

1st DAY

Morning

7:30 Welcome coffee

8:00 Welcome & Introduction – Francis Balestra (Grenoble INP/CNRS - ICOS Coordinator, SiNANO Institute Director)

SESSION 1 – European Innovation Council *(Chair: Francis Balestra)*

8:20 - EIC Programme – Eric-Olivier Pallu (European Commission/EISMEA)

8:50 - EIC Responsible Electronics programme – Isabel Obieta (European Commission/EISMEA)

9:20 - How to get help on your way to the EIC Accelerator – Charlotte Rix Nicolajsen (Bureau Europe - Auvergne Rhône-Alpes Entreprises)

9:35 - Start-ups success stories: UPMEM, TiHive, ALEDIA

● 10:35 - Coffee Break

SESSION 2 – CHIPS ACTS *(Chair: Francis Balestra)*

11:05 - EU Chips Act – Marco Ceccarelli (European Commission/DG Connect)

11:35 - Chips Acts and IRDS building pillars and bridges over valleys of death – Paolo Gargini (IRDS Chairman & US Chips Act)

Lunch

● 12:05

Afternoon

SESSION 3 – Sustainable Electronics *(Chair: Thierry Baron)*

13:30 - IRDS Environment, Safety, Health and Sustainability Chapter Presentation – Leo Kenny (IRDS ESH/S Team leader)

14:10 - What future for the semiconductor industry in the age of climate change? Evolution and diversification of semiconductor technologies – Stephane Monfray (ST)

14:35 - Key IC data for an accurate life cycle assessment of ICT devices – Mathilde Billaud (Fraunhofer IZM)

15:00 - Assessing the environmental impact of integrated circuit chip manufacturing – Cédric Rolin (IMEC)

15:25 - Sustainable ICT assessment, adoption and strategy – Thomas Ernst (CEA-LETI)

15:50 - Can we cope with the massive production of integrated circuits (ICs) within environmental limits? – Thibault Pirson (Université Catholique de Louvain)

● 16:15 - Coffee Break

16:45 - How innovation leads to a better, safer, more secure and sustainable world? – Patrick Pype (NXP)

17:10 - Sustainable printed circuits: a possible path to greener electronics – Attila Géczy (BME-VIK)

17:35 - Building Safe-and-Sustainable-by-Design Community in Electronics – Dmitri Petrovykh (INL)

18:00 - PANEL SESSION 1



Challenges and Solutions for Sustainable Electronics *(Chair: Karine Samuel)*

With **Leo Kenny** (IRDS ESH/S Team leader), **Isabel Obieta** (EC/EISMEA), **Patrick Pype** (NXP), **Markus Pfeffer** (Fraunhofer IISB), **Mustafa Badaroglu** (IRDS More Moore Team leader), **Dominique Thomas** (STMicroelectronics), **Thomas Ernst** (CEA-Leti), **Cédric Rolin** (Imec)

Cocktail

● Networking cocktail

2nd DAY

Morning

SESSION 4 – Advanced functionalities *(Chair: Quentin Rafhay)*

- 8:45** - **The More than More domain in the IRDS: white paper and future perspectives** – Enrico Sangiorgi (Director Emeritus SiNANO Institute – IRDS More than Moore Team leader)

Smart sensors *(Chair: Quentin Rafhay)*

- 9:25** - **Innovation in MEMS for the IoT and our digital life** – Matthias Illing (Bosch)
9:50 - **Low power transducers for the IoT** – Cosmin Roman (ETHZ)
10:15 - **Sensors for Agriculture & the Environment** – Alan O’Riordan (Tyndall)

● 10:40 - Coffee Break

Smart energy *(Chair: Irina Ionica)*

- 11:10** - **SiC VDMOS Technology evolution as an example for sustainable and efficient energy conversion** – Markus Pfeffer (Fraunhofer IISB)
11:35 - **Wide Bandgap Power Devices for a Sustainable Future** – Mikael Östling (KTH)

Lunch

● 12:00

Afternoon

SESSION 5 – Beyond CMOS *(Chair: Enrico Sangiorgi)*

- 13:30** - **Ferroelectric memories – Enabler for novel computing architectures** – Konrad Seidel (Fraunhofer IPMS)
13:55 - **On and Beyond CMOS** – Jouni Ahopelto (VTT)
14:20 - **Gate all around nanowire FETs: Operation from RT to Cryogenic temperatures** – Qing-Tai Zhao (FZJ)
14:45 - **Flexible electronics with 2D materials** – Andreas Hemmetter (AMO)
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● 15:10 - Coffee Break

- 15:40** - **IRDS Beyond CMOS Presentation** – An Chen (IRDS Beyond CMOS Team leader)

SESSION 6 – Quantum Information Processing *(Chair: Giorgos Fagas)*

- 16:20** - **IRDS technology roadmap for CEQIP** – Scott Holmes (IRDS Cryogenic Electronic and Quantum Information Processing Team leader)
17:00 - **The path to large scale quantum computing based on CMOS technology** – Maud Vinet (Siquance)
17:25 - **The European Quantum Strategic Industry Roadmap by QUIC** – Johanna Sepulveda (AIRBUS)

18:00 - PANEL SESSION 2

Strategy for International Cooperation - Chips Act *(Chair: Patrick Cogez)*



With **Paolo Gargini** (IRDS Chairman & US Chips Act), **Enrico Sangiorgi** (Director Emeritus SiNANO Institute – IRDS More than Moore Team leader), **Mathias Illing** (Bosch), **Markus Pfeffer** (Fraunhofer IISB), **Abdul Rahim** (EpiXFab), **Giorgos Fagas** (Tyndall), **Holger Schmidt** (Infineon), **Carlo Reita** (CEA-Leti)

Cocktail

● Networking cocktail

Morning

SESSION 7 – Japanese session *(Chair: Julia Kaltschew)*

- 8:00** - **Japan's Semiconductor Strategy** – Hisashi Kanazashi, Director of IT Industry Division, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry
- 8:20** - **EC presentation** – Colette Maloney, Head of Unit, EC/DG connect)
- 8:40** - **AI Chip Design Center (AIDC), SoC design platform for small industries and startups in Japan** – Professor Makoto Ikeda, Tokyo University
- 9:10** - **The EU Test and Experimentation Facility for Hardware Edge AI, PREVAIL, as a platform for development of new solutions** – Carlo Reita (CEA-leti)
- 9:40** - **Megatrends in the automotive industry and RENESAS' value proposition** – Takashi Yasumasu, Vice President, Automotive Core Technology Development Division, Automotive Solution Business Unit, Renesas Electronics Corp.
- 10:10** - **Trends in semiconductors for mobility** – Matthias Illing (Bosch)
- 10:40** - **ICOS (International Cooperation On Semiconductors) presentation on past and existing cooperation in research between EU-JP** – Francis Balestra, ICOS coordinator
- 11:00** - **Open table discussion**

Lunch

Afternoon

SESSION 8 – Advanced Computing *(Chair: Thierry Poiroux)*

- 13:00** - **IRDS More Moore Roadmap for edge and cloud computing** – Mustafa Badaroglu (IRDS More Moore Team leader)
- 13:40** - **Augmented FDSOI platforms for improved sustainability** – Roberto Gonella (STMicroelectronics)
- 14:05** - **Nanosheet-based Device Architectures for Enabling Advanced CMOS Logic Scaling** – Anabela Veloso (imec)
- 14:30** - **FDSOI engineered substrates for advanced computing** – Sébastien Loubriat (SOITEC)

SESSION 9 – Semiconductors-based Photonics *(Chair: Elise Ghibaudo)*

- 14:55** - **Silicon Photonics: Current state, trends, and future evolution** – Abdul Rahim (EpiXFab)
- 15:35** - **Neuromorphic Computing - At the intersection between Electronics and Photonics** – Stephan Suckow (AMO)
- 16:00** - **Silicon photonics and applications** – Frédéric Bœuf (STMicroelectronics)

● 16:25 - *Networking coffee*

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