

# CERN

## World's largest scientific instrument

27km (16.8 miles) circumference, 6000+ superconducting magnets

## Fastest racetrack on Earth

Protons circulate 11245 times/s (99.9999991% the speed of light)



## Emptiest place in the solar system

High vacuum inside the magnets

## Hottest spot in the galaxy

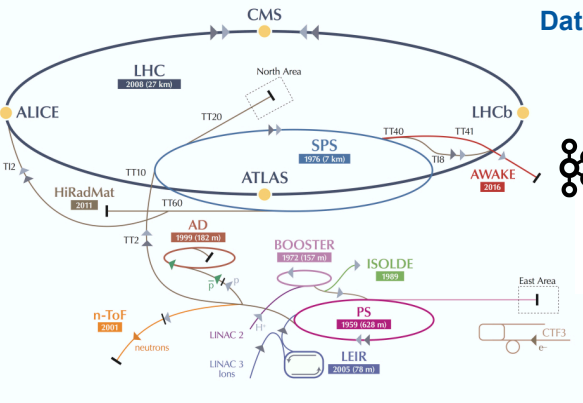
During Lead ion collisions create temperatures 100 000x hotter than the heart of the sun;

# Autonomous Data Warehouse

## Our Requirements

- **Simple architecture**
- **Improve without disrupt**
- **Minimal migration and integration efforts**
- **Better performance on bigger datasets**
- **Unlock data exploration (unknowns – unknowns)**
- **Allows to control critical systems on almost real-time**
- **Lowers operations and development costs**

# Autonomous Data Warehouse Architecture Overview



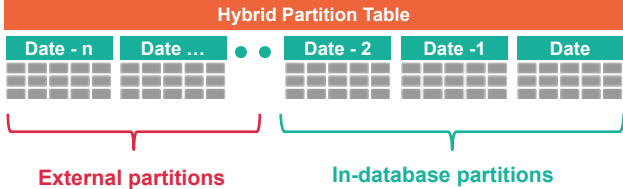
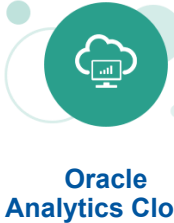
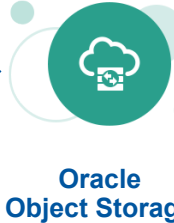
Data Acquisition

Data Transfer

Storage Layer

Data Warehouse

Analytics Interface



# Autonomous Data Warehouse

## Our gains

- **Simplified and compatible architecture**
- **Cost-effective solution**
- **Automatic access to advance optimisations.**
- **Transparent backups and patching.**
- **Scale-up and scale-down to adapt to the needs.**
- **Benefits of Exadata in a fully managed environment.**
- **No DBA expertise requires for operations.**
- **Time to focus on data exploration.**