



#### Organisation Européenne pour la Recherche Nucléaire European Organisation for Nuclear Research Laboratoire Européen pour la Physique des Particules European Laboratory for Particle Physics

# Wrap-up of the Work Organization, Maintenance Planning and Maintenance Experience session

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Asset
Maintenance
Management
Workshop

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## Safety Organization of the ATLAS experiment

- Many conventional risks in the same place
- Many particular risks in the same place
- Projects to define solutions in higher radioactive environments (biometry live survey and remote handling)



# Maintenance in the CERN cooling and ventilation group

KPIs calculated based on WO data

 Importance of quality and completeness of data in Wos for KPIs calculation

- Mobile devices application
- Online vibration analysis



# LS1 maintenance for the cryogenic installations

- Very good performance (~92% availability)
- Systematic analysis of origins of downtimes
- Maintenance plans defined in details through BOM, procedures & schemes
- Offline vibration analysis



#### Inspections of EN/EL transformers

Periodic interventions on transformers ~preventive

- List of parameters evaluated or measured
- Triggers corrective interventions
- Parameters automatically analyzed



#### Maintenance of Power Conv. based on Failures Data

Analysis of failures data to optimize maintenance

 Weibull approach to detect obsolescence of diodes based on 5 defects out of 10'000 diodes

- Triggers replacement plan for diodes
- Importance of completeness and quality of data



### Spare part management in the EN-CV group

- Important number of references to manage
- Workflow based on pick tickets for traceability
- Efforts put on improvement of stock thanks to KPIs and standardization



## Contract management, contract adjudication, outsourcing

Presentation of the Best Value for Money method

- Method evaluating bid mark adding price mark and quality mark
- 41 contracts adjudicated since 2008 out of 78 contracts at CERN



