HFM

High Field Magnets

HFM Annual Meeting

Overview of the HFM organisation and operation

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Date: 02.11.2023

Outline

1. HFM HFM Programme Office Mandate
2. HFM website
3. HFM intranet page
4. HFM SharePoint websites for the work packages
5. HFM EDMS structure
6. HFM Indico
7. HFM Programme CERN box
8. HFM Mattermost channels

HFM Programme Office Mandate

- The HFM Programme Office manages all administrative aspects required by the HFM R&D Programme and assists the HFM Programme Coordinator and Technical Coordination Board in the tracking of resources and schedules
- The HFM Programme Office team:
  - Germana Riddone (Head of the HFM Programme Office)
  - Andrzej Siemko
  - Natalia Tara
  - Sanda Trofaila
  - Sylvie Prodon
  - Valeria Perez Reale, Patrycja Anna Stopa
  - Patricia Clerc

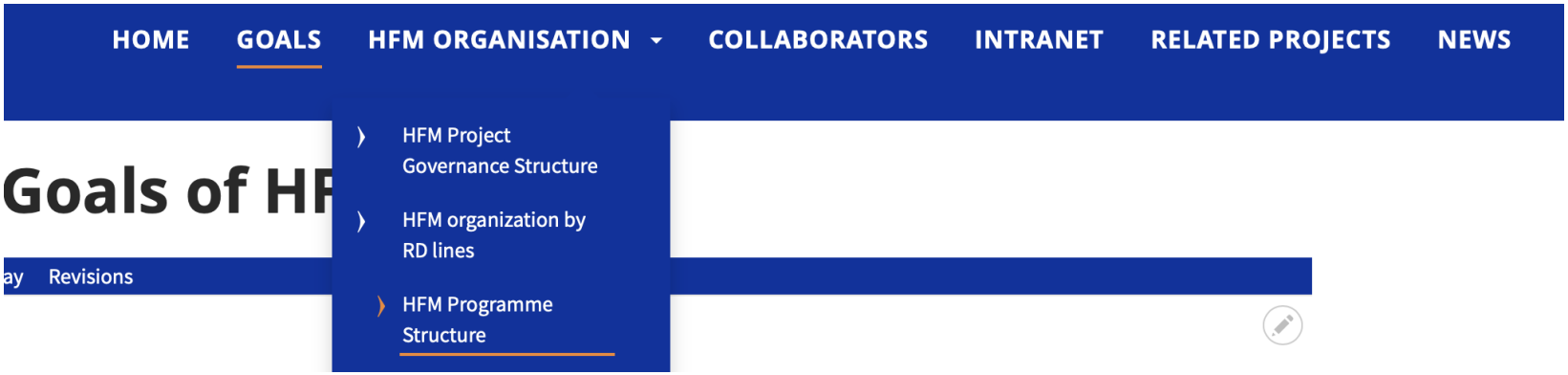
- Participate in the definition and implementation of the HM Program management structure, including: WBS, budget structure, EVM, EDMS and master plan documentation.
- Follow-up the HFM Programme M+P budget, including registering deliverables and progress through work at CERN and within collaboration agreements via technical contacts.
- In collaboration with TE DO organize at least once a year the HM M+P budget scrutiny and propose adjustments for Work Packages at CERN and contributions within the collaboration agreements. Liaise with FAP to ensure an adequate information flow.
- Organize administrative and contractual follow-up of collaboration agreements, including organizing the Collaboration Steering Committee meetings
- Follow-up, in collaboration with the HFM Program Leader and the organic management line, the documentary aspects for the CERN Work Packages, including the EDMS and EVM.
- Support the HFM Program Leader and CERN organic management line to plan and organize periodic resource reports and "Cost and Schedule" reviews of the HFM program.
- Develop reporting documentation templates and other document needs, including archiving and creation and update of webpages.

HFM website

Welcome | HFM General (cern.ch)

Public site


HFM General
HOME
GOALS
HFM ORGANISATION
COLLABORATORS
INTRANET
RELATED PROJECTS
NEWS
HFM
High Field Magnets



- The *home* page contains general information regarding the HFM Programme
- The *goals* page contains the goals of the HFM Programme as defined in the *European Strategy for Particle Physics Accelerator R&D Roadmap* (link to the document)

- *Collaborators* page contains general information regarding the current HFM collaborations (logo, link to the institute webpage, description of the Programme)
- *Intranet page*, contains information on how you can access the HFM Intranet site (a sharepoint collaborative website, which contains more information regarding the HFM Programme)

Intranet HFM site

Intranet site for HFM program – Home (sharepoint.com)

Restricted site (CERN account mandatory)

Structure of the site (link)

Intranet site for HFM program | HFM Public Site | HFM RD Lines | HFM Meetings and Fora | HFM Indico | HFM EDMS | HFM E-Groups | HFM-PROJ Budget Codes | HFM Project Office | HFM Cost to Completion (CtC) | HFM CERN box

Intranet site for HFM program

- Home
- HFM RD lines and Work P...
- HFM Meetings and Fora s...
- HFM Cost to Completion ...
- HFM Project Office
- HFM Documents
- HFM Presentations
- HFM Templates
- Main Events
- Calendar
- Recycle bin
- Edit

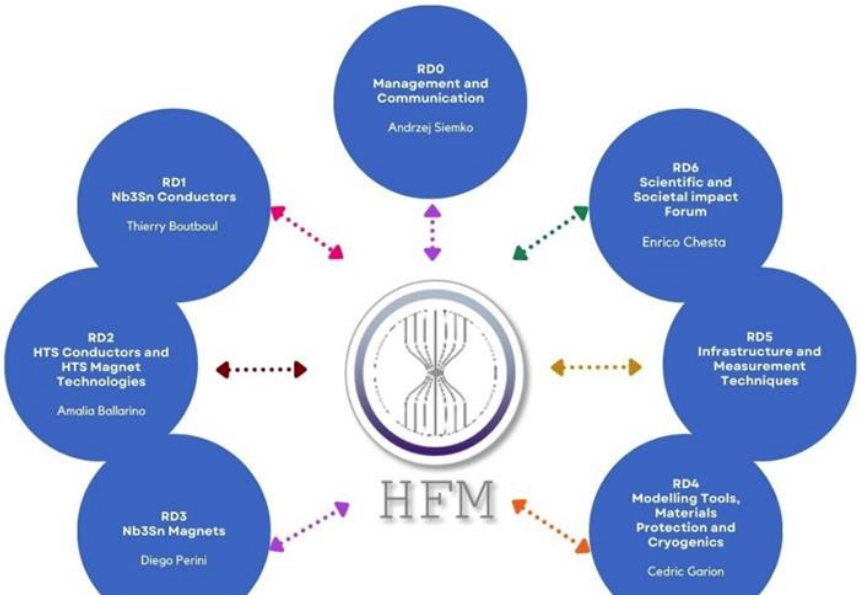
+ New | Page details | Analytics

The HFM Intranet is a Sharepoint Collaborative Workspace for the HFM Project.

Mission of the first phase of the HFM project (2022-2026)

- To achieve the long-term goals, a continuous and focused R&D effort is needed. Demonstration of the technology requires a staged approach with intermediate results proving feasibility of the challenging targets
- Main goals for 2022-2026
  - Demonstrate Nb_3Sn potential above 14T and in terms of ultimate performance (target 16T)
  - Develop Nb_3Sn magnet technology for collider-scale production through robust design, industrial processes and cost reduction (benchmark 12 T)
  - Explore and demonstrate suitability of HTS conductors for building accelerator magnets performing beyond the reach of Nb_3Sn

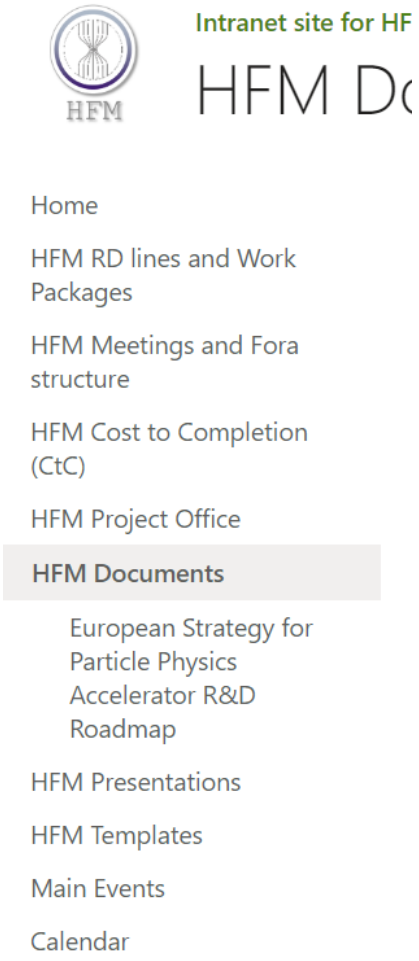
HFM Project Structure



Relevant documents

RD Line Coordinators and WP Leaders relevant folders

- HFM RD lines and WPs
- HFM meetings and Fora structure
- HFM CtC
- HFM Documents
- HFM Presentations
- HFM Templates
- HFM main events
- HFM Programme Office (restricted to the members of the HFM Programme Office



Site subpages

1. Intranet site for HFM Programme

1.1 HFM RD Lines and Work Packages subpage - Link to the page

The subpage presents the list of the 6 RD Lines with:

- CERN and Collaborators WPs
- For each WPs, there is a WP Leader and the CERN Liaison for the collaborations WPs

1.2 HFM Programme Collaboration Structure subpage - Link to the page

- The page presents the HFM - PROJ organizational structure

HFM RD Lines and Work Packages page (link)

RD Lines | HFM Home Intranet page | Home RD Lines page | Home | Notebook | Pages | Project tracker list | Issue tracker list | Recycle bin | Edit

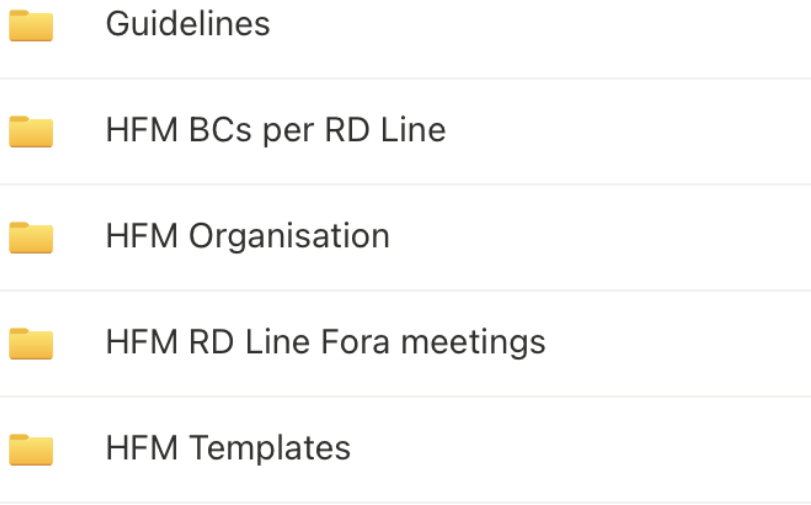
+ New | Page details | Analytics | Published 23/10/2023 | Share | Edit

RD Line name	RD Line	Work Package	WP Name	RD Line coordinators		Lead Institution	CERN Liaison	Lead Institution
RD0 - Management and communication				A. Siemko	G. Riddone	A. Siemko		
	RD0	WP0.0	Management and communication			A. Siemko		CERN TE-RAS
RD1 - Nb3Sn Conductors				C. Senatore	Th. Boutboul			
	RD1	WP1.1	Nb3Sn conductors for high field magnets - CERN			Th. Boutboul, S. Hopkins		CERN TE-MSC
	RD1	WP1.2	R&D on optimisation of Nb3Sn microstructure and pinning - BAF (**KE5074**)			A. Leineweber	S. Hopkins	BAF
	RD1	WP1.3	Nb3Sn conductor Jc performance and electro-mechanical properties beyond state-of-the-art. - UNIGE (**KE4663**)			C. Senatore	Th. Boutboul	UNIGE
RD2 - HTS Conductors and HTS Magnet Technologies				A. Kario	A. Ballarino			
	RD2	WP2.1	R&D on accelerator grade HTS REBCO conductors - KIT (**KE5283**)			B. Holzapfel	Ch. Barth	KIT
	RD2	WP2.2	HTS REBCO tapes, cables and associated technologies - CERN			A. Ballarino		CERN TE-MSC
	RD2	WP2.3	HTS conductors - UNIGE (**KE4612**)			C. Senatore	Th. Boutboul	UNIGE
	RD2	WP2.5	Demonstrator of the dielectric-insulated REBCO high field magnet coils - CERN			A. Ballarino		CERN TE-MSC
	RD2	WP2.6	HTS high field insert magnets and MuC solenoids - CERN					CERN TE-MSC
	RD2	WP2.7	R&D on mechanical properties of REBCO cables- U-Twente (**KE5276**)			M. Dahlle	Th. Boutboul	U-Twente

Important documents (HFM Documents folder)

RD Line Coordinators and WP Leaders relevant documents

- Guidelines
- HFM BCs per RD Line (link)
- HFM Organization (RD Line and WPs)
- HFM RD Line Fora meetings
- HFM templates (reports, presentations, trip request, etc).



HFM intranet page access

- The HFM intranet page is a SharePoint collaborative workspace
- We are available to provide advise on the use of the webpage
- To access the page you would need:
  - To have a CERN lightweight account or a CERN NICE account. Please visit the https://account.cern.ch/account/ page. The whole process should take only a few minutes. For more details, please follow the instruction detailed on the following link: link
  - You would also need to be registered in our HFM members list, so please contact us on hfm.project.office@cern.ch and we will add you on the list and share the site with you

Intranet pages for the HFM Work packages

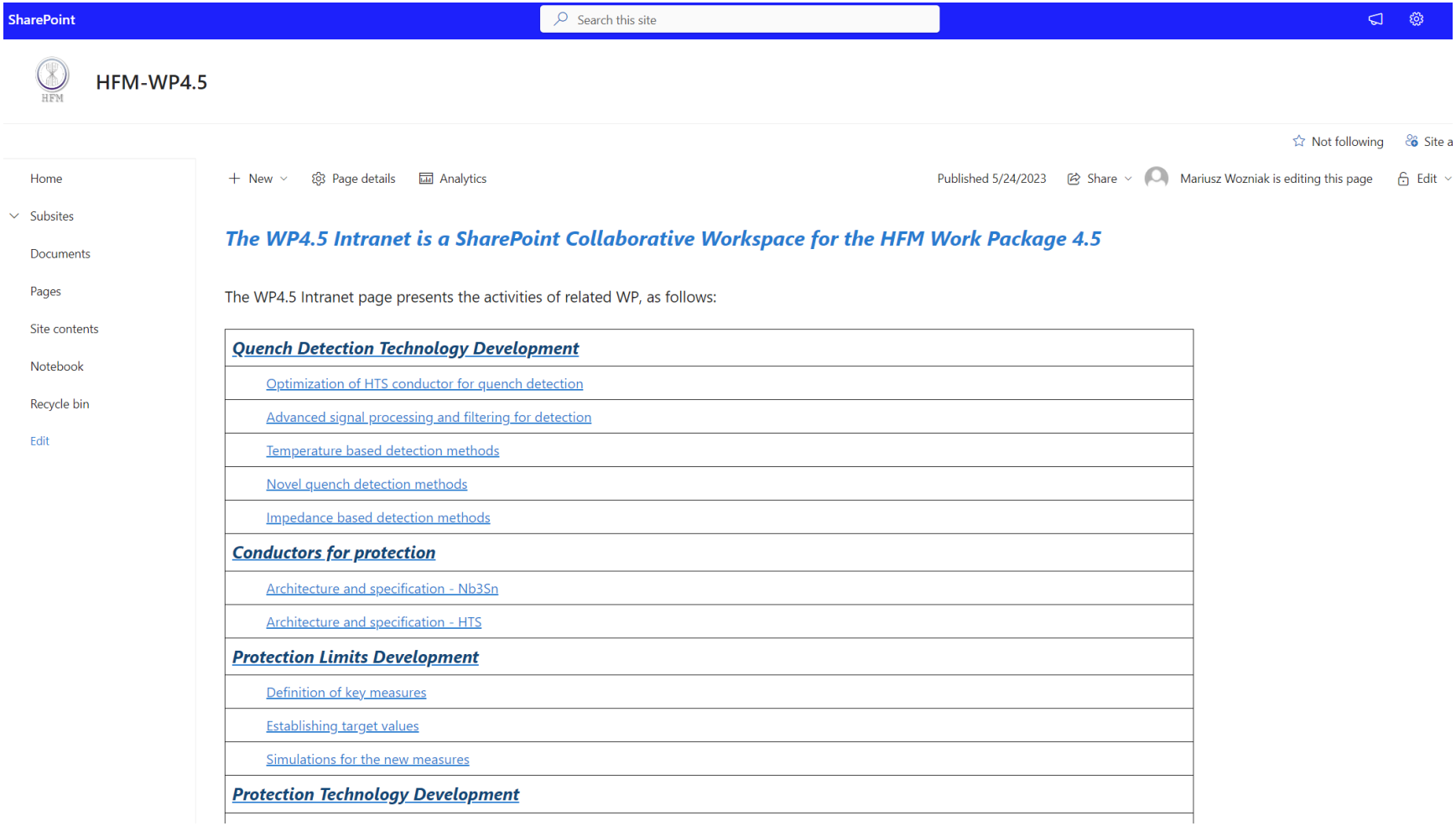
Pilot SharePoint page for the WP4.5 (link)

RD Lines | HFM Home Intranet page | Home RD Lines page | Home | Notebook | Pages | Project tracker list | Issue tracker list | Recycle bin | Edit

New | Page details | Analytics

	RD3	WP3.1	- CERN			D. Perini		CERN TE-MSC
	RD3	WP3.2	Nb3Sn single apperture cosΘ bladder & keys 12T FALCON D dipole model - INFN (KE4102)			S. Farinon	D. Perini	INFN
	RD3	WP3.3	Nb3Sn robust performance 12T long dipole prototype - CERN			A. Milanese		CERN TE-MSC
	RD3	WP3.4	Nb3Sn magnet Technology Development Program (TDP) - CERN			D. Perini		CERN TE-MSC
	RD3	WP3.5	Nb3Sn ultimate performance dipole models - CERN			J.C. Perez		CERN TE-MSC
	RD3	WP3.6	Nb3Sn ultimate performance R2D2 racetrack dipole demonstrator - CEA (KE3782)			E. Rochepault	J.C. Perez	CEA
	RD3	WP3.7	Nb3Sn ultimate performance common coil dipole demonstrator - CIEMAT (KE3920)			F. Toral	J.C. Perez	CIEMAT
	RD3	WP3.8	Nb3Sn ultimate performance coil stress management dipole model - PSI/CHART (KE4808)			B. Auchman	A. Milanese	PSI/CHART
	RD3	WP3.12	*KE5655 CEA collaboration on Nb3Sn ultimate performance R2D2 racetrack dipole demonstrator*			E. Rochepault	J. C. Perez	CEA
RD4 - Modelling Tools, Materials Protection and Cryogenics				S. Farinon	C. Garion			
	RD4	WP4.1	Model based systems engineering - software tools for design and measurements the HFM R&D programme - CERN			S. Russenschuck		CERN TE-MSC
	RD4	WP4.2	Structural materials for HFM magnets - CERN			C. Garion		CERN TE-VSC
	RD4	WP4.3	Insulation materials for HFM magnet coils and conductors - CERN			R. Piccin		CERN TE-MSC
	RD4	WP4.4	R&D on impregnation materials for HFM magnet coils - ETHZ/CHART (KE4738)			T. Tervoort	R. Piccin	ETHZ/CHART
	RD4	WP4.5	Quench detection, protection and diagnostic methods for Nb3Sn and HTS high-field magnets - CERN			M. Wozniak		CERN TE-MPE
	RD4	WP4.6	Cryogenic and thermal management studies for HFM magnets - CERN			P. Borges de Sousa		CERN TE-CRG
RD5 – Infrastructures and Measurement Techniques								
	RD5	WP5.1	Test infrastructure needs for the HFM R&D programme - CERN			F. Mangiarotti		CERN TE-MSC
	RD5	WP5.2	Infrastructure needs for conductors - CERN			Th. Boutboul		CERN TE-MSC
	RD5	WP5.3	Infrastructure needs for demonstrator and short magnet models - CERN			J.C. Perez		CERN TE-MSC
	RD5	WP5.4	Infrastructure needs for the construction of full-scale prototypes - CERN			A. Milanese		CERN TE-MSC
	RD5	WP5.5	Transducers, instrumentation and measurement equipment needs for the HFM R&D programme - CERN			L. Fiscarelli		CERN TE-MSC
RD 6 - Scientific and Societal Impact Forum				E. Chesta				

Pilot SharePoint page for the WP4.5

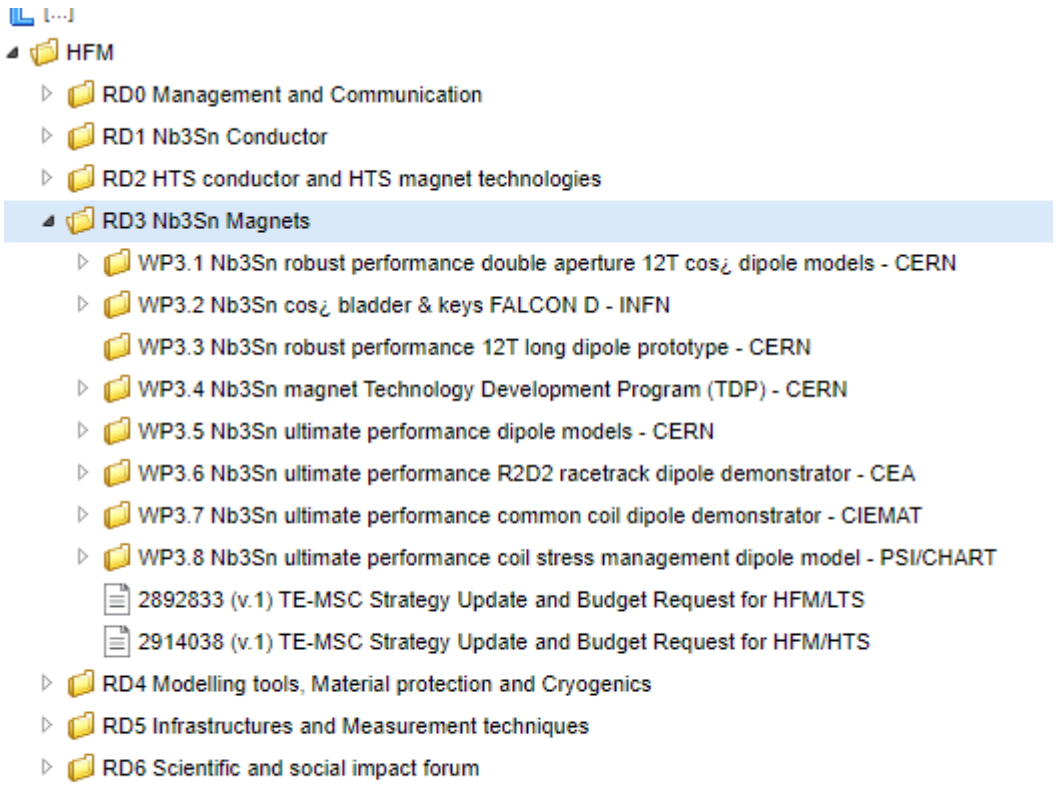


HFM-EDMS

EDMS structure used to upload official documents and data

- The HFM EDMS structure is used to:
  1. publish and share official, and sensitive documents (collaboration agreements, and associated reports, budget related documents, procurement related documents, master plan documentation)
  2. Launch approval circuits
  3. Upload minutes of HFM related meetings
  4. Any other relevant information regarding the HFM WPs

HFM work packages EDMS structure



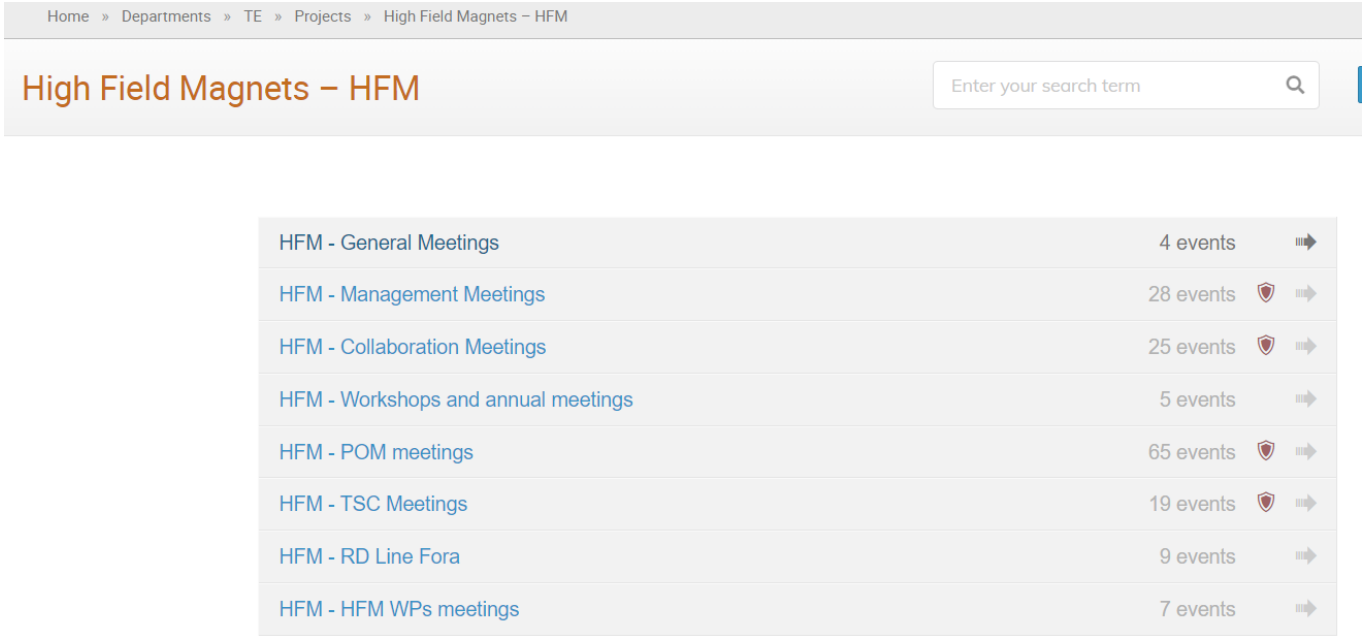
- Each work package has his own node.
- Inside this node, the sub-nodes will have to be standardized as much as possible.
- The creation of the sub-nodes will be done by **the HFM Programme Office** after the Programme Leader approval
- Feel free to make a proposal of sub-nodes for your respective WP
- Access to the collaboration node can be customized on request

HFM Indico

HFM Meetings

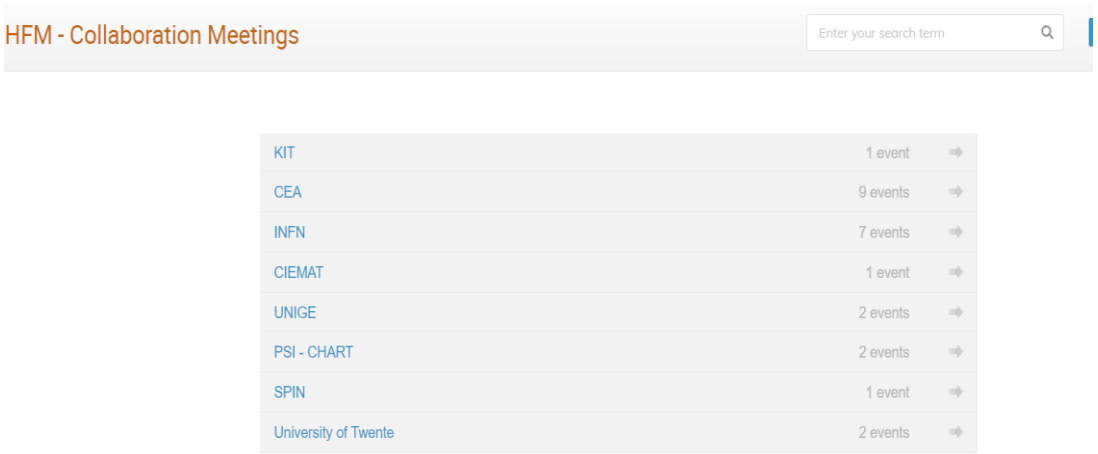
The HFM Indico page serves as a platform for creating and managing HFM-related meetings and events.

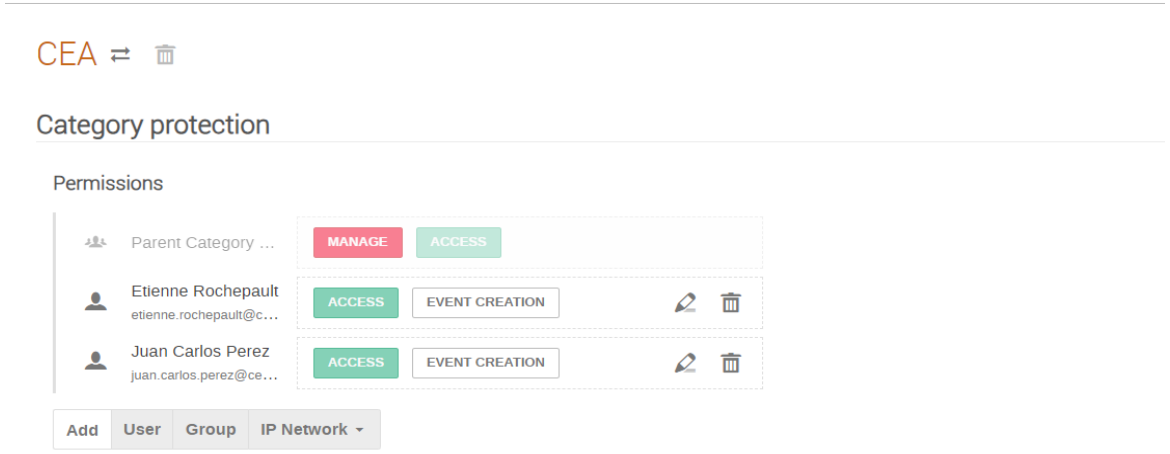
Indico High Field Magnets – HFM · Indico (cern.ch)



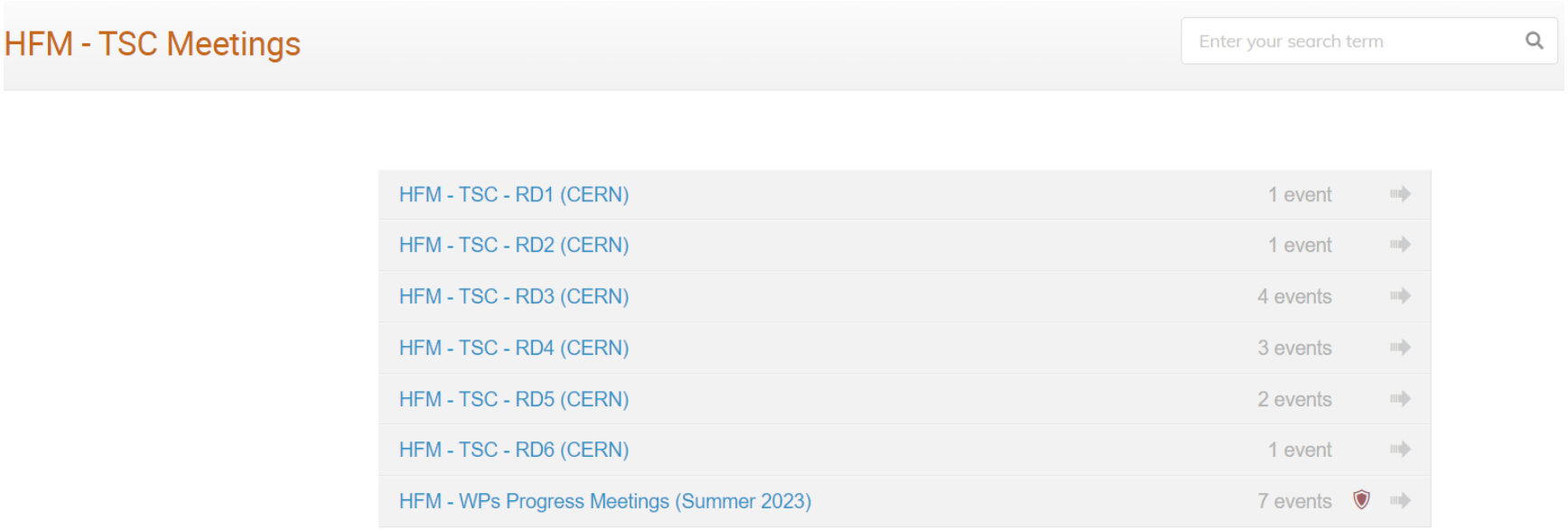
HFM – Collaboration meetings

- A category per collaboration was created.
- Each collaboration folder regroups all the meetings for the relevant collaboration. Furthermore, for each category, only the participants to the specific collaboration meeting have access rights.
- The CERN and Institute technical contacts have event creation rights

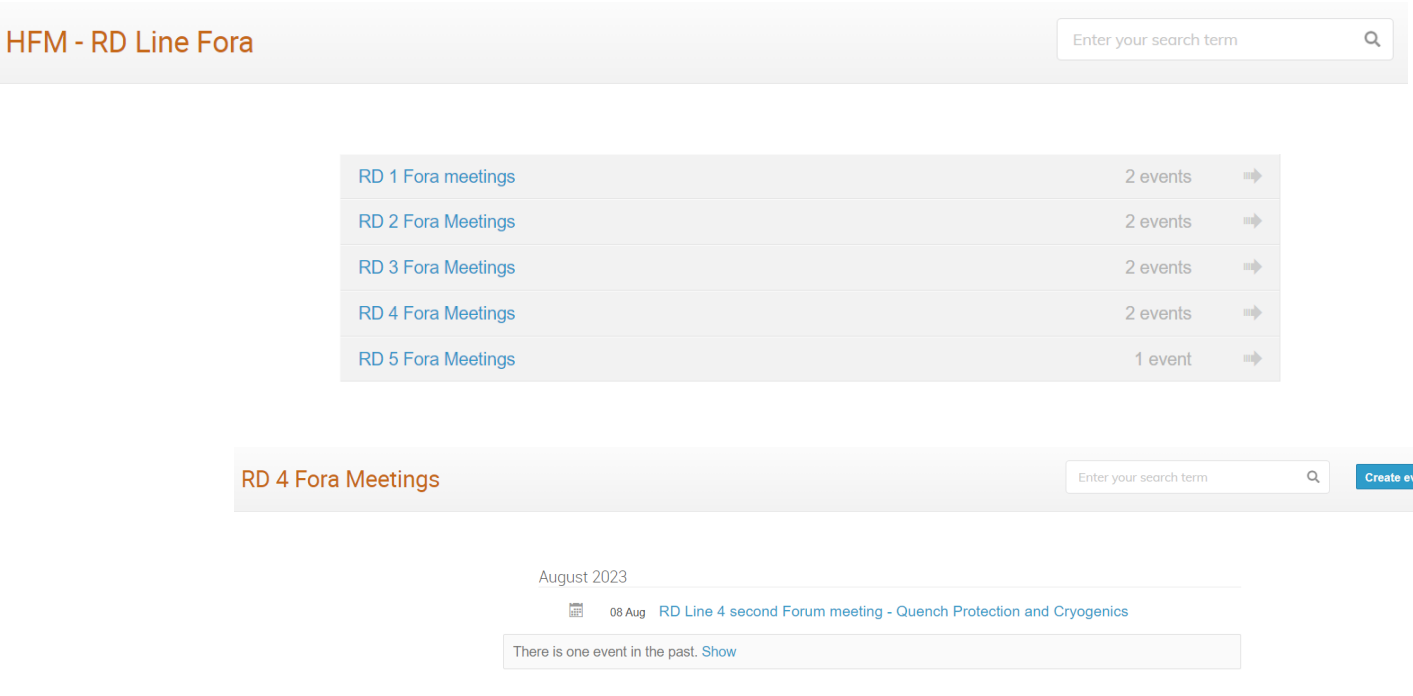




TSC meetings

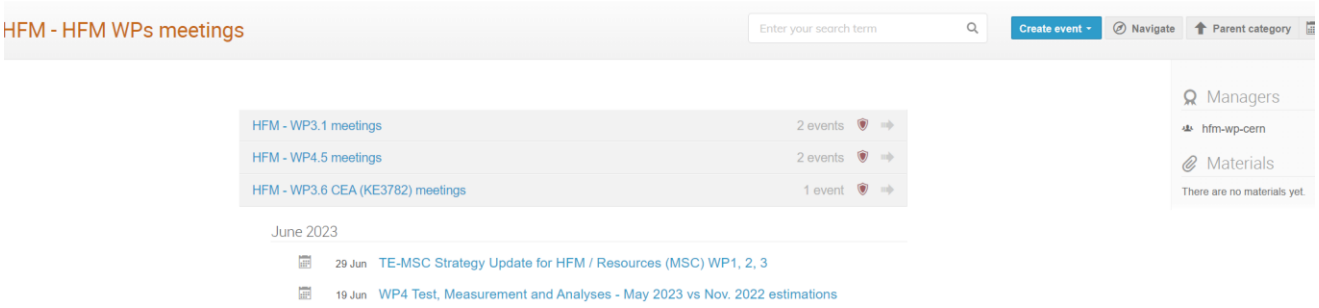


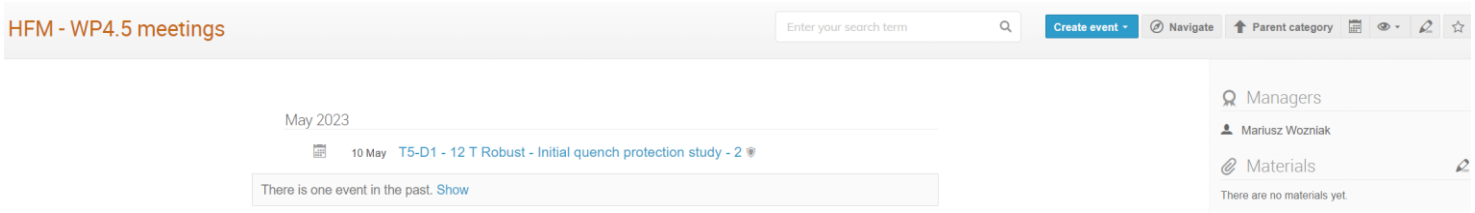
RD Line Fora meetings



- RD Fora meetings are publicly accessible and are designed to facilitate discussions and collaboration on relevant topics.
- Access to documents can be restricted on special request
- The aim is to organize a forum meeting every 6 weeks

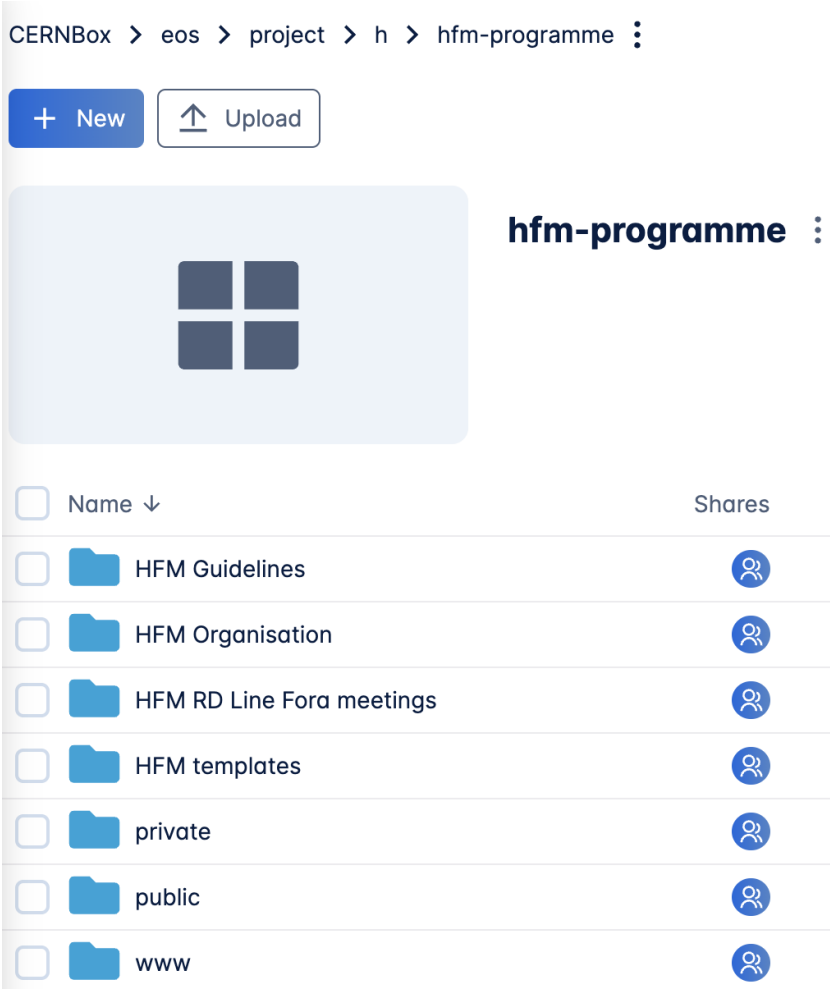
HFM WPs general meetings





Upon request from WP Leader, the HFM Programme Office can create a WP folder which is to be managed by the WP Leader

HFM CERN box



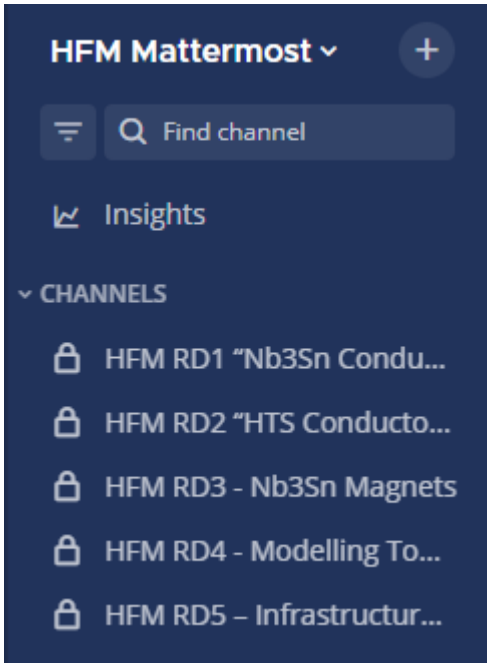
The HFM CERN Box is a platform for sharing and storing information and collaborative files. Currently, access to the HFM CERN Box is granted to RD Line coordinators and WP leaders.

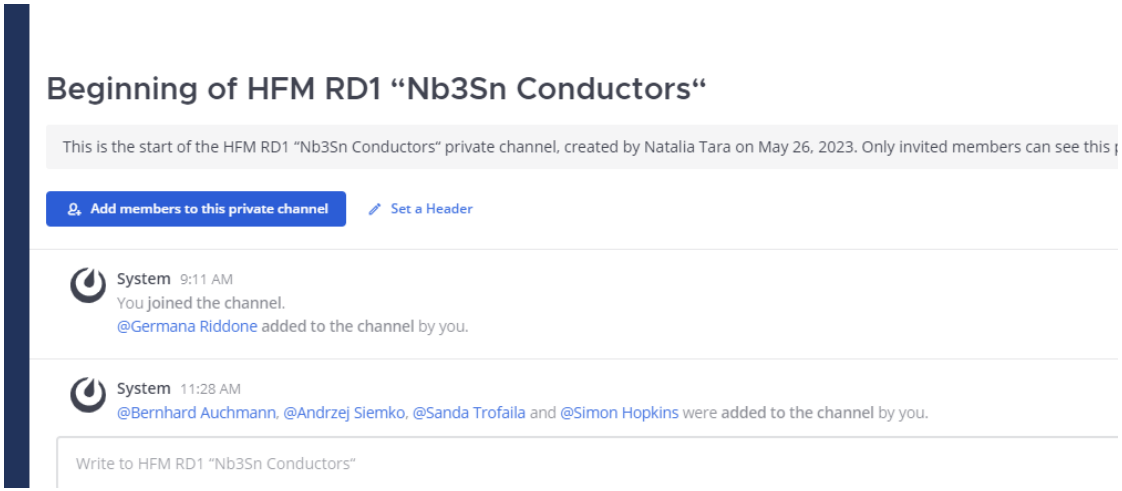
Link to the HFM Programme CERN box - link

Please contact the HFM Programme Office so we can add you to the HFM dedicated list in order to access the box

HFM-PROJ Mattermost channels

Mattermost is a platform which provides features for real-time messaging, file sharing, and team organization





Link to the guide on how to download and use the Mattermost app - link
We kindly request the RD coordinators to either directly add the interested individuals or provide us with the list, and we will ensure their inclusion.

Thanks for your attention

HFM

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