

Press Release

FOR IMMEDIATE RELEASE

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European Companies maintain a Strong Position in Packaging and Equipment for MEMS, as American Companies take the Lead in Manufacturing and Engineering

Intelligence research undertaken by enablingMNT highlights the large regional differences in the business approach of suppliers and service providers for the microsystems market

Berlin, Germany – 10th Nov 2003 – The latest intelligence information published by the enablingMNT team on ‘*MST/MEMS equipment manufacturers*’ shows a strong position for German companies involved in this market, while most of their US counterparts are based in California. Another remarkable trend shows small equipment companies are leading the move into MST/MEMS specialised equipment market, while large traditional semiconductor equipment companies continue to be hesitant. Generally, the supporting infrastructure for some technologies is well developed, including for example equipment for waferbonding and Deep Reactive Ion Etching (DRIE). Other capabilities, such as LPCVD for low stress nitride and micro assembly, and manufacturing processes still need to be further developed before these processes are available as ‘off-the-shelve manufacturing equipment’.

In the area of packaging, Europe has a large number of suppliers, while the US seem to handle the larger volumes. Finally, several IC packaging companies, especially from the Far East, adapted their standard high volume processes to the demands for the MST/MEMS industry, paving the way for, affordable, high volume production. enablingMNT estimates the market size for MST/MEMS specific equipment at approximately \$0.73 B of which \$0.27 B for Front End equipment.

The new *enablingMNT Industry Review series* were received with interest when they were first released during the 8th International Conference on the Commercialisation of Micro and Nano Systems – COMS2003 – last September. The first two market intelligence reviews addressing *Design Houses and Foundries in MST/MEMS*, were immediately considered by industry participants as the new standard in high-quality low-cost reports for the MNT supplier and user community. These two reviews assessed the state-of-the art processes in the context of the capabilities offered by more than 130 industrial players in this field, showing that US companies are much more active than their European and Asian counterparts in offering design and engineering services as well as contract manufacturing (foundry services).

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enablingMNT Industry Reviews

the leading source for intelligence in micro nano technologies (MNT)

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The first five reviews are available now (priced at €280 each):

- Design and Engineering Companies for MST/MEMS
- Foundries for MST/MEMS
- Packaging and Assembly Suppliers for MST/MEMS
- Front-End Manufacturing Equipment Suppliers for MST/MEMS
- Back-End Manufacturing Equipment Suppliers for MST/MEMS

About *enablingMNT*

enablingMNT is the brand adopted by an international team of experts with many years of experience in the business of micro nano technologies (MNT), namely; Henne van Heeren, Patric Salomon, Dr. Lia Paschalidou, and Dr. Ayman El-Fatary. With their track record in technology development, engineering, systems integration, manufacturing, project management, business development, market analysis, and strategy consulting, the enablingMNT team is well versed in all commercialization issues relating to the supply chain of MNT: from concept through to product. With this expertise, the team addresses specific customer requirements, particularly, in relation to market intelligence, technical insight, strategic development plans and investment decisions. Based in the UK, Germany and the Netherlands with excellent contacts in the Far East and the USA, the team is able to analyse the worldwide activities in the MNT industry. This collaborative research of the *enablingMNT team* has, to date, culminated in a series of in-depth intelligence reviews on the supply chain of micro and nano technologies (MNT): *enablingMNT Industry Reviews*.

About *enablingMNT Industry Reviews*

Driven by user/supplier demands for technology-pull, the reviews in this *enablingMNT series* are focused on all aspects of the micro and nano technology (MNT) product lifecycle; from concept through to production. They describe how a selected topic is linked into the supply chain from product idea, technology development, engineering, prototyping, manufacturing, packaging and test, into volume production. The *enablingMNT reviews* analyse the critical issues encountered during the creation process of MNT-based products and provide guidance with regards to the approaches taken to overcome barriers and challenges. All reviews include a comprehensive listing of services offered in the field (including current contact information). The emphasis is on the provision and availability of fully commercial services, infrastructure, and suppliers considered to be essential for the commercial realisation of MNT-based products. It is expected that *enablingMNT industry reviews* will motivate new applications for MNT, enhance confidence in the technology as well as help identify funding sources for research and development. They highlight trends from the facts and the prospects. Supported by significant players in the field, the reviews are produced and edited by the *enablingMNT team*. *enablingMNT industry reviews* are offered at a competitive price of €280 per specialist report.

To order a copy and/or for more information, please contact the publisher Patric Salomon at:

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