EMR Plan

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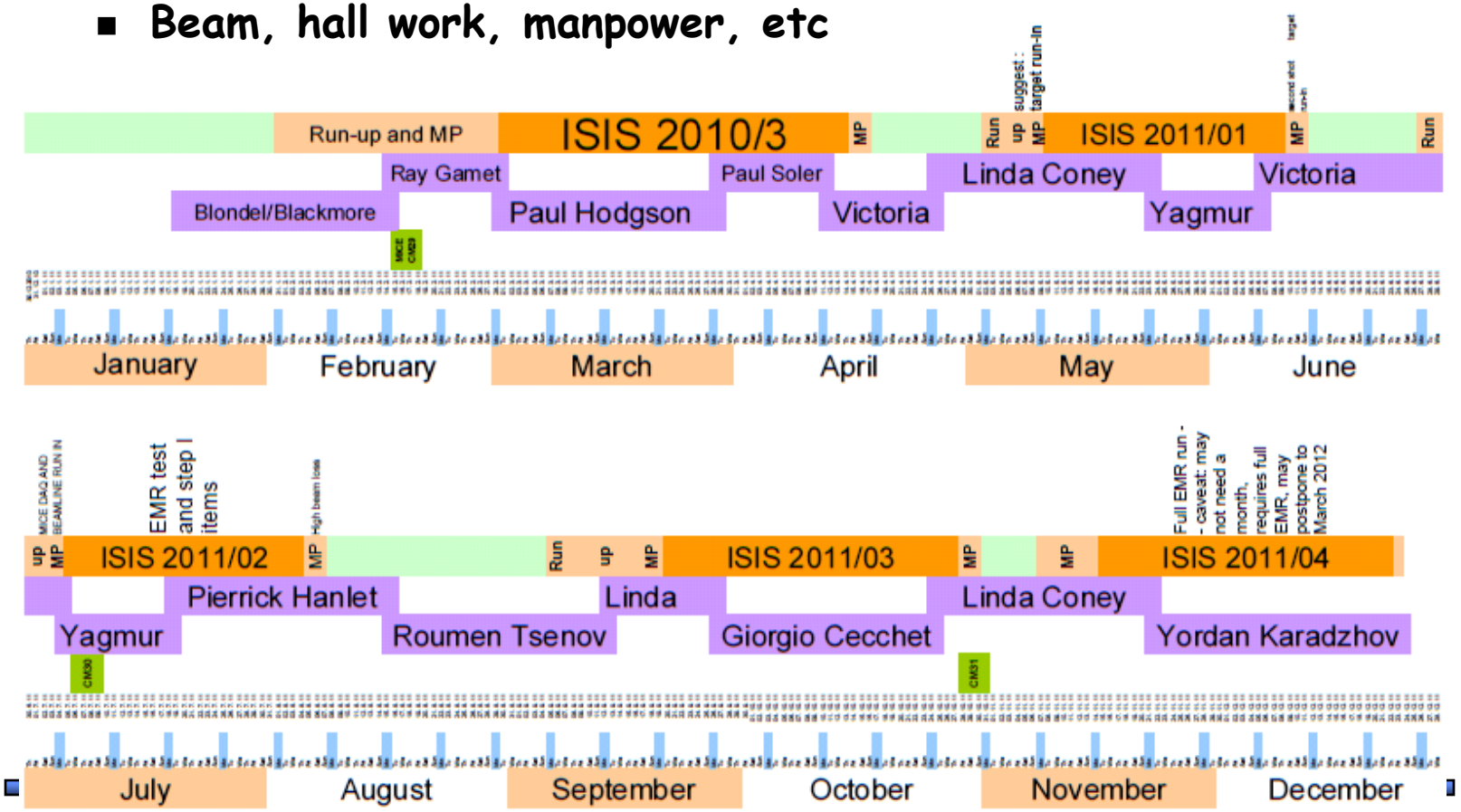
- Production
- Installation
- Data taking plan
- Issues

EMR Production

- **Detector Hardware**
  - Conservative estimation: one layer per working week
  - 18 scintillator layers already pre-assembled
  - 48 layers by the end of September
- **Electronics**
  - Front-End Board (FEB)
    - Analog amplification and discrimination)
    - Developed by Trieste/Como
    - Prototype is validated; first production batch launched
  - Digitization and Buffer Board
    - Developed in Geneva
    - Prototype in production
  - If the prototype works, we can equip 3 modules in June

Installation

- **Many constraints**
  - Beam, hall work, manpower, etc



Installation

- **Partial installation in second half of June**
  - 6 layers = 3 modules
  - Prototype electronics
  - Full Outer box
  - No Magnetic reflector plate
  - Integration in DAQ with TOF and KL
  - Data Taking in July/August
- **EMR outer Box sent back to Geneva in August**
  - Filled in September/October
  - Equipped with final electronics
  - Sent Back to RAL when ready
- **Full installation in November**
  - Data taking in December
  - No Magnetic reflector

General plan

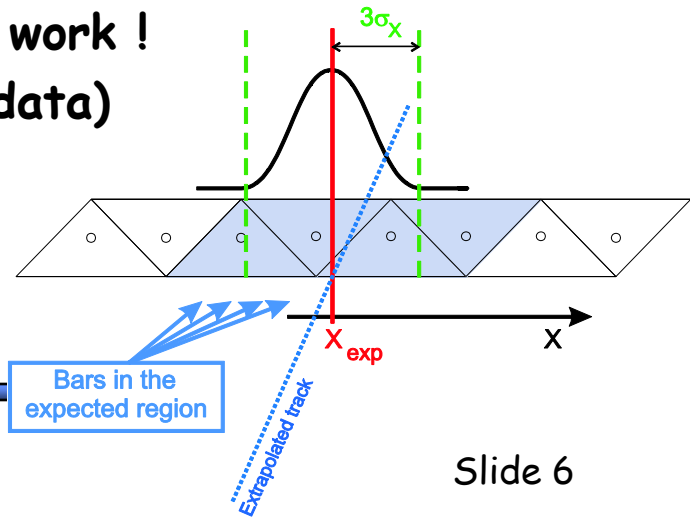
- See Ruslan's talk

EMR schedule

	2011										
	February	March	April	May	June	July	August	September	October	November	December
EMR construction and assembly	8 modules		16 modules + Outer box for transportation		24 modules			Complete EMR assembly			
Electronics	Production of 6 FEB+DBB And 1 VME board			DBB+VME Tests	Production of 48 FEB+DBB and 8 VME boards			Further tests of electronics			
Tests	Tests		Cosmic tests and calibration 8 modules	Cosmic tests and calibration 16 modules				Cosmic tests and calibration 24 modules			
Transportation					Delivery and installation of 3 modules at RAL					Delivery and installation of full EMR at RAL	
At RAL		CM 29				Test run at RAL 5 July – 5 August				Physics run at RAL 15 November – 23 December	

Data Taking plan

- **Scan momentum (140-280 MeV/c)**
  - "Pion" beam
    - PID using TOF
  - Q7-Q9 Off
    - Straight tracks
  - Measure Muon range
  - Test PID
- **Gain equalization (channel by channel)**
  - Needed to sum single energy loss
  - 6 * 59 = 354 channels -> A lot of work !
  - Need single bar hits (only 10% of data)
  - Will take a lot of time…
- **More detailed plan to be drawn**
  - Yordan will be the champion !



Software development

- Readout Software
- Unpacking
- Particle trigger correlation
  - All hits are recorded during the spill
  - Allows detecting muons decays
    - Also pions decays -> Measure pion contamination
- Reconstruction
  - Clustering
  - Tracking

Summary

- Partial Installation in June
- Data taking in July
- Box sent back to Geneva in August
- Full installation in November
- Data taking in December
- There will be work…