



AGENDA - Updates are available on www.picasso-project.eu/symposium

Day 1 • 19th of June 2017

08:30 - 09:15 **Opening Session** (Johnson Great Room, McNamara Alumni Center)

- **Eric Kaler**, President, University of Minnesota, USA
- **Jean-Yves Roger**, European Commission, Belgium, EU
- **David Corman**, Program Director, National Science Foundation, USA
- **Gabrielle Gerbaud**, Executive Director, Minnesota Trade Office, USA
- **Tariq Samad**, Chair of the Symposium, TLI, University of Minnesota, PICASSO project partner

09:15 - 09:50 **Keynote: The Intersection of IoT and CPS as a Force for Progress** (Johnson Great Room, McNamara Alumni Center)

Chris Greer, Senior Executive for Cyber-Physical Systems, National Institute of Standards and Technology, US Dept of Commerce, USA

09:50 - 10:25 **Keynote: 5G as an Enabler for Tomorrow's Smart Society** (Johnson Great Room, McNamara Alumni Center)

Henning Schulzrinne, Columbia University and Federal Communications Commission, USA

10:25 - 10:50 Break (Johnson Great Room, McNamara Alumni Center)

10:50 - 12:00 **Parallel Sessions on Emerging ICT Areas**

IoT/CPS: Convergence of IoT and CPS for Smart and Dependable Socio-technical Systems

(Regents East Committee Room 665, McNamara Alumni Center)

Chair: Sebastian Engell, Professor, Head of the Process Dynamics and Operations Group (DYN), TU Dortmund, Germany, EU

The ubiquitous connectivity provided by the Internet of Things will "close the loop" in cyber-physical systems from a myriad of sensors to the way the systems are operated and also to the demands of the users. This will enable improved monitoring, management, and hence new levels of energy and resource efficiency, product and service quality, and safe and reliable operation for socio-technical systems such as electrical grids, railway systems, the public transport system of a city, and production processes. In this session, three technical talks will provide insights into current technology developments, challenges, and trends at the convergence of the Internet of Things and cyber-physical systems.

- **John Baras**, Professor, Lockheed Martin; Chair in Systems Engineering, University of Maryland; Director, Maryland Hybrid Networks Center, USA
- **Rolf Findeisen**, Professor, Head of the Institute for Automation Engineering (IFAT), Otto-von-Guericke University, Germany, EU
- **Martin Serrano**, Research Fellow, Insight Centre for Data Analytics, Ireland, EU

5G Networks: 5G Small Cell Technologies (Thomas Swain Room, McNamara Alumni Center)

Chair: Gerhard Fettweis, Vodafone Chair Professor at TU Dresden, Germany, EU

To achieve high capacity and improved coverage in the 5G network, the importance of small cell technologies has been highlighted both in the EU and the US. In this session, leading experts in the area will discuss key technology solutions and deployment scenarios of the 5G small cell, and then look beyond current development and towards strategy forward both in the EU and the US.

- **Georgios Giannakis**, ADC Chair Professor, University of Minnesota, USA
- **Amitava Ghosh**, Nokia Fellow and Head of Small Cell Research, Nokia Bell Labs, USA

Big Data: Research and Innovation Challenges and Opportunities for Transatlantic Collaboration – a US Perspective

(Johnson Great Room, McNamara Alumni Center)

Chair: Nikos Sarris, Head of the ATC Innovation Lab, Athens Technology Center, Greece, EU

This session will provide a complete overview of challenges and opportunities for transatlantic collaboration between US and EU, in the Big Data domain, given by three US Big Data Innovation Hubs and NIST.

- **Melissa Cragin**, Executive Director, Midwest Big Data Innovation Hub, USA
- **Meredith M. Lee**, Executive Director, West Big Data Innovation Hub, USA
- **Lea Shanley**, co-Executive Director, South Big Data Innovation Hub, USA
- **Wo Chang**, Digital Data Advisor, National Institute of Standards and Technology, USA

12:00 - 13:10 Lunch (Johnson Great Room, McNamara Alumni Center)





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12:30 - 13:00	<p>Keynote: R.T. Rybak, CEO, Minneapolis Foundation; former Mayor, Minneapolis, USA (Johnson Great Room, McNamara Alumni Center)</p>
13:10 - 14:25	<p>Parallel Sessions on Emerging ICT Areas (Cont'd) IoT/CPS: Research and Innovation Challenges and Opportunities for Transatlantic Collaboration (Regents East Committee Room 665, McNamara Alumni Center) Chair: Tariq Samad, Senior Fellow and Honeywell/W.R. Sweatt Chair in Technology Management, Technological Leadership Institute, University of Minnesota, USA This session will provide a platform to discuss promising future directions for transatlantic collaboration in the IoT and CPS domains, supported by statement talks and an overview and analysis of EU and US research and innovation challenges and priorities, and collaboration barriers and opportunities that are identified in the opportunity report that was recently published by the PICASSO Project.</p> <ul style="list-style-type: none"> • Dinkar Mylaraswamy, Fellow, Honeywell Aerospace Advanced Technology, USA • Hubertus Tummescheit, CEO & Co-founder, Modelon, Sweden, EU • Christian Sonntag, Senior Scientist & Manager, TU Dortmund, Germany, EU <p>5G Networks: 5G Ultra-large Cell Technologies (Thomas Swain Room, McNamara Alumni Center) Chair: Gerhard Fettweis, Vodafone Chair Professor, TU Dresden, Germany Based on the PICASSO opportunity report, 5G ultra-large cell design has been identified as one of the high priority R&I themes for future EU and US collaboration. In this session, top academy and industry experts from both the EU and the US will share their insights on enabling technologies, potential social impacts as well as perspective EU-US collaboration opportunities in this area.</p> <ul style="list-style-type: none"> • Olav Queseth, METIS-II Project Coordinator, Ericsson, Sweden, EU • Ari Pouttu, Professor, University of Oulu, Finland, EU • Berge Ayvazian, Principal Consultant, Wireless 20/20, USA <p>Big Data: Research and Innovation Challenges and Opportunities for Transatlantic Collaboration – a European Perspective (Johnson Great Room, McNamara Alumni Center) Chair: Nikos Sarris, Head of the ATC Innovation Lab, Athens Technology Center, Greece, EU This session will provide a platform to discuss promising future directions for transatlantic collaboration in the Big Data domain, supported by statement talks by BDVA and Big Data Europe representatives. Moreover, an overview and analysis of EU and US research and innovation challenges and priorities, and collaboration barriers and opportunities that are identified in the opportunity report that was recently published by the PICASSO Project will be presented.</p> <ul style="list-style-type: none"> • Sören Auer, Head of Enterprise Information Systems group, University of Bonn • Andreas Metzger, Head of Adaptive Systems and Future Internet Applications, University of Duisburg-Essen, BDVA Deputy Secretary General, EU • Vasilis Papanikolaou, Innovation Manager, ATC Innovation Lab, Athens Technology Center, Greece, EU
14:25 - 14:50	<p>Break (Johnson Great Room, McNamara Alumni Center)</p>
14:50 - 15:35	<p>Keynotes: EU and US Priorities and Opportunities in Big Data (Johnson Great Room, McNamara Alumni Center)</p> <ul style="list-style-type: none"> • Chaitan Baru, Senior Data Science Adviser on CISE, NSF, USA • Andreas Metzger, Head of Adaptive Systems and Big Data Applications, paluno (The Ruhr Institute for Software Technology), University of Duisburg-Essen, Germany & Deputy Secretary General, Big Data Value Association (BDVA), EU
15:35 - 16:05	<p>Keynote: The Road to Safer, Cleaner and More Efficient Transportation for Future Smart Cities (Johnson Great Room, McNamara Alumni Center)</p> <ul style="list-style-type: none"> • Haydn Thompson, CEO, THHINK Group, United Kingdom, EU



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- 16:05 - 16:50 **Panel: Good Practices in Smart City Transportation Strategies – Their ICT Needs** (Johnson Great Room, McNamara Alumni Center)
Chair: Mark Spinoglio, Manager & Senior Consultant SPI S.A., EU/USA
 Building on the technical sessions conducted earlier in the agenda, this plenary will connect policy with technology in the smart city transportation area by highlighting the successful applications of ICT in support of smart transportation, providing insights on current developments and strategies forward both in the EU and the US.
- **Frank Van den Bulcke**, Director, Mobility Company, City of Ghent, Belgium, EU
 - **Jaime Quesado**, Specialist in Competitiveness and Innovation, President of ESPAP –Portuguese Government Agency for Shared Services, EU
 - **Umit Ozguner**, Chair in ITS and Professor Emeritus, Electrical & Computer Engineering, Ohio State University, USA
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- 16:50 - 17:20 **Keynote: Cybersecurity Implications for ICT and Smart Society** (Johnson Great Room, McNamara Alumni Center)
 • **Massoud Amin**, Director, Technological Leadership Institute, University of Minnesota, USA
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- 17:30 - 19:00 **Networking Reception** (Pinnacle Ballroom at the Commons Hotel, 615 Washington Ave SE, Minneapolis)

Day 2 – 20th of June 2017

- 08:30 - 10:00 **Panel: Policy Implications of ICT** (Johnson Great Room, McNamara Alumni Center)
Chair: Maarten Botterman, Director GNKS, ICANN Board Director, Chairman IGF DC IoT, The Netherlands, EU
 EU US ICT-oriented collaboration doesn't take place in isolation: the results of ICT R&I affect society, and what society wants and/or needs influences the interest and direction of ICT research. In this understanding, the PICASSO Policy expert group is exploring key policy issues that affect the development of 5G Networks, Big Data, and IoT/CPS, and the way they help address policy challenges. With you we will be exploring how we can progress best working together on privacy & data protection; ICT security; and standardization. Because of the collaboration between EU and US researchers, the solutions found are likely to be more relevant and more sustainable for the global markets that are served with what we create.
- **Jonathan Cave**, Lecturer Warwick University, Member Regulatory Policy Committee, United Kingdom, EU
 - **Avri Doria**, Principle Researcher, Technicalities, USA
 - **David Farber**, Adjunct Professor of Internet Studies Carnegie Mellon University, USA
 - Representatives of PICASSO Expert Groups
- 10:00 - 10:30 **Keynote: Digitizing Europe's Industry: Policy, Research & Innovation Measures** (Johnson Great Room, McNamara Alumni Center)
Christoph Runde, MTP Project Development Coach for European Union Intelligent Manufacturing Systems (IMS), EU
- 10:30 - 10:55 Break** (Johnson Great Room, McNamara Alumni Center)
- 10:55 - 12:10 **Parallel Sessions**
Panel: Smart Transportation and ICT: Topics for Collaboration (Johnson Great Room, McNamara Alumni Center)
Chair: Latif Ladid, Founder & President, IPv6 Forum & Research Fellow, University of Luxembourg, EU
 This session will build on the EU and US policies towards smart city transportation highlighted by the first session on the first day and on the sessions that focused on emerging ICT areas. New opportunities of collaboration between the EU and US in smart transportation will be discussed amongst the panel and extended to the session's participants.
- **Álvaro de Oliveira**, Invited Professor, University of Aalto, Finland, EU
 - **Andreas Metzger**, Head of Adaptive Systems and Big Data Applications, paluno (The Ruhr Institute for Software Technology), University of Duisburg-Essen, Germany & Deputy Secretary General, Big Data Value Association (BDVA), EU
 - **Berge Ayvazian**, Senior Analyst and Consultant, Wireless 20/20, USA
 - **Chris Greer**, Senior Executive for Cyber-Physical Systems, National Institute of Standards and Technology, US Dept of Commerce, USA



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Clean Energy in Minnesota and Beyond

(Multipurpose Room 6, Recreation and Wellness Center, 123 SE Harvard St, Minneapolis)

Chair: Gregg Mast, CEEM, USA

The rapid transition to cleaner and more sustainable energy solutions present vast opportunities for collaboration across key stakeholder groups. This session will bring together experts that are leading this transformation in Minnesota, the Midwest, and globally to share their unique insights. Participants will discuss the role of ICT technology, market participants, and policy that is necessary for harnessing this opportunity now and into the future

- **Steven Webster**, Executive Director, Cleantech Open Midwest, USA
- **Ravi Pradhan**, Vice President, Technology Strategy, Siemens Digital Grid Software and Solutions, USA
- **Deepinder Singh**, co-founder, 75F, USA

Intelligent Manufacturing Systems: Prospects for International Collaboration

(Multipurpose Room 7, Recreation and Wellness Center, 123 SE Harvard St, Minneapolis)

Chair: Dan Nagy, Managing Director, IMS, USA

Having introduced project clustering in a prior PICASSO event in Washington DC, IMS will show the methodology used to attract over 30 projects to its first cluster in Additive Manufacturing, the ongoing work, and explain the upcoming workshop for the next Industry 4.0 topics in Advanced Robotics, and Industrial Internet of Things.

- **Steve Ray**, IMS Project Development Coach, U.S. Region; Distinguished Research Fellow; Carnegie Mellon Silicon Valley, Princeton University, USA

12:10 - 13:10 Lunch (Johnson Great Room, McNamara Alumni Center)

13:10 - 14:10 Panel: Best Practices for Academic/Industry Collaboration in Smart Cities

(Johnson Great Room, McNamara Alumni Center)

Chair: Anne Bowser, Senior Program Associate, Woodrow Wilson International Center for Scholars, USA

The goal of this session is to bring together academic and industry actors from the US and EU to discuss effective practices for supporting academia-industry cooperation in smart cities. Each panelist will be invited to give a short talk to set the scene, followed by a moderated discussion from members of the audience. Key outcomes of this panel will be enhanced knowledge of academia-industry cooperation in the US and the EU, and information on opportunities for future exploration.

- **Laura Morgagni**, Director, Turin Wireless Foundation; Secretary General, Italian Technology Cluster 'Smart Communities Tech', Italy, EU
- **Haydn Thompson**, CEO, THHINK Group, United Kingdom, EU
- **Jason Vargo**, Director, University of Wisconsin-Madison UniverCity Alliance, USA

14:10 - 15:10 Panel: Perspectives on EU/US Collaboration in ICT (Johnson Great Room, McNamara Alumni Center)

Chair: Tariq Samad, Senior Fellow and Honeywell/W.R. Sweatt Chair in Technology Management, Technological Leadership Institute, University of Minnesota, USA

The focus of this session will be on identifying obstacles to, and offering constructive recommendations for, more effective EU/US collaboration in ICT, especially IoT/CPS, Big Data, and 5G Networks. Key related insights from the technical and policy sessions of the symposium will also be highlighted. The panelists include PICASSO Expert Group leaders and government representatives.

- **Maarten Botterman**, Director GNKS, ICANN Board Director, Chairman IGF DC IoT, The Netherlands, EU
- **David Corman**, Program Director, National Science Foundation, USA
- **Sebastian Engell**, Professor, Head of the Process Dynamics and Operations Group (DYN), TU Dortmund, Germany, EU
- **Gerhard Fettweis**, Vodafone Chair Professor at TU Dresden, TU Dresden, Germany, EU
- **Chris Greer**, Senior Executive for Cyber-Physical Systems, National Institute of Standards and Technology, US Dept of Commerce, USA
- **Jean-Yves Roger**, European Commission, Belgium, EU
- **Nikos Sarris**, Head of the ATC Innovation Lab, Athens Technology Center, Greece, EU

15:10 - 15:30 Break (Johnson Great Room, McNamara Alumni Center)

15:30 - 16:00 Conclusions, Path Forward and Adjournment (Johnson Great Room, McNamara Alumni Center)



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