

# MPP

## Main Ring Magnet Performance Panel Meeting

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### Agenda:

- 1) MPP Mandate. General information.
- 2) Main Tasks.
- 3) Discussion. Work organization
- 4) AOB.

# MPP – Main Ring Magnet Performance Panel

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- The MPP constitutes a first step towards a permanent body supporting LHC beam commissioning and operation for the performance of the main ring magnets, a key ingredient for the overall LHC performance.
- The MPP is expected to be the main actor for the commissioning of the main ring magnets.
- This panel is composed of experts from the Groups concerned.

# MPP – Main Ring Magnet Performance Panel

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## □ Mandate

- Monitor, analyze and manage all aspects of magnet performance including cryogenics and vacuum
- Detect, diagnose, correct or mitigate problems which could occur in the magnets and the superconducting circuits including the electrical distribution feed boxes
- Record and track individual magnet performance in relation to their manufacturing, tests, commissioning and operation data
- Steer the development of the related data bases, analysis and diagnostic tools. Participate to the definition of the needs for analysis tools to be used during routine operation.

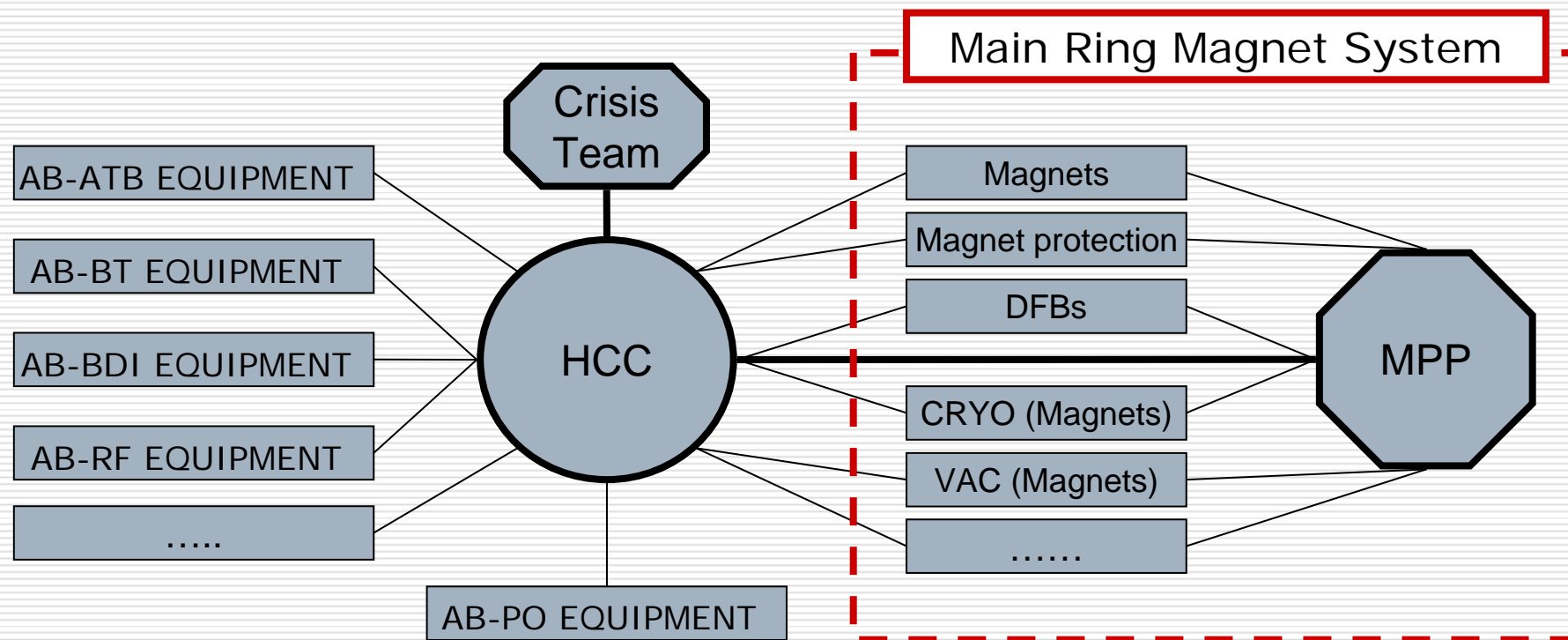
# MPP Responsibility During Hardware Commissioning

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- The MPP is expected to actively contribute to the Hardware Commissioning effort by:
  - participating to the definition of the procedures,
  - analyzing the data gathered,
  - supplying all the information necessary and timely validating the continuation of the commissioning procedures
  - in case of failure, the MPP is expected to perform in-depth diagnostics to unblock the situation or escalate the problem via Hardware Commissioning Coordination

# MPP Responsibility During Hardware Commissioning

- ❑ The MPP will integrate AT experts and their expertise to actively contribute to the Hardware Commissioning effort
- ❑ The MPP will be integrated into the existing Hardware Commissioning structure



# MPP members

MEMBERS		Alternates	Ex-officio
Amalia Ballarino	AT-MEL		Philippe Lebrun
Davide Bozzini	AT-MEL		Karl Hubert Mess
Knud Dahlerup-Petersen	AT-MEL		Lucio Rossi
Reiner Denz	AT-MEL		Pierre Strubin
Mikko Karppinen	AT-MEL		Laurent Tavian
Glyn Kirby	AT-MEL		Louis Walckiers
Paolo Fessia	AT-MCS		Roberto Saban
Michele Modena	AT-MCS		
Vittorio Parma	AT-MCS	J-Ph. Tock	
David Richter	AT-MCS		
Davide Tommasini	AT-MCS		
Giorgio D'Angelo	AT-MTM		
Pierre Pugnât	AT-MTM		
Stephane Sanfilippo	AT-MTM		
Andrzej Siemko	AT-MTM		
Paul Cruikshank	AT-VAC	R. Veness	
Luigi Serio	AT-ACR	R. van Weelderen	
Felix Rodriguez Mateos	TS-HDC		

# Main short and mid term tasks

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- Tools for Hardware Commissioning
  - GPMA - Global Post Mortem Analysis (Pierre)
  - MRMP DB - Main Ring Magnet Performance DB
  - Hardware Commissioning Procedures (Felix)
  - Diagnostic Tools
  - MPP Communication Tools

# MRMP DB

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- Main Ring Magnet Performance Data Base (MRMP DB)
  - Must be defined, developed and implemented before the Hardware Commissioning start-up
    - Will use GPMA result files
    - Must be linked to the “old” SM18 result data DB (MRM DB) and MTF
    - MRMP DB will also be a tool to monitor the long term evolution of the hardware performance



# Diagnostics

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- In case of failures, adequate diagnostic tools will be necessary during the hardware commissioning and operation
  - Many equipment/systems already exists in AT Groups
  - Inventory of the available equipment is required
  - Analysis of the present diagnostic capacity vs. known (today) failure modes
- Test and diagnostic procedures

# MPP Communication Tools

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- MMP Web pages
- Distribution lists
  - [at-project-MPP-members@cern.ch](mailto:at-project-MPP-members@cern.ch)
  - [at-project-MPP-info@cern.ch](mailto:at-project-MPP-info@cern.ch)
- List and links to all relevant documentation
  - In particular to results and encountered problems during the hardware installation and quality control in the tunnel
- ...
- Glossary

# Work Organization

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- MMP will meet every two weeks
  - Preferred day/dates?
  
- Main work will be carried out within dedicated task force teams
  - Hardware Commissioning Procedures
  - GPMA
  - MRMP DB
  - Diagnostic Tools
  - ...