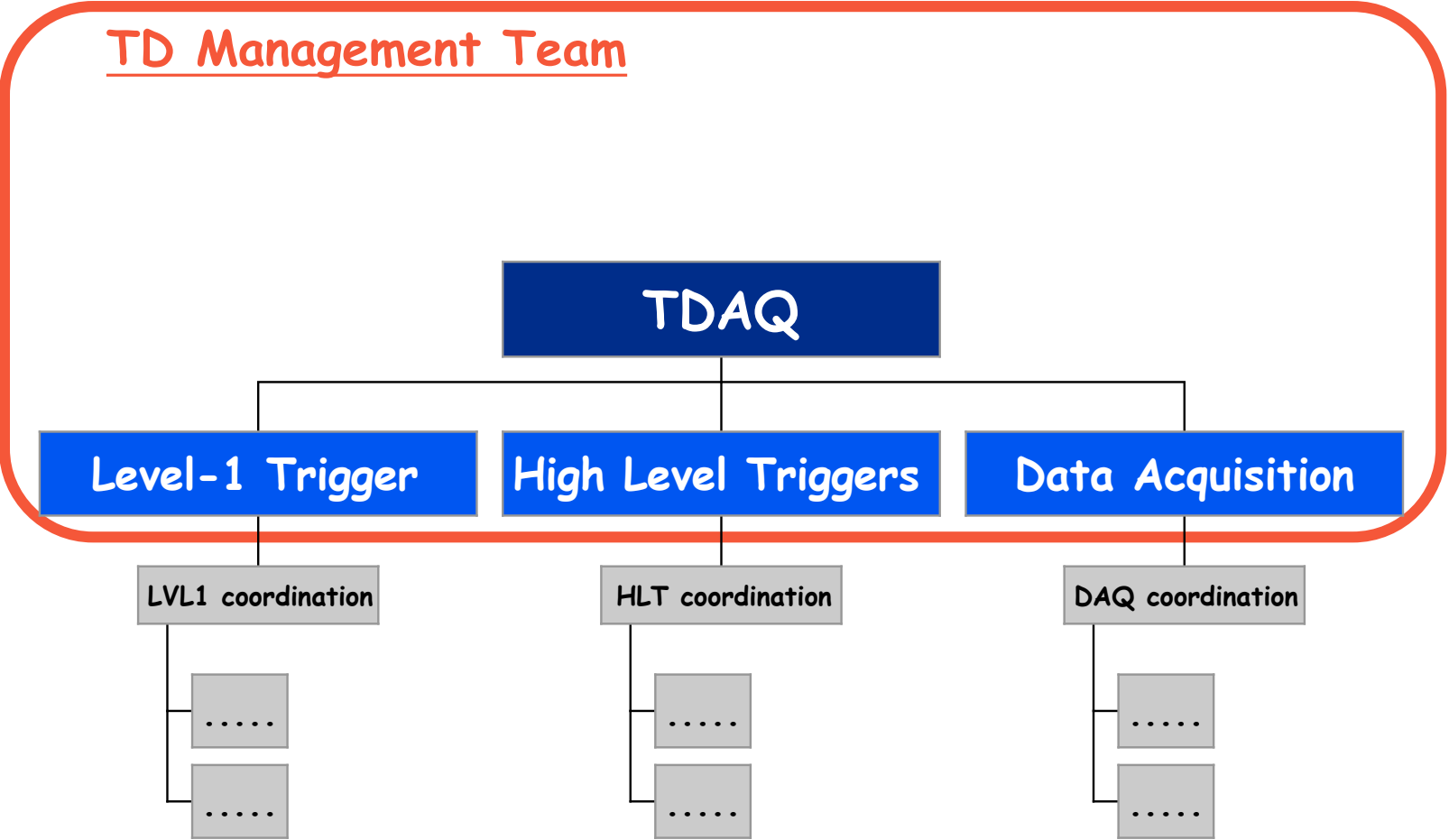# ATLAS Trigger/DAQ Project - New Phase
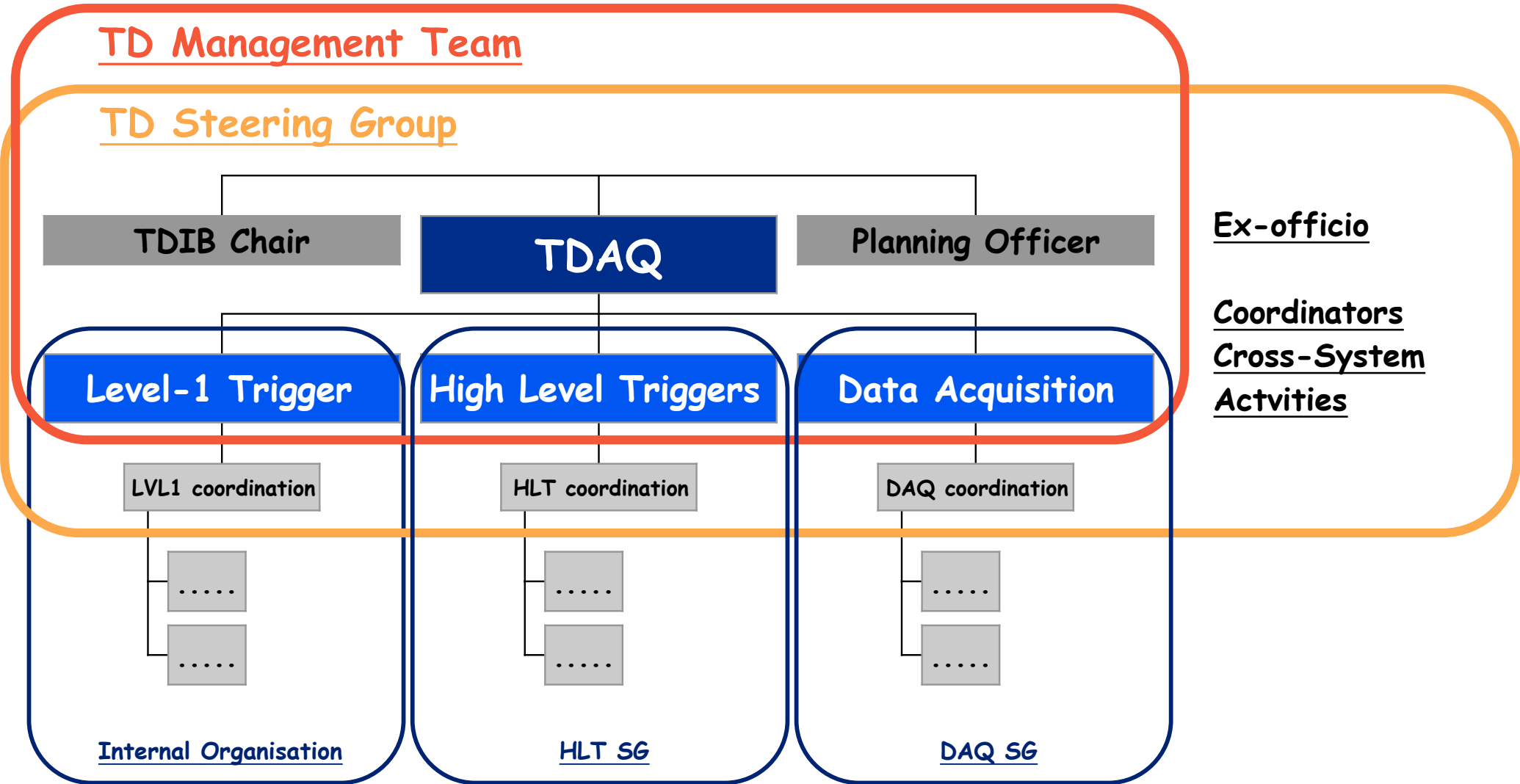
- **In Feb02, the TDIB has approved a change in the Organisation and Managerial structure of the ATLAS TDAQ Project**
  - **TDAQ = Trigger, DAQ and DCS**

- **The ATLAS TDAQ Project is divided into 3 sub-projects (or Systems):**
  - **The Level-1 Trigger**   **PL : Nick Ellis**
  - **The High Level Triggers**   **PL : Chris Bee**
  - **The Data Acquisition**   **PL : Livio Mapelli**

- **The organisation and management of the TDAQ Project is at 3 levels:**
  - **At the top level, the Trigger/DAQ Management Team (TDMT)**
    - The TDMT is composed of the 3 PLs with the close involvement of TDIB Chair, and is assisted by a Planning Officer (PO)
  - **At the middle level, the Trigger/DAQ Steering Group (TDSG)**
    - The TDSG is composed of various coordinators and ex-officio members
  - **At the lowest level, each system has its own internal organisation and management structure, addressing the specific features and needs of the system in its given phase**
    - Each system is sub-divided in a hierarchy of sub-systems and cros-system activities
    - For HLT and DAQ, all the coordinators System Steering Group (HLTSG and DAQSG)
    - LVL1 has its own ongoing and well functioning internal organisation and we do not see the need for any modification at this stage
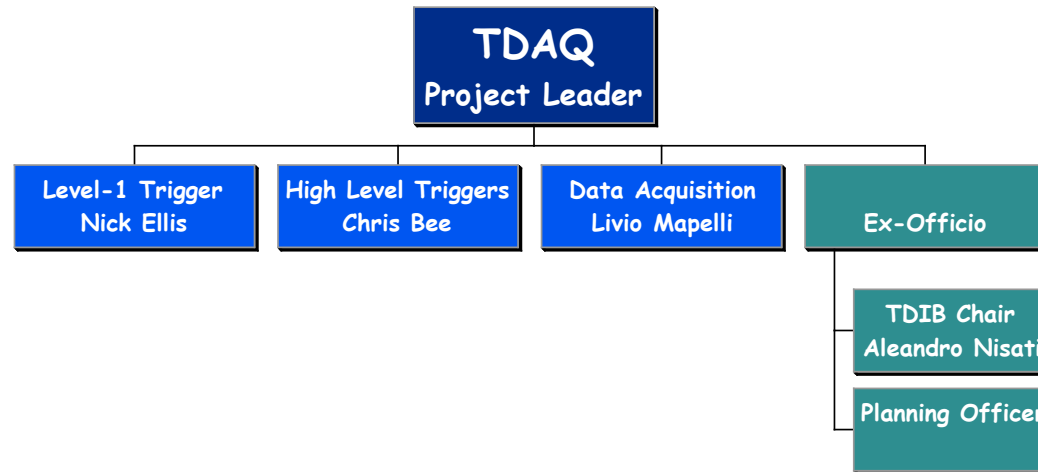
Managerial Structure

TD Management Team

Details not fixed

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                    ┌──────────────────┐
                    │      TDAQ        │
                    └──────────────────┘
          ┌──────────────┼──────────────┐
   ┌───────────┐  ┌──────────────┐  ┌──────────────┐
   │ Level-1   │  │ High Level   │  │    Data      │
   │ Trigger   │  │ Triggers     │  │ Acquisition  │
   └───────────┘  └──────────────┘  └──────────────┘
        │               │                 │
  ┌───────────┐   ┌───────────┐     ┌───────────┐
  │   LVL1    │   │    HLT    │     │    DAQ    │
  │coordination│  │coordination│    │coordination│
  └───────────┘   └───────────┘     └───────────┘
        │               │                 │
     ┌──────┐        ┌──────┐          ┌──────┐
     │ ..... │       │ ..... │         │ ..... │
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     │ ..... │       │ ..... │         │ ..... │
     └──────┘        └──────┘          └──────┘
```

Managerial Structure

TD Management Team

TD Steering Group

TDIB Chair	TDAQ	Planning Officer

Ex-officio

Coordinators
Cross-System
Actvities

Level-1 Trigger   **High Level Triggers**   **Data Acquisition**

LVL1 coordination   HLT coordination   DAQ coordination

. . . . .

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Internal Organisation   **HLT SG**   **DAQ SG**

TDAQ Management Team

Approved by TDIB

TDAQ Project Leader

- **Level-1 Trigger** Nick Ellis
- **High Level Triggers** Chris Bee
- **Data Acquisition** Livio Mapelli
- **Ex-Officio**
  - **TDIB Chair** Aleandro Nisati
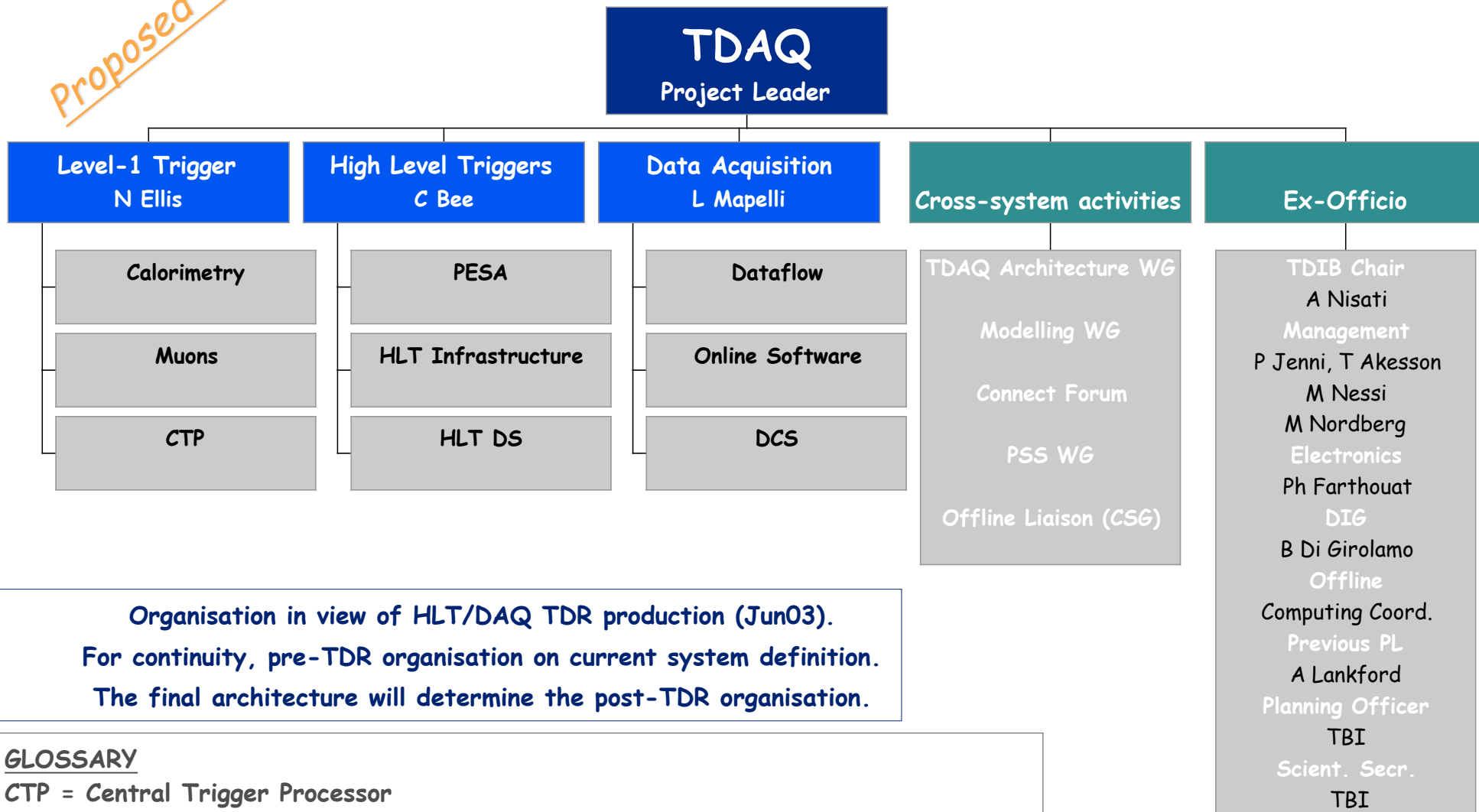 - **Planning Officer**

- **TDMT Mandate**
  - Day-to-day project management
  - Address and immediately deal with problems coming from the systems or the TDSG, or identified by the IB chair
  - Deal with issues arising from the ATLAS Management, i.e. first level of interaction
  - Define agenda and prepare issues for TDSG
- **TDMT representation**
  - One of the 3 leaders of the Systems will act as TDAQ PL on a yearly rotation basis
  - The PL represents TDAQ and the TDMT to the ATLAS management, the Collaboration and external bodies
  - All 3 System Leaders will be members of the Executive Board
  - Membership of the Technical Managerial Board will be at least the 3 System Leaders and the PO; the possibility of further representation will be discussed with the Technical Coordinator and in the TDSG
  - Aspects of the PL function relating to external systems will be distributed as follows:
    - Detectors : L Mapelli - Offline Computing : C Bee - Physics : N Ellis
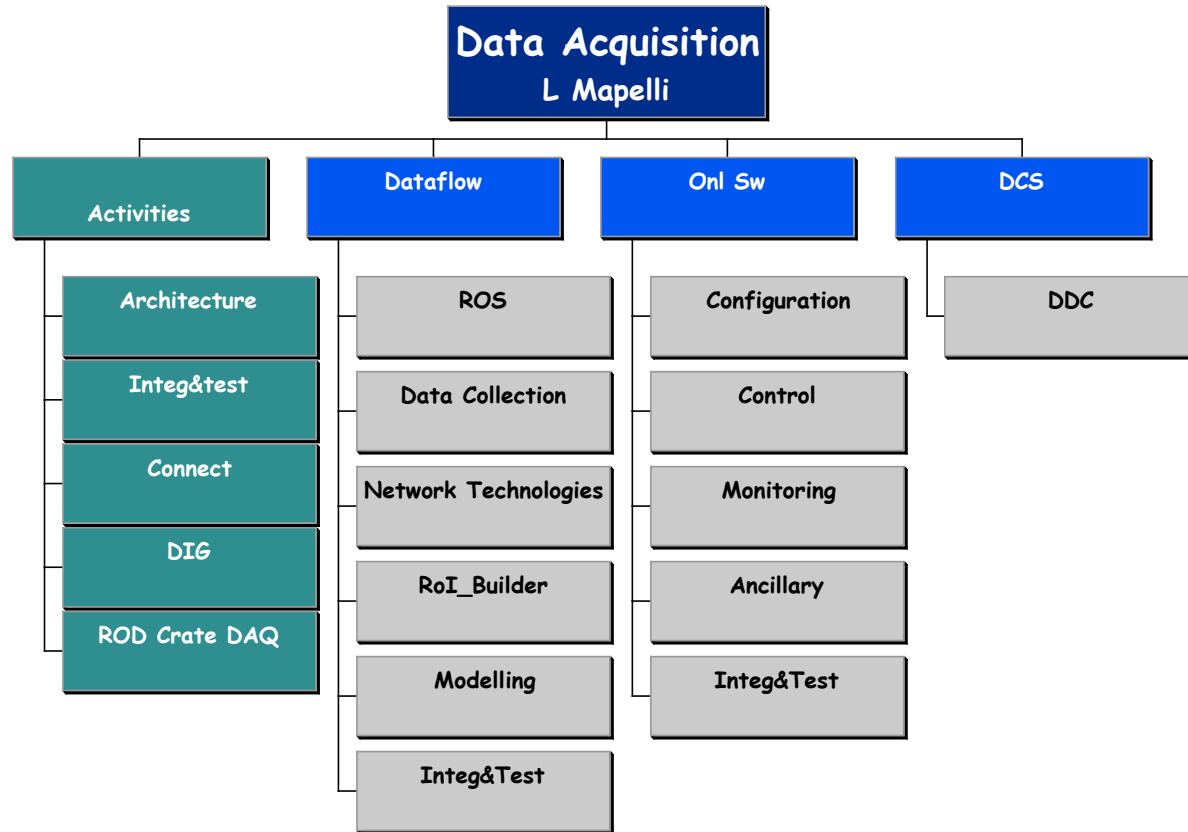
Proposed to TDIB

TDAQ Steering Group

TDAQ
Project Leader

Level-1 Trigger N Ellis	High Level Triggers C Bee	Data Acquisition L Mapelli	Cross-system activities	Ex-Officio
Calorimetry	PESA	Dataflow	TDAQ Architecture WG	TDIB Chair A Nisati
Muons	HLT Infrastructure	Online Software	Modelling WG	Management P Jenni, T Akesson M Nessi M Nordberg
CTP	HLT DS	DCS	Connect Forum	Electronics Ph Farthouat
			PSS WG	DIG B Di Girolamo
			Offline Liaison (CSG)	Offline Computing Coord. Previous PL A Lankford Planning Officer TBI Scient. Secr. TBI

Organisation in view of HLT/DAQ TDR production (Jun03).
For continuity, pre-TDR organisation on current system definition.
The final architecture will determine the post-TDR organisation.

GLOSSARY
CTP = Central Trigger Processor
PESA = HLT Physics and Event Selection Algorithms and Architecture
HLT DS = HLT Detector Slices   PSS = Physics Selection Strategy
DCS = Detector Control System   DIG = Detector Interface Group

DAQ Steering Group

Not final
(under discussion within DAQ)
(equivalent for HLT)

Data Acquisition
L Mapelli

Activities
- Architecture
- Integ&test
- Connect
- DIG
- ROD Crate DAQ

Dataflow
- ROS
- Data Collection
- Network Technologies
- RoI_Builder
- Modelling
- Integ&Test

Onl Sw
- Configuration
- Control
- Monitoring
- Ancillary
- Integ&Test

DCS
- DDC

"Dataflow", "OnlSw" and "DCS" are sub-systems.
The DCS is a DAQ sub-system for what concerns the overall design and the items provided via the TDAQ MoU, such as the software common or interfacing to DAQ.
"Activities" are working groups cutting across the sub-systems (extendable to HLT and LVL1 as well).