

Europe's Medea+ faces cash crunch

By Junko Yoshida

EE Times

December 15, 2003 (10:39 p.m. ET)

PARIS — Medea+, an industry-initiated pan-European program for microelectronics R&D, faces the cancellation or drastic curtailment of newly selected projects as deficit-squeezed European national governments threaten to choke off funding.

"The future of next year's projects is in danger," said Gerard Matheron, office director for the program.

Uncertainties in the 2004 budgets of such participating countries as Germany, France, the Netherlands and Italy have thus far thrown 14 of the program's pending projects into limbo. The suspended projects were selected and labeled six months ago following an open call for new proposals. If no funding is forthcoming from the still-uncommitted countries by February, Medea+, according to its bylaws, may have to kill the projects. "The window is closing very quickly," Matheron said.

The 14 threatened projects include security- and safety-related research initiatives for smart cards and automotive applications; a chip set being defined for a global positioning system based on Europe's homegrown Galileo project; and research projects on advanced lithography using nonoptical-based, maskless technologies.

Scrambling to restore public support for its programs, Medea+ is dispatching top industry executives to lobby European lawmakers and other government officials "at the highest possible levels," Matheron said. Among those making the rounds are Pasquale Pistorio, president and chief executive officer of STMicroelectronics; Doug Dunn, CEO at Dutch lithography vendor ASML; and Philips Semiconductors president and CEO Scott McGregor.

The funding dilemma comes at a time when some in the European microelectronics industry are voicing concern over whether Europe is investing enough in nanoelectronics research. Matheron noted that the U.S. government spends \$1.3 billion per year on a range of nano-related projects. The 21st Century Nanotechnology Research and Development Act that President George W. Bush signed into law in early December authorizes a total of \$3.7 billion in nanotech-specific appropriations over the next four years.

Japan's Ministry of Economy, Trade and Industry, meanwhile, is investing \$1 billion per year in the field, including support for infrastructure.

Europe is spending "less than half compared with other regions," Matheron said. "We are no longer on par with our competitors."

"European companies will have to put more resources on R&D, multiplying their efforts as the competition gets tougher," STMicroelectronics' Pistorio said at the recent Medea+ Forum in Berlin. Individual governments and the European Union, he said, "should at least make sure that the competition is fair and enough resources are allocated to vital

technological sectors in order to match what Asian countries — not to mention America — are doing.”

Pan-European R&D activities such as the Joint European Submicron Silicon Initiative (Jessi, 1989-1996), the Microelectronics Development for European Applications (Medea, 1997-2000) and Medea+ (2001-2008) are said to have been responsible for — indeed, they claim credit for — reviving the European microelectronics industry and enabling it to flourish over the past decade. The most frequently cited evidence of the success of the pan-European efforts is that Europe today has three companies — STMicroelectronics, Philips and Infineon — ranked among the top 10 global microelectronics vendors in terms of sales. In 1990, Philips was the only one in the top 10.

“The benefit [of the cooperative projects] has not only been in market position and technological leadership, as demonstrated by the creation of the Crolles2 [fab and process technology] alliance,” said an ST spokeswoman. “The partners have also learned to cooperate on exchange of knowledge, to combine resources and create synergies. The end result goes well beyond the funding issue, which is of course an important one.”

Indeed, Medea+ is anxious that its programs not be portrayed as corporate welfare. Matheron said pan-European R&D programs are not asking for “subsidies” but requesting public money “as a public investment on which governments can expect to see a return.”

New Medea+ chairman Arthur van der Poel, speaking at the Berlin forum, talked of “Europe at the crossroads,” noting that the shrinking research-and-development investment within Europe could only push the R&D focus outside the continent, costing competitiveness and thousands of highly skilled jobs, while affecting suppliers and tying the hands of the systems industry.

Matheron complained that while European companies in the microelectronics industry have stepped up by increasing their R&D expenses six times over the past 13 years, the level of European public-authority funding in microelectronics has stayed the same during the period, at an average of 140 million euros (about \$170 million) annually.

The Medea+ initiative runs 38 projects. Involving more than 280 partners from 16 countries, the program is supported by an average contribution of more than 2,500 highly qualified engineers each year, at an associated cost of about 500 million euros (\$607 million) per year.