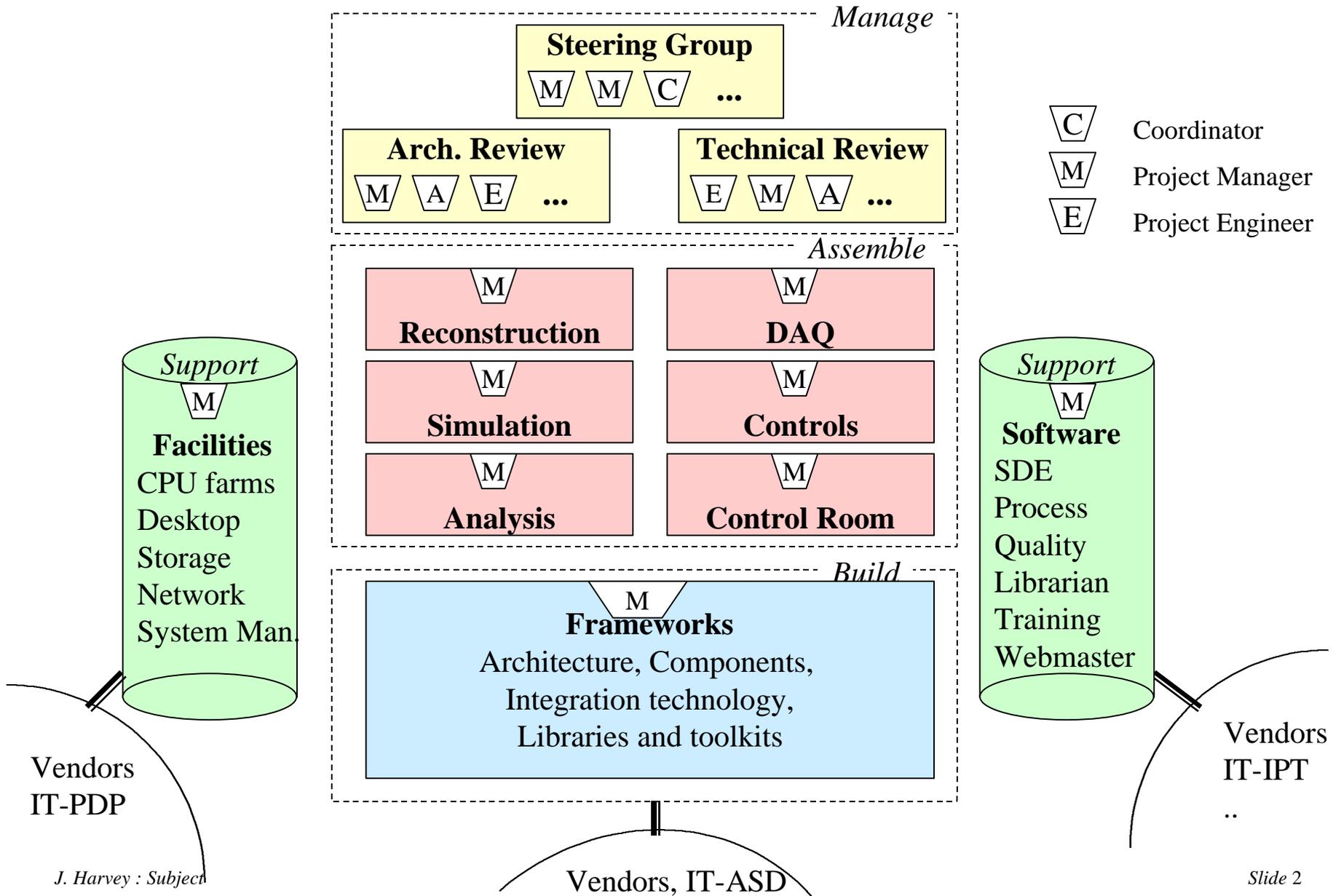


# Project Planning and Tracking

J.Harvey



# LHCb Computing Project Organisation





## Project Baseline

---

- Define Work Breakdown Structure (WBS)
  - Scope and details of all tasks to be done
- Identify manpower available - define roles
- Estimate costs to produce a budget profile
- Schedule tasks by assigning manpower
- Set milestones - at project and sub-project levels
- Deliverables - resource-loaded project plans



# Project Plans - MSProject Template

ID	WBS	Task Name	Start	Finish	Actual Start	2003				2004				20	
						Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
1	0	Detector fabrication	Wed 31/12/03	Thu 26/5/05	NA					[Gantt bar from Q1 2004 to Q4 2004]					
2	0	Electronics Barracks ready	Wed 31/12/03	Wed 31/12/03	NA					31/12					
3	1.2	Map magnet	Thu 26/5/05	Thu 26/5/05	NA										
4	0	VELO install	Mon 26/1/04	Thu 1/4/04	NA										
5	1.4	VELO initial checkout	Fri 2/4/04	Fri 2/4/04	NA										
6	0	Detector commissioning	Mon 26/4/04	Fri 13/8/04	NA										
7	0	VELO readout install & test	Mon 26/4/04	Tue 1/6/04	NA										
8	0	VELO system-level test	Wed 2/6/04	Fri 13/8/04	NA										
9	0	Cosmic ray run	Tue 14/9/04	Mon 13/12/04	NA										
10	0	Comp. Avail for Detector Commis.	Tue 14/9/04	Mon 13/12/04	NA										
11	0	LHCb assembly complete	Mon 3/1/05	Mon 3/1/05	NA										
12	0	Detector ready to move on beam-line	Mon 28/3/05	Mon 28/3/05	NA										
13	0	Cosmic ray run on beam-line	Wed 1/6/05	Tue 28/6/05	NA										
14	0	Detector ready for colliding beams	Tue 28/6/05	Tue 28/6/05	NA										
15	1	Online Infrastructure	Mon 3/3/03	Thu 12/1/06	Mon 3/3/03					[Gantt bar from Q1 2003 to Q4 2004]					
16	1.1	Interactive Stations	Fri 1/8/03	Fri 14/1/05	Fri 1/8/03					[Gantt bar from Q1 2003 to Q4 2004]					
17	1.1	Initial complement	Fri 1/8/03	Mon 15/9/03	NA										
18	1.1	Final complement	Fri 16/1/04	Fri 14/1/05	Fri 16/1/04										
19	1.2	Event Filter Farm	Fri 30/1/04	Thu 31/3/05	Fri 30/1/04					[Gantt bar from Q1 2004 to Q4 2004]					
20	1.2	Build EFF prototype	Fri 30/1/04	Fri 30/1/04	Fri 30/1/04					30/1					



## Project Performance

---

- Compare work performed against work scheduled
- Compare actual cost against the budgeted cost
- Produce status reports at regular intervals
  - Narrative from project leader describing status of technical work, accomplishments, problems and corrective action
  - Identify completed milestones, slippage and fraction of work planned and completed
  - Identify critical path items for each project
  - Frequency ? - quarterly?
  - Reports to be logged centrally



## Practical Details

---

- PL defines WBS for project and sub projects using MSProject template
- Set <2-3 milestones for each working interval of project
  - Defined during periodic workshops (~4 mths)
  - interdependent with milestones for other projects
- PL makes status report for each working interval
  - Every 4 months i.e. ~3 times per year
- Planning monitored by Steering Group



## Steering Group

---

- Steering Group comprising project leaders :
  - GAUDI - Pere
  - BRUNEL - Marco
  - Simulation - Florence
  - Facilities - Frank
  - Controls - Clara
  - DAQ - Beat
  - Chair - John
  - IT Liaison - Tony
  - LHCb Management - Ioana
- Meets monthly to discuss all aspects of planning
- Minutes on LHCb web



## Periodic Reviews

---

- Provide a critical perspective and means to validate work.
- Can be of at least 3 types:
  - Internal to collaboration
    - ↳ Informal and frequent e.g. workshops (software weeks)
    - ↳ Update documentation, review priorities
  - External to collaboration
    - ↳ Formal and infrequent
    - ↳ Summarise findings in a report
    - ↳ Setup advisory panel?
  - Review bodies
    - ↳ On demand e.g. LHCC