LA3215C - Request-for-Tenders under Open (OJEU) Procedure for the Supply, Delivery, Installation and Commissioning of a Suite of Plasma Etcher & Plasma Deposition Tools, [4 Lots] for Tyndall National Institute, University College Cork (UCC)

Q1	**Regarding Lot 4: should the PECVD tool designed for single-wafer processing, or should it come with a cassette-based loading system?**
A1	***The preferred configuration for the PECVD tool is a cassette-based loading system, as outlined under Lot 4 specification A11 / A50-A54. but as-per section B1: Requirements and Specifications;*** ***It is acknowledged that each Tender's product line may differ from these specifications. As such, each seller is free to propose variances from these specifications. Alternative proposals favourable to the Contracting Authority may be suggested. It is required, however, that whenever a variance from these specifications occurs, the proposed item must meet or exceed the specified characteristics or level of performance.***
Q2	***thank you for the explanation!*** ***could you explain me further how many pieces are preferred for the cassette? 10 pieces or more?*** ***with best Regards,***
A2	***The preferred configuration for the cassette, as outlined under Lot 4 specification A11 / A50 / A52 is;*** ***Separate 25-slot cassettes for both 100 mm and 200 mm diameter wafers or 12/13-slot double-spaced cassettes for both 200 mm diameter wafers and 200 mm diameter wafer-carriers etc. and the material type for the cassettes is to be specified by tenderer.***
Q3	**In the TRD document you make the following statement when giving information about the recipes you require:** **"Tenderers MUST clearly demonstrate how they meet the requirements outlined with results documented in the attached Appendix C – Etch Recipe Results Template, this must be clearly named as "Lot 1 – Recipe # 2 -Results".** **The Tenderer is permitted to use its own test mask / layout and substrates and / or own etching results to demonstrate compliance."** **Can you please clarify if you require the recipe results template to be completed and submitted with our tender submission, or whether this needs to be completed as part of the later demonstration and validation of the recipe during installation on site.** **Can you also please clarify if you would be able to supply samples for processing in the event we do not have the capability to create our own.**

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A3	***The recipe template should be completed and included with the tender submission, based on the tenderer's BKM process recipes, but it is recognised that they may not have exact results matching the specification (e.g. AlSc6%N on Mo etc.) so in this case they can provide their nearest equivalent data, as-per section B1: Requirements and Specifications;*** ***It is acknowledged that each Tender's product line may differ from these specifications. As such, each seller is free to propose variances from these specifications. Alternative proposals favourable to the Contracting Authority may be suggested. It is required, however, that whenever a variance from these specifications occurs, the proposed item must meet or exceed the specified characteristics or level of performance.*** ***Tyndall will provide all samples for processing during the tool commissioning phase. No demonstration samples are required as part of the tender submission.***
Q4	***Regarding the EPD function specified in A14 for the PECVD tool, my understanding it is intended to monitor and control the plasma cleaning and conditioning of the process chamber.*** ***In most PECVD applications, after a certain plasma cleaning time, the deposited film inside the chamber is effectively removed. Therefore, the cleaning process can usually be controlled reliably through the process time.*** ***I was wondering whether the EPD functionality is considered a mandatory requirement for this equipment, or if it could be offered as an optional feature instead.*** ***thank you.***
A4	*The preferred configuration for the PECVD tool is for an EPD to be included as part of the core package to monitor and control chamber cleaning & conditioning, as outlined under Lot 4 specification A14 / A27-A28, but as-per section* ***B1: Requirements and Specifications;*** *It is acknowledged that each Tender's product line may differ from these specifications. As such, each seller is free to propose variances from these specifications. Alternative proposals favourable to the Contracting Authority may be suggested. It is required, however, that whenever a variance from these specifications occurs, the proposed item must meet or exceed the specified characteristics or level of performance.* So yes, EPD for the PECVD tool can be offered as an optional feature.
Q5	**I have two questions regarding Lot 4.** **A32: could you please share me the distance and plan how to connect the pump and the system (the electrical and the location plan)? we would like to understand the plan so that we could provide the suitable dry pump.** **A60: could you please explain a bit more on this point?**

A5	A32: as-per **Appendix B – Sub-Fab Footprint**; *Vacuum pumps / chillers etc. will be located remotely, positioned in a Sub-Fab with up-to a 10 m vertical drop and up-to a 10 m horizontal run to the point-of-use at the tool and as direct replacements for the ancillary equipment for existing tools which will be decommissioned and moved-out to allow installation of the new ancillary equipment. The available Sub-Fab space will be limited and must fit within a space approx. 4 m^2 per tool (the total footprint for the ancillary equipment for the suite of tools being tendered-for is approx. 16 m^2).* *Digital files will be made available upon request.* The vacuum pumps for the existing PECVD tool are positioned almost immediately below the tool, as shown in Appendix B, so the pump model(s) specified by the Tenderer for the new PECVD tool should have sufficient pumping capacity to maintain the required vacuum levels (see specification A44) for deposition / cleaning at this distance. A60: **interleaved / wafer-less clean**; *The capability to run automatic interleaved and / or wafer-less clean **MUST** be available in the software.* The preferred tool configuration is for cassette-loading with up-to 25 wafers per-cassette, so the tool must have the capability to run a full cassette of wafers with any necessary interleaved (between individual wafers) and wafer-less (e.g. pre-conditioning) clean recipes as part of a sequence to complete the deposition of a required film thickness on all wafers in the cassette. This is so that thick films (e.g. > 2 µm) may be deposited on a full cassette of wafers without requiring operator intervention to initiate cleans etc.
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