

INNOVATION WORKSHOP: ELECTRONICS AND THE 2D-EPL

Place: IMEC, Kapeldreef 75, 3001 Leuven, Belgium

Contact person: Lilei Ye, +46 73 855 11 87

8 March 2023

12:00 Registration and networking over Lunch

13:00 Welcome (Inge Asseberghs, 2D-EPL & Kari Hjelt, Graphene Flagship)

13:10 Barriers to up-scaling of biomedical devices (Vincent Bouchiat, Grapheal)

13:35 Barriers to up-scaling of electronics (Floria Ottonello Briano, Senseair)

13:50 2D-EPL State of the art

Inge Asseberghs, IMEC Gordon Rinke, AMO Miika Soikkeli, VTT Mindaugas Lukošius, IHP

14:55 Coffee break

15:25 Tools and technology development for wafer scale integration Sarah Riazimehr, Oxford Instrument Arantxa Maestre, Graphenea John Walker, Aixtron

Future collaboration opportunities: support from EU and regional initiatives Panel discussion 16:10 Johan Ek Weis. SIO Grafen

16:30 Panel Discussion 17:00 end of day 1

19:00 Dinner at De Hoorn, Leuven city centre

9 March 2023

9:00 Lab tour at IMEC

From lab to fab: wafer scale integration of graphene in Electronics

10:00 Graphene characterization and standardisation Peter Bøggild (DTU) Andrew Pollard (NPL)

10:30 Coffee break

10:50 Case 1: Learnings from InBrain Neuroelectronics (Carolina Aguilar) 11:05 Case 2: Graphene in gas sensors (Raivo Jaaniso, Tartu University)

11:20 Case 3: A new way for wafer level integration of graphene (Arne Quellmalz, In2Great Materials)

11:35 Panel Discussion

12:00 Networking over Light Lunch



2D-EPL WORKSHOP: PIONEERING 2D MATERIALS FOR THE SEMICONDUCTOR INDUSTRY

Enabling technologies for graphene and TMDC CMOS integration

Place: IMEC, Kapeldreef 75, 3001 Leuven, Belgium Contact person: Inge Asselberghs, +32 473 816 529

*This workshop will be hybrid. For Teams login details, register here: https://graphene-flagship.eu/events/enabling-technologies-for-graphene-and-tmdc-cmos-integration/

14:00 Welcome

Inge Asselberghs, 2D-EPL Director and Workshop Chair, IMEC

14:05 Graphene research in 200mm CMOS pilot line Mindaugas Lukosius – 2D materials team leader in the Materials Research department, IHP

14:25 Graphene in the Electronics Market Lilei Ye – Graphene Flagship Business Developer, Chalmers Industriteknik

14:45 2D Materials for Ultimate CMOS Scaling
Chelsey Dorow – Research Engineer, Intel Corporation

15:10 2D Materials Development for Logic Transistors
Albert Cheng – Technical Manager, Corporate Research, TSMC, Hsinchu, Taiwan

15:35 Panel discussion All speakers