



# European emphasis

Focusing on centres of excellence for r&d funding will make for more efficient research results. **Louise Joselyn** reports from Sophia Antipolis.



Sophia Antipolis is amongst the top six technology centres in France.

The Sophia Antipolis MicroElectronics (SAME) forum, held earlier this month, was not just a trumpet blowing exercise for the electronics industry located in the south of France; it also took a broader European focus.

A panel discussion explored the threats and opportunities for Europe as the microelectronics industry moves into the nanoelectronic era. One key message was that Europe needs to correct some major misconceptions, namely that the industry is not just about pcs and mobile phones and there is no longer a clear global demarcation, with the 'brains' in the US and cheap labour in Asia.

It was pointed out that there are several very strong emerging application domains in Europe, including automotive, environmental, energy and biomedical – all of which are the focus of advanced and integrated research programmes to develop and exploit electronics technology.

Further, countries such as India and China are also showing they too can be a major source of innovative design and skilled engineers. Meanwhile, there is a view that shifting manufacturing to low cost labour countries simply to reduce

production costs is no longer always justified. Smart supply chain management can bring significant cost advantages, according to Michel Beghun of Insight SiP, a start up focusing on providing the 'velcro' needed by many product developers trying to manage the complex semiconductor and IP supply chain, dealing with test, assembly, packaging and material supply across time zones.

An alternative approach, according to Charlotte Jennequin of Philips, is to 'delocalise' mass production. "We need the complete value chain in Europe." She added that Europe has the skills and the material, but needs a more strategic focus on r&d, with more open innovation to facilitate technology transfer. "We should focus more on the critical European centres, such as Dresden, Crolles and Nijmegen." She cited the example of the 'Pole de Competitivite' initiative launched by the French Government, which has created the region (PACA) containing Sophia Antipolis as France's centre of excellence in Secured Communications Solutions.

Jennequin maintains that nanoelectronics is the key enabler to exploiting emerging electronics, systems and ser-

vices offerings in the consumer, medical, transport, security, space and defence sectors. "We should go for higher value and added value markets in Europe before thinking of moving to high volume production in Asia," she said.

Robert Ronchi of ST Microelectronics, involved in coordinating the company's involvement in local, regional and international research programmes, is strongly in favour of addressing, what he sees as Europe's problems in r&d investment inefficiency. He believes that we should focus on our strengths, and by focus he means invest in a single centre per technology area: "Too much funding is spread too thinly, which means we don't generate sufficient critical mass in any one area to make a difference."

He applauds SAME/CIMPACA's shared resources approach: "We should modify the policy of allocating funds at local, national and European levels. We need to set [European] goals, and force players to cooperate in the centres of excellence, sharing resources and encouraging a mixed discipline approach."

## Inbrief

### Graph based synthesis

Synplicity showed its latest fpga synthesis tool Premier. Aimed at complex 90nm devices where timing closure can be difficult and iterative, Premier brings graph based physical synthesis, allowing the designer to pre place critical blocks. Initially supporting Xilinx Virtex, Pro and Spartan fpga families, support will be extended to Altera devices 'soon'. "We are working in cooperation with the leading fpga vendors," explained Andy Haines, vice president of marketing. In reality, the move is a step down the road to replacing vendor-supplied place & route tools.

### Bug-free eda tool

French eda company EVE launched an ultra fast version of its hardware assisted verification (zero bugs) system ZeBu-UF. It provides an efficient method of mapping SoC and asic designs to fpgas for block level verification and coverifying hardware and software integration, by accelerating simulation in co emulation with leading hdl simulators and/or C/C++ code or System Verilog testbenches at cycle and transaction level.

### We hear you

Tensilica announced the Xtensa HiFi2 audio engine, which extends its LX processor to cover the latest software encoders and decoders for most popular audio standards. "With the move to multiformat audio players, rtl is a less viable option and reprogrammability becomes essential," commented Tim Penhale-Jones, European sales director. The 24bit embedded audio processor draws less power and is implemented in fewer gates than its dedicated predecessor.