

# Joint Event

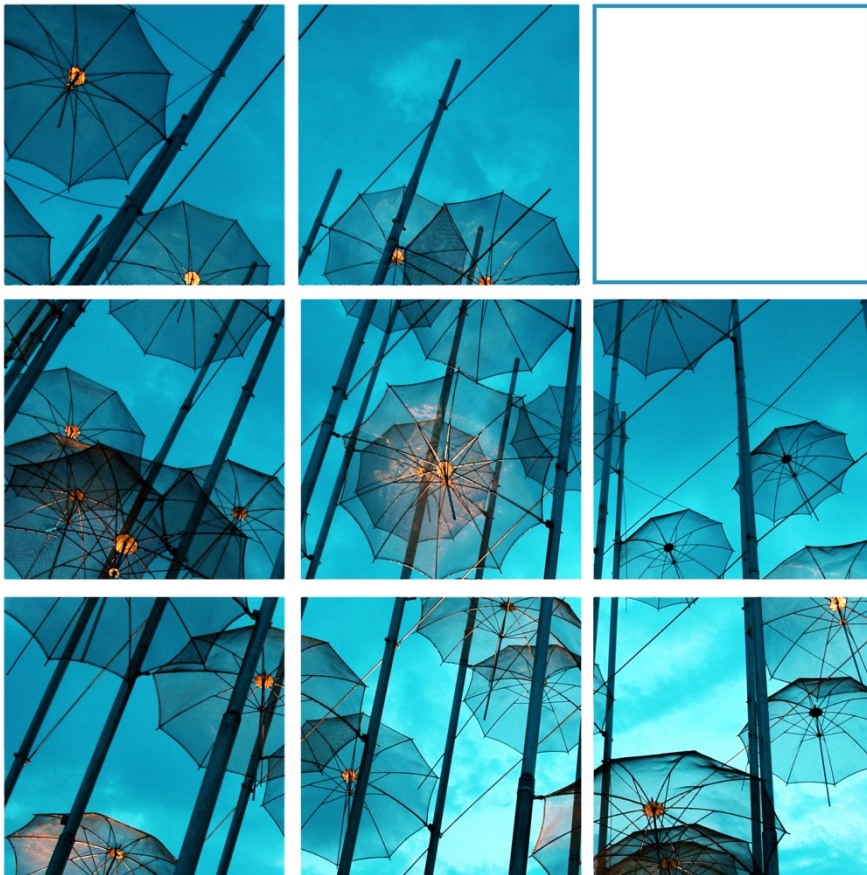
## EPoSS Annual Forum 2018 & MNBS 2018

16-18 October 2018

CERTH

Thessaloniki, Greece

## Programme



### Co-organisers & Contributors





## 15 October 2018 (Day 0)

**17:00 EPoSS Executive Committee Meeting**  
(restricted to members of the EPoSS Executive Committee)

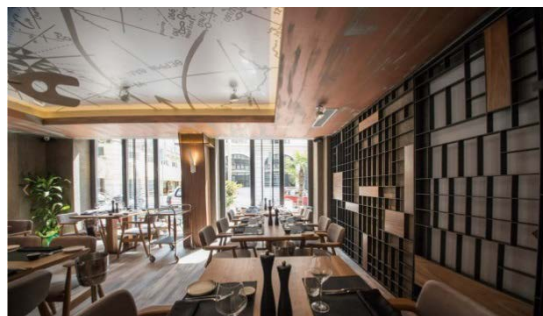
Venue for the EPoSS Executive Committee Meeting is:

**Makedonia Palace Hotel**  
Leof. Meg. Alexandrou 2  
Thessaloniki 546 40  
Greece  
+30 231 089 7197



**20:00 EPoSS Executive Committee Dinner**  
(restricted to members of the EPoSS Executive Committee)

**Grada Nuevo**  
Kalapothaki 14  
Thessaloniki 546 24  
Greece  
+30 231 027 1074





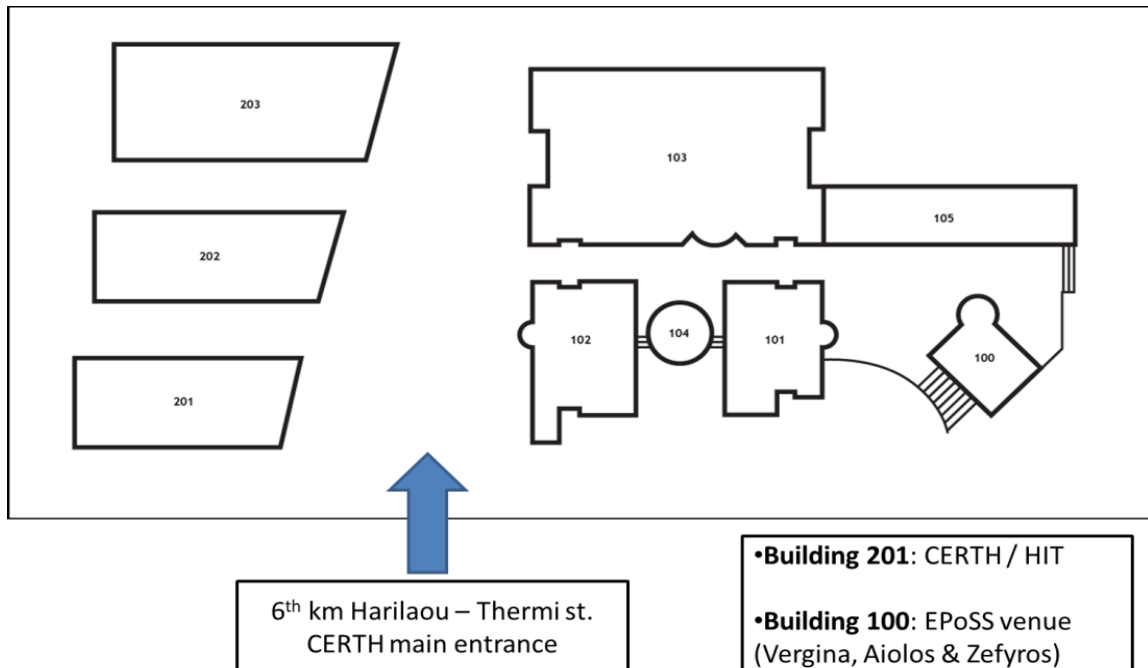
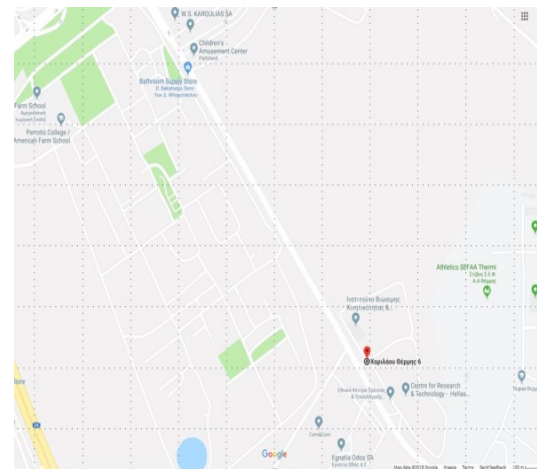
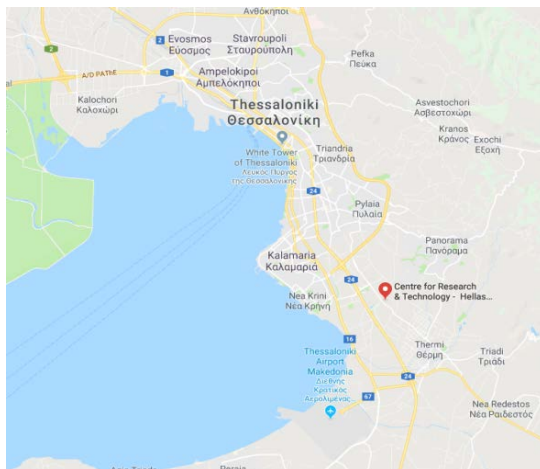
## Venue (16 – 18 October 2018)

Centre for Research and Technology Hellas  
CERTH  
6th km Charilaou-Thermi Rd  
GR 57001 Thermi, Thessaloniki, Greece



Network: "Internet"

Password: free of password





## 16 October 2018 (Day 1)

**09:00**    *Registration for the EPoSS Annual Forum 2018*  
*Welcome Coffee & Opportunity to Visit the Poster Exhibition in the Library*

**09:30**    Working Group Meetings

9:30	WG Transportation  <i>Room: Aiolos</i>	WG Healthy Living & WG Applied MNBS  <i>Room: Vergina Amphitheatre</i>	WG Manufacturing & Robotics & WG Communications for Smart Devices  <i>Room: Zefyros</i>
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**10:30**    WG Key Technologies  
  
*Room: Vergina Amphitheatre*

**11:30**    *Coffee Break & Opportunity to Visit the Poster Exhibition in the Library*

**12:00**    EPoSS Annual Forum Opening Session  
*Room: Vergina Amphitheatre*

Chair: Wolfgang Gessner, *Head of EPoSS Office*

Welcome addresses of:

1. Evangelos Bekiaris, *Director, Hellenic Institute of Transport (HIT) at CERTH*
2. Renzo Dal Molin, *EPoSS Vice Chairman, Cairdac*
3. Yannis Boutaris, *Mayor, City of Thessaloniki*
4. Colette Maloney, *Head of Unit Competitive Electronics Industry, DG CONNECT of European Commission*
5. Bert de Colvenaer, *Executive Director, ECSEL Joint Undertaking*

Best practice case:    **Stephan Karmann, Hahn-Schickard**  
*Cooperative Foundry Model for Smart Systems*

**13:15**    *Lunch Break*

Co-organisers & Contributors





14:15 Annual Forum Session I: Smart Systems for Energy  
Room: Vergina Amphitheatre

Chair: Stefan Wolf, VDI/VDE Innovation + Technik GmbH & EPoSS Office

Introduction: Stefan Wolf, VDI/VDE Innovation + Technik GmbH & EPoSS Office

Short presentations on Smart Systems for Energy:

1. **Stephan Karmann**, Hahn-Schickard  
*Smart Systems for Energy - Hahn-Schickard Activities*
2. **Chris Merveille**, IK4 IKERLAN  
*Real-World Solutions in Energy Management and Mobility*
3. **Luis Fonseca**, CNM-CSIC  
*CNM Activities on Micro-Nanodevices for Energy Applications'*
4. **Harald Pötter**, Fraunhofer IZM  
*Wireless Sensor Nodes for a Smart Grid*
5. **Sven Rzepka**, Fraunhofer ENAS  
*Reliability for Smart Energy Applications*



Ask your questions live and prior to the session using [slido.com](https://www.slido.com) and the event code P178 !

Discussion on scope of Working Group facilitated by: Stefan Wolf, VDI/VDE Innovation + Technik GmbH & EPoSS Office

15:45 **Networking Coffee Break & Opportunity to Visit the Poster Exhibition in the Library**

16:15 Annual Forum Session II: Smart Systems for Mobility  
Room: Vergina Amphitheatre

Chair: Georgia Aifantopoulou, Deputy Director, CERTH/HIT

1. **Massimiliano Melis**, General Motors Global Propulsion Systems  
*The Paradigm Shift of Automotive in the IoT World and a Practical Example of an Automotive Smart Systems Application*
2. **Stella Nikolaou**, CERTH/HIT  
*CERTH/HIT Sector A 'Driver & Vehicle' Research Competence on Smart Systems for Safe Mobility with Focus on Autonomous Driving Applications (H2020 projects ADAS&ME, AUTOPILOT, AVENUE, SAFESTRIP & C-MOBILE)*
3. **Dag Andersson**, RISE IVF AB  
*Integrated Vibration Sensors for Condition Monitoring of PCBs*
4. **Riccardo Groppo**, Ideas & Motion s.r.l.  
*SilverStream: Project Results and the Way Ahead*

17:15 EPoSS General Assembly 2018  
Room: Vergina Amphitheatre / Restricted to EPoSS Members



**19:00**    *End of EPoSS General Assembly*

**19:30**    *Meeting for Bus Transfer to EPoSS Dinner Event*

**20:00**    *EPoSS Dinner Event*

The EPoSS Dinner Event will take place at:

**Restaurant "B"**  
2, 3rd Septemvriou str.  
(Museum of Byzantine Culture)  
546 39, Thessaloniki  
+30 2310 869 695





## 17 October 2018 (Day 2)

**08:30** Registration for the EPoSS Annual Forum 2018 & MNBS 2018  
Welcome Coffee & Opportunity to Visit the Poster Exhibition in the Library

**09:00** Opening of Day 2

**Keynote:** Stefan Finkbeiner, EPoSS Chairman & CEO at Bosch Sensortec GmbH  
*MEMS-based Smart Systems – a Core Technology for Wearable Solutions*

**9:15** Annual Forum Session III - Smart Systems for IoT and Wearables  
Room: Vergina Amphitheatre

**Chair:** Stefan Finkbeiner, EPoSS Chairman & CEO at Bosch Sensortec GmbH

1. **Dimitrios Tzovaras**, Director, Information Technologies Institute (ITI) at CERTH  
*IoT Large-Scale Pilots Innovation on Wearable Systems for Cutting Edge Applications*
2. **Philip Hands**, The University of Edinburgh  
*Smart Compression Garments for DVT, Lymphoedema, Dietetic Ulcers*
3. **Marco Dal Lago**, SUPSI  
*Challenges and Opportunities in Merging Fashion with Technology*

*Questions and discussions*

**10:00** Annual Forum Session IV - Smart Systems for Food and Agriculture  
Room: Vergina Amphitheatre

*Topic: State of the art of R&I initiatives, challenges and ideas to move forward*

**Chair:** Luis Fonseca, CNM-CSIC

1. **Grigorios Chatzikostas**, BioSense Institute (BIOS)  
*Internet of Food and Farm H2020*
2. **Iason Kastanis**, CSEM SA  
*Machine Learning Using Satellite Imaging for Agriculture and Forestry*
3. **Tobias Leiting**, FIR at RWTH Aachen University  
*Smart-Farming-World: Interplay of Smart Services and Systems to Support Potato Harvest*

*Questions and discussions*

**11:00** Networking Coffee Break & Opportunity to Visit the Poster Exhibition in the Library



11:30 Health & Well-Being MNBS Ecosystem Session  
Room: Vergina Amphitheatre

Supported by 

*Topic: Address the main challenges to build the value chain and discuss opportunities for new MNBS & wearable solutions meeting Health & Well-Being market and user needs*

**Chairs:** Eric Moore, Tyndall National Institute  
Claudia Gärtner, Microfluidic Chipshop

**Introduction:** Renzo Dal Molin, EPoSS, *Smart Health and Road-Mapping*

1. **Claudia Gärtner**, Microfluidic Chipshop  
*From Microfluidic Chips to Integrated Systems and the Underlying Value Chain*
2. **Ioanna Chouvarda**, Aristotle University of Thessaloniki  
*Smart Point of Care Systems and Knowledge-based Medicine*
3. **Paul Galvin**, Tyndall National Institute  
*Ensuring Both Clinical Utility and Commercial Opportunity for the New Generation of Connected multi-KET Healthtech Systems*

13:00 **Networking Lunch & Opportunity to Visit the Poster Exhibition in the Library**

14:00 MNBS Project Session - Part I  
Room: Vergina Amphitheatre



**Chairs:** Andreas Lymberis, European Commission  
Petra Weiler, VDI/VDE Innovation + Technik GmbH

**Introduction:** Andreas Lymberis, MNBS, *Bio-Electronics and Wearables – Setting the Scene*

1. **LIQBIOPSENS** - *Detection of KRAS and BRAF Mutations in Colorectal Cancer Using Blood Liquid Biopsy*, Belén Cortina Gil, Sistemas Genomicos
2. **SMARTDIAGNOS** - *An EU Horizon 2020 Innovation Project to Develop a New Generation of Fully Integrated PCR-based Infection Diagnostics*, Anders Wolff, Technical University of Denmark
3. **SNIFFPHONE** - *Non-invasive Disease Diagnosis Using Wearable Technologies*, Jan Mitrovics, JLM Innovation GmbH
4. **MADIA** - *Magnetic Diagnostic Assay for Neurodegenerative Diseases*, Alessandro Surpi, CNR-ISMN
5. **BIOC DX** - *A Miniature Bio-photonics Companion Diagnostics Platform for Reliable Cancer Diagnosis and Treatment Monitoring*, Ioanna Zergioti, ICCS Athens
6. **ANTI-SUPERBUGS** - *Jean Patrick Mathieu*, Agency for Health Quality and Assessment of Catalonia (AQuAS)
7. *Is Qualitative Discrimination of Different Grades of Malignant Breast Tissue Using Bioimpedance Feasible?* - Justina A. Ugwah, Tyndall National Institute

15:30 **Networking Coffee Break & Opportunity to Visit the Poster Exhibition in the Library**

Co-organisers & Contributors







16:00 Food and Agriculture MNBS Ecosystem Session  
Room: Vergina Amphitheatre

Supported by  inSSight

*Topic: Address the main challenges to build the value chain and discuss opportunities for new Smart Systems and MNBS solutions meeting agrifood market and user needs*

**Chair: Giorgos Fagas**, Tyndall National Institute

**Introduction: Giorgos Fagas**, Tyndall National Institute, *Smart Systems for Food and Agriculture*

1. **Miguel Holgado**, CBGP, UPM-INIA  
*Micro and Nano Technology for Food. Case Studies for Food Allergy and Aquaculture*
2. **Ilias Georgakis**, MEVGAL  
*Microbiology Detection of Foodborne Pathogens: Industrial Needs, Current Methodologies, Costs and Future Requirements*
3. **Dionysis Bochtis**, Director, Institute for Bio-Economy & Agri-Technology (IBO) at CERTH

Panel discussion

17:30 *Networking Coffee Break & Opportunity to Visit the Poster Exhibition in the Library*

18:00 Take home message: **Silvia Zinetti**, MESAP  
Smart Systems Integrated Trademark, a tool to increase impact of MNBS projects



18:10 MNBS Project Session - Part II  
Room: Vergina Amphitheatre



**Chair: Nikolaos Kattavenos**, European Commission  
**Ioanna Zergioti**, ICCS Athens & BIOFOS-Food Safety

**Introduction: Ioanna Zergioti**, ICCS Athens - *The BIOFOS-Success Story*

1. **LoveFood2Market** – *A Portable MicroNanoBioSystem and Instrument for Ultra-fast Analysis of Pathogens in Food: Innovation from Lab Prototype to Pre-Commercial Instrument*, **Katerina Tsougeni**, NCSR-D
2. **PhasmaFOOD** - *Portable Photonic Miniaturised Smart System for On-the-spot Food Quality sensing*, **Paraskevas Bourgos**, WINGS ICT Solutions
3. **AllerScreening** - *Point-of-care Device based on KETs for Diagnosis of Food Allergies*, **Miguel Holgado**, CBGP, UPM-INIA

19:10 Wrap-up & Closing Session  
Room: Vergina Amphitheatre

1. **Helder Cruz**, Theraproteins Lda and ECBIO-R&D in Biotechnology S.A.  
*Conclusions from MNBS Rapporteur*
2. **Stefan Finkbeiner**, EPoSS Chairman & CEO at Bosch Sensortec GmbH  
*Closing Remarks*

19:30 Engagement Reception & Networking



## 18 October 2018 (Day 3)

### *Concertation & Consultation Workshop on MNBS 2018*

08:30 *Registration for the EPoSS Annual Forum 2018 & MNBS 2018  
Welcome Coffee & Opportunity to Visit the Poster Exhibition in the Library*

09:00 **Current Challenges & Opportunities for MNBS (Part I)**  
*Room: Vergina Amphitheatre*

*The objective of the session is to share information and record participants' input on:*

- *Future challenges and how to overcome barriers to move MNBS & wearables from Lab (technology and prototypes) to fab and markets/customers;*
- *Opportunities for funding in 2019 and 2020*

**Chairs:** **Andreas Lymberis**, European Commission  
**Renzo Dal Molin**, EPoSS Vice Chairman

1. **Nikolaos Kattavenos**, European Commission  
*MNBS in H2020, Current Challenges & Opportunities for Collaboration till 2020*
2. **Rainer Günzler**, Hahn-Schickard & EPoSS WG Healthy Living co-chair  
*Smart Systems Enabling Delocalised Healthcare Provision*
3. **Nicolas Guze**, VDI/VDE Innovation + Technik GmbH  
*inSSight Recommendations Addressing Current Challenges & Opportunities for MNBS*
4. **Stergios Logothetidis**, Aristotle University of Thessaloniki  
*Intelligent Printed Flexible Electronic Devices - Nano-Manufacturing and Bio Applications*
5. **Spiros Petrakis**, Institute of Applied Biosciences at CERTH  
*Engineered Biosystems for Disease Modelling and Monitoring Purposes*

#### *Discussions*

10:45 *Networking Coffee Break & Opportunity to Visit the Poster Exhibition in the Library*



**11:15** Future Ideas & Challenges for MNBS (Part II)  
*Room: Vergina Amphitheatre*

*The objective of the session designed as a panel discussion is to share information and record participants' input on:*

- *Horizon Europe FP ( e.g. future EU Research and Innovation policy, broader set of stakeholders, thematic areas, etc) and how to cooperate better with other programmes, initiatives, groups, bodies, e.g. ECSEL, IMI, ESTHER, Food2030, Digital Health, etc*
- *Opportunities, positioning and visibility of the area in the next period 2021-27*

*The input of all participants is important and will be considered for the preparation of the programme and specific actions of HEU.*

**Chairs:** **Andreas Lymberis**, European Commission  
**Helder Cruz**, Theraproteins Lda and EC BIO-R&D in Biotechnology S.A.

**Introduction:** **Andreas Lymberis**, European Commission  
*EC proposal for Horizon Europe Framework Programme*

**Panelists:**

- **Paul Galvin**, Tyndall National Institute  
*The ESTHER Initiative: Building a smart multi-KET industry driven medtech value chain*
- **Renzo Dal Molin**, Cairdac  
*ECSEL Health.E - Lighthouse on Healthcare*
- **Ioanna Chouvarda**, Aristotle University of Thessaloniki  
*Combining Advanced Digital Technologies with Knowledge Based Medicine for Better Healthcare*
- **Henne van Heeren**, enablingMNT  
*The Road Towards Microfluidic Standardisation*
- **Janny van den Eijnden-van Raaij**, hDMT  
*Towards a European roadmap for Organ-on-Chip*

**12:45** Closing of the Concertation & Consultation Workshop on MNBS 2018

- **Andreas Lymberis**, European Commission
- **Helder Cruz**, Theraproteins Lda and EC BIO-R&D in Biotechnology S.A.

**13:00** **Lunch**



14:00 Workshop on Standardisation & Collaboration  
Room: Zefyros

Co-organised by  inSSlight

*Part 1 of this 2-hour workshop on standardisation & collaboration is co-organised by inSSlight, the newly founded EPoSS Standardisation Task Force, and the DIN-Connect project "Standardisation of Smart Systems Building Blocks".*

*It addresses EPoSS members from research and industry and all those interested in contributing to the specification of documentation requirements for Smart Systems Building Blocks. The specification is essential for the cooperative foundry of Smart Systems, as this requires interfacing and integrating different building blocks from different organisations.*

*During the 90-minute workshop the current state of development of the specification will be presented, followed by world café style group work on the different parts of the documentation, i.e. documentation on the technical parameters (data sheet), the design, the technology, the manufacturing process, the provider, and the quality management.*

*Part 2 of the workshop is co-organised by inSSlight.*

*It addresses the Smart Systems Integration community, and specifically those experts interested in collaboration in the field of health and wellbeing.*

*During a 30-minute validation exercise, experts will be asked to comment on and prioritise a sub-set of recommendations developed in the framework of the inSSlight Strategy Work Package. Since day 3 of the joint EPoSS & MNBS event is dedicated to MNBS topics, the sub-set of recommendations selected for the validation exercise are those related to the health and well-being ecosystem.*

16:00 **End of Event**