Welcome to WAMS

Workshop on
Accelerator Magnet Superconductors

A few numbers

- 33 speakers
- 8 European Companies working on Superconducting materials
- 98 participants !

- Lunches are included
- Social dinner is Tuesday evening

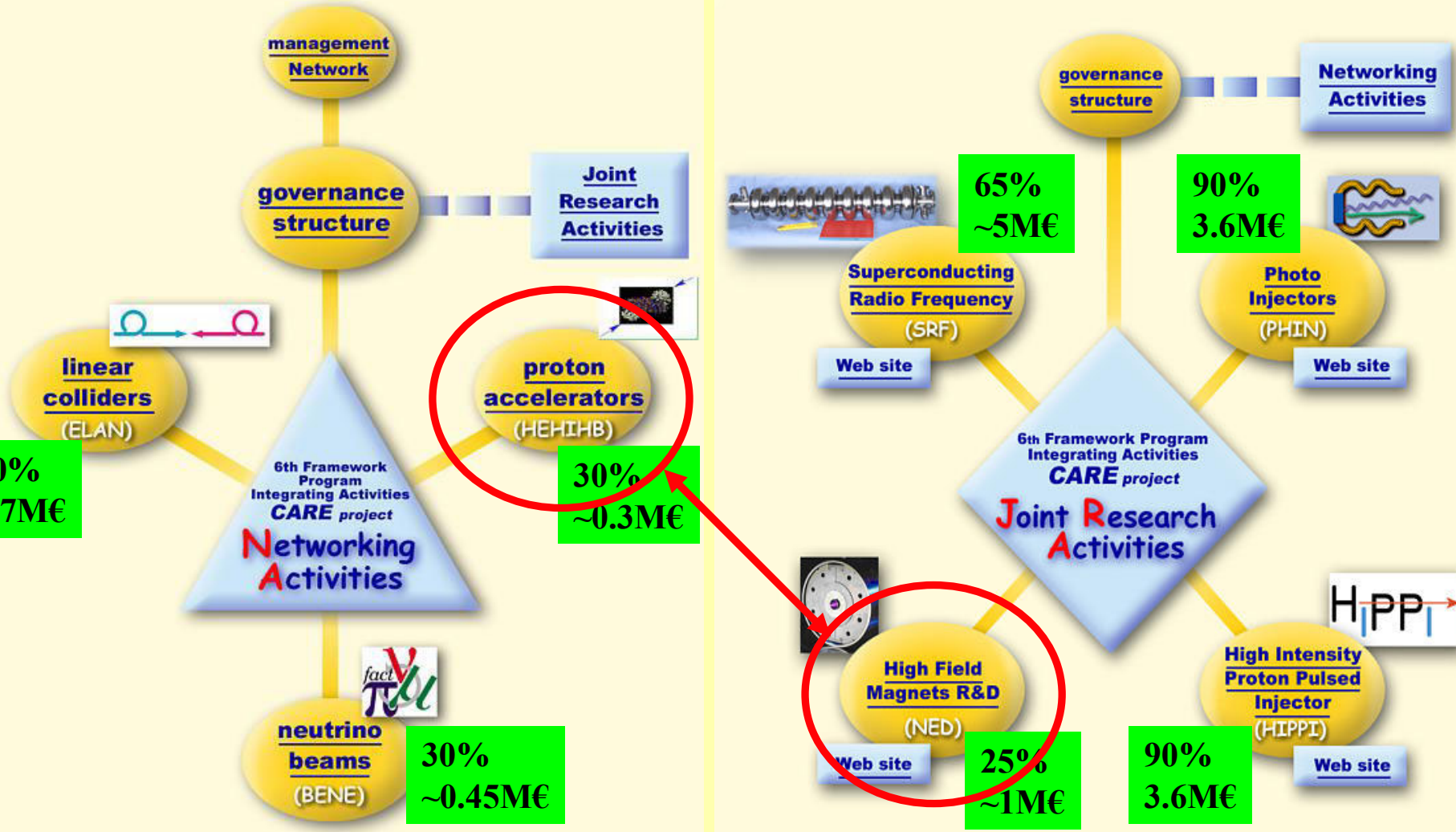
The ESGARD activities and the CARE project

Support for research infrastructures in the 6th Famework Program
(Accelerator for Particle Physics)

Result of the evaluation process

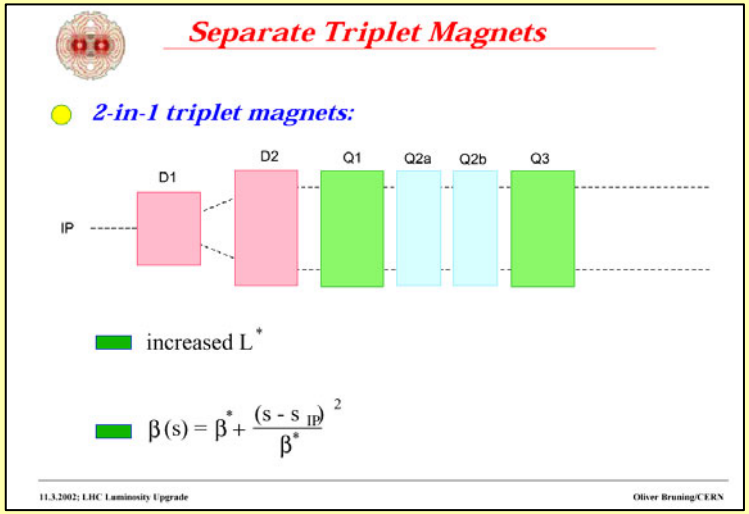
CARE ranked at the 14th position out of 154 project (5th rank of the 58 IA)

CARE is accepted



CARE is recommended for funding at the maximum level of 15.2 M€ (i.e. 52% of initial request) in the Evaluation Summary Report (ESR)

NED aims eventually to built a 15 T Model dipole for the following applications



— (1) preparing LHC IR upgrade, *e.g.*, by studying the feasibility of scenarios where the beam-separation dipole magnets are localized ahead of the final-focusing quadrupole magnets,

— (2) upgrade of CERN MFRESCA cable test facility (presently limited to 10 T) to offer unique services to the entire applied superconductivity community.

HEHIHB

WP1 - AMT
Advancements in Accelerator Magnet Technology

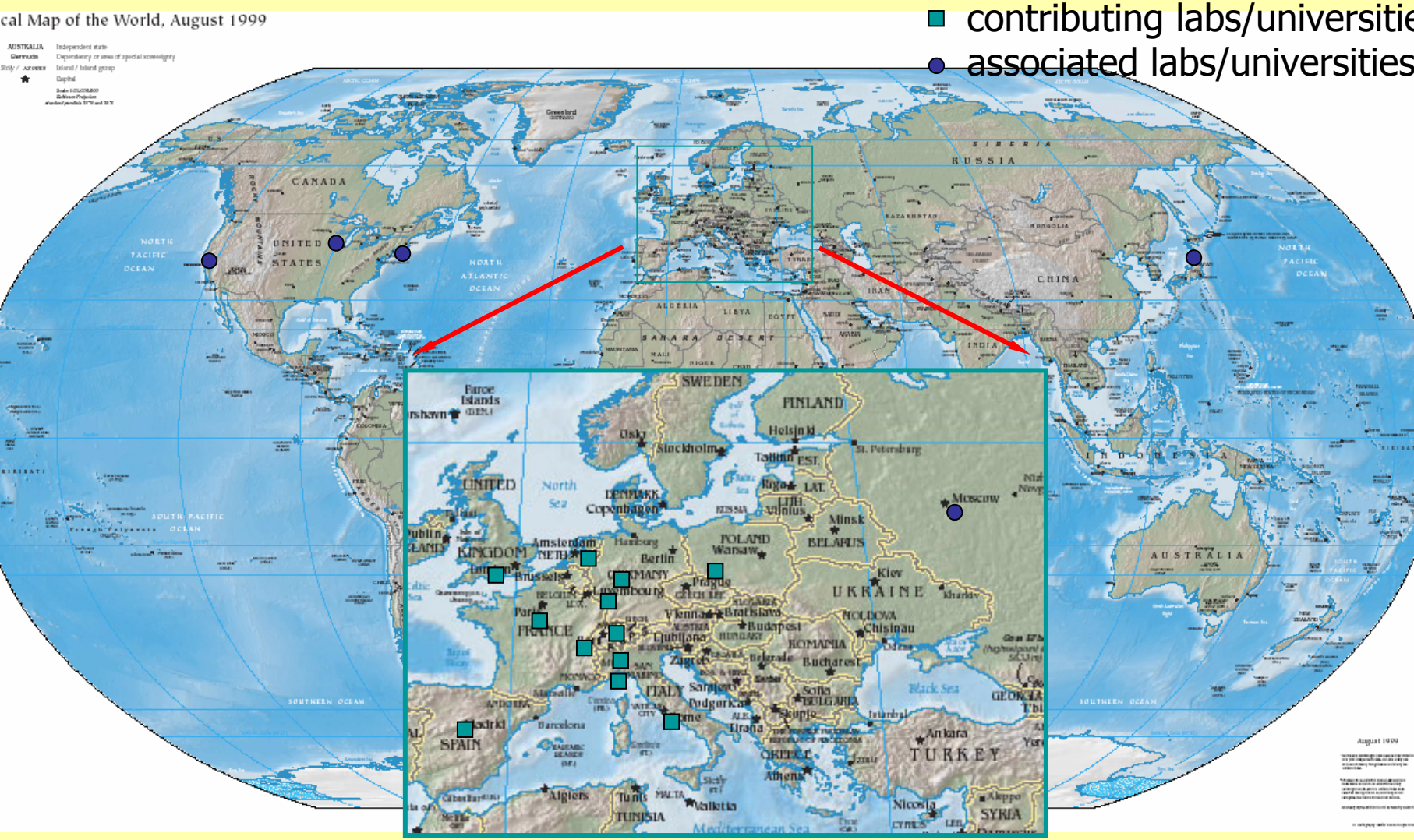
Scope of the AMT

- 5 critical study and R&D tasks identified based on present state-of-the-art in magnet and accelerator technology :
  - AMT-1 - Stability and Quench Limit of LHC at Ultimate Field and for LHC Upgrades (L+E)
  - AMT-2 - Pulsed Magnets (for an SPS Upgrade) (L+E)
  - AMT-3 - Magnets for a LE Ring in the LHC Tunnel (E)
  - AMT-4 - High Field Magnet Design (L+E)
  - AMT-5 - Optimisation of the overall Cost of the Magnet System for a High Energy-High Intensity Hadron Collider
  - Task on synchrotron radiation handling dropped

Contributors to AMT

- 11 contributing associations:
  - CEA (Saclay, France)
  - CERN (Geneva, Switzerland)
  - CIEMAT (Madrid, Spain)
  - EPFL/CRPP (Villigen, Switzerland)
  - GSI (Darmstadt, Germany)
  - ENEA (Frascati, Italy)
  - FZK (Karlsruhe, Germany)
  - INFN-GE (Genova, Italy)
  - INFN-MI (Milano, Italy)
  - RAL (Chilton, UK)
  - UT (Enschede, The Netherlands)
  - WUT (Wroclaw, Poland)
- 5 associated international laboratories:
  - LBNL (Berkeley, CA, USA)
  - FNAL (Chicago, IL,USA)
  - BNL (Upton, NY, USA)
  - JINR (Dubna, Russia)
  - KEK (Tsukuba, Japan)

The World after AMT



Scope of this workshop

- Review the status of practical Sc materials for B > 10 T
  - In particular Nb based
- Review the status of HTS and MgB_2
  - For potential use in low field magnets in the injector chain
- Review problem of cabling and coil technology related issues
- Review the program of the European Industry and give "our" directions