Thematic Session
Photonics for Smart Cities and Buildings

Jean Luc Beylat, Photonics21 Work Group 1 Chair
Sébatien Bigo, Photonics21 Work Group 1 Deputy Chair

Brussels, 29 May 2015
Aim of the thematic session

- Start a dialogue with invited representatives of other European Technology Platforms, Public Private Partnerships and private players and increase the understanding of how to jointly contribute to the implementation of the Societal Challenges work programme

- Identify needs in the field of smart cities and buildings where photonics technologies can contribute to the societal challenges

- Identify areas and topics of potential collaboration between the photonics community and the invited ETPs and PPPs representatives, e.g. potential photonics-related research and innovation topics as input to the Societal Challenges work programme or for joint programme activities
Aim of the thematic session

- Excellent Science
- Industrial Leadership
- Societal Challenges

Photonics
Public
Private Partnership

Identify areas and topics for potential collaboration under the Societal Challenges pillar
Agenda

First part of the session

11:30 – 13:00 Introduction and keynote presentations

- Presentation by the European Commission about current challenges and the Societal Challenges work programme to which photonics might contribute to

- Representatives of the private side will provide a keynote presentation as a first input to the following discussion.

13:00 – 14:30 Lunch break

Second part of the session

14:30 – 16:00 Common discussion on potential cooperation areas and photonics topics for efficient energy

- Brainstorming and dialogue to identify areas and topics for potential collaboration
**Agenda**

11:30 – 11:40 **Welcome and introduction**  
Jean-Luc Beylat, Photonics21 Work Group 1 Chair & President Alcatel Lucent Bell Labs France;  
Sébastien Bigo, Photonics21 Work Group 1 Deputy Chair & Alcatel Lucent Bell Labs

11:40 – 11:50 **Questions and comments**

11:50 – 12:05 **How Smart Cities and communities address energy-efficiency and intelligent use of Information and Communication Technologies**  
Mathias Reddmann, Policy Officer Unit Smart Cities and Sustainability, DG Communications Networks, Content and Technology, European Commission & representing the European Innovation Partnership on Smart Cities

12:05 – 12:15 **Questions and comments**

12:15 – 12:30 **Opportunities and challenges for energy-efficient construction**  
Stefano Carosio, Innovation Manager D’Appolonia & Co Chairman of the Energy-Efficient buildings Public Private Partnership Board

12:30 – 12:40 **Questions and comments**

12:40 – 12:55 **How photonics contributes to smart cities – Bristol is open**  
Anna Tzanakaki, Research Fellow University of Bristol & Consultant Bristol is Open CTO office Bristol

12:55 – 13:00 **Questions and comments**

13:00 – 14:30 **Lunch break**

14:30 – 15:45 **Discussion on potential cooperation areas and photonics topics for efficient energy**  
All workshop participants

15:45 – 16:00 **Next steps**

16:00 **End of the workshop & the Photonics21 Annual Meeting 2015**
Keynote presentations
Discussion on potential cooperation areas and photonics topics for efficient energy
Questions to be discussed

- What are future needs in the field of smart cities and buildings?

- What could be areas for potential collaboration where photonics technologies can contribute?

- How do the photonics topics as outlined in the Photonics Multiannual Roadmap contribute to future needs for smart cities and buildings?

- How do the photonics research and innovation priorities for Horizon 2020 Work Programme 2016/2017 contribute to the defined needs?

- What could be potential photonics research and innovation topics related to the societal challenges work programme?
Photonics Partnership Board proposal for Horizon 2020 Work Program 2016

2016 Photonics KET

Research Actions
- Moving photonic and spectroscopic imaging devices for in-depth disease diagnosis to the clinic
- Breakthrough in miniaturization of SSL light engines and systems
- Pervasive High-Specificity Sensing
- 2&3D opto-structuring: researching new approaches to optical manufacturing

Innovation Actions
- Optical technologies for ubiquitous mobile and fixed access
- Micro display-based immersive, augmented, and virtual reality in professional and semi-professional applications
- Assembly and Packaging Pilot Production
Photonics Partnership Board proposal for Horizon 2020 Work Program 2017

2017 Photonics KET

Research Actions
- Petabit/s Optical Core and Metro Networks
- Photonic integrated circuit technology

Innovation Actions
- Innovation Incubator for SMEs ( photonics and non-photonics SMEs)
- Moving photonic and spectroscopic imaging devices for in-depth disease diagnosis to the clinic
- Process and Product Monitoring and Analysis (PPMA)

Coordination and Support Action
- Photonics21 Secretariat: Photonics area in Europe – Coordination and Collaboration
Next steps

- What would be the next steps?

- Should we e.g. work on a joint position paper for a specific topic in the field of smart cities and buildings?

- If so, who would like to volunteer to contribute to this activity?

- The Photonics21 secretariat will share with you the outcomes of the thematic session.
Thank you very much for your attention and participation!
Have a safe trip home!