

# LHC exp trends

- LHC experiments trend
  - Beyond MONARC --> full mesh connections, no more strict Role/use-case per site relationship
  - Job submission: pure data driven --> dynamic data placement
  - Job data access: LAN --> WAN
  - Job data access: read only data and meta data via http based + caching systems (see sw and conditions access)
  - Currently job is piloted
- Several CMS and ATLAS conceptual and concrete advice all over the various subjects have been provided

# Start drawing the picture

- We have collected from the community several design information and several “for the future” suggestions and plans about the various aspects of HEP distributed environment:
  - **workload management, data access, data placements/transfer, metadata management, inter-site functional infrastructure, data structure, other**
- R&D work proposal in high level work-flow design
  - **Define a prototype design for each of the macro subject starting by the up to date LHC solutions/trends**
  - **Elaborate the design --> new proposals can fit 2/5 years in future scenario**
- Workload management can be the starting subject

# R&D work proposals

- Job data access
  - Explore http/webdav data access frameworks
    - CVMFS for read-only job file access
    - Frontier evolution studies (starting later)
  - EOS/NFS4 data access by jobs in WAN scenario (with storage group)
- Data transfer management system, comparison
  - Phedex system evaluation [CMS Bologna]
  - P2DP system evaluation
- Grid resource management framework
  - Evaluation of Dirac system (on going)
  - Evaluation of PANDA system

# People interested in collaborating

- O. Dadoun
- A. De Salvo
- F. Furano
- A. Paolini
- K. Raczka (Polish group)
- Subset of CMS Bologna