

MODELING SUBCOMMITTEE MINUTES

Date: January 27, 2009
Location: Teleconference
Time: 10:00am (PST)
Participants:

Chelsea Boone – GSA
Sebastian Schmidt – X-FAB Semiconductor Foundries AG
Roberto Tinti – Agilent Technologies, Inc.
Ehrenfried Seebacher – austriamicrosystems AG
Wladek Grabinski – MOS-AK
Philippe Jansen – Interuniversity MicroElectronics Center (IMEC)
Kasim Mahmood – QUALCOMM

Meeting Purpose:

- To gather feedback on what pressing issues the modeling industry currently faces and what the industry would like to see the Modeling Subcommittee achieve – establishing a new mission statement and initiatives.

Actions Completed/Items Discussed:

- Modeling Subcommittee Organization
- Modeling Subcommittee Purpose
- Modeling Subcommittee Initiatives
- Modeling Subcommittee Deliverables
- How to Get Involved in the Subcommittee

*See accompanying PowerPoint presentation

End Result/Conclusions:

- Modeling Subcommittee Organization: In the beginning, MOS-AK was going to fall under the MS/RF Model Working Group, but GSA will re-establish the Modeling Subcommittee, as we want to address a broader audience, not just MS/RF. Modeling Subcommittee participants will come from the MS/RF Model WG until a good distribution list has been established. The Modeling Subcommittee will essentially be MOS-AK. All activities will go through MOS-AK. We are in need of three Subcommittee chairman – one for the U.S., Europe and Asia. Wladek will be the Europe representative, while Pekka Ojala was suggested for the U.S. region. GSA will try and recruit someone to head the Asia region.
- Modeling Subcommittee Purpose: The Modeling Subcommittee's purpose will be MOS-AK's purpose – to connect, benchmark and educate.
 - *MOS-AK Connects:*
 - *The MOS-AK aims to encourage interaction and sharing of all information related to the compact modeling at all levels of the*

device and circuit characterization, modeling and simulations. The MOS-AK aspires to build a community with global connections by:

- *Promoting standardization of the compact models and its implementation into software tools*
- *Connecting national and local modeling groups on European level*
- *Building strong bilateral ties with similar organizations around the world*

▪ *MOS-AK Benchmarks:*

- *The MOS-AK conducts regular meetings with European industry and academia to exchange information on the strengths and weaknesses of the industrialization of the compact models.*

Activities include:

- *Drafting of standards and providing a center of competence for engineers, designers, managers and decision makers*
- *Evaluating world-wide best practice and success stories*
- *Delivering a comprehensive view of the European compact modeling education*

▪ *MOS-AK Educates:*

- *The MOS-AK believes that the transfer of the advanced compact modeling methodologies to industry can be accelerated by providing the comprehensive reports and reference papers on the subjects of:*

- *Basic issues and concepts of the device characterization and compact modeling*
- *Global device characterization and compact modeling issues*
- *Examples and analysis of best practice of the commercialization of compact models*

- **Modeling Subcommittee Initiatives:** The following concerns were brought up after reading our new initiative: (1) who is going to play the central role? (2) which way should the initiative go (target the foundry side or fables side) and (3) how does the Subcommittee plan to tackle the initiative as there are many different organizations that also cater to modeling (e.g., CMC). While CMC mainly works with vendors, the Modeling Subcommittee (MOS-AK) will target everyone in the supply chain – Foundry, designer, vendors and model developers. The Modeling Subcommittee will integrate all elements of these groups – it will become the central organization. It will help develop a common language (standards), streamline communication and promote new models/tools. The question remains if we want to go beyond MOS modeling – back-end modeling, etc. GSA and MOS-AK will work on refining the initiative.
- **Modeling Subcommittee Deliverables:** MOS-AK events, publications and books.
- **How to Get Involved in the Subcommittee:** Those who deal with modeling-related issues, such as model generation, extraction, validation and comparison are encouraged to get involved. MOS-AK will help bring in Universities/Foundries, while GSA will help bring in fabless companies, IDMs and semi suppliers.
- **Action Items:** (1) Secure chairmen for different regions (2) finalize initiative (3) post content on GSA Website (4) issue press release on GSA/MOS-AK merger.