

**AT&S**Austria Technologie & Systemtechnik
Aktiengesellschaft

Press release

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Hermes Consortium meeting in Hinterberg

AT&S heads consortium charged with driving forward miniaturisation and reliability

Miniaturisation combined with ever increasing functionality and enhanced reliability has become part of our way of life, not least in the smartphone sector. The Hermes Consortium's task is to industrialise new miniaturisation technologies.

In spring 2008 AT&S – the leading producer of printed circuit boards in Europe and India, and one of the top players worldwide – brought together eleven renowned European global players in one of the largest ever EU-sponsored projects. The participants come from different stages in the value chain in the automotive, aeronautical and other industrial sectors.

Hermes goes far beyond what is currently possible in connectivity. Series production processes are used to embed active components such as chips, as well as passive components such as resistors and capacitors in the interior of the printed circuit boards. This creates additional space on the circuit boards, and the improvements in connectivity increase energy efficiency and extend the product's useful life.

One of the Consortium's main goals is to set standards for the industry, and to generate advantages over the competition in Asia. Industrial implementation of this technology opens up a wide range of potential applications in medicine (including new generations of hearing aids and pacemakers) and in functional modules for GPS, WLAN, Bluetooth and cameras. At the same time, AT&S is strengthening its position with existing customers as an innovation and technology leader, and is well placed to offer new solutions.

ECP® technology has been brought to market in the course of the project following the successful construction of the production line in Hinterberg. AT&S picked up the Fast Forward Award 2011 for its ECP® technology. In the next few years, the complexity inside and on the surface of the modules will continue to grow, and the 3D capabilities of embedding technologies will pave the way for the next generation of mobile electronic devices.

Facts and figures

HERMES: High density integration by Embedding chips for Reduced size Modules and Electronic Systems

Industrial partners

ASM Assembly Systems
Atotech
Bosch
Circuit Foil, Luxembourg
Fundico
Infineon
RoodMicrotec
Thales Communications/Thales Corporate Services

Scientific partners

Fraunhofer IZM
IMEC

About Hermes

Hermes came into being four years ago, as a project funded under the European Commission's Seventh Framework Programme. Twelve partners from industry and industrial research formed a consortium charged with driving forward and industrialising chip embedding technology. The embedding of components presents new opportunities for circuit miniaturisation, making it possible to reduce the surface areas and volumes required.

The development of chip embedding technology began in 2000, in European alliances established for the purpose. The primary tasks were to select suitable materials in which to embed the silicon semiconductors, and to develop connection technology for the chip. The Hermes Consortium was formed in 2008 to meet the growing interest of major OEMs in chip embedding technology and to implement an industrialisation project for chip embedding. After four years, the Consortium can look back on a string of outstanding achievements. Hermes is funded by the European Commission, and is the first Commission project to be given the task of industrialising a technology.

The Consortium is organised as a supply chain. Its customers in the automotive, industrial and safety sectors have differing needs as far as reliability and chip embedding technology are concerned. Successful new applications include motor management, power modules for industrial applications and communications applications in the safety sector. The Consortium meets all the technology requirements for the new products itself.

About AT&S

AT&S Austria Technologie & Systemtechnik Aktiengesellschaft (AT&S) is European market leader and one of the world's strongest-performing printed circuit board manufacturers. AT&S is especially well positioned worldwide in the high-tech market segment for HDI microvia printed circuit boards, which are chiefly used in mobile devices. The Group is also highly successful in the automotive printed circuit board market, and in the industrial and medical technology sectors. As an international growth enterprise AT&S has a global presence, with three production facilities in Austria (Leoben, Fehring, Klagenfurt) and one each in India (Nanjangud), China (Shanghai) and Korea (Ansan, near Seoul).

For more information visit www.ats.net

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