WBS 6.x.y
Sub-System

Your Name
Level-3 Manager & CAM
Institute X

U.S. ATLAS HL-LHC Upgrade Project Scrubbing Meeting
Brookhaven National Laboratory
Upton, NY
March 10-11, 2019

Outline

- **Technical Details**
  - Deliverable Overview, institutional responsibilities
  - R&D Status and Plans
  - Technical Progress in FY19
  - Pending Issues
  - Plans for pre-production
  - Plans for production

- **Schedule and Cost**
  - How has the schedule changed since CD-3a?
  - How as cost changed since CD-3a

- **Risk and Uncertainty**

- **Closing Remarks**

Technical Details

Deliverable Overview

- WBS Dictionary description
  - Include table of items to produce, spares, yield, etc. from BoE
- Institutional roles
- R&D status
- Decisions/Issues pending

Progress in FY19

- Technical

- How were the planned tasks completed or not?

- Where there carryovers or cost over-runs?

Pending Technical Issues

- Chip…

Plans for Pre-Pro and Production

- Schedule for FDR's and PRR's
- External dependencies

Schedule and Cost

Schedule

- Explain phases of project from BoE in a simple table or list
    - Summary of goals at each phase
    - Schedule float
    - Critical path (if applicable)
- How has the schedule changed since CD-3a?
- Reasons to be confident or not of further changes
- Main external dependencies: within US and internationally
    - Where do these occur
    - How do you manage them

Milestones

- List of Milestones for this L3

Cost

- Show cost profile for this L3
- Show table of cost changes from recent RLS changes
- Explain the changes, including compensation
- Next slide is an EXAMPLE

Stave Cores Cost Variance

WBS	CD-3a	BCP-19	BCP-22	BCP-24	BCP-25	BCP-27	BCP-28	BCP-31	Cost	Delta	% change
	July '19	Merge WBS	ASIC sched	SQ equip ASICs	HCC complx	ASIC irrad	SQ and sched	Delay cores, assy			
6.02 Strips	**38,419**	**-19**	**189**	**194**	**405**	**42**	**246**	**113**	**39,483**	**1,064**	**2.8**
6.02.01 Cores											
6.02.01.02 LBNL											
6.02.01.05 Yale											
6.02.01.06 Iowa											
6.02.01.10 UM											
6.02.01.90 PM											

Each L3 should tailor this table

- LBNL: main changes
- Yale: main changes
- Iowa State: main changes
- UMass Amherst: main changes
- PM: main changes

Risk and Uncertainty

Risk and Uncertainty

- Summarize main risks for this deliverable (highest ranked)
  - These should be copied directly from the Risk Register
- Discuss risks which should be retired or downgraded
- Discuss new risks which have been/should be added

Risk Checklist from PO

- **Basic maintenance of all risks**
  - Check if risks are still active
  - Revisit tasks affected column in RR, especially after recent RLS changes
  - Recheck comments section for each risk. Is there an explanation for how risk probabilities and impacts were estimated? Can a reviewer reconstruct the impact ranges from the information provided?
  - <u>Check that every external dependency has a risk associated with it.</u>
- **Add new risks**
  - Risk of loss of key personnel. One risk per deliverable.
  - Risk of needing additional labor force due to unexpected complexities that arise. Estimate as the labor cost of one prototype iteration.
- **Maturity scores**
  - Check that all tasks in P6 have maturity scores assigned
  - Retune if necessary the scores (for example if R&D performed to date has improved the maturity)

Closing Remarks

- Some possible points to summarize...

BACKUP

Be sure to include, at least, the following

Bio Sketch of L3 Manager

- Name and position within institute

- Years on ATLAS

- Technical and management experience relevant to the Project
  - On ATLAS and other experiments, if relevant

Institute Capabilities

- For each contributing institute list:
  - Available facilities for this project
  - Technical effort available (brief indication of past experience)