ALICE ITS Upgrade Proposal

Work organization

- Document scope
- Timeline
- Editorial board and work organization
- Status (next presentations)
- Discussion

Document Scope (1/2)

Physics motivations for the upgrade

- Performance and limitations of current detector
- Upgrade scope
- Novelty
- Competitiveness

Detector functional requirements and specification

- Particle density and radiation load for the innermost layer
- Number of layers and their geometry
- Aceptance, hermeticity, segmentation and alignment
- Material budget
- Detector efficiency, signal dynamic range and linearity
- Event time resolution and readout time
- Vertexing and tracking performance
- PID performance
- Detection time and readout rate
- Trigger capabilities

Document Scope (2/2)

Detector Technical Implementation

- Technology options and evaluation
- Detector design options
- R&D plans

Conceptual design for following items

- Detector ladder
- Beam pipe and detector integration
- Detector ladder mechanical support
- Insertion mechanism and installation
- Power distribution
- Cooling System
- Cabling and Service System
- Alignment and spatial mapping

Document preparation - timeline

Timeline

• Outline and list of figures	20th June
• Draft 0 (abstract for all sections)	27th June
• Draft 1 (draft version of text)	15th July
• Draft 2 (polished text + figures)	26th August (distribute to ITS coll.)
• Comments by ITS collaboration	< 12th Setpember
• Draft 3 with comments from ITS	19th Septmeber (distribute to ALICE)
• Comments from ALICE	< 10th October

Editorial Board

Structure

- Coordinator: Stefan Rossegger
- Editors (explicitly mentioned in the document): all people that are giving a substantial contribution to the activities of the corresponding WGs and/or the preparation of the document.
- Editorial board (EB): G. Usai, A. Dainese, G. Bruno, M. Sitta, P. Riedler, G. Contin,

  A. Rivetti, R. Santoro, A. Tauro, V. Manzari, L. Musa
- Document repository in AFS
- WEB page will be set-up by Stefan for the editors