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Coordinated Accelerator Research in Europe. Summary of Project Achievements

Roy Aleksan and Oliver Napoly
Editors

Coordinated Accelerator Research in Europe

Summary of Project Achievements

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EuCARD

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 ECFAlOl/213 on "the Future of Accelerator-based Particle Physics in Europe".

In response to this need, several large accelerator laboratories in consultation with ECF A 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.

Roy Aleksan
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