



# High Field Magnet Network

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# Objectives of the HFM network

- Have an open forum that meets regularly to be able to discuss common **scientific and technical** issues in a targeted way
- Make and maintain a comprehensive map of the HFM landscape, independently of participation to specific projects (EU or non-EU)
- Disseminate the plans, progress and issues of the HFM projects to all the partners
- Offer intellectual support to the projects
- Provide access to the above forum to students and staff of all educational institutions independent of participation to a specific project (EU or non-EU)
- Find and co-opt new partners, with relevant interest and contribution in HFMs, whether active in accelerator or other fields

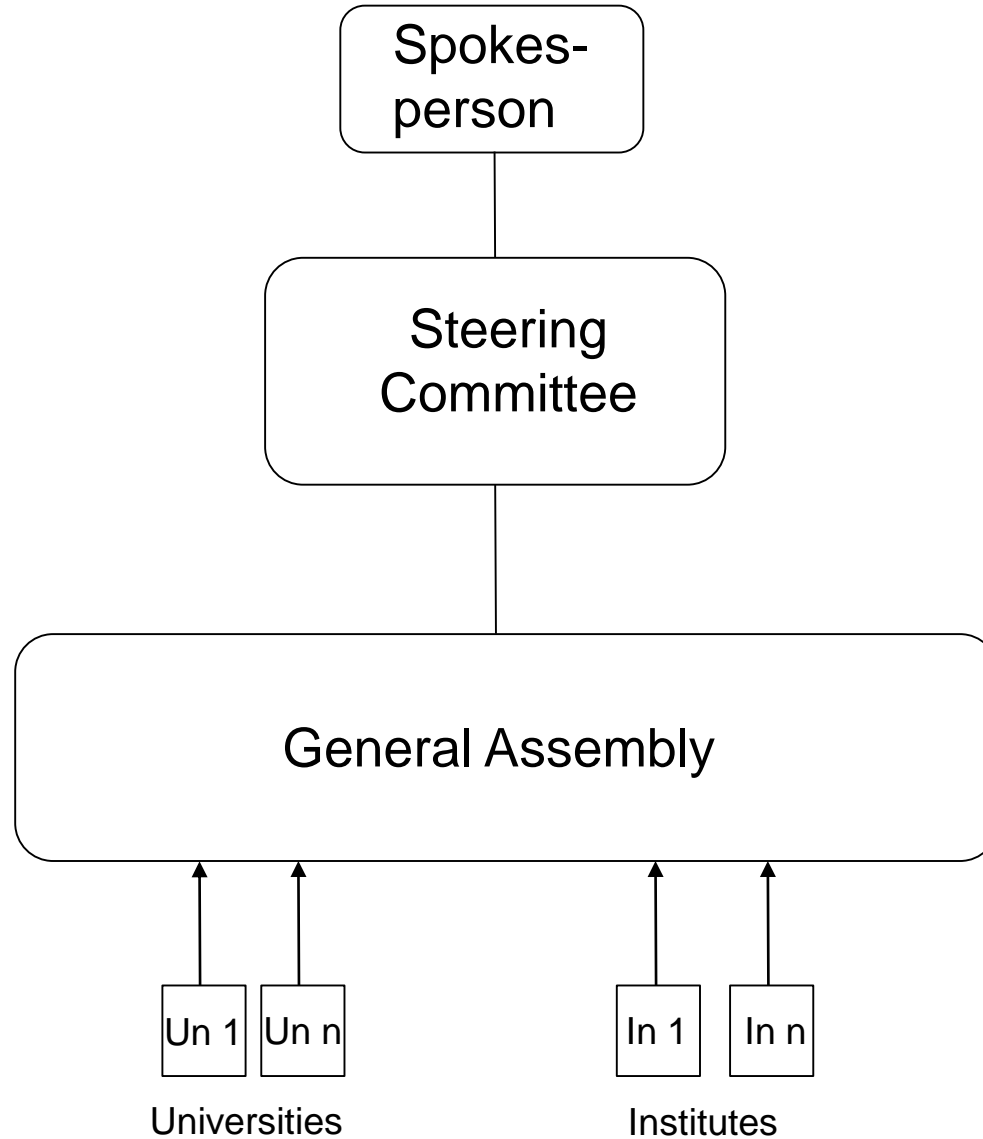


# What are the foreseen activities ?

- Organise an annual plenary meeting to officially update the Map and maintain the membership
- Organise regular topical workshops (e.g. take over the annual WAM series that will be orphaned end of April and the CHATS workshop)
- Targeted meetings for establishing and maintaining the landscape map
- Discuss advances, identify technical challenges, launch proposals for new HFM actions and projects
- Provide networking to place students, prostdocs in projects



# Proposed organisation





# Proposed organisation (2)

## 1. Spokesperson

- Represents the network (eg. In TIARA, FuSuMaTech, Conferences, ESAS board, etc)
- Is a rotating role among the Steering Committee members (2 yr, 'non' renewable))

## 2. Steering Committee

- Members have a renewable mandate of 2 years
- Calls workshops and sets the agenda
- Keeps the Map updated
- Calls the General Assembly
- Proposes new members of the network
- Provides contacts for students
- Organises meetings on scientific and industrial strategies

## 3. General Assembly

- Elects the Steering Committee members
- Accepts new members
- Sets the global aims of the network
- Consists of one representative of each Institute or university, each with voting rights



# Rules of functioning (1)

## High Field Magnet Network

### Internal rules of functioning

Aims of the High Field Magnet (HFM) network:

1. To have an open forum that meets regularly to be able to discuss common scientific and technical issues on High Field Magnets in a targeted way.
2. To make and maintain a comprehensive map of the HFM landscape.
3. Disseminate to all the partners the plans, progress and issues of HFM projects and studies.
4. Identify opportunities for intellectual support to the projects.
5. To provide access to projects and studies to students, postdocs and staff of all educational institutions.

Activities of the HFM network:

1. The network will organise an annual plenary meeting (called General Assembly) to maintain the membership, elect the Steering Committee, officially update the HFM landscape map and decide on specific issues brought up by the Steering Committee. *eg. As secondary meeting to a conference*
2. The network will organise regular topical workshops on the subject of HFMs. *eg.1 topical WS per year*
3. The HFM network will facilitate the placement of students, postdocs and staff of all educational institutions in projects and between the members. The network will not finance student, postdoc and staff placements. *eg. Maintain a web page pointing to programs and with hints*



## Rules of functioning (2)

### Membership of the HFM network:

1. All institutes and universities connected to the subject of HFM can be members.
2. Membership is either by invitation or by request by the potential member and has to be approved by the General Assembly.
3. All institutes and universities that are members have voting rights in the General Assembly.
4. The HFM network will have a minimum of 5 members. To set the network up, at least 5 candidate members will meet and mutually approve each other's membership.
5. Projects and Studies concerned with HFMs can be invited to participate on specific activities by the Steering Committee. They cannot be members of the network and cannot have voting rights.
6. Industrial firms concerned with HFMs can be invited to participate on specific activities by the Steering Committee. They cannot be members of the network and cannot have voting rights.
7. The members will deposit a membership declaration letter. An institutional partner or a professional organization be the depository of the declaration letters.

eg. - CERN or CEA  
- ESAS, IEEE



# Rules of functioning (3)

Internal functioning rules:

1. Each member institute or university will mandate one person to sit in the General Assembly.
2. The General Assembly will elect a Steering Committee of 5 persons from among its members.
3. The members of the Steering Committee have a mandate of 2 years after which they could be re-elected.
4. The Steering Committee will elect a Spokesperson. The Spokesperson will have a mandate of 2 years and after that cannot be re-elected during 2 mandate periods.
5. The General Assembly
  - a. Elects the Steering Committee members
  - b. Accepts new members
  - c. Sets the global aims of the network and reviews and adapts its mission if needed.
6. The Steering Committee:
  - a. Calls workshops and sets their agenda.
  - b. Keeps the HFM landscape map updated.
  - c. Calls the General Assembly.
  - d. Proposes new members of the network.
  - e. Provides contacts for students.
  - f. Organizes meetings on scientific and industrial strategies.
  - g. Finds the financing for the workshops and other activities.
7. The Spokesperson represents the network in outside bodies.
8. The HFM network finances will be limited to the organization of its own networking activities.





# Some open questions

- How should this be started ?
  - 5+ partners could simply convene and declare the start
  - Who should be the 5+ starting partners ?
- Which bodies provide the network 'auspices' or 'patronage' ?
  - ESAS, IEEE, TIARA, ... ?
- Should the network be an Association (eg. By Fr or CH law) ?
- Who is the depositary of the declaration letters ?
- The founding meeting could be done in Q3 2017
  - At the EuCAS conference in Aug-Sep ?



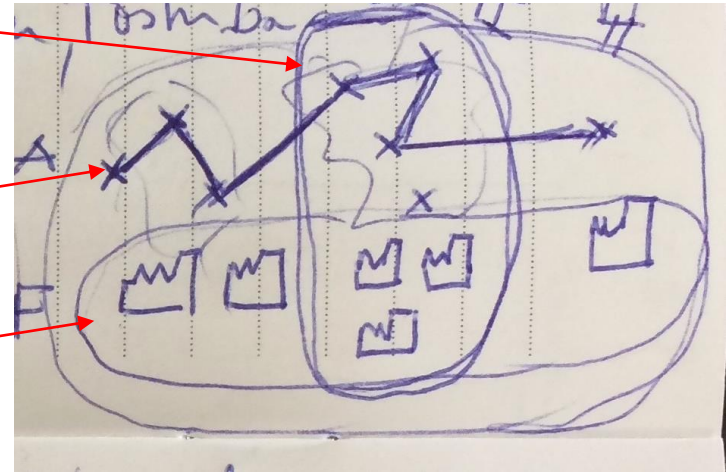
# Relations with other projects and entities: example FuSuMaTech

- FuSuMaTech
  - exploiting technology opportunities
  - A limited number of European institutes and industrial firms
- HFM network
  - Discussion, Dissemination between members, intellectual exchanges
  - A 'club' of all institutes and Universities

FuSuMaTech

HFM Network

Industry



Courtesy A. Dael



# What level of financing is needed ?

- 2 topical workshops per year: up to 20kCHF
  - Website support: ~0.5 PersonMonth/y (best is CERN based)
  - Secretariat support 0.5 PM per workshop (major labs, could circulate)
  - This could be financed by:
    - Subventions by major EU projects in the field
    - Subventions by the major labs
    - Small contribution fees
- ➔ The financing is not an issue



# Institutes and Universities that would potentially be concerned ?

## Institutes:

CEA<sup>1,2,3,4,5,6,7</sup>  
 CERN<sup>1,2,3,4,5,6,7</sup>  
 CNRS<sup>3,5,4,8</sup>  
 Grenoble-INP<sup>2</sup>  
 Nijmegen HFL  
 STFC-RAL<sup>3,4,5</sup>  
 CIEMAT<sup>1,6</sup>  
 KIT<sup>2,3, 4,8</sup>  
 INFN<sup>1,2,3,5,6</sup>  
 PSI<sup>4,6</sup>  
 LBNL<sup>1,6</sup>  
 FNAL<sup>1,6</sup>  
 BNL<sup>1</sup>  
 KEK<sup>1,6</sup>  
 ENEA  
 ITER-org  
 F4E  
 NHMFL  
 DTI Denmark<sup>2</sup>

## NIMS

PRW-  
 Woclaw<sup>3,5</sup>  
 VNIINM-  
 Bochvar  
 LAL-Annecy  
 BINP

## Universities:

UniGe<sup>2,3,6</sup>  
 U twente<sup>2,5,6</sup>  
 U  
 Tampere<sup>1,2,3,6</sup>  
 TUW Vienna<sup>8</sup>  
 Southampton  
 U<sup>2,3</sup>  
 U Grenoble-Alpes  
 EPFL<sup>6</sup>  
 Ohio-LASM  
 MIT  
 Bar-Ilan U  
 UAB-ICMAB<sup>8</sup>  
 U Patras<sup>6</sup>  
 U Bologna

1. HILUMI
2. EuCard2-WP10
3. Eucard-WP7
4. FuSuMaTech
5. CARE-NED
6. EuroCircol-FCC
7. ARIES
8. Eurotapes



# Projects and industrial firms that can be in the discussion

## Firms:

BHTS<sup>2,3</sup>

Bruker-Hanau

ASG<sup>4</sup>

GE-Alstom

Babcock-Noel<sup>4</sup>

TESLA<sup>4</sup>

Oxford<sup>4</sup>

Columbus<sup>3</sup>

OST

ELYTT<sup>4</sup>

SIGMAPHI<sup>4</sup>

## Projects:

HILUMI

FCC

FASUM

FuSuMaTech

FAIR

ITER

1. HILUMI
2. EuCard2-WP10
3. Eucard-WP7
4. FuSuMaTech
5. CARE-NED
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