Spectrum use is also expected to become far more agile, with today’s long-term exclusive licenses to be replaced by short-term, local, transferrable and ‘recombinant’ alternatives. In addition, we see that the intersection of spectrum policy and regulation will no longer belong to telecommunications regulators, but will increasingly involve other regulators (competition, privacy, financial, health) and industry and civil society stakeholders. This wider collaboration will enable to reflect the increasing diversity of use, user and technology viewpoints, shed a more balanced light on impacts of spectrum choices and employ new governance forms.