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Overview of PICASSO Expert Groups

**ICT Policy, Research and Innovation
for a Smart Society**

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Abstract:

This deliverable aims at providing a short overview on the concept of Expert Groups used in the PICASSO project, as well as their scope and set up.

Keywords:

Expert Groups, Terms of Reference

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The PICASSO Project

The aim of the 30-months PICASSO project is (1) to reinforce EU-US collaboration in ICT research and innovation focusing on the pre-competitive research in key enabling technologies related to societal challenges - 5G Networks, Big Data, Internet of Things and Cyber Physical Systems, and (2) to support the EU-US ICT policy dialogue by contributions related to e.g. privacy, security, internet governance, interoperability, ethics.

PICASSO is oriented to industrial needs, provides a forum for ICT communities and involves prominent EU and US specialists in the three technology-oriented ICT Expert Groups and an ICT Policy Expert Group, working closely together to identify policy gaps in the technology domains and to take measures to stimulate the policy dialogue in these areas. The synergy between experts in ICT policies and in ICT technologies is a unique feature of PICASSO.

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Acronyms and Definitions

Acronyms	Defined as
BD	Big Data
CPS	Cyber-physical systems
CPSoS	Cyber-physical systems of systems
EC	European Commission
EG	Expert Group
EU	European Union
ICT	Information and Communication Technologies
IoT	Internet of Things
ToR	Terms of Reference
US	United States

The list of acronyms does not include company/institution/networks names.

1. Introduction

With the aim to reinforce EU-US ICT collaboration in pre-competitive research and innovation, PICASSO mobilises for the duration of the project and on a regular basis EU and US experts, organised in four distinctive Expert Groups:

- ★ Three EU-US thematic ICT Expert Groups focus on the strategic ICT technology areas 5G Networks, Big Data, and IoT/CPS, in relation to the societal challenges. Each group includes a number of prominent experts from the EU and the US, chaired by an EU consortium partner and co-chaired by a US specialist.
- ★ The EU-US ICT Policy Expert Group includes highly experienced policy specialists from the EU and the US, with specific experience in Internet governance, cyber security, standards and interoperability, data privacy, and ethics. The Group is chaired by a consortium member and co-chaired by a US policy specialist.

Members of the groups are representatives from related H2020- and US-funded industry-driven projects and ICT associations, networks and PPPs from the EU and the US, as well as renown experts from industry and Research and Development institutions. The Expert Groups have been constituted during the first project months and specialists' involvement has been confirmed. However, the groups can of course evolve over the project lifetime and further members may be invited if such need is.

The views of the groups will be integrated in joint working sessions in order to identify gaps and opportunities and to provide a map of challenges, open problems, and needs for future policies and strategic EU-US initiatives, both policy- and research-related. Cross-industry and cross-application findings will be captured thanks to the interactions within and between the groups. Indeed, the policy Expert Group in particular relies on information about challenges that are specifically related to the ICT technologies covered in the other Expert Groups.

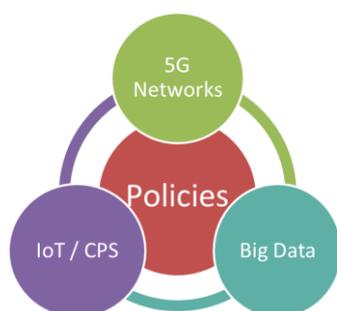


Figure 1: Interconnection of the Expert Groups

The expert groups in the technology domains and the policy expert group interact closely so that policy issues that are relevant for the technology domains and the societal challenges can be addressed in a focused way and that overarching policy issues are considered in the technical discussions from the start, and also are taken into account in the measures to stimulate the policy dialogue in these areas. This synergy between experts in ICT policies and in ICT technologies is a unique feature of PICASSO.

2. Concept of the PICASSO Expert Groups

PICASSO Expert Groups (EG) are part of the core project activity and their work is well embedded in the overall project activity. Indeed, each Expert Group is led by a consortium partner (“Expert Group Chair”) who provides the inter-connection and takes care of involving “his” experts in relevant activity and providing information stemming from Expert Group discussions to the other project partners.

The figure below shows how the concept of the Expert Groups fits within the project scheme:

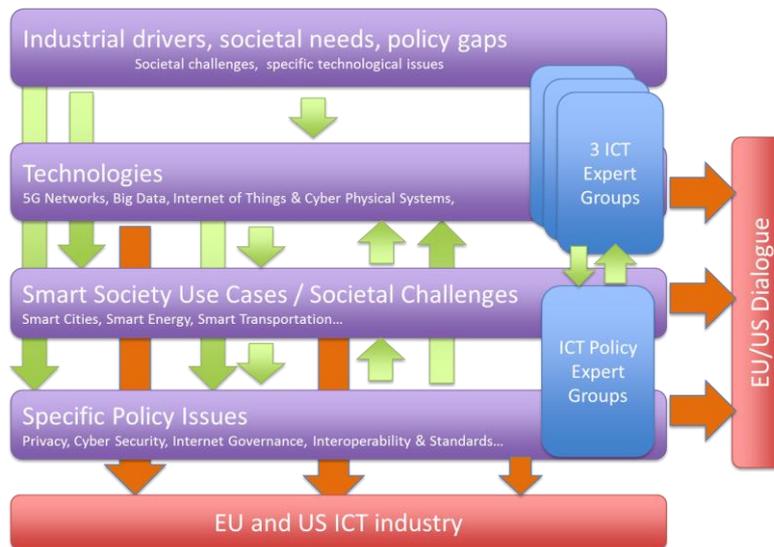


Figure 2: Expert Groups in the project scheme

Expert Group members are confirmed by the EG Chairs and their activity is organised so as to fit to the overall project work scheme and calendar. Each EG will meet at least three times (potentially four times) during the 30-months project duration and these physical meetings are combined to regular exchange by email and through telephone conferences. For economic and ecologic reasons, it will be sought to combine physical meetings to important project events or plenary meetings, so as to avoid multiple travel of experts and consortium members.

The first physical meeting of all Expert Groups is organised on 20 May 2016 in Washington, DC, hosted by NIST. The agenda takes into account separate sessions for each of the groups which then come together to share a joint vision and together discuss horizontal matters, relevant to EU-US ICT collaboration.

The second physical meeting of each EG is then planned to take place during the large International Conference on technology and policy aspects of smart cities, smart energy and smart transport, organised by PICASSO in Minneapolis, USA, on May 31-June 1, 2017.

The third meeting of all EGs will be organized separately during the following months, according to each EGs timetable. Meetings will as far as possible be organised back to back with relevant larger events/conferences in the scope of the Expert Groups.

All experts will also be invited to the Final project event, organised at the end of the PICASSO project. In addition to the physical meetings and regular exchange, it is also planned to organise regular webinars on policy matters through the Policy Expert Group. All experts, as well as external stakeholders, are invited to join these public webinars.

The figure below shows the provisional planning of the EG meetings:

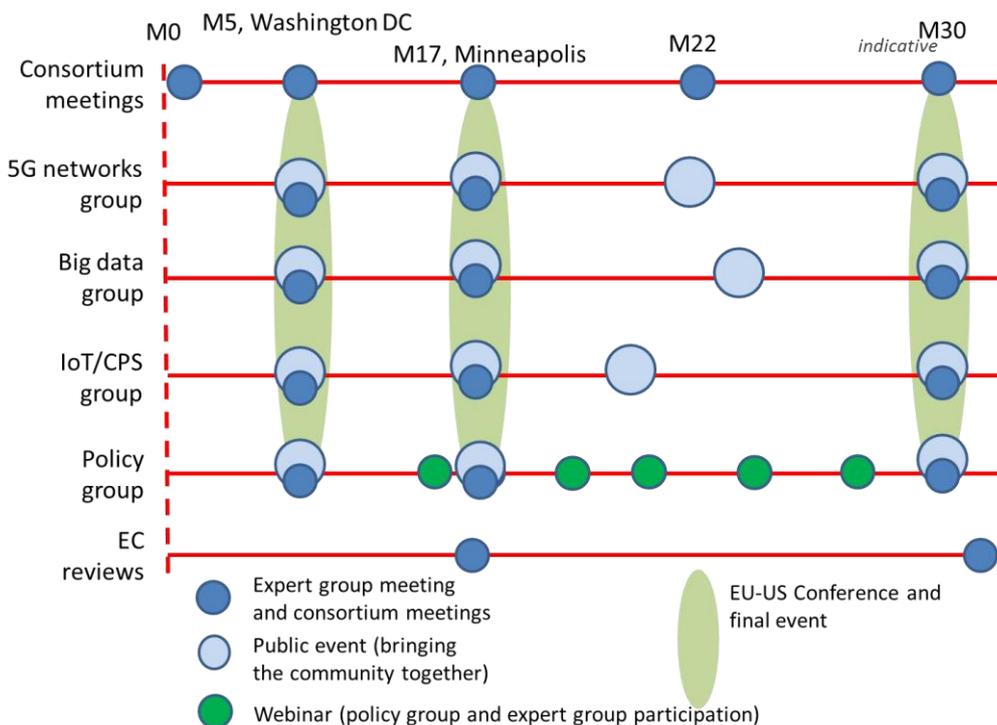


Figure 3: Provisional Expert Group meeting schedule

3. PICASSO Expert Groups: scope and composition

The following chapters specify the scope of each of the Expert Groups, its relation to external networks of the field, as well as the list of confirmed members.

3.1 IoT/CPS Expert Group

Internet of Things (IoT) is a paradigm that describes that a large number of devices with sensing capabilities are connected via the internet, providing large streams of real-time data that can be used for monitoring and for providing intelligent services. Until now, most of the IoT research and development are focused on sensors and on providing connectivity. In the future using the information provided by the sensors and networks in a smart fashion and connecting sensing to actuation will be the key points that bring value to the users and to the societies.

Cyber-physical systems (CPS) are systems where real-time computing elements and physical systems interact tightly. Cyber-physical systems are ubiquitous, as computing devices and software are enabling and enhancing the performance of all except the simplest technical systems. The most challenging class of cyber-physical systems are cyber-physical systems of systems (CPSoS, see www.cpsos.eu) which are characterized by being spatially distributed, having distributed control, supervision and management with partial autonomy of the subsystems, are dynamically reconfigured on different time-scales and can show emerging behaviors. Examples of cyber-physical systems of systems are the electrical grid, railway systems, the public transport system of a city, smart buildings, and production processes with many cooperating elements as e.g. robots, machines, warehouses, or large processing plants with many process units.

These large-scale systems are already equipped with a large number of sensing devices. The Internet of Things will make the access to the information provided by these sensors a IoT a lot simpler and more flexible. So the connectivity provided by the Internet of Things will become an enabling technology for cyber-physical systems of systems in which the loop from a myriad of sensors to the way the systems are operated and also to the demands of the users is closed. This will enable improved monitoring, management and hence new levels of energy and resource efficiency, product and service quality, and safe and reliable operation.

The enormous potential of these technologies has been recognized by the European Union, as CPS and IoT are key pillars of the Europe 2020 initiative Digital Agenda for Europe and of other research and innovation programmes, e.g. the ECSEL Joint Undertaking, EUREKA/ITEA, and the ARTEMIS Industry Association (see the latest [Strategic Research Agenda of ARTEMIS](#)). Privacy, security, and standardized communication are key aspects to realize cyber-physical systems of systems which are connected via the Internet of Things. Engineering trustable, reliable, evolvable and affordable cyber-physical systems is a scientific and technological challenge that requires huge efforts and where joining forces will help to advance more quickly and to meet societal challenges and to compete on the world markets for both US and European companies.

The objective of the Expert Group on IoT/CPS is to identify the key societal challenges where this technology will offer a large potential for improvements, to analyse technology strengths and technology gaps in the EU and in the US, and to make proposals for future EU-US collaborations in the intersection of IoT and CPS, in particular on how to handle the huge amounts of real-time data

produced by IoT-connected sensors and how to transform it into useful knowledge and actions that will improve the performance and the safety of Cyber-physical Systems of Systems.

The composition of the IoT/CPS Expert Group is as follows:

- Dr Sebastian Engell, Professor, TU Dortmund, Germany (chair)
- Dr Tariq Samad, Corporate Fellow, Honeywell, US (co-chair)
- Dr Massoud Amin, Director, Technological Leadership Institute, University of Minnesota, US
- Dr Chris Greer, Director of the Smart Grid and CPS Program Office and National Coordinator for Smart Grid Interoperability, NIST, US
- Dr Paul Nielsen, Director and CEO, Software Engineering Institute, Carnegie Mellon University, US
- Dr Haydn Thompson, CEO, THHINK, UK
- Dr O. Sinan Tumer, Senior Director, SAP Co-Innovation Labs, SAP Labs LLC, US
- Dr Hubertus Tummescheit, Chief Executive Officer, Modelon, Germany
- Dr Ovidiu Vermesan, Chair WG01 Alliance for Internet of Things Innovation (AIOTI), Chief Scientist, SINTEF, Norway

3.2 Big Data Expert Group

The PICASSO Big Data Expert Group will convene for the first time in Washington DC on May 20, 2016 aiming to satisfy the following objectives:

- ★ Set the scene by charting a high level status of the Big Data (BD) sector in Europe, the US and worldwide. An outline of the most competitive achievements, challenges and opportunities will be an important outcome that we hope to achieve.
- ★ More in depth discussions will be triggered by each expert focusing on specific areas of expertise which will include:
 - Software Engineering for Big Data and Big Data for Software Engineering
 - Infrastructure – Current situation and critical needs to go forward
 - Application areas that present the greatest challenges and opportunities
 - Big Data from and for Internet of Things
 - Research greatest achievements and current promising areas
 - ...more to be confirmed...
- ★ Charting of the greatest opportunities for collaboration between EU and US utilizing the most competitive strengths of each side

Big Data Expert Group members are confirmed as follows :

- Dr Nikos Sarris - ATC (chair)
 - Head of the ATC Innovation Lab
 - Member of the General Assembly of the Big Data Value Association
 - Member of the Steering Committee of the European Technology Platform NESSI (dedicated to Software, Services and Data)
- Prof. Dr. Sören Auer - University of Bonn,
 - Head of Enterprise Information Systems group,
 - Member of the leadership council of Fraunhofer-Institute for Intelligent Analysis and Information Systems (IAIS)
 - Coordinator of Big Data Europe (<http://www.big-data-europe.eu>) the CSA currently

coordinating all EC-funded Big Data projects and relevant communities

- Dr Andreas Metzger - University of Duisburg-Essen,
 - Head of Adaptive Systems and Future Internet Applications,
 - Chief technical architect of the European Future Internet Public Private Partnership project on transport, logistics and agri-food (FIspace),
 - Deputy General Secretary of the Big Data Value Association (<http://www.bdva.eu>), which represents the Private part in the European Big Data PPP
 - Vice Chair of the the Steering Committee of the European Technology Platform NESSI (dedicated to Software, Services and Data)
- Michail Bletsas - MIT,
 - Director of Computing at the MIT Media Lab
- Dr David Belanger - Stevens Institute of Technology,
 - Senior Research Fellow, Co-Leader IEEE Big Data Initiative
 - Member of the Board of Advisors - IEEE Transactions on Big Data, IEEE Transactions on Internet of Things
- Wo Chang, NIST
 - Digital Data Advisor for the NIST Information Technology Laboratory (ITL)
 - Convener of the ISO/IEC JTC 1/WG9 Working Group on Big Data
 - Co-chair of the NIST Big Data Public Working Group

3.3 5G Expert Group

The 5G Networks Expert Group analyses technological and economic drivers as well as potential obstacles of innovations in the economies on both sides of the Atlantic and derives opportunities for EU/US ICT collaboration improvement.

The technological scope includes Tactile Internet (for non-critical as well as mission-critical applications), mobile broadband (incl. millimeter-wave communications), and ubiquitous IoT- sensor networking. Of particular interest are flexible and scalable solutions, which meet most of 5G requirements. Furthermore, spectrum and network access policies as well as regulatory issues are of main interest.

5G has an enormous innovation potential to boost not only the ICT sector, but vertical sectors, like automotive, industry automation and health care as well. The 5G Expert Group will compile an analysis of existing and emerging sectors as well as evaluate the capabilities of key players in EU and US, and derive areas for joint collaboration activities and their potential gains.

Depending on the results of the analysis, the 5G Expert Group aims to develop a strategic roadmap addressing the following areas:

- ★ Applications and Services Attractiveness
- ★ Technological and economic capabilities
- ★ Networking effects
- ★ Key enabling technologies (incl. standardisation timeline)
- ★ Open technological challenges

These possible topics are provided as a starting point for discussion within PICASSO and may or may not end up as one of the 5 focus areas in the strategic roadmap.

The 5G Expert Group involves experts of existing clusters of EU projects, more precisely 5G-PPP cluster, and can thus insure close collaboration: Dr Olav Queseth – Coordinator METIS II and Mr David Kennedy – Coordinator EURO 5G.

The 5G Expert Group members are as follows:

- Prof. Gerhard Fettweis, Vodafone Chair, TU Dresden, IEEE Fellow, member of acatech, coordinator 5GLab Germany (Chair)
- Leif Johansson, BusDev Manager Northern Europe, European Leaduser Manager RF/Communication, National Instruments, Sweden
- Prof. Chengshan Xiao, Missouri University of Science and Technology / NSF, US
- Dr Deborah Crawford, Director of International Computer Science Institute (ICSI), NSF - International Computer Science Institute (ICSI), US
- Dr Olav Queseth, Project Coordinator METIS I & II, Ericsson, Sweden
- David Kennedy, Director, Project Coordinator EURO 5G, Eurescom, Germany
- Dr Amitava Ghosh, Head, North America Radio Systems Research, Nokia, US

3.4 Policy Expert Group

One of the objectives of the PICASSO project is to bring forward policy recommendations that are designed to improve the EU/US ICT collaboration. The Policy Expert Group explores opportunities to support EU/US ICT collaboration improvement by identifying and addressing key policy challenges and opportunities to ICT collaboration.

One of the most contested issues is personal data privacy, which is not only a matter of concern to private sector and civil society stakeholders, but is also an increasing bone of contention between national and supranational governments in relation to criminal justice, national security and other vital national interests.

This is the first of five policies that will be developed by the Policy Expert Group. Whereas PICASSO will not be able to satisfy all concerns across all stakeholders, the aim will be to explore how US/EU collaboration in ICT can be served, best, taking into account the differences in approach towards privacy and data protection in the USA and in Europe, with respect for law and citizens' expectations, and keeping the widest possible space for innovation and deployment.

The other four policies to be developed during the lifetime of the PICASSO project are yet to be determined. Candidates are:

- ★ addressing global societal challenges “respecting Human Rights”; “COP21”; “supporting SDGs”;
- ★ “trust and confidence”; “encryption”; “censorship”; “surveillance”; “security”; “anonymity”;
- ★ innovation ecosystem: “startups”; “incubators”; “accompanying measures”;
- ★ (open) standards, certification, transparency & choice.

These possible policy subjects are provided as a starting point for dialogue within PICASSO and may or may not end up as one of the 5 focus policy issues to be discussed in dialogue. All policy aspects will be discussed in relation to the PICASSO project focus on IoT/CPS, 5G and Big Data.

The Policy Expert Group members are as follows:

- Maarten Botterman – GNKS, PIR Chairman, IGF DC IoT, NLnet (chair)
- Dr David Farber – Carnegie Mellon University, IEEE fellow, ACM fellow (co-chair)
- Dr Jonathan Cave – Warwick University, GNKS, UK regulatory Committee Member
- Dr Robert Pepper – Cisco
- Dr Avri Doria – ICANN/NCUC
- Dr Ilkka Lakaniemi – Chairman of Future Internet Public Private Partnership, Finland Chamber of Commerce, Aalto University

The PICASSO Policy Expert Group will also closely exchange with relevant specialists from the DISCOVERY EU-project, having similar purpose of supporting the EU-US ICT collaboration.

4. Conclusion and planned next steps

The four PICASSO Expert Groups have been set up with the purpose of supporting the EU-US ICT collaboration in specific fields. This is why specialists have been invited that can provide inputs from the main topics covered in each of the fields (IoT/CPS, Big Data, 5G, policy), relevant to both the EU and the US. All groups will in addition seek collaboration to important networks active in their field, as specified before.

The EGs will come together for the first time on 20 May 2016, in Washington, DC. Based on discussions from this meeting (separately by EG and in a joint session, also open to external specialists invited) and afterwards, each of the ICT thematic Expert Groups will work on an opportunity report that will then be compiled to a common deliverable. The opportunity report will take into account the results of the collected data and analysis on industrial drivers and societal challenges, input from the Expert Group members and interviews with domain experts on challenges, opportunities and technology and policy gaps. The final opportunity report will identify opportunities for ICT policy and ICT research & innovation collaboration from EU and US academia and industry, in pre-competitive and non-competitive research. The report will also summarise needs for policy contributions in the domains and as thus provide important input to the Policy Expert Group. The latter will work on policy recommendations addressing EU and US policy stakeholders on transversal issues related to the thematic focus of the PICASSO project.

5. Annex: Terms of Reference

The PICASSO project team has developed Terms of Reference (ToR) as outlined below as a basis for the Expert Group work. Each Expert Group chair has the freedom to adapt these ToR to his and his groups' needs. Below is displayed the general basis provided, as of 11 March 2016.



PICASSO

ICT Policy, Research and Innovation for a Smart Society

Towards new avenues in EU-US ICT collaboration

TERMS OF REFERENCE OF THE PICASSO PROJECT EXPERT GROUPS

BACKGROUND

PICASSO (ICT Policy, Research and Innovation for a Smart Society: Towards new avenues in EU-US ICT collaboration) is a 30-months support action (January 31st, 2016 – June 30th, 2018), co-funded by the European Commission under the European Union Horizon 2020 programme, aiming to facilitate international partnership building and support to ICT dialogues with high-income countries.

The project mission is:

Enhance EU-US ICT research and innovation collaboration responsive to societal challenges and industry needs, supported by harmonious policies, to enable economic growth in both EU and US

5G Networks, Big Data, Internet of Things and Cyber Physical Systems – for smart cities, smart transport and smart energy

The PICASSO project brings together EU and US prominent specialists with the aim of reinforcing EU-US ICT collaboration in pre-competitive research in key enabling technologies related to societal challenges of common interest – 5G Networks, Big Data, Internet of Things and Cyber Physical Systems - and to support the EU-US ICT policy dialogue.

The PICASSO consortium is combining academic, industrial and policy support experience and includes the EU-based partners Technische Universität Dortmund and Technische Universität Dresden, Germany, THHINK Wireless Technologies, UK, Athens Technology Center, Greece, Agenzia per la Promozione delle Ricerca Europea, Italy, GNKS Consult, The Netherlands, and the US-based partners Honeywell International, The Miami-Florida Jean Monnet Center of Excellence (MFJMCE) at Florida International University, and the Technological Leadership Institute, University of Minnesota, USA. The project is supported by NIST – the National Institute of Standard and Technology, USA. The PICASSO partnership is led by inno TSD, France.

INTRODUCTION

EU and USA ICT collaboration has a successful and long history, and faces common challenges, but opportunities exist to create new synergies, leverage and value added. The aim of the PICASSO project is to foster EU-USA ICT cooperation through support to the ICT policy dialogue on the EU-US governmental level within the Horizon2020 Framework Programme and within the relevant ICT programmes in the USA.

PICASSO project activity

The activities focus on 3 thematic topics that are of high priority for both the EU and the USA: 5G Networks, Big data and Internet of Things/Cyber Physical Systems, and thus three Thematic Expert Groups will be set up. The Internet of Things/Cyber Physical Systems Expert Group focuses on Internet of Things/Cyber physical Systems related to monitoring, management and control of socio-technical systems, e.g. smart grids, production systems, traffic etc.

Additionally, a high level EU-USA ICT Policy Expert Group has been created. The Expert Groups include top industry and academia experts from both the EU and the USA. The chosen topics rely on common enabling technologies of high importance for the EU and the USA, but have different specific needs with respect to policy and standards, e.g. for safety, cyber security, data privacy, confidentiality. Thus, the Policy Expert Group will get contributions from the three Thematic Expert Groups and will focus on the policy topics common for EU, USA and the world.

The PICASSO consortium, supported by the four Expert Groups (three EU-US Thematic ICT Expert Groups and the EU-US ICT Policy Expert Group), will provide contributions for keeping industry competitive at global level, will make ICT policy contributions, will propose linkages between EU and USA ICT policy and research agendas and will aim to prepare relevant EU-US joint strategic initiatives, both in ICT policy and R&D. Analysis on **industrial drivers, ICT policies & regulations and academia-industry collaboration**, related to the thematic topics in the focus of the project, will feed into the Expert Group activities (e.g. state of the art and needs in these transversal collaboration topics that are relevant beyond thematic considerations). **The Expert Groups will discuss cross-industry and cross-domain findings, organise workshops in the relevant topics, and propose new avenues for EU-USA policy and R&D collaboration and joint EU-USA initiatives to the EU and USA Governments.** Policy briefs for the EU-US dialogue meetings will be prepared based on the discussions in the policy groups.

The final outcomes of the project will be:

- **Analysis of industrial drivers, societal needs, policy gaps Overview of ICT landscape** and opportunities for ICT industry in EU and US
- **ICT Industry Toolkit** - a dedicated mobile app providing a smart quick access to ICT activities in EU and US via a user-friendly interface, and an on-line tool
- **4+ webinars** on funding opportunities
- **Opportunity Reports** for EU-US collaboration in the 3 domains of the Thematic Expert Groups
- **ICT Policy Opportunity Report**
- **30+ events** around specific issues, related to key enabling technologies and societal challenges
- **10+ success stories** in topics of interest for the ICT industry

- **Recommendations on topics for exclusive collaboration** EU-US: topics with mutual benefit for EU and US to collaborate exclusively under joint/coordinated calls (H2020 and US agency funded call)
- **Recommendations for standardization activities** that facilitate interoperability and broad use of technologies in domains of high societal relevance
- **Recommendations on key needs for dialogues on regulations** where such regulations are impeding the development and exploitation of advanced technologies for the benefit of the society or are missing in order to achieve fair competition and equal access to markets and technologies
- **5 policy briefs and 5 webinars** related to the identified policy gaps
- **White Paper** summarizing recommendations to policy makers, including strategic initiatives

PRESENTATION OF THE EXPERT GROUPS

To achieve the project objectives, the PICASSO consortium mobilizes for the duration of the project and on a regular basis **an outstanding community of around 24 ICT actors** – representatives of the ICT industries from EU and US, domain experts, end-users and policy specialists, as well as representatives of the PPPs and research and innovation networks, both from the EU and the US. They are organized in **four PICASSO EU-US Expert Groups that support the core consortium**:

- ★ Three EU-US Thematic ICT Expert Groups focus on the strategic ICT technology areas 5G Networks, Big Data, and IoT/CPS, in relation to the societal challenges. Each group includes around 6 prominent experts from the EU and the US.
- ★ The 5G Networks Expert Group is chaired by Gerhard Fettweis, TU Dresden
- ★ The Big Data Expert Group is chaired by Nikos Sarris, ATC
- ★ The IoT/CPS Expert group is chaired by Sebastian Engell, TU Dortmund
- ★ The EU-US ICT Policy Expert Group include around 6 highly experienced policy specialists from the EU and the US, with specific experience in internet governance, cyber security, standards and interoperability, data privacy, and ethics.
- ★ The ICT Policy Expert Group is chaired by Maarten Botterman, GNKS

The ICT Policy Expert Group and the technology-oriented Expert Groups will work closely together to identify policy gaps in the technology domains and to take measures to stimulate the policy dialogue in these areas. This will lead to a **synergy between experts in ICT policies and in ICT technologies which is a unique feature of PICASSO**.

The views of the groups will be integrated in **joint working sessions** in order to identify gaps and opportunities and to provide a map of challenges, open problems, and needs for future policies and strategic EU-US initiatives, both policy- and research-related. Cross-industry and cross-application findings will be captured thanks to the interactions within and between the groups.

OBJECTIVES OF THE EXPERT GROUPS

Expert group members comprise both industry and academia representatives and will work jointly on **two main elements**:

(1) Represent and advance innovation and scientific excellence in the topics through exposure of research and innovation results in this international context

(2) Be a platform for the strategic discussion and orientation for potential future collaboration opportunities, based on the needs of industry and/or society

Aiming at creation of synergies between ICT thematic group experts and ICT policy experts.

The role of the Expert Groups is to support the PICASSO consortium in the following activities:

- To analyse industrial drivers, societal challenges and policy gaps
- To analyse relevant challenges and opportunities in the EU and the US
- To highlight gaps in ICT policies and regulations related to the topics; and to prepare policy briefs
- To propose common priorities and future cooperation opportunities in the EU and the US
- To help in linkages between EU and US networks (PPPs, ETPs, H2020 projects, associations, US networks)
- To organise public events involving EU-US ICT communities
- To support a quicker development of strategic initiatives
- To prepare a roadmap in the topics for EU-US collaboration which will be used for policy meetings
- To pin-point the areas where it makes sense to propose exclusive collaboration (=coordinated calls), to justify them and to present these recommendations to the European Commission and US policymakers

COMPOSITION OF THE EXPERT GROUPS

The core of each Expert Group is composed of:

- One Expert Group Chair
- Members from industry and academia, representing the specific fields of ICT

Membership in the groups is open to representatives from related H2020- and US-funded industry-driven projects and ICT associations, networks and PPPs from the EU and the US, as appropriate and upon agreement with the Expert Group Chair. Other particular participants may vary between the Expert Group meetings according to the needs and topics covered.

EXPECTATIONS ON EXPERT GROUP MEMBERS

Expert Group Members are expected:

- To **participate in three Expert Group meetings** (and related public workshops) during the project lifetime (30 months). Expert Group Members will also be invited to the final event. Indicative timing of these meetings is as follows:
 - Meeting 1: May 20th, 2016 – in Washington, USA;

- Meeting 2: planned (*tbc*) May 31st/June 1st, 2017 – in Minneapolis, USA, at EU-US Innovation Conference;
- Meeting 3: according to individual planning of each Expert group, beginning of 2018/spring 2018, to be confirmed
- Final event: spring / summer 2018, to be confirmed, probably Brussels

Participation can sometimes be on-line or contributions provided in advance in writing; experts may also appoint a deputy in case of impossibility to join a meeting.

- To actively contribute, during these meetings, to project discussions, findings and recommendations.
- To provide short written contributions to different reports and to review reports, according to the indication from the Expert Group chairs
- To be the project ambassadors by keeping informed their various networks of the project outcomes, the project proactive observers by notifying any new initiatives, and the project inner reviewers by providing feedback, advices and ideas notably concerning the Expert Group thematic, etc.

The Chair of an Expert Group is expected:

- To finalise the composition of the Expert Group during the early project stage;
- To nominate one contact person in order to facilitate the correspondence, provide technical support to the process and support drafting reports under direction of the Chair;
- To facilitate the interaction of the Expert Group Members;
- To moderate the meeting of the Expert Group;
- To contribute to the meetings of the Policy Expert Group – with relevance to the topic of the respective Expert Group; and vice versa
- To prepare the Expert Group's meeting report (public document) and to follow up the meeting.

OPERATIONAL MODE OF THE EXPERT GROUPS

7.1 MANAGEMENT OF THE EXPERT GROUPS

Each Expert Group chair manages the planning of his respective group activity, including follow-up of deliverables, as well as administrative and financial activity (such as organisation of events, reimbursement of external members' travel costs, etc.).

7.2 MEETINGS OF THE EXPERT GROUPS

A tentative planning of the meetings has been established. The date of the meetings will be fixed at least 3 months in advance in order to provide enough time to ensure the necessary logistical preparations.

The draft agenda proposed by the hosting party will be finalized with the coordinator, as well as other involved consortium members, through an iterative process well in advance of the meeting and if possible not later than 30 days prior to the meeting.

Ad hoc members may be invited to participate in meetings for which a specific area of expertise may be identified.

7.3 CONFIDENTIALITY ISSUES

The materials of Expert Groups will be made public, after validation from the Expert Group Members. Those documents will be circulated to the Expert Group Members, asking for comments and remarks where applicable until a certain deadline. If no feedback is provided until this deadline, the consortium will consider this to be an approval.

7.4 RESOURCES

The travel costs of the nominated Expert Group Members (from both the EU and the USA) are covered by the PICASSO project, according to the procedure and limits communicated by each Expert Group Chair.

The Expert Group Members should contact directly the Expert Group Chair, or his representative, for any question related to the meeting of the Expert Group and ticket cost coverage. Contact details are provided separately.

The Chair of the Expert Groups or the partner responsible for the main event to which the Expert Groups are co-located, has the budget provision for the organisation of the meetings of the Expert Groups (meals, coffee breaks...). The funding is also available for the workshops to be organised in conjunctions with the Expert Group meetings.

7.5 TIMESCALE AND DURATION

The Expert Groups are established for the duration of the project.

LEGAL STATUS

These Terms of Reference are not intended to create any legally binding obligations and do not constitute an agreement under international law.

Visit:

<http://www.picasso-project.eu/>