

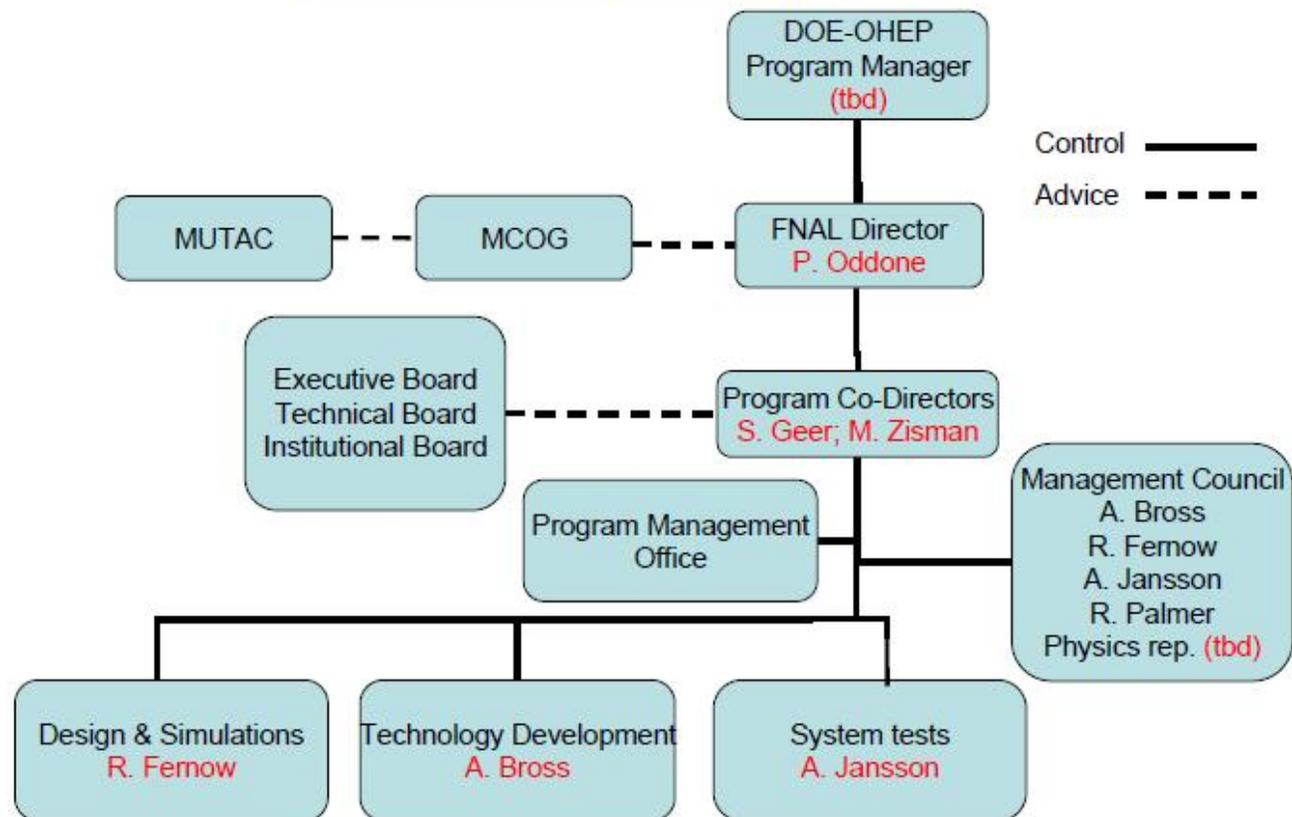
MAP Systems Tests

Goals, milestones, deliverables

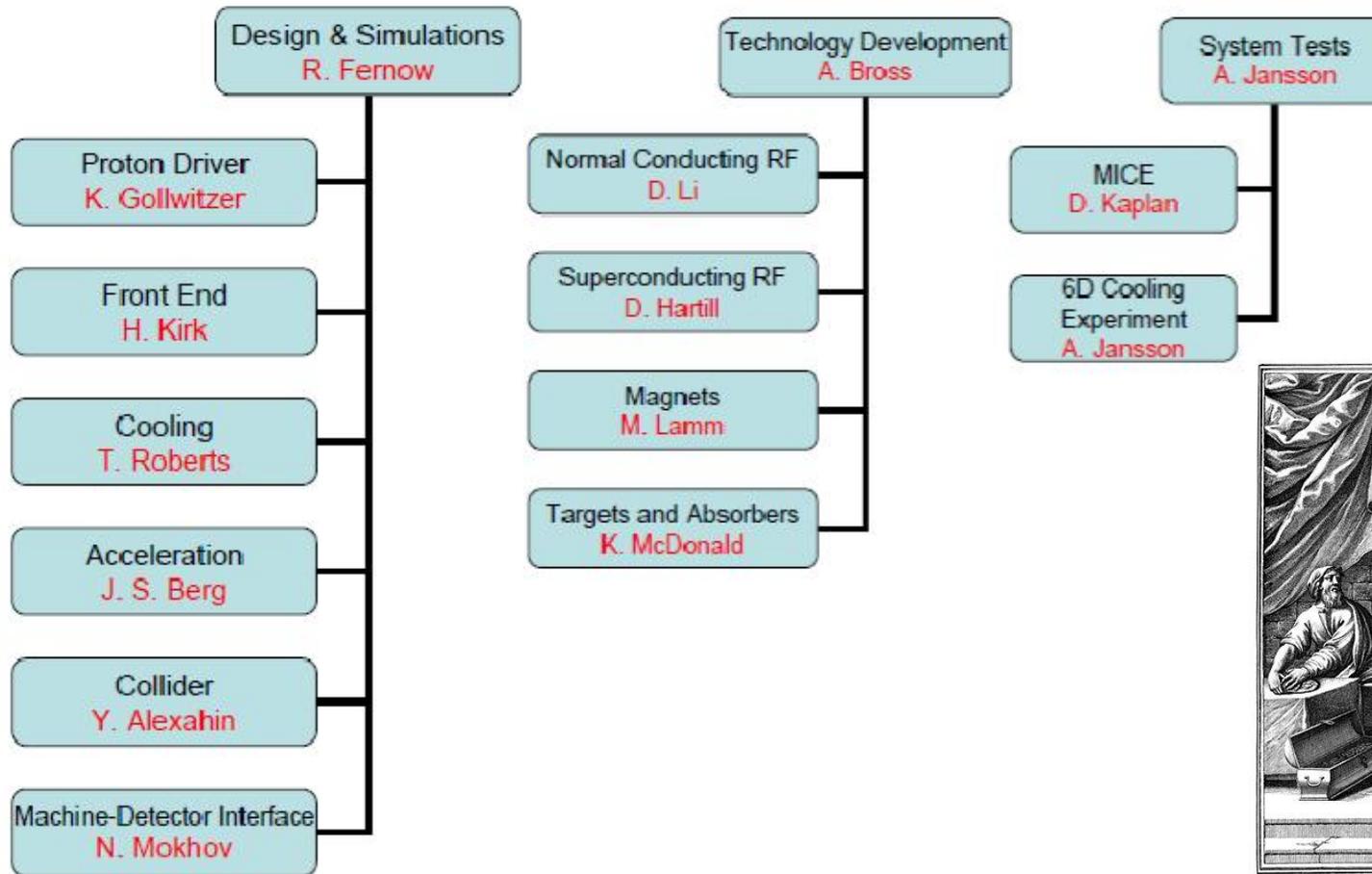


Interim Org Chart

Interim MAP Organization



Interim Org Chart L1 & L2



MATTH. XXV.
 Foenora qui referunt, heri his nova munera donat;
 Qui iulit effusa e serobe, perdit opes.
 Grata subtrahitur, quam non impendit in uicium.
 Perdere apud iustum est, non meruisse Deum.
 Der Herr schenkt denen neu, die Ihm den Zunder bringen.
 Führt den, des gut vergarub, als einen Prafer, an.
 Die Gnade fällt, wann wir sie nicht stet höher schwingen.
 Wer nicht bey Gott gerichte, Der hat sein Gut verthan.



MICE

Organizing principles of MAP:

[...]

- Existing commitments of NFMCC, such as to the Muon Ionization Cooling Experiment (MICE) [...] will be supported.
- The MAP organization will maintain the U.S. portion of the MICE organization in its current form.



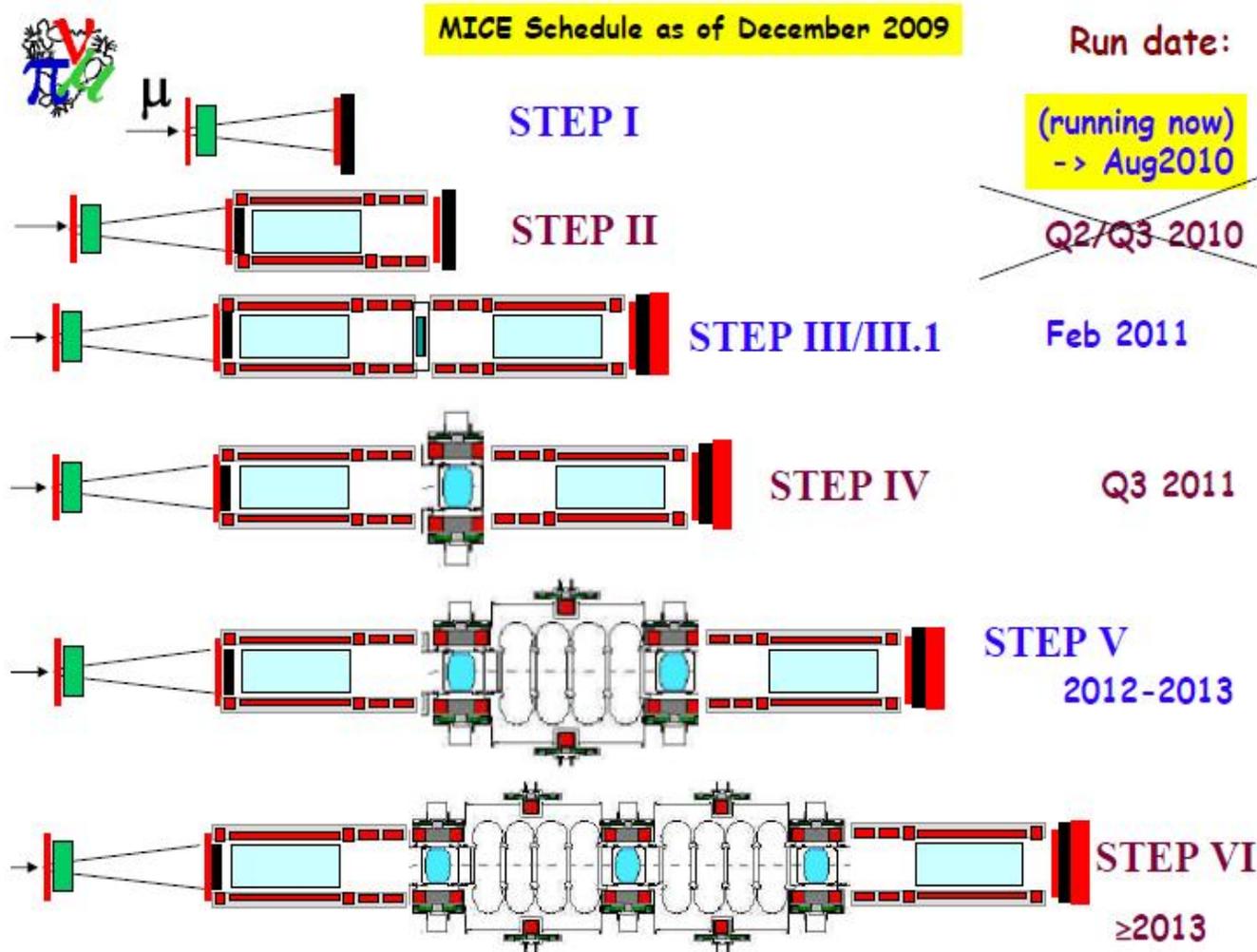
US MICE Deliverables

- Spectrometer solenoids (2), including engineering, fabrication, testing, and field-mapping
- Assembly of scintillating-fiber planes (15) for fiber-tracking spectrometers (completed)
- AFE-III readout boards, VLPCs, and VLDS interface modules for fiber tracking readout (completed)
- Design, fabrication, and commissioning of VLPC cryostats (4) for fiber tracking spectrometers (completed)
- Fiber-tracking readout system integration and commissioning (completed)
- Fabrication, installation, and commissioning of two Cherenkov counters (completed)
- RFCC modules (2), each comprising 4 RF cavities and 1 coupling coil
- Scintillating-fiber beam position/profile monitors (4 planes) (completed)
- Design and fabrication of LiH absorbers
- Beam line optimization (completed)
- Participation in MICE operations and analysis



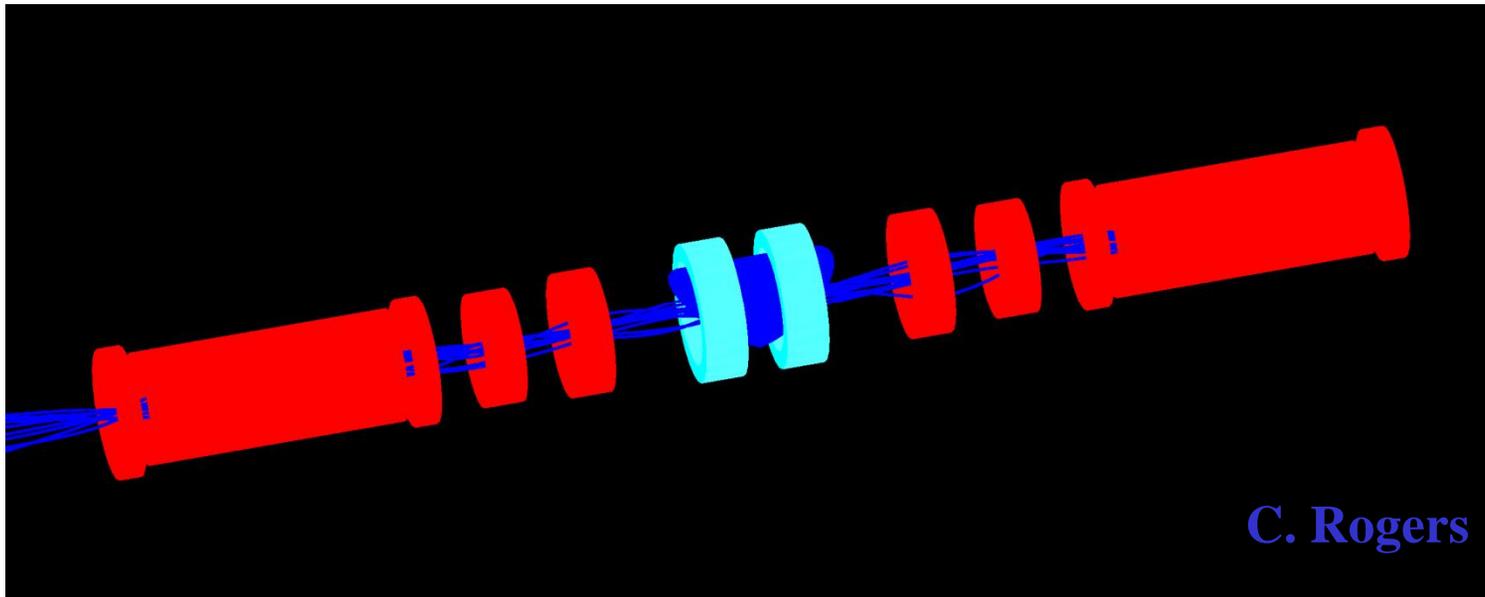
MICE Stages

- Provisional staging plan (some delays have occurred)



Extensions to MICE

- Beyond the already agreed upon MICE program, study possible 'minor' extensions (e.g. LiH wedge to demo emittance exchange).



6D cooling experiment/beam test

- Prepare for a future 6D cooling beam test (beyond the current plan)
 - Coordinate (with DS) to determine what needs to be measured beyond MI CE, and with what accuracy.
 - Coordinate (with TD) to define bench test, and attempt to also make section useful for a 6D cooling experiment.
 - Define the beam test setup and experimental method, evaluate performance and write proposal.



Manpower

	Year 1 (2010)	Year 2 (2011)	Year 3 (2012)	Year 4 (2013)	Year 5 (2014)	Year 6 (2015)	Year 7 (2016)
MICE*	3	5.3	5.3	4	3.5	-	-
6D cooling section test**	0	0	0	3.7	8.4	13.9	13.1

(Total number of FTEs)

* MAP funded part only. In addition, rely upon continued NSF (and other) support for University groups.

** Early preparatory work for 6D cooling experiment can be done by studying (and therefore benefitting) MICE. Need input from Cooling Simulation task. Effort also includes bench test.



Schedule/Milestones/Deliverables

- FY10
 - Study possible minor extensions to MI CE (DR)
- FY11
 - Deliver Spectrometer Solenoid to RAL (DR)
- FY12
 - Deliver RFCC module to RAL (DR, MR)
- FY13
 - Initial specification of 6D cooling bench test (DR, MR)
- FY14
 - Finalize 6D cooling bench test specification (DR, MR)
- FY15
 - Initial component specifications for 6D cooling Experiment (MR)
- FY16:
 - Begin 6D cooling bench test (MR)
 - Prepare proposal for 6D cooling experiment (FR, ER)

