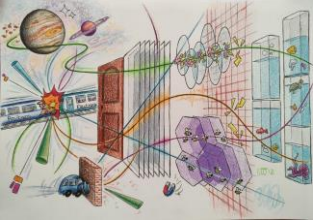
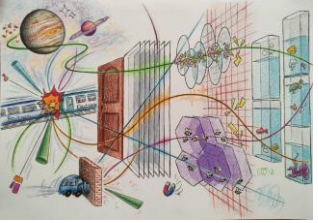


WG6 -Non-silicon semiconductor and other material studies. Introduction

Giulio Pellegrini, Thomas Koffas,
Alexander Oh, Xin Shi, Thomas Bergauer

- Introduction [G. Pellegrini]
- Strategic R&D and opportunities - future activities [T. Bergauer]
- Plan for deliverables/milestones [Xin Shi, online]



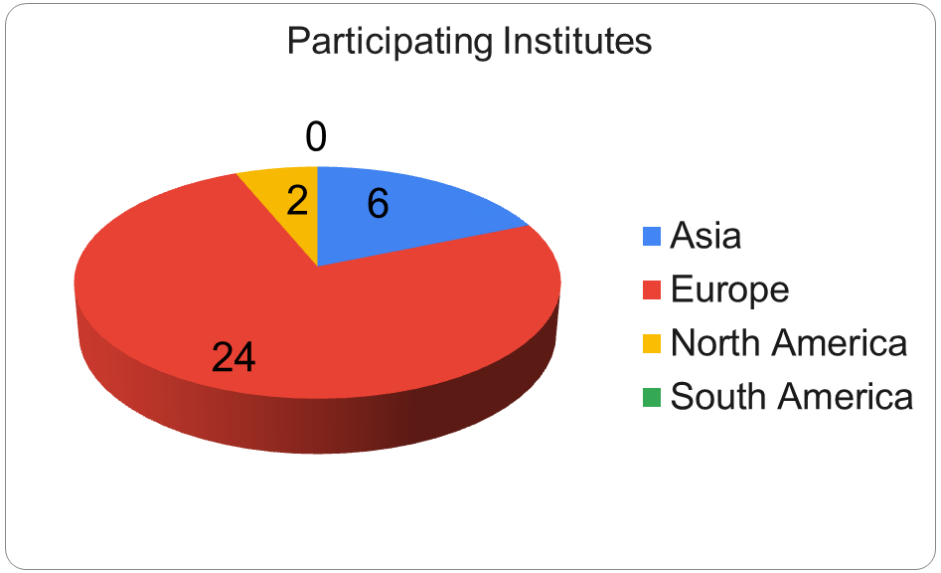
WG6: Community composition

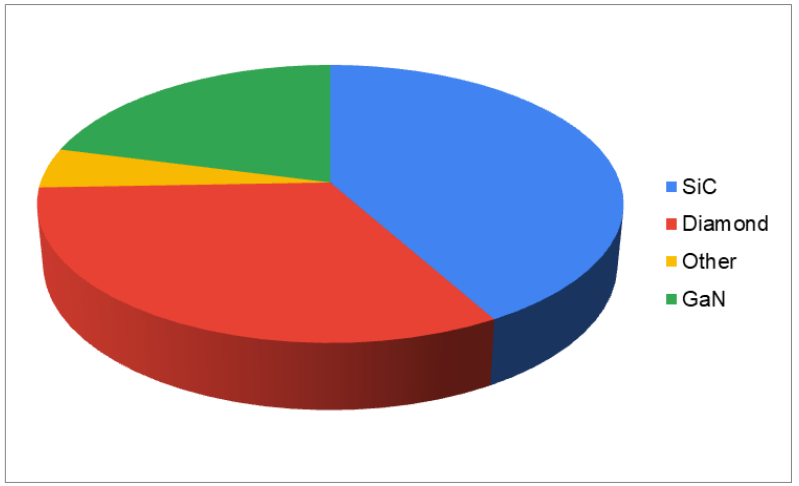
WG6:

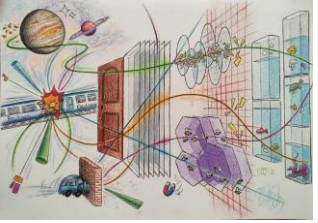
- 32 institutes (36% of 88) allocated FTE to WP6
- Anticipated FTE: 41.5 senior and 55.9 post-doc, students
- 14 are interested in Diamond, 18 in SiC, 9 in GaN and 2 in Sapphire

32 institutes from 3 continents
Asia, Europe, North America

From 19 countries:
Austria, Canada, China, Germany, India, Israel, Japan, Lithuania, Romania, Slovenia, Spain, Switzerland, UK, USA, Czech Republic, Italy, Netherlands, Montenegro, Finland



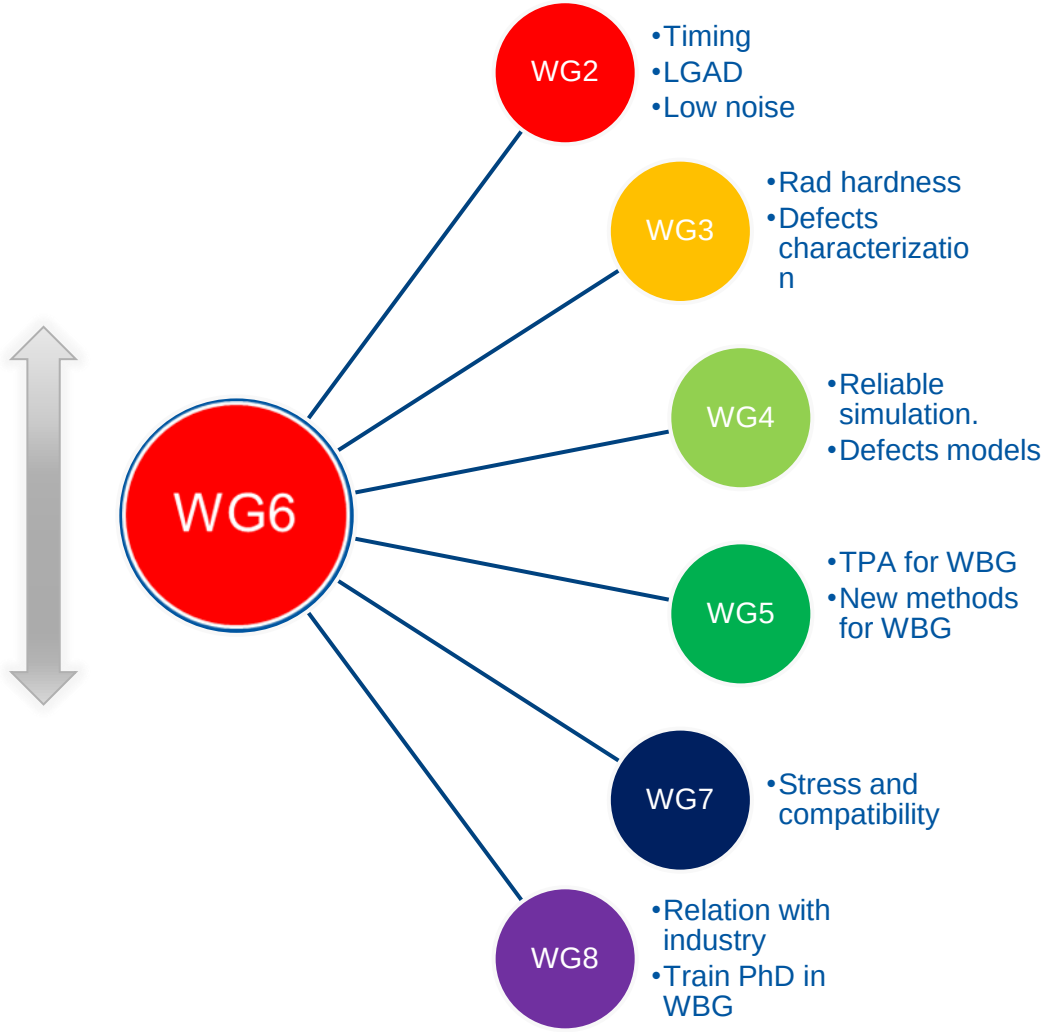


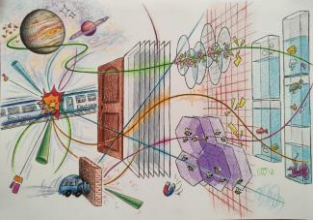


Interconnection with other WGs

DRDT3.2. Develop solid state sensors with **4D-capabilities for tracking and calorimetry**

DRDT3.3. Extend capabilities of solid state sensors to operate at **extreme fluences**





Synergies with other fields (Funding opportunities)

Large use in many applications (planar devices):

- **Dosimetry** : solid state ionisation chambers detecting x-rays or hadrons (FLASH)
- **Beam conditions monitors**
- **Synchrotrons**: solid state ionisation chambers and fluorescence detectors
  - Beam position and intensity monitors
- **Space:** deep UV detectors (ESA)
- **Heavy Ions**: start detectors and spectroscopy (e.g. GSI and the
- **Neutron detection:** nuclear industry, research and dosimetry

  -Thermal neutrons: fluence and profile monitoring

  -Fission neutrons : nuclear

  -Fusion: Tokamaks