

Towards an SAP MRS coordination board

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The SAP community needs technical resources

- Most SAP experiments are designed by physicists and built by a scientific and technical team
 - Complex project requiring a wide range of expertise, e.g.: detector physics, mechanical engineering, electronics, data acquisition, project management
 - Large collaboration provide access to a wide range capabilities
 - Specialization is often optimum in this context
 - But not all Canadian SAP experiments are large
- Most experiments must take advantage of cutting-edge technologies to be at the forefront of research
 - Require outstanding technical expertise

Current status

NSERC Major Resource Support within SAP

- Resources located at Universities
 - Complementary with resources at SNOLAB and TRIUMF
- Highly skilled personnel
 - Building expertise and intimate knowledge of the field over time
- A long term program
 - Personnel doing their full career within program
- A flexible workforce
 - Supporting large and small projects

MRS workforce within SAP

Name	Institute	Position	Expertise
Mitchel Baker	Alberta	Mechanical engineer	
James Botte (being replaced)	Carleton	Electronics specialist	Electronics
Hongfei Cao	Montreal	Electronics technician	
Olay Chen	Carleton	Electronics technician	Electronics
Paul Davis	Alberta	Electronics engineer	
Philippe Gravelle	Carleton	Machinist/technician	Fabrication
Louis Godbout (20% MRS)	Montreal	Ion beam operator	
Sam de Jong	UVic	Detector physicist	GEANT4, DAQ, FPGA
David Ostapchuk (being replaced)	Winnipeg	Technician	Electronics focus
Rodney Schnarr	Carleton	Designer (mechanical)	Design and FEA
Richard Soluk	Alberta	Detector technologist	Detector fabrication
Jean Soucy	Montreal	Head of Machine shop	Detector fabrication
Nikolai Starinsky (50% MRS)	Montreal	Engineering physics	Electronics
Chen-Chao Wen	Montreal	Computer engineering	Software and system

MRS management - currently

- 3 consortia each run by a separate board
 - U. Alberta
 - Carleton, UVic and Winnipeg
 - U. Montreal
- Boards assess project requests and allocate resources
- Board members include university principal investigator and members at large
 - For example CVW board: K. Graham (Carleton), B. Jamieson (Winnipeg), R. Sobie (UVic), M. Roney (IPP), G. Huber (CINP), M. Diamond (Toronto), F. Retiere (TRIUMF)

Example of Q2 2020 project contribution for Carleton, UVic, Winnipeg

Project	Requesting person	FTE * 4 months	Institute
ATLAS ITK	Koffas / Gillberg	1	Carleton
ATLAS STGC	Bellerive / Heilman	1.3	Carleton
ATLAS LASP	?	0.7	UVic
Belle II	?	0.3	UVic
EMPHATIC (neutrino)	Jamieson	0.7	Winnipeg
EXTRACT TPC	Kanungo	0.05	Winnipeg
Hyper-K	Gornea	0.5	Carleton
Liquid Argon/Xenon R&D	Boulay / Viel / Gornea	1	Carleton
MATHUSLA	Diamond	0.15	Carleton
TUCAN (UCN)	Martin	0.05	Winnipeg

Sum ~6 FTE (4 at Carleton, 1 at UVic, 1 a Winnipeg)

New MRS coordination board being discussed

- Aiming to start September 2021
- Single board managing all resources
 - 1 representative per institute with MRS resources
 - Alberta, Carleton, Montreal, Uvic, Winnipeg
 - 1 representative from IPP and 1 from CINP
 - 1 representative from TRIUMF (and 1 from SNOLAB / need confirmation)
 - Aim is to better manage projects work between MRS and TRIUMF & SNOLAB
 - *1-2 member at large. Needed? How selected?*
- Single portal for requesting project support across Canada

Role of the MRS coordination board

- A single entry-point for accessing resource
 - Common web portal for resource request
 - Report on resource allocation
- Project/task scheduling
 - See guidelines in 2 slides
- Resource management
 - Promotion, new hire,...
 - Training
- Coordination with SNOLAB and TRIUMF
 - Considering having SNOLAB and TRIUMF be part of the board

MRS management – funding

- Each institute holding a MRS grant continue to apply individually
- U. Alberta and U.Montreal are applying for renewal this year
- Carleton, Uvic, and U.Winnipeg will apply for renewal next year
- More institutes may join (or rejoin)

Project/task allocation guidelines

- Impactful contributions
 - Enable projects success leading to physics deliverable
 - May require sustain long term commitment over years
- Diverse contributions
 - Support all type of projects, large and small
 - Avoid dedicating resources to single project for a long time
- A contribution among others
 - Account for the availability of funding to hire manpower within each project
 - But recognize that hiring technical experts is difficult
 - Account for the resources available at SNOLAB and TRIUMF, and possibly elsewhere

The end...

Your input needed