



High Field Magnet Network

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HFM Network

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Why do we need a HFM Network ?

We can observe:

- Projects and their networks, often EU, take 3-4 years and then stop
 - HILUMI, EuCard2-WP10, Eucard-WP7, FuSuMaTech, CARE-NED, EuroCircol-FCC, ARIES, Eurotapes
- Each project only has a subset of all potential partners
- Only a very limited number of 'tenors' take the initiative for new projects
- Initiatives are mostly top-down
- Most standard meeting events (conferences) are not targeted but very general, exception are the workshops and meeting inside the projects, but there only a subset of the potential partners participate
- Many universities or institutes are not able to participate due to the particular (EU) project financial requirements
 - Directly failed negotiations:
 - For Eucard-WP7: U Twente, STFC-RAL, CIEMAT, TUW Vienna
 - For EuCard2-WP10: Grenoble-INP, STFC-RAL



What are the objectives ?

- Make and maintain a comprehensive map of the HFM landscape, independently of participation to specific projects (EU or non-EU)
- Have a open forum that meets regularly to be able to discuss common **scientific and technical** issues in a targeted way; Offer intellectual support to the projects
- Find and co-opt new partners, with relevant interest and contribution in HFMs, whether active in accelerator or other fields
- 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)



What are the foreseen activities ?

- Organise regular topical workshops (e.g. take over the WAM series that will be orphaned end of April)
- Targeted meetings for establishing and maintaining the landscape map
- Discuss advances, identify technical challenges, launch proposals for new HFM actions and projects



What is new ?

- The network is not limited in time nor linked to a single project
- The ideas and information flow is both bottom-up and top-down
- All possible actors are involved
- All universities get the opportunity to place students in frontier projects
- Frontier projects have access to a larger pool of (young) scientists
- Frontier projects have access to a larger academic pool
- A more open way to broadcast and join in new projects proposals



What level of financing is needed ?

- 2 topical workshops per year: up to 40kCHF
- Website support: ~0.5 PM/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



What type of organisation is needed ?

- We need an umbrella: a wide scale entity to endorse the idea (TIARA)
 - Some sort of MoC
- Also possible with MoCs via CERN



Who would potentially be concerned ?

CEA^{1,2,3,4,5,6,7}
CERN^{1,2,3,4,5,6,7}
CNRS^{3,5,4,8}
Grenoble-INP²
U Grenoble-Alpes
Nijmegen HFL
STFC-RAL^{3,4,5}
CIEMAT^{1,6}
KIT^{2,3, 4,8}
INFN^{1,2,3,5,6}
PSI^{4,6}
EPFL⁶
LBNL^{1,6}
FNAL^{1,6}
BNL¹
KEK^{1,6}
ENEA
ITER-org
F4E
NHMFL

DTI Denmark²
UniGe^{2,3,6}
U twente^{2,5,6}
U Tampere^{1,2,3,6}
TUW Vienna⁸
MIT
NIMS
Ohio-LASM
PRW-Woclaw^{3,5}
Southampton U^{2,3}
VNIINM-Bochvar
LAL-Annecy
BINP
Bar-Ilan U
UAB-ICMAB⁸
U Patras⁶
U Bologna
BHTS^{2,3}
Bruker-Hanau
ASG⁴

GE-Alstom
Babcock-Noel⁴
TESLA⁴
Oxford⁴
Columbus³
OST
ELYTT⁴
SIGMAPHI⁴

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



What would we like to ask from TIARA ?

- Do you think this HFM network is a viable idea ?
- Can you assist us in developing this network ?
- When matured could you endorse **and host** this network ?



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