

PERSPECTIVES FOR FUTURE NETWORK ACTIVITIES

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FRAMEWORK

HHH, a network activity of CARE, will finish on December 31st 2008, after having significantly stimulated discussions and thinking on accelerator upgrades.

It has been the initiative of ESGARD (European Steering Committee for accelerator R&D: CEA, CERN, CNRS, DESY, INFN, PSI, chaired by R. Aleksan/CEA) to launch after CARE a new venture, now called EuCARD and compete for EC funding. This new project includes networks.

The CERN vision has been to invest more in such programs aimed at implementing in concrete way collaborations to reach the goals of the European Strategy for Particle Physics defined by CERN Council in 2006.

In practice, it has been agreed in ESGARD that CERN should be the Coordinator (leading lab in HEP) for the “next CARE” in an organization where all partners are on the same footing. This policy is implemented in two EU projects: SLHC-PP and soon EuCARD. With a similar vision, EC requests EuCARD to contribute to establishing more lasting structures, beyond EU co-funded activities.

STRUCTURE OF EU PROJECTS

The EU framework relevant to EuCARD requires three components:

1. **Networks** (NA),
2. **Trans-national access** to “unique” facilities (TA)
3. **Collaborative research activities** (JRA)

These components are considered of equal importance.

WHY EC FUNDS NETWORKS?

“To foster a culture of co-operation:

- joint management and pooling of distributed resources;
- strengthening of virtual research communities;
- development of common standards, protocols and interoperability, benchmarking;
- provision of consultancy and training courses to new users;
- **foresight studies for new instrumentation, methods, concepts and/or technologies;**
- promotion of clustering and coordinated actions amongst related projects;
- **coordination with national or international related initiatives and support to the deployment of global approaches to science;**
- dissemination of knowledge;
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(citations from the FP7 EU web site)

EUCARD NETWORKS

In a competition among some 130 projects, EuCARD arrived 2nd with 5 other proposals and was accepted for funding at a level of 10ME over 4 years. EuCARD brings together 37 partners in Europe and has about 40 “Associates” all around the world. It is presently in “negotiation” phase and due to start on April 1st.

After the positive experience of CARE, it will include a network “AccNet”, i.e. Accelerator Sciences Network, with two branches:

- EuroLumi: it is a continuation of HHH focusing on the performance and upgrade of accelerators,
- RFTech: dedicated to all RF technologies

The AccNet coordinators will be: W. Scandale/CERN until 10/2009, F. Zimmermann/CERN, and A. Variola/LAL. The tasks are coordinated by F. Zimmermann and E. Todesco/CERN for EuroLumi and J.-M. de Conto/U. Grenoble, M. Grecki/DESY and TU Lodz, W. Weingarten/CERN and A. Variola/LAL for RFTech.

The funding is modest but was protected against the budget cuts to remain significant, dedicated to:

- meetings, workshops, link to US-LARP,...
- exchange of visitors, students and fellows, common studies

It is important to note that Networks are open to ALL interested participants, whether in EuCARD or not.

The AccNet coordinators are invited to freely define the detailed goals and means of the Networks (number of workshops/meetings, kind of reporting of results...) in the light of the CARE experience and expectations of the users.

CONCLUSION

HEP is at a crossroad. The two legs of accelerator technology (magnets for bending & focusing and RF cavities for acceleration) need significant progress and a reduction of their development time (now decades). The challenges are beyond what a single lab can do. An optimal use of public resources and a minimum ecological impact will be more and more important.

This is why it seems very valuable to “lose” a small fraction of one’s time listening and discussing accelerator R&D issues across specialties and beyond daily occupations, to favor the emergence of creative ideas.

This is what the networks can offer.

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