

# L0: Application and User Tools

Application Specific Data Structures

## L1: Runtime Environments

Resource Management Abstractions: Pilot Abstractions (Pilot Job/Pilot Data)

## L2: Data-Cyberinfrastructure

e.g. File-Systems, SQL/no-SQL

## L2: Infrastructure Abstractions

Templated Appliances and Virtual Clusters

## L4: Execution Environment

e.g. XSEDE, OSG, Clouds