A royal welcome for MEDEA

The recent annual meeting of MEDEA+ held in Monaco was an impressive affair as resources are attracted for the next phase of pan European research development. With no more than updates to report on, the emphasis was on ensuring a high level of involvement for the future as the MEDEA+ program draws to a successful end. **David Ridsdale** was there for the proceedings.

The 2006 MEDEA+ Forum got off to a royal start as the conference was opened by His Serene Highness, Prince Albert II of Monaco. Despite the small size of the principality it has recently joined the European Union (EU) Eureka program as well as having local companies involved in the MEDEA+ program.

The Prince was followed by MEDEA+ Chairman, Arthur van der Poel Chairman who proudly referred to a number of breakthrough innovations achieved in the MEDEA+ programme, highlighting the importance of the nano-electronic industry as driver for Europe's economic growth and as pacemaker for fulfilling needs and expectations of Europe's society at large.

Over 300 Forum participants were informed on the growing number of MEDEA+ partners, over 400 entities from 22 countries. Since the start of the programme in 2001, these organisations have invested to-date 18 000 person-years in 75 projects, out of which 44 have successfully ended.

"European R&D in nano-electronics today is at world class level", the MEDEA+ Chairman concluded, "but if Europe wants to be in control of its own destiny, then Europe has to continue to fight for quality R&D on European soil."

MEDEA+ is the third generation of the programmes launched as part of the EUREKA initiative, JESSI. JESSI (1989-1996) primarily focused on closing the technology gap with the US and Japan, MEDEA (1997 – 2000) increased R&D cooperation of System suppliers and Semiconductor companies. MEDEA+ (2001 – 2008) aims to help Europe become a leader in System Innovation on Silicon.

MEDEA+ stimulates intensive trans-border cooperation between large, small and medium-sized microelectronics companies, their suppliers, system integrators, universities, public laboratories and research institutes. Two-thirds of the MEDEA+ partners are SMEs and Universities/Institutes (39% and 28% respectively), a combined increase of 10% compared with the former MEDEA programme. However, the larger companies accounting for the remaining balance contribute about 75% of the resources.

Preparations for a successor programme of MEDEA+ (ending in 2008) are well on track. This programme will have the double task of securing high quality R&D capabilities and infrastructures in Europe and providing technologies and solutions to address society needs affordably. Both industry and Public Authorities recognize the powerful role of Public Private Partnerships (PPP), reducing cost, time and risks in the development of enabling technologies and applications. A 'White Book" describing the details of the programme will be released by summer 2007.

The new programme will be an integral part of a global industrial vision at European level: the Strategic Research Agendas (SRA) on Nano-electronics (ENIAC) and Embedded Systems (ARTEMIS). The MEDEA+ successor programme will emphasise or de-emphasise areas, within the defined overall scope, depending on the political decision making for other Public Private Partnership programmes at national and European level.

In preparation of the Beyond MEDEA+ Programme, a structure has been outlined to map technology challenges with society needs.

ENIAC announces next step

European Nanoelectronics Initiative Advisory Council (ENIAC) was launched in 2004 to advise on pan European research and spearhead a co-ordinated approach to nanoelectronic research and development. The 2006 annual ENIAC forum was held in Monaco following the MEDEA+ conference with a positive outlook for future efforts but a convoluted pathway required to get there. **David Ridsdale** reports.

The ENIAC media conference was held in conjunction with MEDEA+ a day before the ENIAC forum. This was a deliberate act as the two groups continue to develop ties and share administration structures and costs. The main reason for this is to prevent a doubling of efforts and therefore resources for companies.

ENIAC is represented at the highest level by Europe's biggest companies as they pursue a path of public, private partnerships to ensure Europe can continue as world leaders in research and development of high technology. Unfortunately Europe has developed a history for great invention but poor implementation, often losing the spoils of hard work to other regions. This issue is pre-eminent in the minds of the ENIAC and MEDEA+ teams and there is a real push to ensure there is industrial application at the end of the research efforts.

The main thrust of the ENIAC forum was to inform people that the group had met and began to develop the strategies required to develop a successful pan-European partnership dedicated to developing Europe's strengths in nanotechnology. There is an extraordinary complexity required to bring together companies, nations, governments, research consortia and academia into a cohesive and workable group.

Although the European Union was well represented at the event the resources are hardly in place as the EU has only agreed to double member state funds. If a country does not put in the required amount, neither will the EU. One of the hardest sells of such RandD is to governments stuck in short term thinking and wanting to know the number of immediate jobs created. This has always been a problem for the high tech community. They do not create as many jobs as other industries in a primary sense. The technical community still have a way to go to convince their local governments that the secondary and tertiary impact of this program will benefit all participants.

ENIAC presented the revised version of its Strategic Research Agenda, which brings together many European key players in Nanoelectronics. ENIAC also mentioned that it is one of the six European Technology Platforms eligible for the launch of a Joint Technology Initiative. This private-public partnership will allow the implementation of the Strategic Research Agenda. To this aim in the coming months, ENIAC will set up a dedicated legal structure to federate industrial and scientific members to take part in the Joint Undertaking. At the forum this was identified as the not for profit AENEAS.

One issue that was not comfortably covered was the role of SME's (small and medium enterprises) in ENIAC. There is no doubt the lead needs to be taken by the biggest players with the most resources and deepest pockets but the forum made reference a number of times to the importance of SME's in such a process. In fact it was suggested that real innovation comes from the SME's but there was no plan at how they will be involved. In fact one member of the ENIAC board told me he did not know how they would be involved whereas another pointed out they were requesting local governments to appoint the best SME group from each country. So far they have Spain and Austria. It does seem surprising that there is no involvement from the European wide industry bodies who already have good links to the SME's. When I pushed some members of ENIAC as to how they would involve SME's I was informed there will be a tick box on the website for SME's to express interest.

ENIAC not only needs to ensure that national governments understand the need to be involved, they also need to take a proactive role in SME involvement to allay the fears of smaller players that they will be left out when the fruits of the labour is distributed.