



18th MOS-AK Workshop
ESSDERC/ESSCIRC
Grenoble/Remote, 6th Sep 2021

ASCENT+

Free-of-charge Access to Advanced Nanoelectronics Infrastructure

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Cork (Ireland)



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ASCENT+ - Access

- Overview
- ASCENT Case Studies
- How to
 - Sign-up to become a member
 - From technical enquiry to proposal
 - ASCENT+ Online Showroom
- Q&A's

Please turn OFF your microphone and camera during talks. Turn both ON if asking a question. Thanks for attending.

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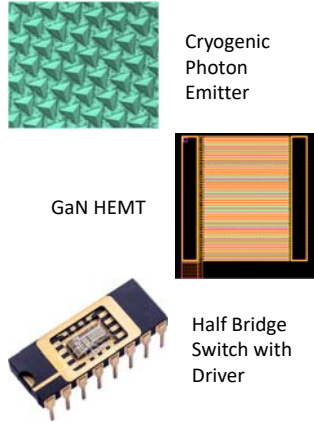


Making things is challenging!

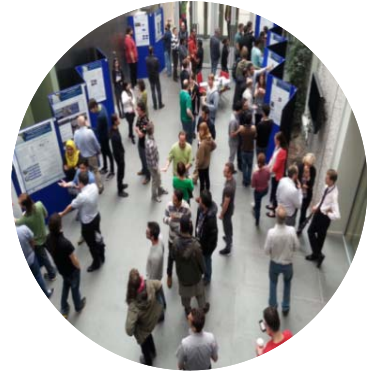
Advanced Equipment



Platform Technologies



Expertise

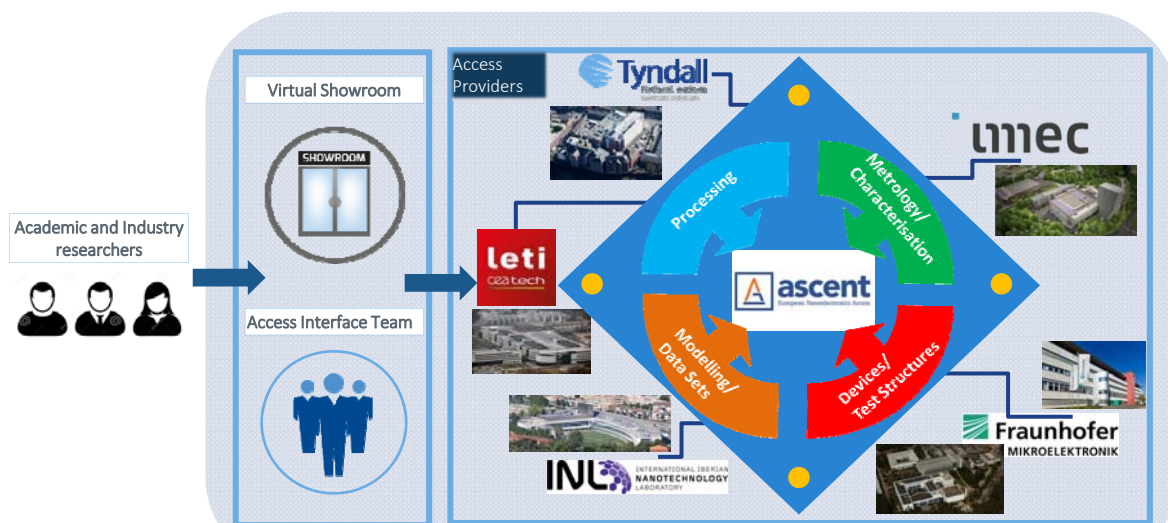


Complete Offer Catalogue at our Showroom

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www.ascent.network

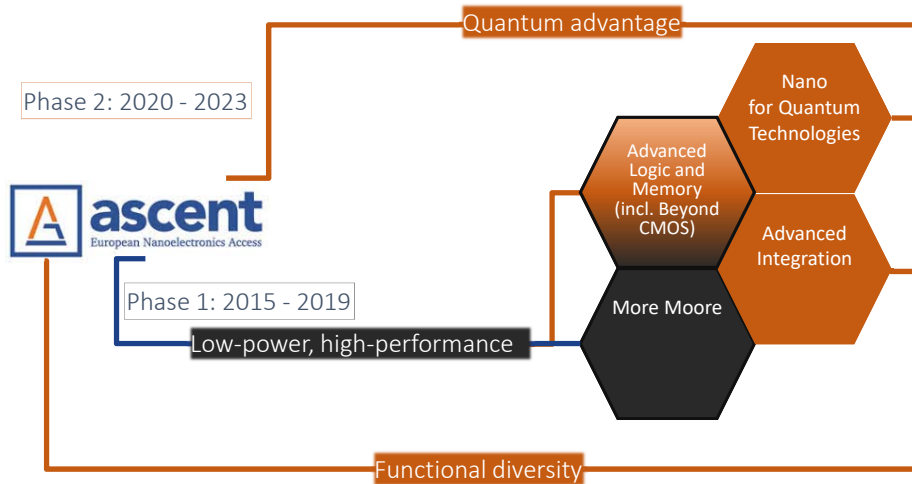


Making access easy!



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Phase 1: 100 projects to researchers from 30 countries

Number of members >500 Number of countries >40



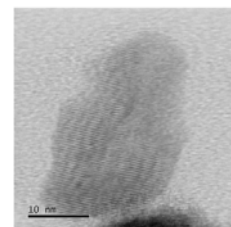
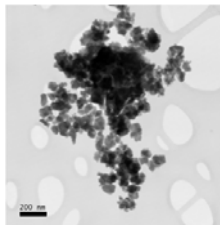
Phase 2: 300+ access projects available!!!

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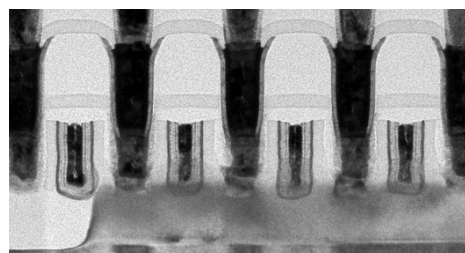
University/EU

- “Bismuth-based ceramics for energy storage”
- Facilities/offer: **HR-TEM**
- Effort/usage: **6** person.day

**ASCENT_152**

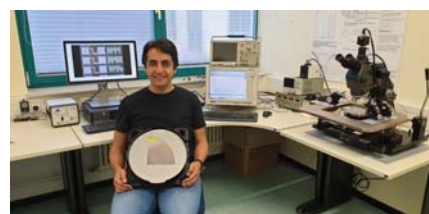
Research Inst./EU

- “14nm finFETs”
- Facilities/offer: **Electrical characterisation**
- Effort/usage: **24** person.day

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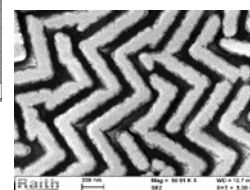
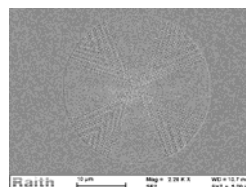
University/EU

- “SOI Ω -gate NW FETs”
- Facilities/offer: **Test devices for electrical charac.**
- Effort/usage: **12** person.day

**ASCENT_157**

Research Inst./non-EU

- “Nano-scale metalenses”
- Facilities/offer: **Nanofabrication (e-beam lithography)**
- Effort/usage: **20** person.day

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- TA=Transnational Access: **user** based in different country that **facility**
- User **must not** have the requested equipment/expertise/... in house
- Type of user: Academic, Research, SME, Large company
- User location: EU, Associated states, Non-EU
- Requirement: User **must publish** results acknowledging ASCENT+ (not SME's)
- Short-focused projects: proof-of-concept, validation/verification, feasibility study, prototype, test-chips, etc.
- Expected effort (at facility): 15-20 person/days
 - Virtual Access (e.g. data): No cost to facility

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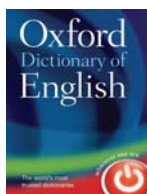


Easy

“achieved without great effort; presenting few difficulties”

Fast

“moving or capable of moving at high speed”



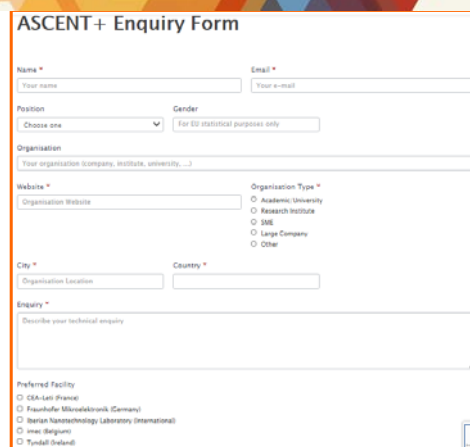
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<https://www.ascent.network/contact/enquiryform/>

- Short description of requested access
- Contact details
- Sent to ASCENT+ Single Point of Contact
- Starts discussions between user and PoC
- Identify most suitable facility



ASCENT+ Enquiry Form

Name * Your name Email * Your e-mail

Position Gender For EU statistical purposes only

Organisation Your organisation (company, institute, university, ...)

Website * Organisation Type * Academic/University Research Institute SME Large Company Other

City * Country *

Enquiry *

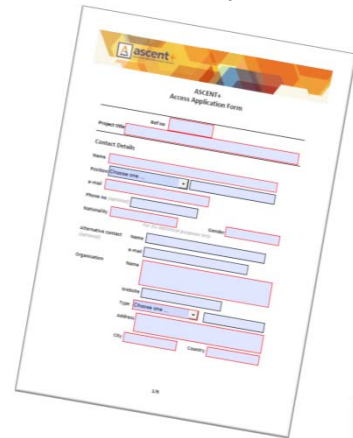
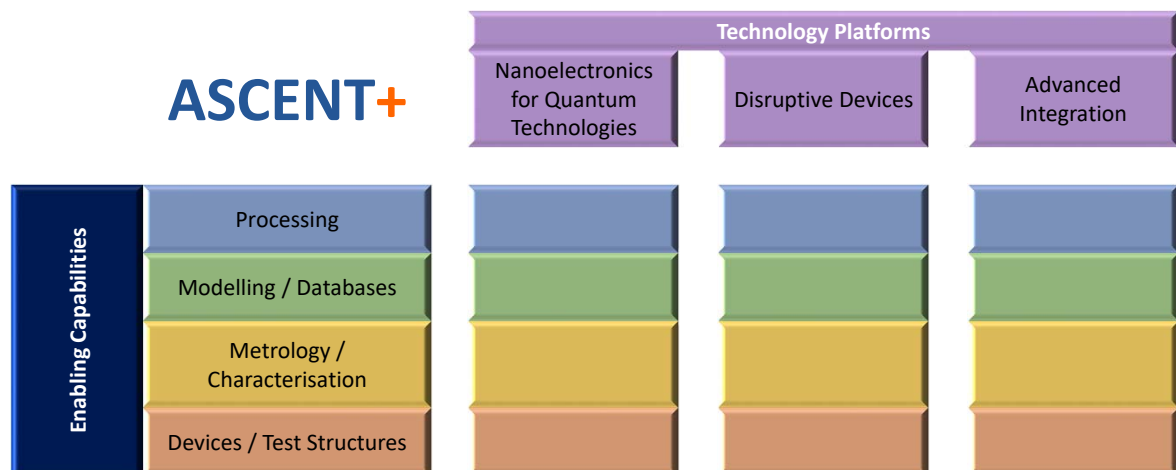
Preferred Facility CEA-LET (France) Fraunhofer Mikrotechnik (Germany) Berlin Nanotechnology Laboratory (International) imec (Belgium) Tyndall (Ireland)

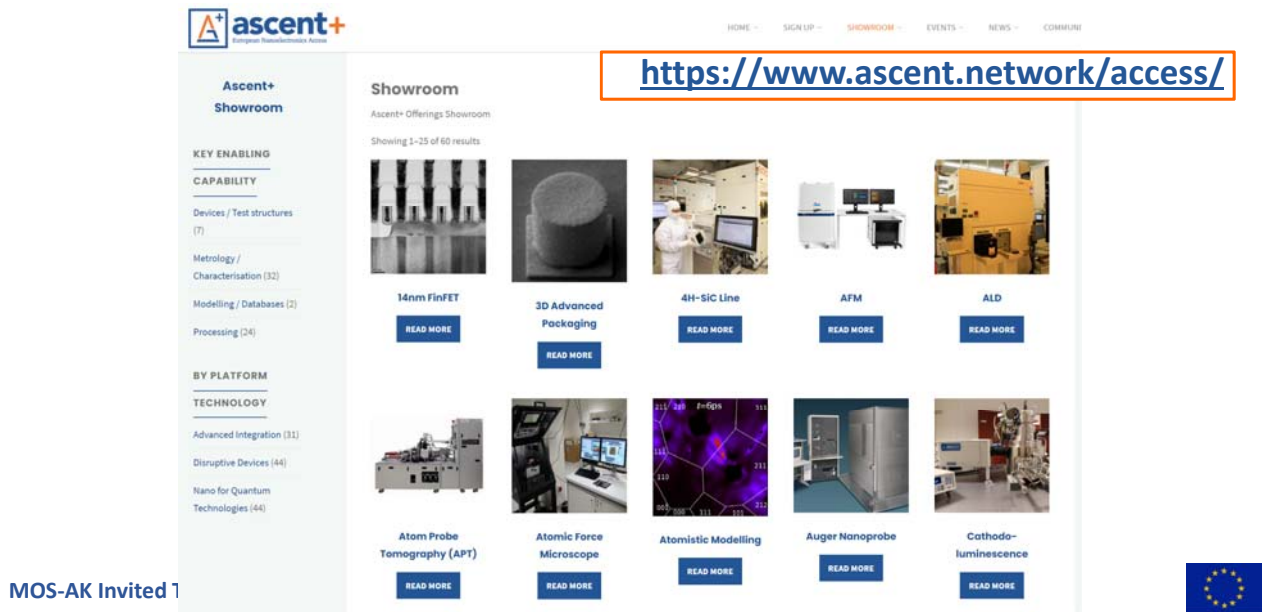
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- Discussions between User and chosen facility TPoC
- Agree on access and required effort
- User and TPoC prepare proposal together (short fixed format PDF)
- Proposal includes:
 - **Proposed Innovation**
Scientific/engineering quality of the proposed work
 - **Expected Outcomes**
Scientific outputs and/or commercial exploitation
 - **Access Planning**
Demonstrated need for the use of the advanced infrastructure

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<https://www.ascent.network/access/>

Ascent+ Showroom

Ascent+ Offerings Showroom

Showing 1-25 of 60 results

KEY ENABLING CAPABILITY

Devices / Test structures (7)

Metrology / Characterisation (32)

Modelling / Databases (2)

Processing (24)

BY PLATFORM TECHNOLOGY

Advanced Integration (31)

Disruptive Devices (44)

Nano for Quantum Technologies (44)

14nm FinFET [READ MORE](#)

3D Advanced Packaging [READ MORE](#)

4H-SiC Line [READ MORE](#)

AFM [READ MORE](#)

ALD [READ MORE](#)

Atom Probe Tomography (APT) [READ MORE](#)

Atomic Force Microscope [READ MORE](#)

Atomistic Modelling [READ MORE](#)

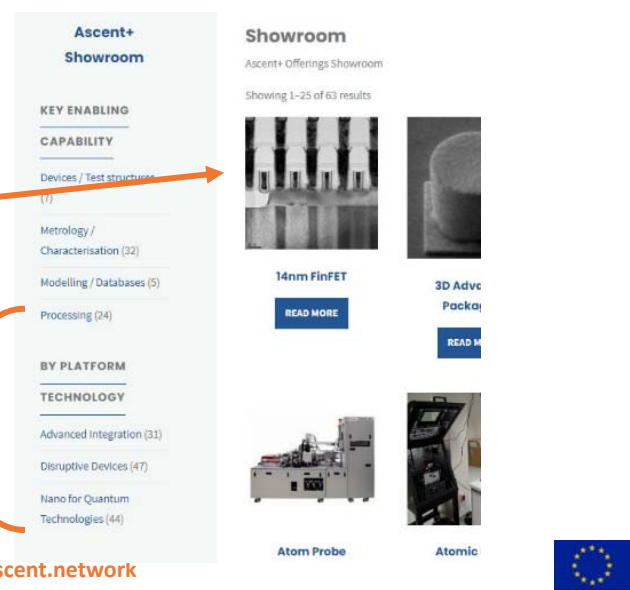
Auger Nanoprobe [READ MORE](#)

Cathodoluminescence [READ MORE](#)

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MOS-AK Invited 1

- Individual offerings available
 - Description
 - Technical Specifications
 - Facility
- “e-commerce” platform
 - Browse
 - Filter
 - Search



Ascent+ Showroom

KEY ENABLING CAPABILITY

Devices / Test structures (7)

Metrology / Characterisation (32)

Modelling / Databases (5)

Processing (24)

BY PLATFORM TECHNOLOGY

Advanced Integration (31)

Disruptive Devices (47)

Nano for Quantum Technologies (44)

Showroom

Ascent+ Offerings Showroom

Showing 1-25 of 63 results

14nm FinFET [READ MORE](#)

3D Advanced Packaging [READ MORE](#)

Atom Probe [READ MORE](#)

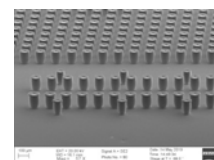
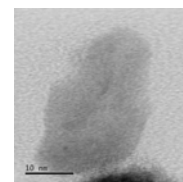
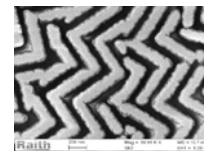
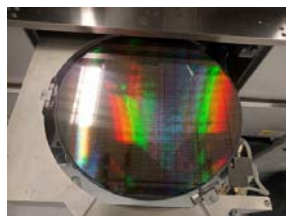
Atomic [READ MORE](#)

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ASCENT+ Transnational Access

- Short/focused projects
- Free-of-charge access
- One or more of these offerings
- At a single or multiple facilities
- Visit or remote



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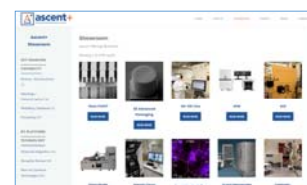
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<https://www.ascen.network/contact/signupform/>



- **Showroom: Check out the facilities available**
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