

Virtual Access

ASCENT
Access to European
Nanoelectronics Network
T.Chiarella/N. Cordero

Tyndall
imec
Leti




- 1) **ASCENT: An EU initiative for access to Nanoelectronics Infrastructure - Prof. Jim Greer (Tyndall National Institute, Ireland)**
- 2) **Tyndall: Accessing flexible nanoelectronics fabrication at Tyndall - Dr Graeme Maxwell (Tyndall)**
- 3) **imec: Advances and Access to FinFET Technology - Thomas Chiarella (imec, Belgium)**
- 4) **Virtual Access to advanced device data - Thomas Chiarella (imec, Belgium)**
- 5) **Leti: Advances and Access to planar FDSOI and nanowire structures - Dr Olivier Faynot (CEA-Leti, France)**
- 6) **ASCENT access: User perspective - Prof. George Angelov (Technical University of Sofia, Bulgaria)**
- 7) **Q&A session**


- Offer
- Implementation
 - FlexiLearn
- Protocol
- VA Registered Users
- WP tasks
- Deliverables and Milestones


- ✓ Process design kits (PDKs)
- ✓ Test structures electrical characterisation data
 - ✓ Transistor & test structure specifications
 - ✓ E-learning tools

- **finFET (imec)**
 - Full IV for 14nm bulk finFET devices
IDVG/IDVD on NFIN/PFIN @ RT
 - Matching data
Full curves and VT
- **FDSOI (Leti)**
 - Design kit for 14nm FDSOI
 - Incl. SPICE models


ascent - ASCENT Virtual Access Data
European Nanoelectronics Access


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[News forum](#)



[Feedback Forum/Blog](#)


finFET_imec


Data for imec's finFET technology


[Bulk finFET DESCRIPTION](#)


[Bulk finFET DATA](#)



[Datafiles - Full Curves: IDVG/IDVD on NFIN/PFIN](#)



[Bulk finFET Matching DATA](#)


[Matching Data - Full curves and VT](#)

FDSOI_Leti

Data for Leti's FDSOI


[PDK LETI FDSOI 14nm](#)


[Design Kit and Documentation](#)

Deliverable D8.1

FREE Registration

- Via “Enquiry Form”. **No formal proposal** (“Access Application” form) required
- **User Terms & Conditions** (via T&C form)
 - No data transfer to other users
 - Inform Ascent before publication
- **Secure** login, usage tracking

VA TPoC

- Process requests
- Register (username & password) users
- Help users find/access required data
- Manage, maintain and update data
- Collect/upload testing/characterisation data from ASCENT users
- Moderate user forum/blog → Implement feedback

Open Access (once registered)

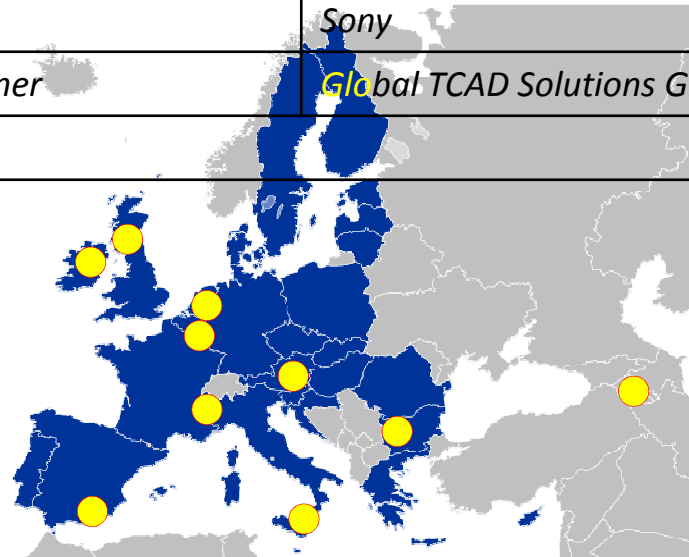
- Single-point via ASCENT Website:
www.ascnt.network/virtualaccess/
- Secure download
- User [forum/blog](#) and user feedback

Open Data

- All ASCENT users **MUST** deposit test structure measurements and findings into database

VA Registered Users

Ref No	User	Institute / Company	Country
002	G. Angelov	T.U. Sofia	Bulgaria
006	G. Zare	U. Maynooth	Ireland
008	A. Durgaryan	Synopsys	Armenia
031	X. Wang	U. Glasgow	UK
035	K. Miyaguchi	imec	Belgium
036	G. Ghibaudo	IMEP-LAHC/INPG	France
037	F. Gamiz	U. Granada	Spain
022	A. Nejadmalayeri	Phoelex	UK
029	Liang Ye	University of Twente	The Netherlands
033	K. Tomida	Sony	Belgium
043	Markus Karner	Global TCAD Solutions GmbH	Austria
...			



User feedback (by e-mail)

- For what **purpose/project** did you request access to the ASCENT VA Data?
- **How often** have you logged into the ASCENT VA Data repository since you registered? What data have you downloaded?
- **Have you already used the data** in your own research and/or modelling activities?
- Did you find it easy to gain **access to the data** (log in, location of folders/files, support documents, etc.)? What would you change?
- How did you find the **quality and utility** of the data?

- Is there anything else you would like to have in the repository? Is there any data that you would like to access, but that is not available yet?

- Any further comments / feedback for the ASCENT administrators regarding the VA data? Any other feedback?

- **Task 8.1** - Integrate web site to back-end for registration database
- **Task 8.2** - Set-up members and ASP workspaces
- **Task 8.3** - Populate and maintain general User information
- **Task 8.4** - Automate open & fixed call proposal submission
- **Task 8.5** - Create Access data site and open to members
- **Task 8.6** - Create and moderate On-line Users Forum
- **Task 8.7** - Periodic review of use and user feedback on usefulness of site and contents by the (external) Users Group and Industry Innovation Committee representatives

- **D8.1** - Summary of procedures and protocols for virtual access (M6)
 - **D8.2** - On-line Users Forum (M12)
 - **D8.3** - Integrate web site to back-end for database (M26)
 - **D8.4** - Create Access data site and open to members (M36)
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- **Ms6** - Decision on common data format including feedback form JRA and TA users (M24)

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