
Feedback on the ITWG Resist consortia cooperation proposal

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Background

- MEDEA+ EXCITE has greatly benefited from cooperation with consortia, e.g. SEMATECH, IST More Moore Project, ITWG Resist, ASET, ...
- Consortia cooperation remains key to the acceleration of EUV Resist technology
 - Continuation and strengthening of consortia cooperation is encouraged
- MEDEA+ EXCITE Project will finish Dec 31, 2005
- IST More Moore Project, with activities in “22nm Resist” continues
 - CEA-Leti coordinates the Sub-Project that involves Resist

General Feedback

- Consortia activities and cooperation are best achieved when addressing pre-competitive work
 - 32nm node development is getting very (too) close to reality to address by fundamental work on resist and modelling, utilising micro-exposure tools
 - 22nm node fits very well in this area

- We know current CAR platforms will not meet resolution, dose and LER specs simultaneously beyond the 32nm node
 - **Need to focus on novel resist concepts for 22nm node !!**
 - To continue outgassing measurements on current-day CAR makes little sense
 - Round-Robin however remains important to learn and align

Feedback on Regional Strengths

- Current regional strengths are recognized
- The way strengths are listed – for example excluding full-field tools in 2006; fundamental resist development instead of process development; and modeling – suggests consortia cooperation should indeed target a pre-competitive focus => 22nm node
- When focusing on the 22nm node, (regional) strengths should be based on the following items
 - Exposure tool: imaging capability at ~22nm and beyond
 - Fundamental resist development: understanding and capability to translate into solutions
 - Modeling: resist limits, novel concepts, ...
- *Note: If 32nm should be the focus, full-field process development is key*

Feedback on Model proposed

- Note: EXCITE project will end Dec 31, 2005
- Basic goals of the model are not clear
 - Decide on targets (and timing) => 22nm targets are recommended
 - Ownership
 - Decide on cost model, note that US, EU and AP models may be very different
 - How will progress be monitored and plans adjusted
- *“AP and EU encourage resist suppliers to expose best candidates on US tools”*
 - Exposures should not be directed to only US, EU or AP-based tools; any tool providing ~22nm resolution should be utilized to its max.