



## WHY ASCENT+ ?

ASCENT+ will address emerging research challenges in Nanoelectronics and enable a smooth consistent transition of the European industry to a new era.

ASCENT+ offers an unparalleled opportunity to users, empowering them to respond to new problems and to advance knowledge and technology through generating novel results and nurturing talent in their own labs.

European and global foresight studies have indicated that the next era is driven by the need to achieve:

- (i) quantum advantage using solid-state platforms
- (ii) low-power, energy-efficient, high-performance computing based on disruptive devices
- (iii) increased functionality through advanced integration of a diverse range of materials and innovative technologies.

ASCENT+ will enable and stimulate its user community to bridge the gap between scientific exploration and development of proof-of-concept technologies to accelerate innovation pathfinding.

ASCENT+ presents a unique opportunity at a pivotal time where traditional scaling is coming to an end.

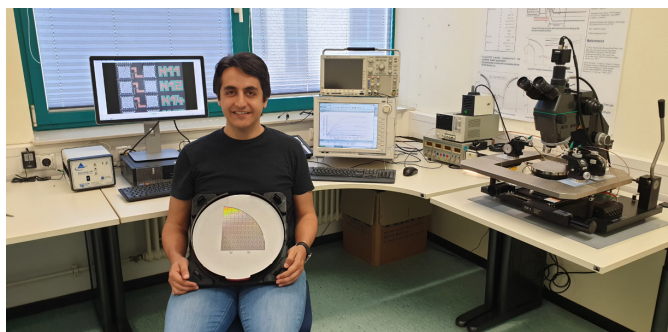


[www.ascent.network](http://www.ascent.network)

### For further information contact

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ASCENT+ opens the doors to the world's most advanced nanoelectronics infrastructures in Europe



ASCENT+ serves as the direct entry point to a European Nanoelectronics Research Infrastructure of global scale offering access to key enabling capabilities in state-of-the-art processing, modelling and simulation data sets, metrology and characterisation, and devices and test structures.

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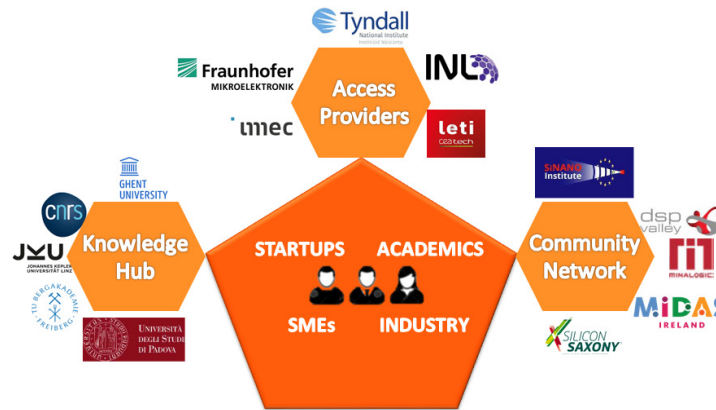
# European Research Infrastructure for Nanoelectronics

## ASCENT+ PROVIDES

- Fast and easy access to the world's most advanced nanoelectronics technologies and infrastructure for More Moore, More-than-Moore and beyond CMOS
- Access to state-of-the-art processing, modelling and simulation data sets, metrology and characterisation, test devices and chips

## ASCENT+ PROVIDES

- Opportunity to share best scientific and technological practices, form a knowledge –innovation hub, train new researchers and establish a nanoelectronics research network
- Access open to all researchers in universities, research centres, SMEs and large enterprises



- Flexifab Clean Room
- Cryogenic Quantum Optics
- Electrical & Physical Characterisation



- Spintronics
- 2D Materials in Devices
- NEMS/MEMS and Hybrid Devices



- Nanocharacterization Platform
- Resistive RAM
- Nanowires and stacked nanowires on SOI



- CMOS FinFET technology
- GaN-IC Power Electronics
- 3D and advanced packaging



- Diamond Quantum Technologies
- Material stacks for emerging memories and in-memory computing
- Advanced package integration



### Sign up

User joins ASCENT+ network and engages with the Access Interface team

### Enquire

User submits a technical enquiry and discusses their idea with relevant expert

### Apply

User submits detailed Application Form outlining access required

### Selection

Proposal sent to Selection Panel to approve/reject

### Access

Users has access to the ASCENT+ Research Infrastructure

### Report

Users publishes results and provides feedback report to interface team