



# SIMULATIONS, DATA ANALYSIS AND MY JOURNEY FROM CERN TO KACST.

IBTESAM BADHREES, PHD.

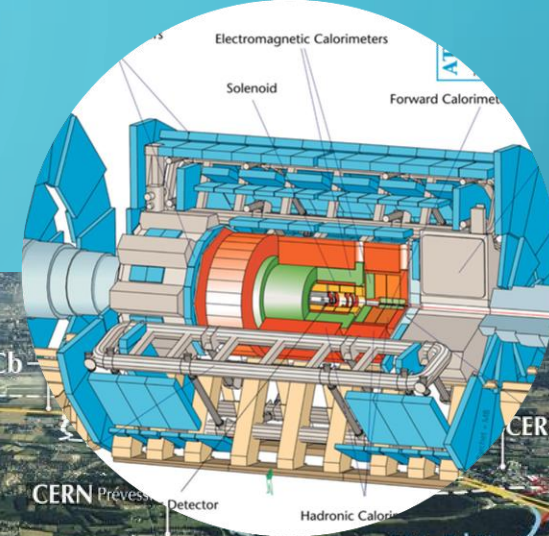
NUCLEAR SCIENCE INSTITUTE, KING ABDULAZIZ CITY FOR SCIENCE  
AND TECHNOLOGY, KACST.

# CERN

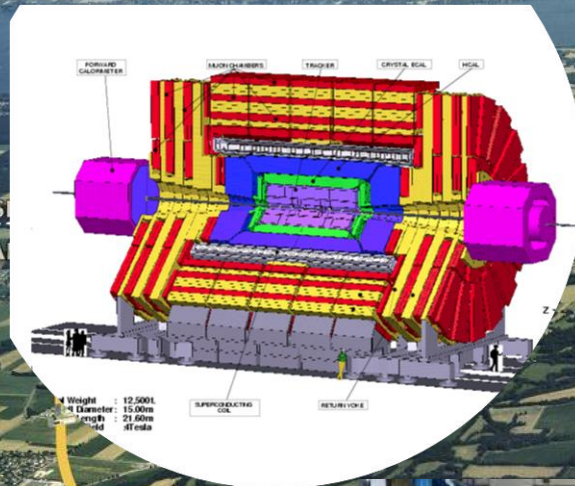
- The European Organization for Nuclear Research

Conseil Européen pour la Recherche Nucléaire

<http://scipp.ucsc.edu/personnel/atlas.html>



<http://www-hep.phys.cmu.edu/cms/introd.html>



ALICE

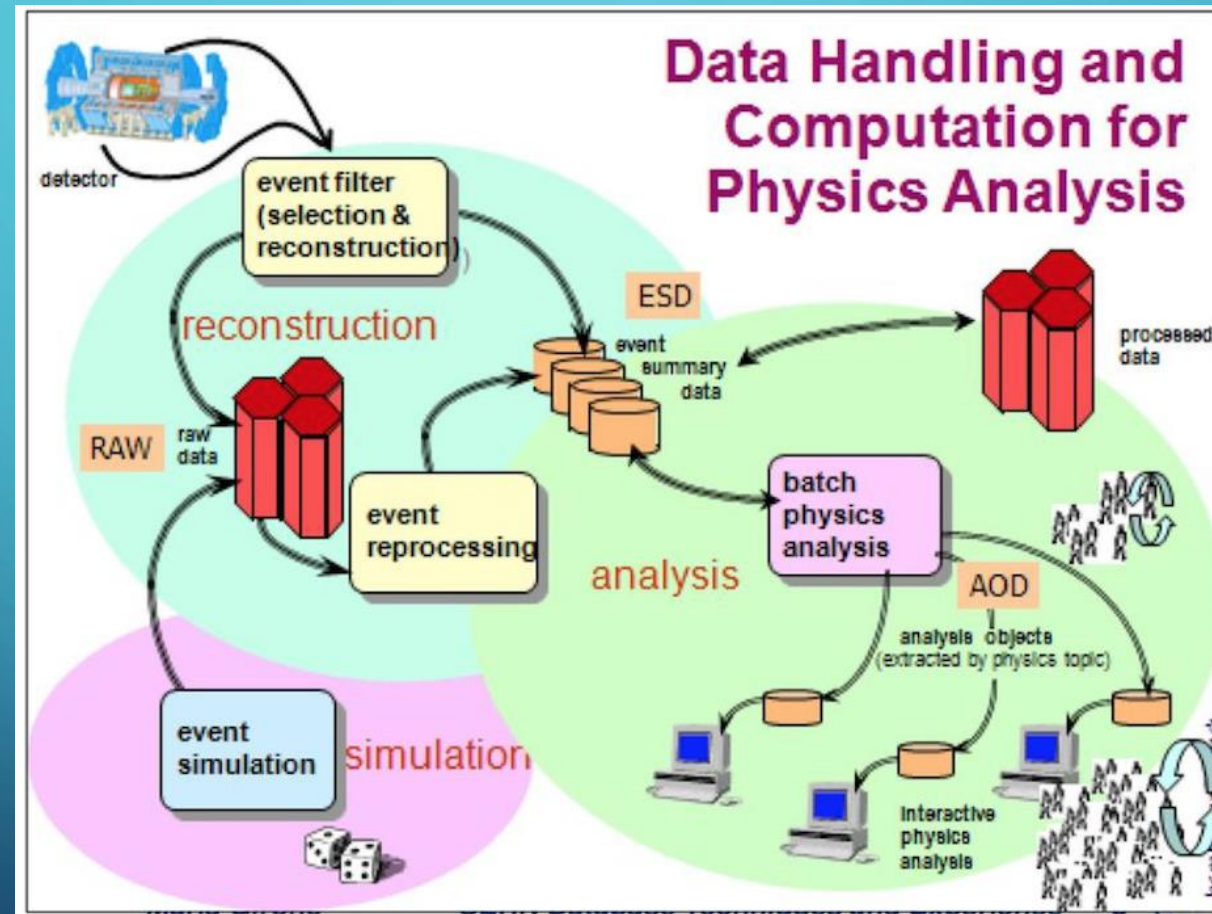
DR. IBTESAM BADHREES

Source: <https://home.cern/science/computing/processing-what-record>

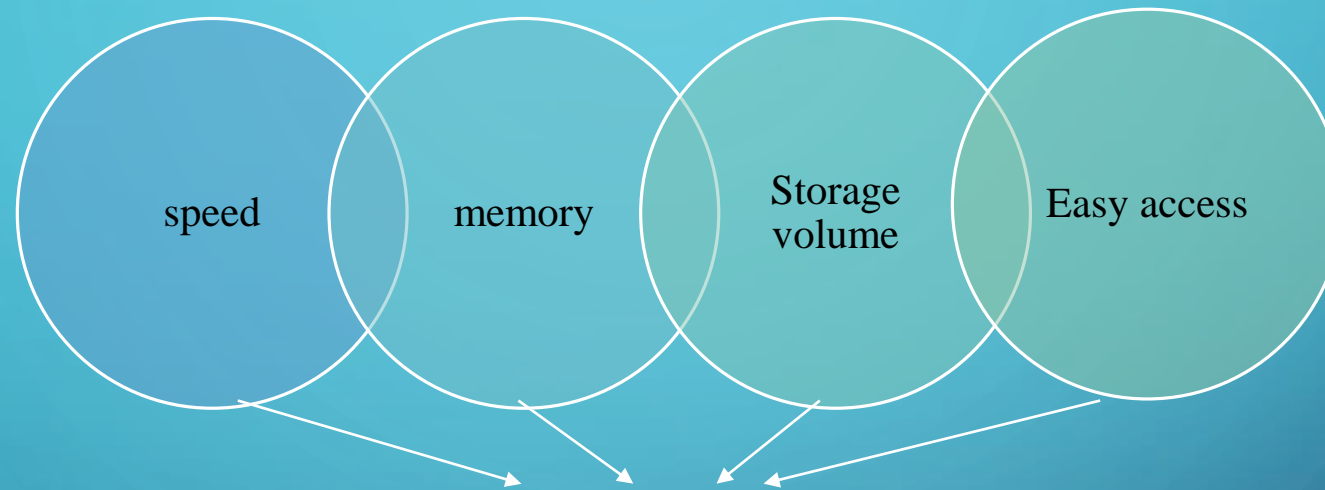




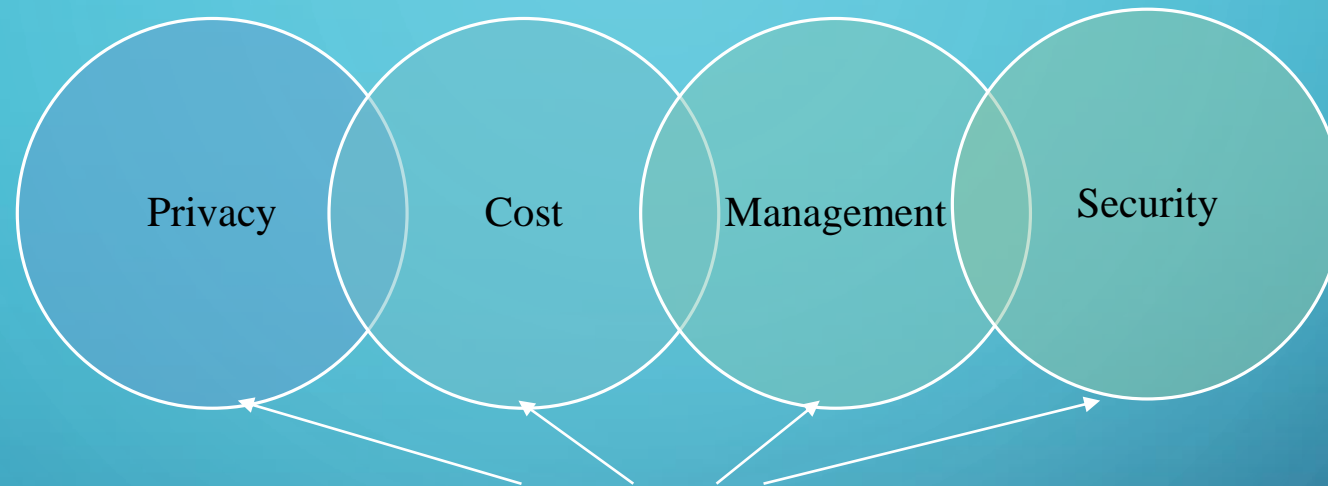
# DATA FLOW FOR ATLAS EXPERIMENT AT LHC



# NEEDS OF DATA ANALYSIS



# NEEDS OF DATA ANALYSIS





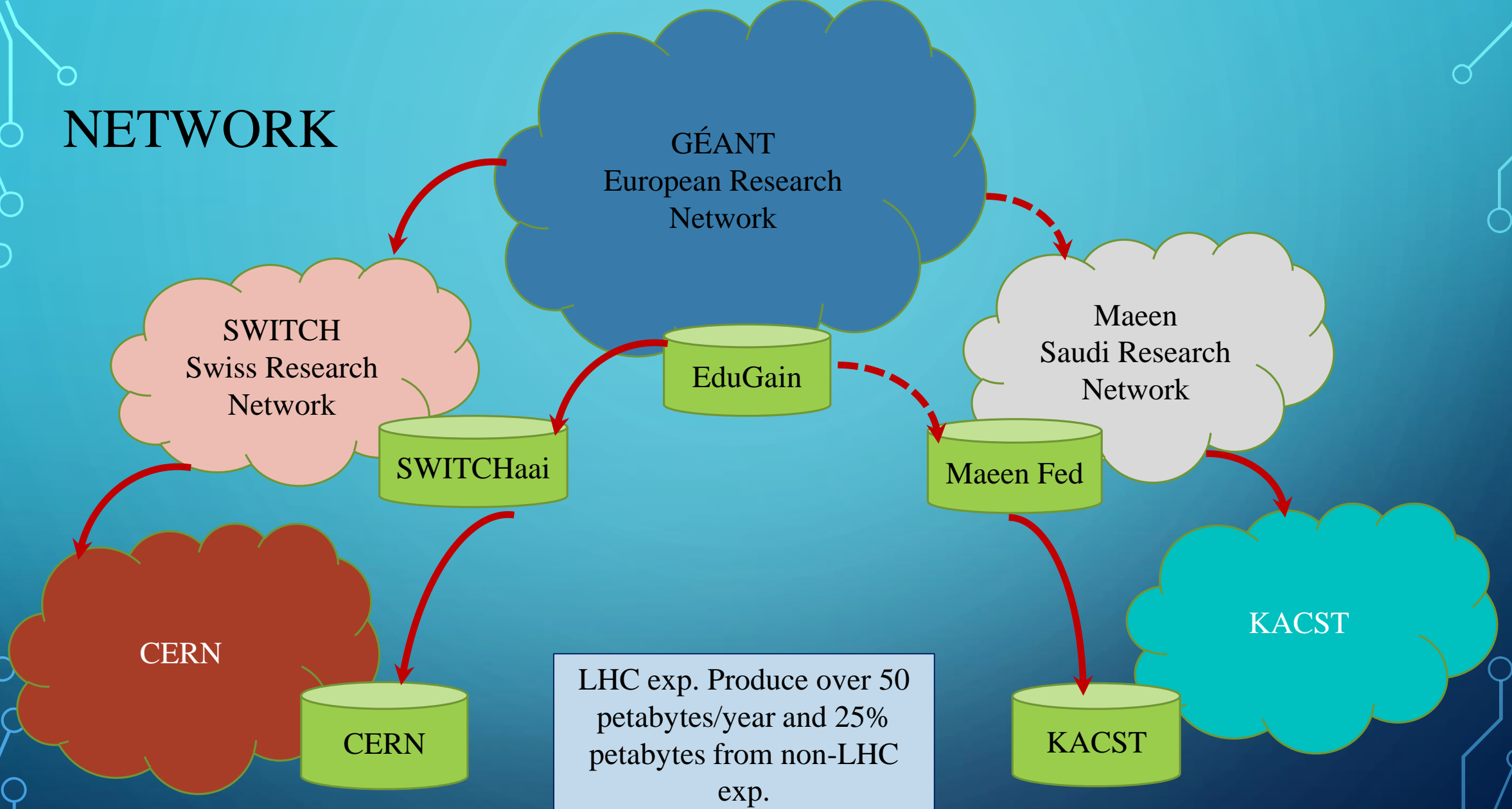


DR. IBTESAM BADHREES, KACST.

# KACST

- King Abdulaziz City for Science and Technology.
- KACST is a scientific government institution that supports and enhances scientific applied research. It coordinates the activities of government institutions and scientific research centers in accordance with the requirements of the development of the Kingdom.

# NETWORK



LHC exp. Produce over 50  
petabytes/year and 25%  
petabytes from non-LHC  
exp.

## *Maeen aims*



Help the scientists to accelerated their analysis performance and hence signal to background ratio improvement.



Help establishing large national and international scientific network.



## *Info.*



- Grid processing capabilities (available number of cores and memory)
- Queuing strategy.
- Cost per e.g. submitted job.
- Guarantee continues access.
- Info on hard disk storage.
- Server management and technical help desk.

# QUESTION? COMMENT? CONCERN?

**We want to hear about it.**



[https://www.google.com/search?q=looking+to+hear+your+questions+and+concerns&safe=strict&tbm=isch&tbs=rimg:CbKLVsuN8wY7Ijg32ALpz87qbEq3cRg27tD0uv2PkhKb-39Y\\_1gOYlc3P4v\\_1ZKJPWEVbTQGs\\_](https://www.google.com/search?q=looking+to+hear+your+questions+and+concerns&safe=strict&tbm=isch&tbs=rimg:CbKLVsuN8wY7Ijg32ALpz87qbEq3cRg27tD0uv2PkhKb-39Y_1gOYlc3P4v_1ZKJPWEVbTQGs_)