Coordinated Accelerator Research in Europe
Summary of Project Achievements

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Editors

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From the Editor,

Particle accelerators constitute indispensable and major tools for the development of the knowledge-based society and beyond, through technology transfer, to the building of a knowledge-based economy.

However, the realization of large scale accelerators vitally needs a strong and coordinated European multipurpose accelerator R&D programme, as emphasized for instance in 2001 by ECFA in the report ECFAIO1/213 on "the Future of Accelerator-based Particle Physics in Europe".

In response to this need, several large accelerator laboratories in consultation with ECFA have decided in 2002 to form a European Steering Group on Accelerator R&D (ESGARD). Its mandate was to develop and implement a strategy for optimizing and enhancing Research and Technical Development in the field of accelerator sciences in Europe.

**CARE within ESGARD 's Strategy**

To achieve its aims, ESGARD coordinated the preparation of an initial proposal, the CARE project, and then supervised the submission of a coherent set of additional bids which have emerged with the help of CARE activities. Therefore, with its 129 achieved deliverables and over 700 publications, including 18 PhD theses, CARE has thus played a major pioneering role in the European landscape for the development of collaborative R&D in the field of accelerator sciences.

The successful contribution of CARE to this approach is also visible through the 8 accelerator R&D projects, which it has help developing. These projects cover all high priority accelerator technologies over a period of 9 years and amount to a total cost of about 191 M€, out of which 59.6 M€ is financed by the EC.

**Looking forward**

In the future, this effort pioneered by CARE should be pursued with the establishment of a sustainable structure allowing one to coordinate in Europe both the accelerator R&D infrastructures and programmes covering as broadly as possible the needs of the scientific fields requiring new generation of accelerators. This endeavour constitutes a major, but indispensable, challenge.

Finally, I wish to thank all the CARE collaborators (more than 770 people) for their contribution to this project, and without which the successful achievements of CARE would not have been possible.

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