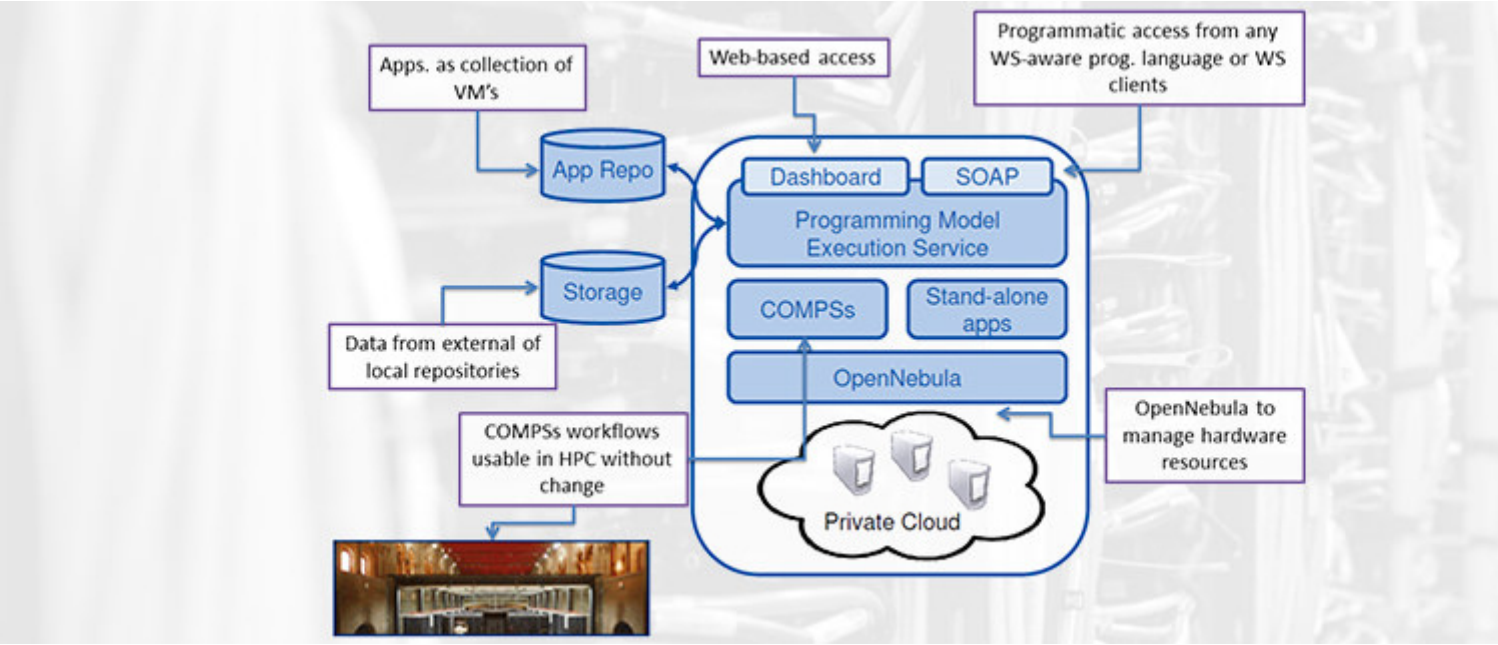
Computational infrastructures for biomolecular research



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Summary

E-infraestructures are becoming increasingly necessary to provide a computational basis for research communities. Research groups no longer can afford the provision of local infrastructures. Instead, public or private cloud based installations provide a flexible way to adapt the infrastructure to the specific needs of the research. Computational infrastructures should combine efficient ways of managing data, and also provide workflow execution a different levels, from local clusters, to supercomputers. Our group is exploring the use of cloud based infrastructures in bioinformatics, bridging the gap between traditional bioinformatics tools.

Objectives

1. Explore strategies to develop e-infrastructures for omics and machine learning.
2. Develop interfaces to allow traditional bioinformatics tools to be executed efficiently in several models of e-infrastructures.