

# The HFM collaboration

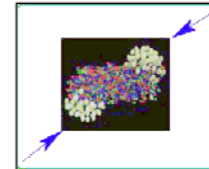
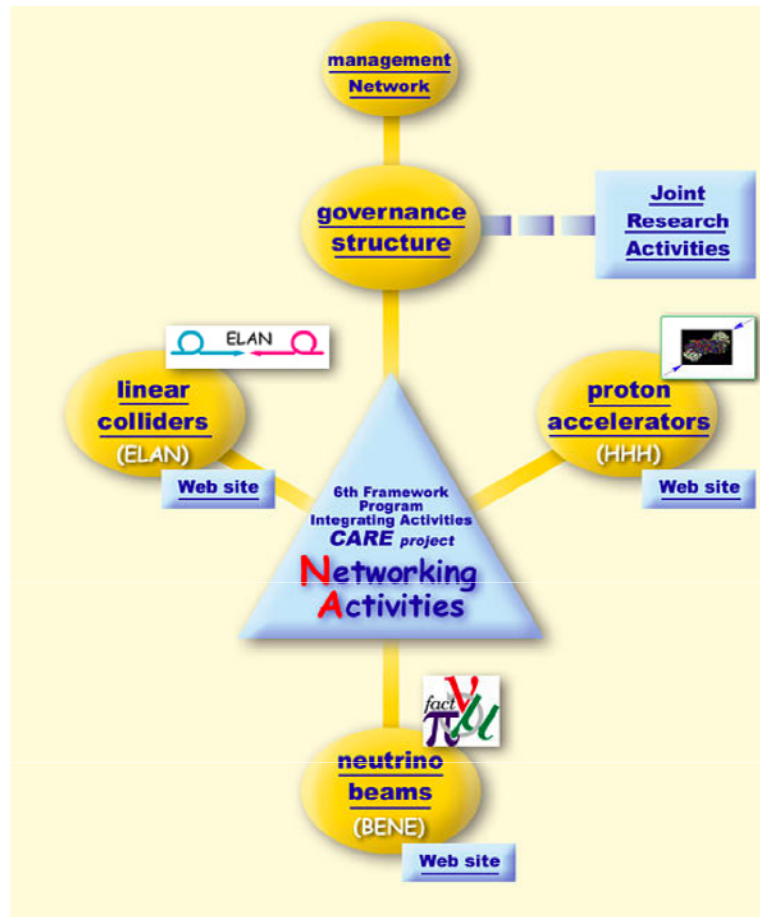
**Gijs de Rijk** (CERN)

24<sup>th</sup> February 2009

# The past

CARE networks: HHH → AMT

HFM coll. meeting, Febr 24 2009, G. de Rijk, HFM coll.



**High Energy  
High Intensity  
Hadron Beams**



Coordinated by [W. Scandale](#) and [F. Zimmermann](#) *HHH is a Networking Activity (N3) in the framework of CARE (Coordinated Accelerator R&D in Europe)*

<a href="#">Main Objectives</a>	<a href="#">Network structure</a>	<a href="#">Activity Reports</a>	<a href="#">Job Opportunities</a>	<a href="#">Workshops</a>	<a href="#">Literature and Presentations</a>	<a href="#">Links</a>
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*New!* [Future CARE-HHH workshops](#)

*New!* [CERN Bulletin Issue 31, Article 3, July 2007 – 'Collimation: A Silicon Solution'](#)

*New!* [CERN Courier Article vol. 47, no. 5, June 2007 – 'Bent Silicon Crystal Deflects 400 GeV Proton Beam at the Super Proton Synchrotron'](#)

[CERN Courier Article vol. 47, no. 2, March 2007 – 'LUMI06 Takes Strides Towards LHC Upgrade'](#)

[CERN Courier Article vol. 47, no. 2, March 2007 – 'Obituary for Francesco Ruggiero, 1957-2007'](#)

[CERN Courier Article vol. 45, no. 3, April 2005 – 'LHC Upgrade Taking Shape with CARE and Attention'](#)

## [Main Objectives](#)

### [CARE-HHH Network structure](#)

Work Package 1: [Advancements in Accelerator Magnet Technologies \(AMT\)](#)

Work Package 2: [Novel Methods for Accelerator Beam Instrumentation \(ABI\)](#)

Work Package 3: [Accelerator Physics and synchrotron Design \(APD\)](#)

### [Participating institutes and linkmen](#)

### [CARE Publications, Deliverables, and IIIII Activity Reports](#)

**LHC upgrade paths** – [parameter scenarios \(pdI\)](#), [upgrade IR layouts](#), [tentative milestones](#)

### [Job Opportunities](#)

### [Workshops](#)

### [Literature and Presentations](#)

### [Links](#)

### [Meetings](#)

Last modified on 09/11/2007 10:54 by [Walter Scandale](#) or [Frank Zimmermann](#)

# AMT



## CARE HHH-AMT network workshops:

WAMS, WAMDO, WAMSDO, Insulation, LHC beam heating & quench, ECOMAG, LER

## Tasks:

- \* LHC stability
- \* SPS upgrade
- \* Booster magnets
- \* High field magnets
- \* Cost optimization

With the end of CARE this is now also finished.



### Organization

- Mandate
- Structure
- [People](#)
- Institutions
- Working Groups
  - [Pulsed Magnet](#)

### Events

- [Meetings](#)

[Workshops](#)  
[WAMSDO-2008](#)  
[LER](#)  
[WAMDO 2006](#)  
[WAMS 2004](#)  
[Insulation & Impregnation Techniques](#)  
[Beam heat & quench in LHC magnets](#)  
[ECOMAG 2005](#)

### Tasks

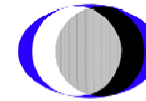
- [LHC stability](#)
- [SPS upgrade](#)
- [Booster magnets](#)
- [High field magnets](#)
- [Cost optimization](#)

### R&D

- Reports
- Databases

### Links

- [CARE](#)
- [HHH](#)
- [NED](#)
- [Other links](#)



Welcome to the Accelerator Magnet Technology Home Page.

The Accelerator Magnet Technology (AMT) Working Group is part of the [CARE](#) Initiative, a networking activity of the [6th Framework Program](#) of the European Union created by the European Steering Committee on Accelerator R&D ([ESGARD](#)). AMT aims at the development of superconducting materials and related procedures, standards and databases for the next generation of accelerator magnets, and fosters communication among the research communities involved.

### News

#### 19-23 May 2008

WAMSDO-2008 Workshop on Accelerator Magnet, Superconductor, Design and Optimization ([more...](#))

#### 11-12 October 2006

LER Workshop on Low Energy Ring ([more...](#))

#### 03-06 April 2006

WAMDO-2006 Workshop on Accelerator Magnet Design and Optimization ([more...](#))  
Proceedings [here](#)

#### 24-28 October 2005

ECOMAG05 Workshop on Superconducting Pulsed Magnets for Accelerators ([more...](#))

#### Pulsed Magnet Working Group

The new website of the WG (renamed from "Pulsed Dipole") is online [here](#).

#### 22-23 March 2005

Workshop at CERN on insulation and impregnation techniques ([web site](#))

#### WAMS 2004 Workshop Proceedings

The PDF file is online [here](#) (21.3 MB)

#### 11-12 November 2004

HHH meeting held at CERN ([more...](#))

#### 25 March 2004

First plenary meeting of the AMT Working Package held at CERN  
([minutes available here](#))

#### 22-24 March 2004

The first AMT Workshop on Accelerator Magnet Superconductors, [WAMS 2004](#), was successfully held in Archamps, France  
([more...](#))

#### 19/01/2004

HEIHB kickoff meeting held at CERN  
([more...](#)).

[More news ...](#)

### Upcoming events

#### 19-23 May 2008

WAMSDO-2008 Workshop on Accelerator Magnet, Superconductor, Design and Optimization ([more...](#))

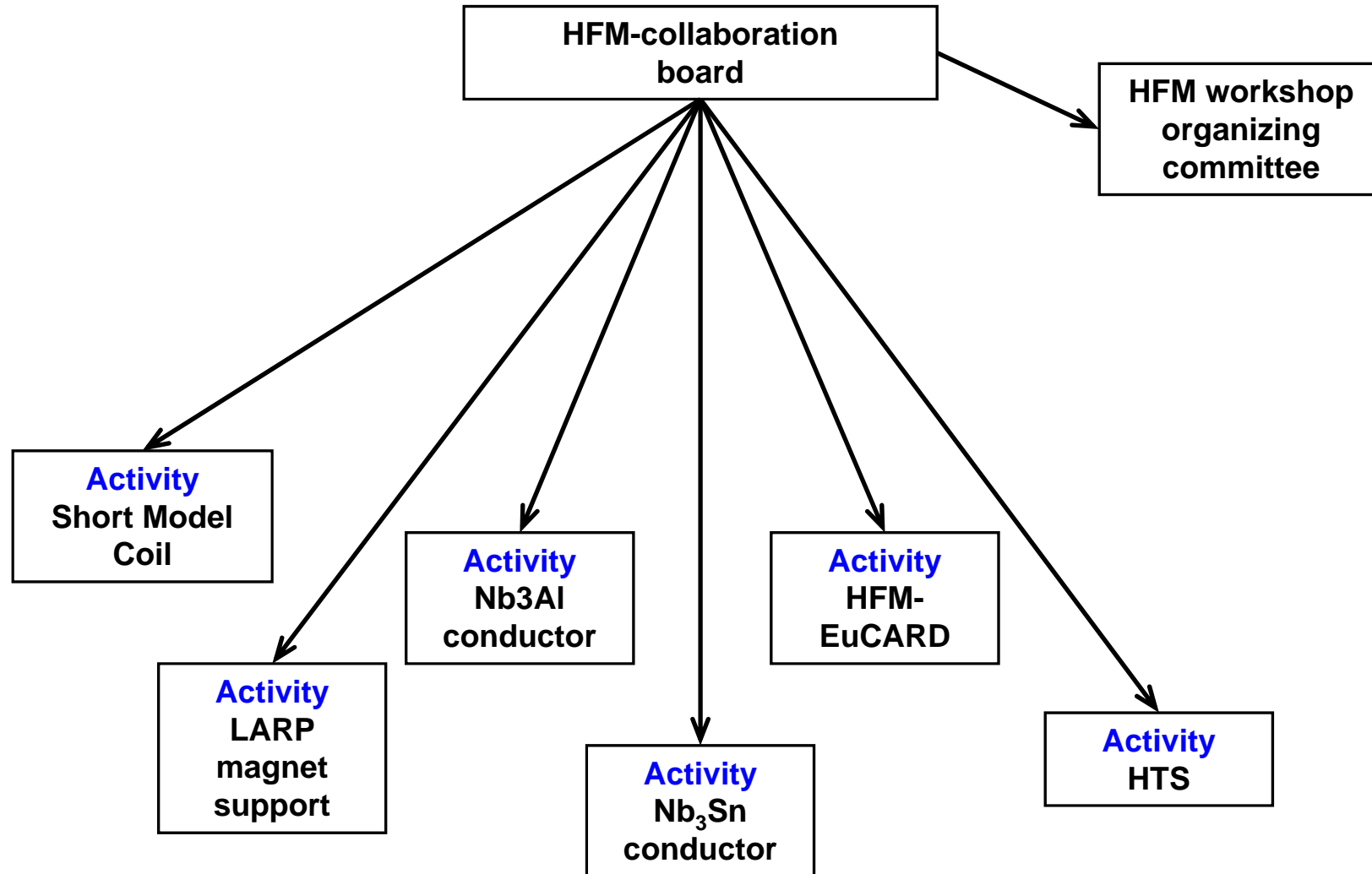


[Full list of AMT & NED Meetings](#)

# A global HFM collaboration

- We need a successor for the CARE-HHH-AMT network
- We need a framework for the many ongoing collaborative activities
- Many big and small collaboration activities were done or are ongoing
  - LARP, KEK-CERN, SMC, NED, EuCARD-HFM, CERN-Twente, etc...
- For each new activity the actors start from scratch to find partners, money, figure out a framework
- One continuous existing framework collaboration (network) would smooth out a lot of overhead and put people into contact so as to generate ideas. New activities can be started. Financial support for activities can be found using an official structure.  
(Since some time this idea is already around)
- It is easier to start such a collaboration using a bigger project as a 'pinning centre': profit from the start of EuCARD to start a collaboration which contains the EuCARD-HFM WP and can also interact with the EuCARD-EuroLumi network

# HFM collaboration



# Instutites

- All EuCARD-HFM participants + AMT + WAMSDO participants + industrial partners + other interested parties:
- CEA-DSM-Irfu (Fr), CERN (int), CIEMAT (Sp), CNRS-Grenoble (Fr), DESY (D), EPFL-CRPP (CH), FNAL (USA), FZK (D), Geneva Univ. (CH), INFN-Genova (It), INFN-Mi-LASA (It), KEK (J), LBNL(USA), NHMFL(USA), NIMS (J), Ohio-LASM (USA). Polytech. Wroclaw (Pl), Southampton Univ. (UK), STFC-DL (UK), STFC-RAL (UK), Tampere Tech. Univ. (Fi), Twente Univ. (NL), VNIINM-Bochvar (RU), Weizmann inst (Is).
- Industrial partners  
Colmubus, BHTS, + ...

# How to start



1. Contact all possible partners and list this interested
  - Form ad-hoc committee to do this (2-4 people) (this meeting)
  
2. Convene a collaboration board to (April-May 2009):
  - Elect a spokesperson
  - Elect a “management board” (to take care of the daily matters)
  - Define the HFM-collaboration activities
  - Elect the workshop organization committee ( + mandate)
  - ...