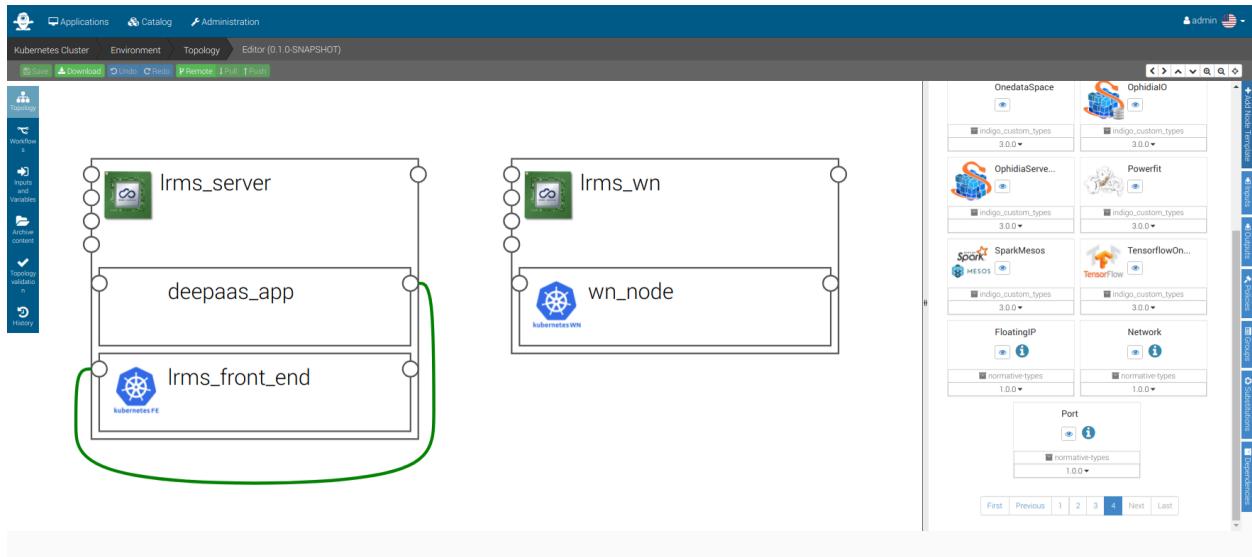


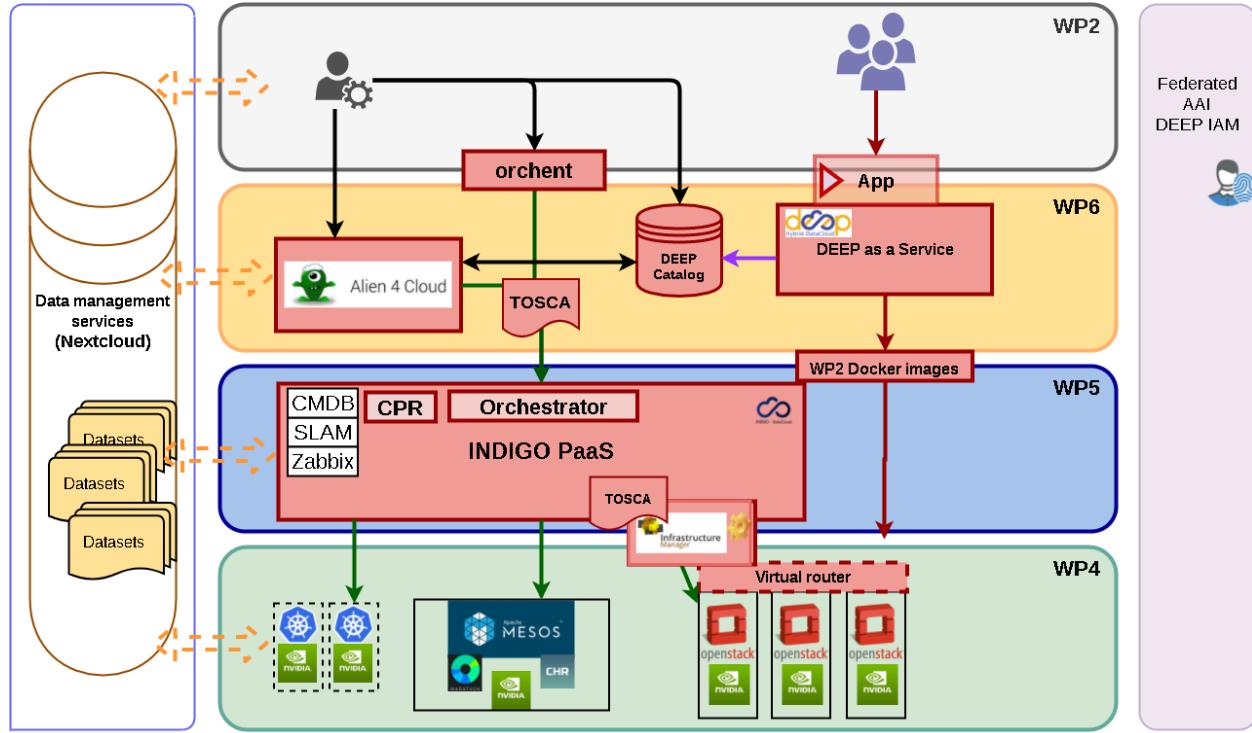
## Alien4Cloud® in DEEP

[Alien4Cloud®](#) is an advanced cloud management tool that aims at simplifying the composition (both visual and text), management (e.g. source storing/versioning/editing), handling, and deployment (deploy, undeploy, update) of cloud topologies described using the [TOSCA specification language](#). Alien4Cloud® supports users (with different roles) who can utilize either basic TOSCA template components or full TOSCA template topologies to deploy their own cloud infrastructures.



↑ F1 Alien4Cloud®'s TOSCA visual editor

The DEEP Hybrid DataCloud project integrates Alien4Cloud® as the main component that allows our users to interact with the rest of the infrastructure. Figure F1 shows a custom infrastructure loaded from an [existing topology template file](#) that represents a small Kubernetes® cluster running the [DEEPPaaS](#) application. You can find more details about DEEP and the work being done at <http://www.deep-hybrid-datacloud.eu>. Diagram D1 depicts the role of the cloud management tool in the project. Alien4Cloud® is already a usable part of the project, please be sure you check our [public demos](#) on Youtube to see it in action.



↑ D1 The Alien4Cloud® role in DEEP

Since Alien4Cloud® allows functionality extension by the means of plugins, we developed one [freely available on Github](#) that connects it with the INDIGO PaaS Orchestrator used in DEEP. The Github repository doesn't contain only the code for the orchestrator plugin, it also includes the Dockerfile necessary to create a Docker image (prebuilt at <https://hub.docker.com/r/indigodatacloud/alien4cloud-deep>) that includes all the components needed for deployment and use in DEEP:

- Alien4Cloud®
  - As of now [our home baked version](#)
- The INDIGO PaaS Orchestrator plugin
- The normative TOSCA types
  - Adapted from Openstack's version
- The custom TOSCA types
  - Created during the INDIGO-DataCloud project and being updated during DEEP

If you find our project interesting, stay tuned for more. There are new and exciting features coming up. We are currently working on:

- Extending the TOSCA support in the Alien4Cloud® parser
  - We plan to support normative TOSCA 1.2
- Improve the user experience with the graphical TOSCA editor
- Integrate the TOSCA parser from newer Alien4Cloud® versions into the INDIGO PaaS Orchestrator
  - Have the normative support in both components

- Ensure interoperability between the two components

While you are here, you might want to take a look at a short video to help you get started with our Docker release (starting with the Docker image pull):

[https://www.youtube.com/watch?v=TH\\_WMD3NGts&list=PLJ9x9Zk1O-J\\_UZfNO2uWp2pFMmbwLvzXa&index=10&t=135s](https://www.youtube.com/watch?v=TH_WMD3NGts&list=PLJ9x9Zk1O-J_UZfNO2uWp2pFMmbwLvzXa&index=10&t=135s)