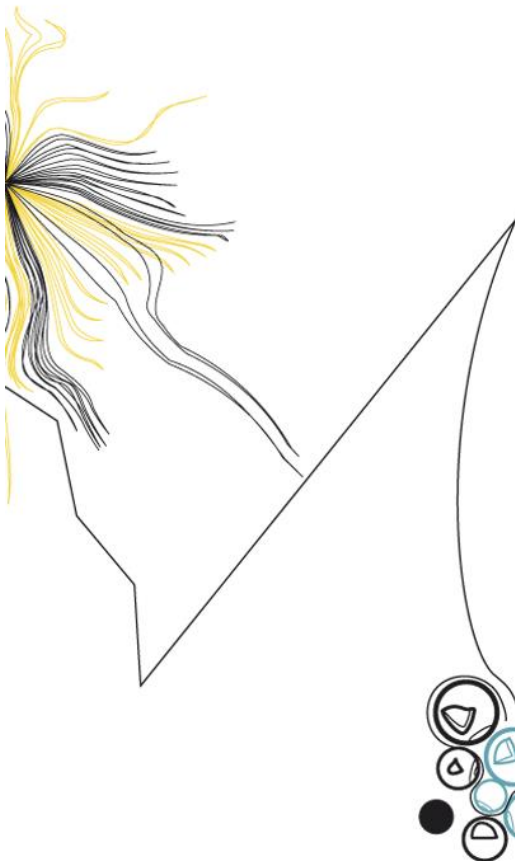


UNIVERSITEIT TWENTE.



European Market consultation
Pulsed Laser Deposition (PLD) system
Universiteit Twente



AUT-Kenmerk: CVB-UIT 1670
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1. CLIENT: UNIVERSITY OF TWENTE

The greatest challenges that await the world in the coming decades, have a lot of effect on the worldwide university landscape. Today's students are the *global citizens* of tomorrow, professionals that look for solutions to big social problems.

The University of Twente is a young and enterprising university that prepares young people for the future. We accomplish this through innovative, attractive and future-focused education and through fulfilling a global function in technological and social research.

The University of Twente is the place where talent development is maximized. Students and staff are the focus at the University of Twente. Together, 3,300 researchers and professionals work on pioneering research, relevant innovations and inspiring education for more than 9,000 students.

The education of the University of Twente is provided by the five faculties:

- Behavioural, Management and Social sciences (BMS)
- Engineering Technology (CTW)
- Electrical Engineering, Mathematics and Computer Science (EEMCS/EWI)
- Science and Technology (TNW)
- Geo-Information Science and Earth Observation (ITC)

The service departments below support education and research at the campus.

- Centre for Educational Support (CES)
- Facility Service Centre (FB)
- Financial and Economic Affairs (FEZ)
- General Affairs (AZ)
- Human Resources (HR)
- ICT Service Centre (ICTS)
- Library & Archive (B&A)
- Marketing & Communications (M&C)
- Strategy & Policy (S&B)

We recommend that you visit our website www.utwente.nl to gain a good picture of the scope and complexity of the site and buildings.

MESA+ Institute for Nanotechnology

MESA+ is one of the world's largest nanotechnology research institutes. A total of 525 researchers work together on cutting-edge research at the highest level; including research in the fields of materials science, lab-on-a-chip technology, nanophotonics, nanoelectronics and nanofluidics. The aim for excellence is always the focal point with scientific publications in leading international journals. On average, every single day, one article is published by a MESA+ scientist.

Multidisciplinary collaboration between the various research directions of MESA+ is stimulated by the unique structure of Strategic Research Orientations in which a large number of researchers collaborate in a specific research program. This method of interdisciplinary research leads to ground-breaking results, it reinforces the cohesion between ongoing high-quality research and it provides excellent opportunities for external partners.

MESA+ offers a state-of-the-art NanoLab with a floor area of 1250 square meters. Users are offered a unique laboratory with a wide variety of technologies and equipment to develop an almost unlimited number of applications. Next to scientific researchers is the laboratory space and equipment of the MESA+ NanoLab used for 40% by industrial partners.

2. MARKET CONSULTATION

Procurement department

The provision of professional procurement support for the processes and projects of the University of Twente's faculties, schools and services is the province of the Procurement Department of the University of Twente. The Procurement Department implements project-based procurement processes and (European) tenders, which means it is involved in this process - and in this market consultation - right from the start.

Market consultation explanation

A market consultation is the process of exchanging information with interested parties about a proposed invitation to tender, organized by the contracting authority, based on which the latter can determine the feasibility and the preconditions of the contract to be awarded. A market consultation could also be about obtaining information on - or insight into - possible solutions to a problem. Market parties may also actually be asked for ideas. For the contracting authority, the consultation could also provide insight into how best to design the tender procedure.

Market consultation can take one of a variety of forms: closed or open consultation, written or verbal, interactive or non-interactive or a combination of both.

Objective & Scope

This is the market consultation for an Pulsed Laser Deposition (PLD) system.

Please note that this is a market consultation and not an invitation for a Tender.

The University of Twente wants to start a market research before proceeding to tender.

With this market consultation University Twente wants to find out:

- The number of possible suppliers in the market
- If the possible suppliers can deliver the described equipment, meeting the demanded technical specifications and requirements.
- an indication of the price for the specific PLD system.

Motivation of the Investment

The MESA+ Institute for Nanotechnology will invest in a new PLD system that will add new innovative capabilities to the NanoLab cleanroom.

Within MESA+ institute, the new PLD system will be used in a multi-user environment (researchers, students and industrial partners) for a wide range of applications.

Therefore, robustness, user-friendliness, flexibility and applicability range are important factors besides accurateness and reproducibility of the experimentation results.

Purpose of the questionnaire

Many choices have to be made in preparing for a possible future tender procedure. The University of Twente would like to put the questions to the market by means of this market consultation. Suppliers who want to reply on this consultation, need to send in the completed Declaration of compliance with Schedule of Requirements (Appendix 1) by email before 15 January 2016 12.00 pm.

Planning

Only through mail (e.verheij@utwente.nl) you can ask questions related to this document. It is not allowed to contact any other person at the University of Twente about this Market Consultation.

Nr.	Process step	Deadline
1.	Publication of the public market consultation	17 December 2015
2.	Closing date for submitting questions	6 January 2016 12.00 hours pm CET
3.	Final date for responding to questions	11 January 2016
4.	Final date for submitting a response on the Market consultation	15 January 2016 12.00 hours pm CET

Preconditions

The following preconditions apply to this market consultation:

- This document is intended solely for market consultation purposes; the market consultation is not part of a European tender or procurement process;
- The market consultation is not an invitation to submit a tender for a possible European contract nor a request for a quotation. This market consultation is a form of preparation;

- Participation in the market consultation is entirely voluntary and free of obligation and has no consequences whatsoever on participation in a possible European tender or procurement process. This means that market parties who do not participate in the market consultation are not excluded from participating in a possible European tender. Nor will market parties who participate in the market consultation be in any way excluded from - or receive preferential treatment in - any European tender or procurement process;
- The parties have no right to reimbursement of any costs that may be incurred within the framework of this market consultation;
- Claims relating to the use of information, confidentiality, or requests for reimbursement in connection therewith, will not be honored. Documents submitted by participating market parties will be regarded as public documents and thus as free of copyright;
- No rights whatsoever may be derived from information supplied within the context of the market consultation;
- Information supplied during the market consultation may differ from information supplied during a later stage within the context of a possible European tender or procurement process;
- In case of a possible European tender, responses to - and the global results of - the market consultation will be recorded in a market consultation report in a fully anonymized form. The market consultation report will be included in the tender documents, thereby respecting the fundamental principles of transparency, objectivity and equality;
- The University of Twente retains the right to terminate, either entirely or partially, the process of market consultation;
- The University of Twente retains the right to adjust its plans, as recorded in this document, as it sees fit;
- Communication during this market consultation will be in the English language;
- Questions can be asked only through e-mail;
- By participating in this market consultation, participating market parties indicate their unconditional agreement with the conditions as stipulated in this market consultation document.

Appendix 1: Declaration of compliance with Schedule of Requirements

The supplier is to declare compliance with the Schedule of Requirements.

Mandatory requirements for the Pulsed Laser Deposition (PLD) system.

All the following requirements must be fulfilled:

- Within-wafer uniformity

The platform must be capable of deposition up to 200mm wafers with thickness uniformity within 2% (1sigma).

Thickness uniformity must be achieved while other material properties are not affected by the scaling to larger substrate areas.

- Process modules

The PLD reactor must guarantee a stable and reliable process. Thickness must be repeatable over subsequent deposition runs.

For example: wafer-to-wafer thickness uniformity and piezoelectric response.

- Droplet trap

The system must have the incorporation of a particulate-filter. This filter must reduce the amount of incorporated defects in the film. Specify.

- Integrated laser

The PLD must have an integrated laser to reduce the required footprint.

The beam path must be enclosed and purged resulting in stable and reproducible beam delivery, ease of maintenance and laser control.

- Tool automation and control software

Tool must be equipped with load lock and vacuum transport robot. The load lock must be compatible for wafer sizes up to 200mm diameter.

The software must include preprogrammed process recipes (process modules). Recipe settings must be easily configured by the operator for customization of processes.

- Semi compliant and CE certified

The supplier declares that he complies unconditionally with the Schedule of Requirements as set out in the 'Schedule of Requirements' Annexe of the Market Consultation and as amended, if applicable, by means of a Memorandum of Information.

Yes

The supplier also gives a quotation for the PLD system, delivery duty paid in Euro.

Name of undersigned	
Position	
Supplier	
Signature	
Town/city and date	