Plan for the First Baseline Assessment Workshop (BAW-1)

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to be discussed at GDE/ADI and EC

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Subjects for Baseline Assessment Workshop

1. **Average accelerating gradient**
2. **Single tunnel for Main Linac**
   - including HLRF solutions
3. **Reduced RF power parameter set**
   - Including damping rings
4. **Positron source location**

Baseline Assessment and TLCC Process

keywords: open, transparent

Baseline Assessment Workshop

Beamline Assessment Workshops

- Face to face meetings
- Open to all stakeholders
- Plenary

First BAW, September 7 ~ 10
7-8: Single Tunnel HLRF Systems
9-10: Accelerating Gradient

	When	Where	What
WAB 1	Sept. 2010	KEK	1. Accelerating Gradient 2. Single Tunnel (HLRF)
WAB 2	TBD	TBD	3. Reduced RF power 4. e+ source location

Baseline Assessment Workshop

Baseline Assessment Workshops

- Face to face meetings
- Open to all stakeholders
- Plenary

- **Open plenary meeting**
- **Two-days per theme**
- **Participation (mandatory)**
  - PM (chair)
  - ADI team / TAG leaders
    - Agenda organised by relevant TAG leaders
  - Physics & Detector Representatives
  - External experts

- **Achieve primary TLCC goals**
  - In an open discussion environment
- **Prepare recommendation**

Goals of BAW

- **Technical**
  - Assessment of (technical) implications
  - Impact across system interfaces
  - Cost (& schedule) impact
  - …
- **Consensus between**
  - GDE advised by AAP
  - Physics & Detector community (our customers)
  - Oversight with ILCSC/PAC

Single Tunnel HLRF Systems: KCS and DRFS

- **KCS**
  - Tolerances on RF amplitude and phase within a cluster
    - Coherent and incoherent
  - Operational margin of RF power, and operational tuning and control strategy
    - Including tuning and controls tolerance specifications
  - R&D required/extended in TDP
- **DRFS**
  - Assembly and installation sorting strategy and tolerances
  - R&D required/extended in TDP R&D
    - Including radiation shielding tests, klystron lifetime studies and redundant system tests,
- **For reference:**
  - TESLA/XFEL-like system scheme and site-dependent constraints

Accelerating Gradient

- **Strategy for Gradient Improvement**
  - material/fabrication
  - surface process
  - Instrumentation and repairing
- **Accelerator Gradient Specification**
  - Scope for production yield and gradient spread, and Q0
  - Acceptance gradient and Q0 from vertical test,
  - Acceptance gradient and Q0 from cryomodule test
    - Including cavit/cryomodule operational margin
  - Goal of accelerating gradient and the spread, and Q0
    - Including HLRF/LLRF operational margin and accelerator operational/sability margin
  - Operational tuning and control strategy,
    - Including tolerances and specifications
  - Cost impact on CFS, # cryomodules RF units, Cryogenics
    - ….

Preliminary Agenda

Date	Themes	Contents
Sept. 7	Single Tunnel HLRF System	KCS
Sept. 8	Single Tunnel HLRF System	DRFS /Summary
Sept. 9	ML Accelerator Gradient	Gradient research/improvement
Sept. 10	ML Accelerator Gradient	ML Gradient design / Summary

Workshop Announcement to be sent

- **GDE SCRF Technical Area GLs and collaborators**
- **GDE-ADI key members**
- **GDE-PMs/EC members**
- **GDE-AAP members**
- **Physics/Detector Group**
  - RD and Representatives
- **External experts**
  - To be determined

Key participants expected

- **SCRF and CFS group leaders**
- **SCRF/CFS experts in GDE and from laboratories**
- **Some experts from ADI**
- **AAP SCRF experts**
- **External experts**

Plan for preparation

- **Announcement: by end of April**
- **Discussions through webex meetings**
  - May 7, and every four weeks,
- **Homework assignment**
  - Subjects to be given, May 7,
  - Interim (1st) Report to be submitted, June x,
  - 2nd report to be submitted, July
  - Report given: by end of August
- **1st BAW: Sept. 7 – 10 .**