

# Nano-R

**Fabrication and Reliability of Nanodevices based on 0D, 1D,  
& 2D Nanomaterials**

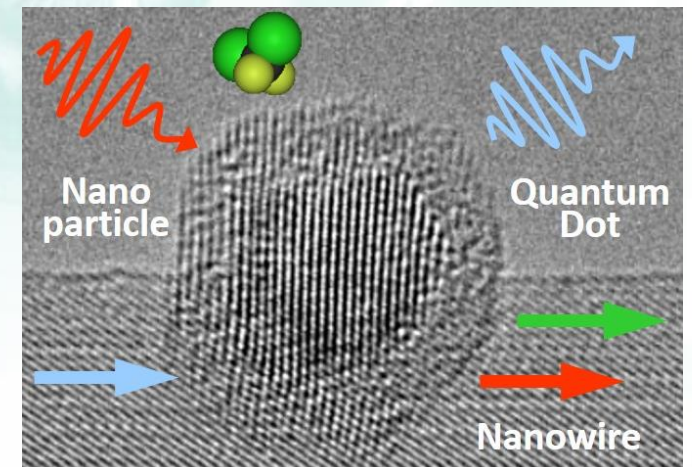
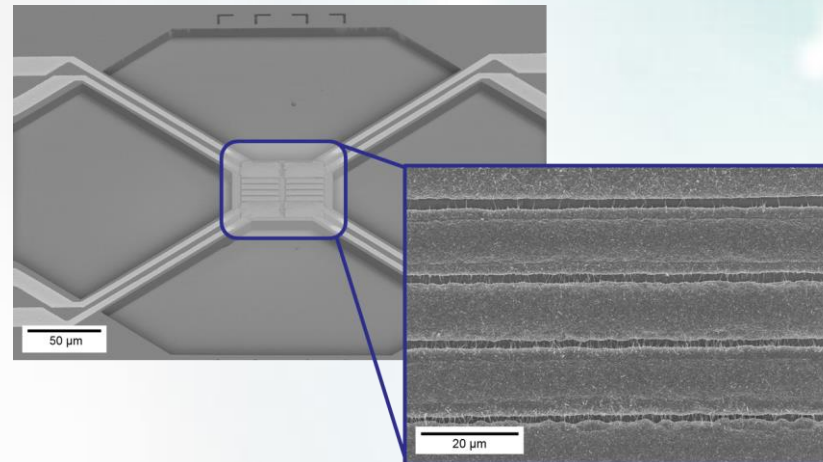
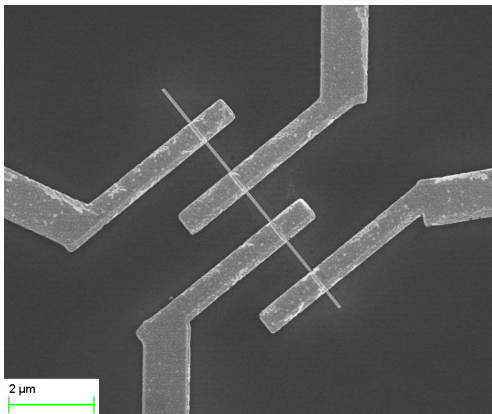
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## Challenges and objectives

- Novel nanomaterials enable entirely new applications (Graphene, MoS<sub>2</sub>, nanowires, quantum dots...)
- How to fabricate and integrate such nanomaterials on CMOS based devices ?
- How to fabricate new “Si-less” nanodevices ?
- How to analyse the nanodevices ?

## Technical goals

- Fabrication and integration technologies
- Lot of reliability issues !!!
- E.g. electrical contacts
- Novel analysis tools and technologies from macro to nano along production chain



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## Partners

- Materials Center Leoben (MCL)
  - University of Oxford
  - KTH Stockholm
  - ETH Zürich
  - EVGroup
  - Etc.
- 
- Which call....?

## Contact

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## Economical impact (optional)

- Entirely new sensor devices
- Entirely new light emitting devices
- Energy storage & energy harvesting
- Ultra low power devices for IoT and wearables

## Expected Duration / budget (optional)

- 48 months, XXXX k€