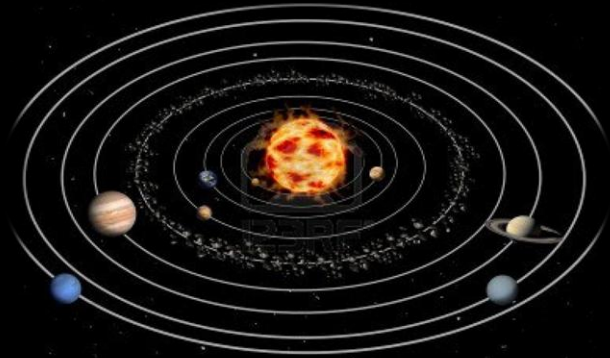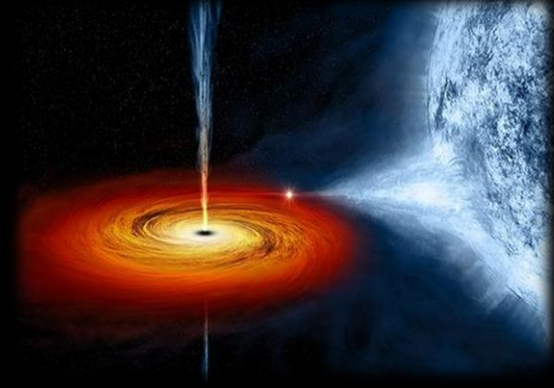# Percipient Storage

A Storage Centric Approach to BDEC

A homogenous view of data anywhere/everywhere

Malcolm Muggeridge
Sr. Engineering Director
**Seagate Systems**

BDEC Systems - General Requirements

Science generation from high volumes of simulation+ Instrument & Social data

Storage systems for BDEC

➢Storing and Retrieving data with very high throughput and low latency

➢Running complex data processing and analytics tasks in parallel with ongoing simulation

➢Providing access to vast external data sets (e.g. from instruments)
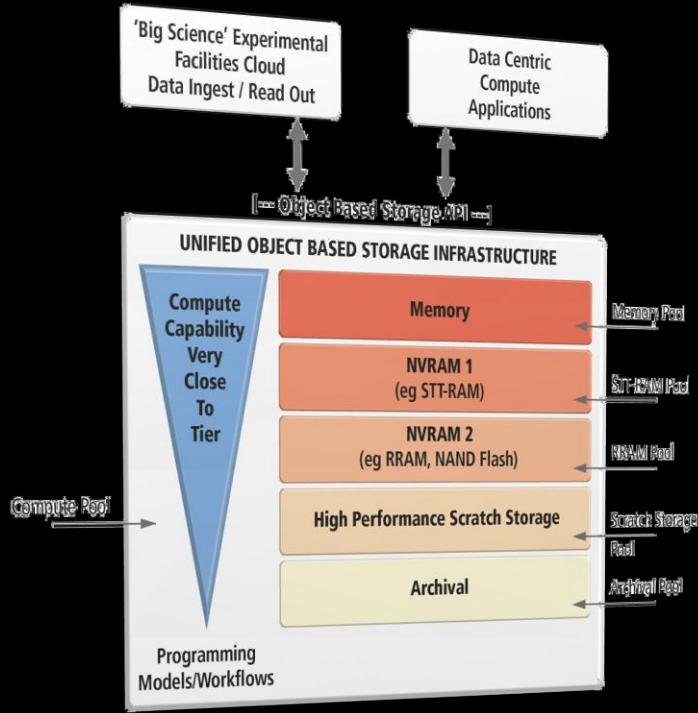

SEAGATE
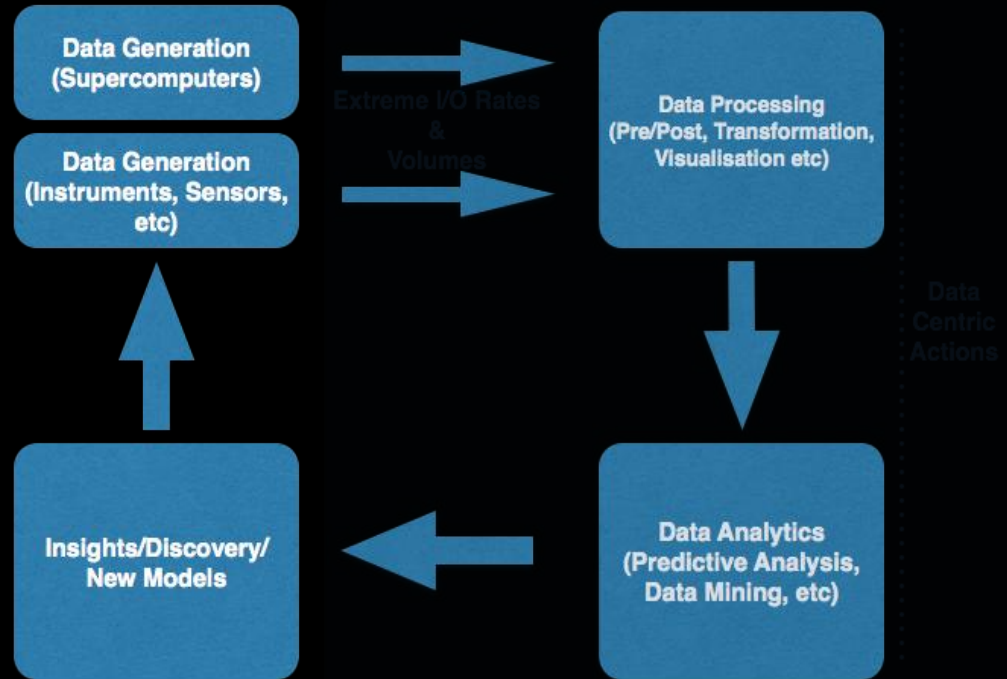
Overall Conceptual Architecture

Object Storage Framework (Ground up design for Exascale)
Compute capability close to data
Flexible API
Accommodates next generation storage device technologies

> Plugs into existing infrastructure

> API interoperates with well known cloud APIs and HPC interfaces (eg:HDF5/NetCDF)

> API allows plug-in apps such as HSM

> Advanced analytics stacks work directly on top of API

> Architecture suitable for PGAS programming models (usage of NVRAM)