

EOSC EU Node Tools Hub User Guide

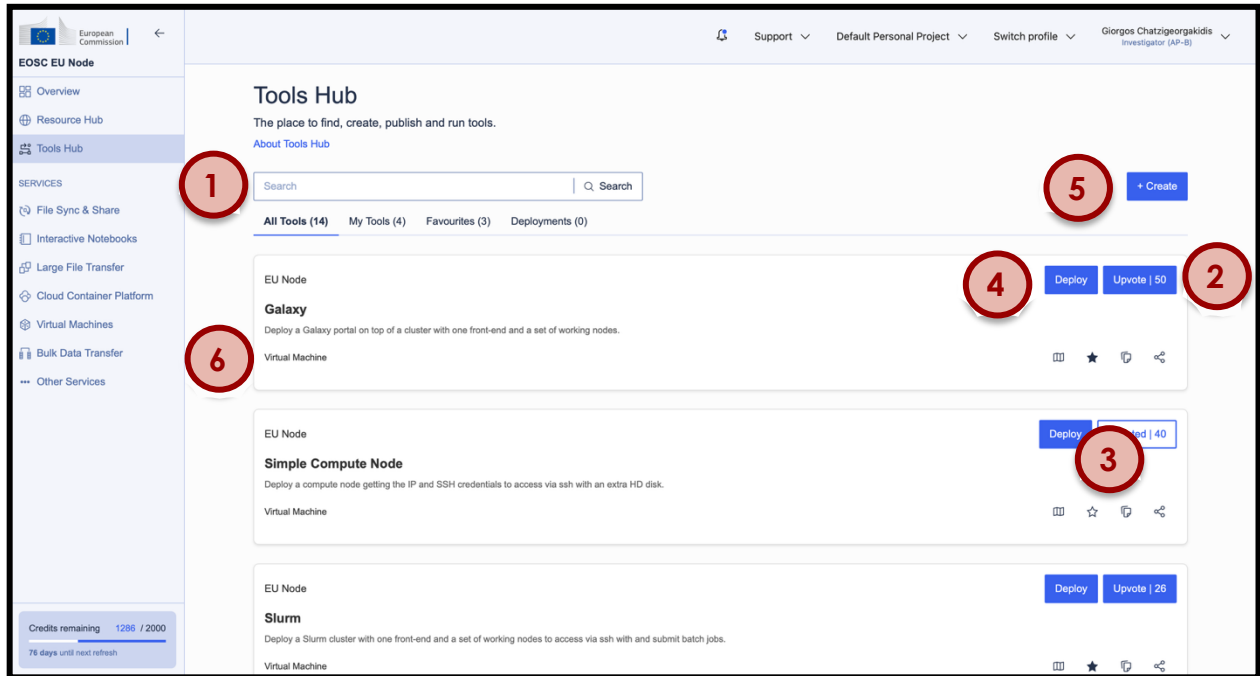
Version 2.1 – 21/11/2025

Table of Contents

- 1. Search and Favourite Existing Tools2**
 - 1.1. All Tools Tab..... 2
 - 1.2. Favourites Tab..... 3
- 2. Deploy a Tool.....4**
 - 2.1. Deployment Wizard 4
 - 2.2. Deployments Tab 5
- 3. Create a Tool6**
 - 3.1. Create Tool Wizard (I/III) 6
 - 3.2. Create Tool Wizard (II/III) 7
 - 3.3. Create Tool Wizard (III/III) 8
 - 3.4. The **My Tools** Tab 9

1. Search and Favourite Existing Tools

1.1. All Tools Tab



- While in the **All Tools** tab, you may search for a specific tool by entering a keyword in the search box. All tools published by either EOSC EU Node or other users appear here - (1)
- You may upvote a tool of your preference by clicking on the **Upvote** button. The number of upvotes for all published tools is available to all users - (2)
- For each tool in the list, you may click one of the action icons to view its details, add it to your **Favourites** (Section 1.2), copy it to **My Tools** (Section 3.4), or share it with other users - (3)
- To deploy a tool (Sections 2.1 and 2.2), click on the **Deploy** button - (4)
- To create a new tool, you may click on the **Create** button (Sections 3.1, 3.2 and 3.3) - (5)
- Make sure to have allocated resources for the appropriate service required by a tool before deploying it - (6)

1.2. Favourites Tab

The screenshot shows the 'Tools Hub' interface. The left sidebar contains navigation options: Overview, Resource Hub, Tools Hub, and SERVICES (File Sync & Share, Interactive Notebooks, Large File Transfer, Cloud Container Platform, Virtual Machines, Bulk Data Transfer, Other Services). The main content area is titled 'Tools Hub' and includes a search bar, a '+ Create' button, and tabs for 'All Tools (14)', 'My Tools (4)', 'Favourites (4)', and 'Deployments (0)'. Three tool cards are displayed:

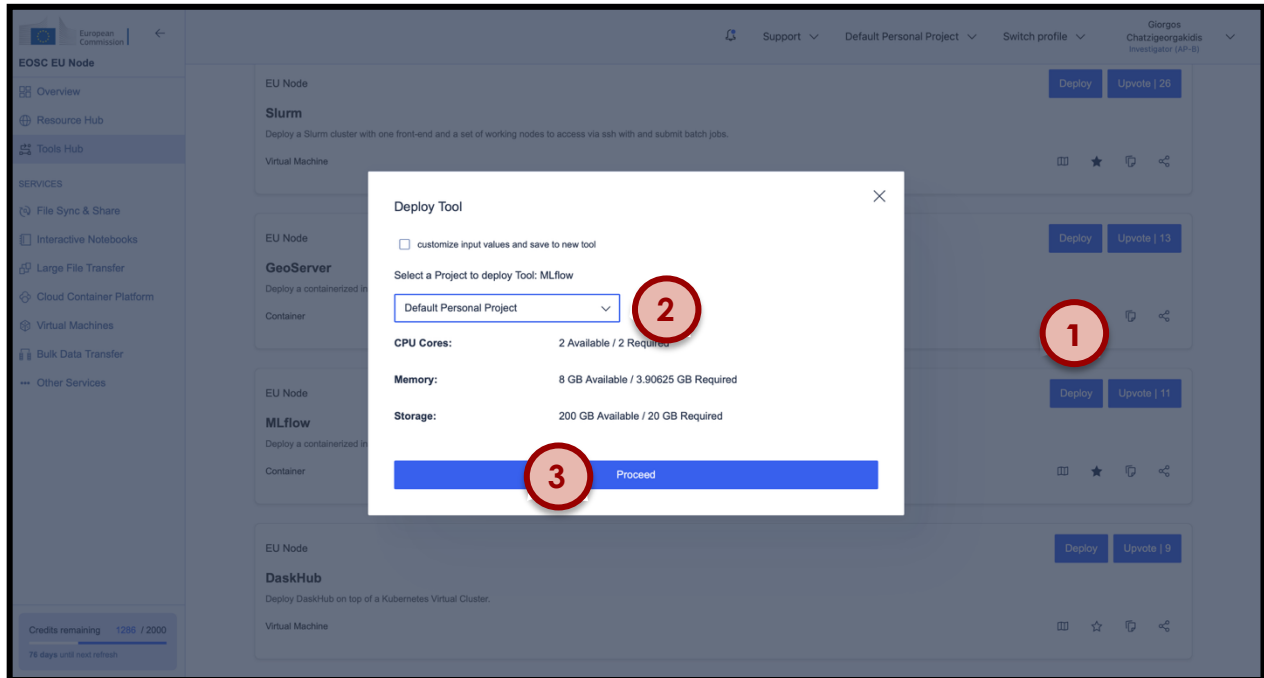
- Galaxy**: Deploy a Galaxy portal on top of a cluster with one front-end and a set of working nodes. Includes 'Deploy' and 'Upvote | 50' buttons. A red circle with the number '2' is overlaid on the 'Deploy' button.
- GeoServer**: Deploy a containerized instance of a GeoServer platform on OKD. Includes 'Deploy' and 'Upvote | 13' buttons. A red circle with the number '1' is overlaid on the delete icon.
- Slurm**: Deploy a Slurm cluster with one front-end and a set of working nodes to access via ssh with and submit batch jobs. Includes 'Deploy' and 'Upvote | 28' buttons.

At the bottom left, a status bar shows 'Credits remaining 1286 / 2000' and '76 days until next refresh'.

- Your **Favourites** tab contains all the tools you have added as favourites
- You may either view the details, deploy, or delete each favoured tool - (1), (2)

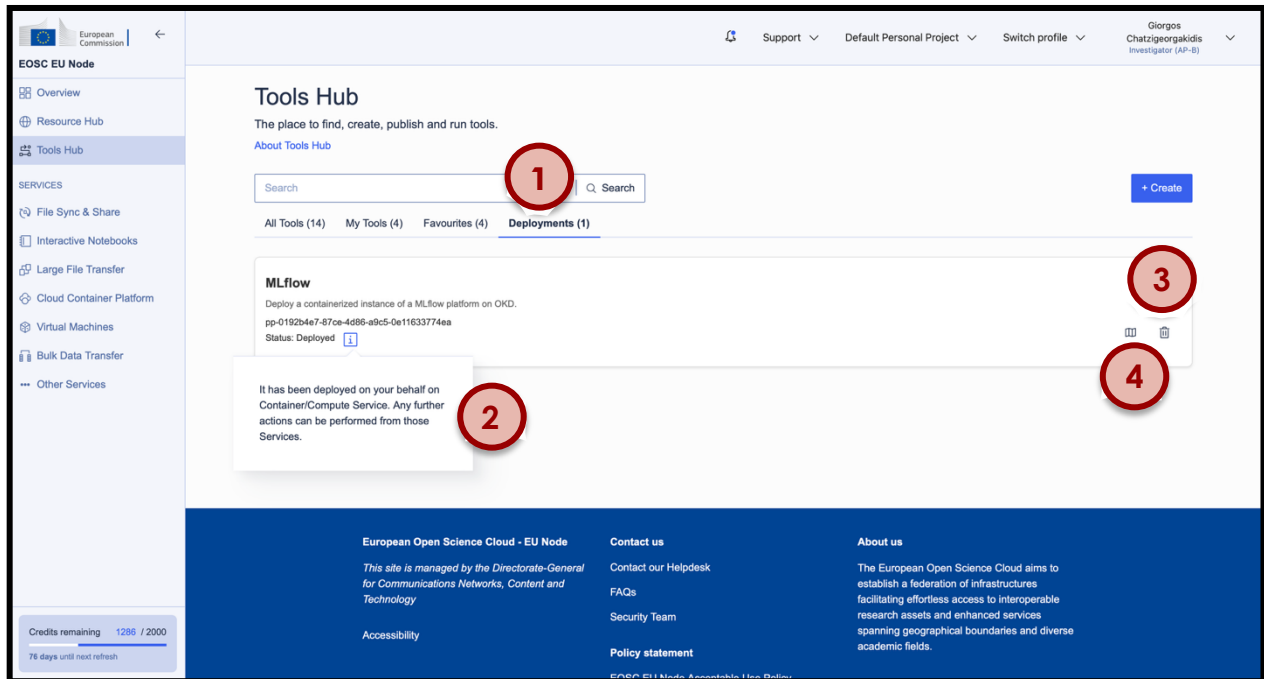
2. Deploy a Tool

2.1. Deployment Wizard



- Before deploying a tool, make sure that you have allocated the necessary resources to your personal or group project. In this example, a Cloud Container Platform Deployment is needed beforehand
- To deploy a tool, click on the **Deploy** button - (1)
- On the dialog that appears, select an available **Personal** or **Group** project to deploy the tool - (2)
- If the resources are sufficient, proceed with deploying the tool. When your tool is deployed, you will receive a notification - (3)

2.2. Deployments Tab



- Upon successful deployment your tool will be available under the **Deployments** tab - (1)
- The **Tools Hub** deploys your tool on your behalf on the appropriate service on which you had already allocated resources. As indicated in the pop-up message, you may now access your deployed tool by visiting the corresponding service page (please refer to the corresponding user guide and documentation for further instructions) - (2)
- You may stop your tool at any time by clicking on the **Remove** button - (3)
- Once your tool is deployed you may click on the **Show Details** button to get the required information to access your tool. For example, if your tool creates a Virtual Machine, you will be provided with the assigned IP, username and SSH private key needed to access it. You may copy the value of the token field into a file as follows: `echo -e "<<your_key>>" > ssh_key.pem && chmod 600 ssh_key.pem`. Then, you may access your created VM by issuing: `ssh -i ssh_key.pem username@vmip` - (4)

3. Create a Tool

3.1. Create Tool Wizard (I/III)

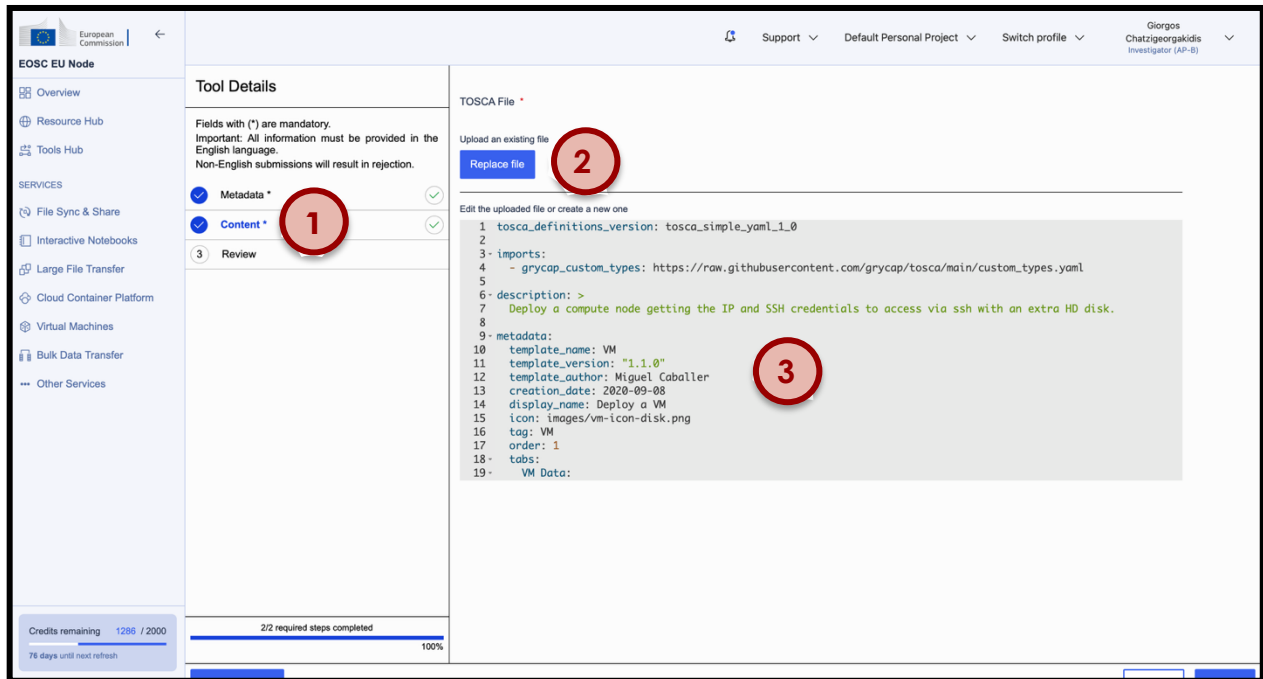
The screenshot shows the 'Tool Details' wizard in the EOSC EU Node interface. The 'Metadata' step is the first and is highlighted with a red circle containing the number '1'. The wizard consists of three steps: Metadata, Content, and Review. The 'Metadata' step is currently active and shows the following fields:

- Name ***: Name of the Tool. Input: Test Tool. (Up to 100 characters)
- Description ***: A high-level description. Input: This is a test tool. (Up to 1000 characters)
- Resource Organisation ***: Input: Athena R.C. (Up to 30 characters)
- License ***: Input: Apache License 2.0
- Version Date**: Input: Fri Oct 31 2025
- Keywords ***: Keywords associated to the Tool to simplify search by relevant keywords.

At the bottom of the wizard, there is a progress indicator showing '1/2 required steps completed' and '86%' completion. A status bar at the bottom left indicates 'Credits remaining 1286 / 2000' and '76 days until next refresh'.

- To create your tool, you must complete all the steps of the wizard
- At the **Metadata** step, you must provide all necessary metadata for your new tool, such as name, description and license - (1)

3.2. Create Tool Wizard (II/III)



- In the **Content** step of the tool creation wizard, you must provide the content of the tool, by uploading a TOSCA template in YAML format. To find out more about TOSCA templates, please visit [this](#) webpage - (1)
- Please note that in case your TOSCA template deploys an OpenStack environment **on the PSNC site** that requires a GPU, the availability zone (i.e., *BST1-Proxima*) must be declared by adding the following code to your template:

```
- deploy_on_az:  
  type: toasca.policies.indigo.Placement  
  properties: { availability_zone: BST1-Proxima }  
  targets: [ simple_node ]
```

where in "targets", "simple_node" should be replaced by the list of compute nodes in the template.

- To upload an existing TOSCA template, you may on the **Choose file** button. Once the file is uploaded, the button text changes to **Replace file**. You may click on it to upload a different TOSCA template - (2)
- In the provided editor, you may either change the code of the TOSCA template file you have uploaded, or create your own TOSCA template from scratch - (3)

3.3. Create Tool Wizard (III/III)

Fields with (*) are mandatory.
Important: All information must be provided in the English language.
Non-English submissions will result in rejection.

Metadata * ✓
Content * ✓
Review 1

Name: Test Tool
Description: This is a test tool.
Resource Organisation: Athena R.C.
Version Date: Fri Oct 31 2025
Keywords: test
Deprecated: No

Scientific Categorisation:
Scientific Domain: Generic
Scientific Subdomain: Generic

Target Infrastructure: VM Service
License: Apache License 2.0

Content

Tosca File:

```
1 tosca_definitions_version: tosca_simple_yaml_1_0
2
3 imports:
4   - grycap_custom_types: https://raw.githubusercontent.com/grycap/tosca/main
5
6 description: >
7   Deploy a compute node getting the IP and SSH credentials to access via ssh
8
9 metadata:
10  template_name: VM
11  template_version: "1.1.0"
12  template_author: Miguel Caballer
13  creation_date: 2020-09-08
14  display_name: Deploy a VM
```

2/2 required steps completed 100%

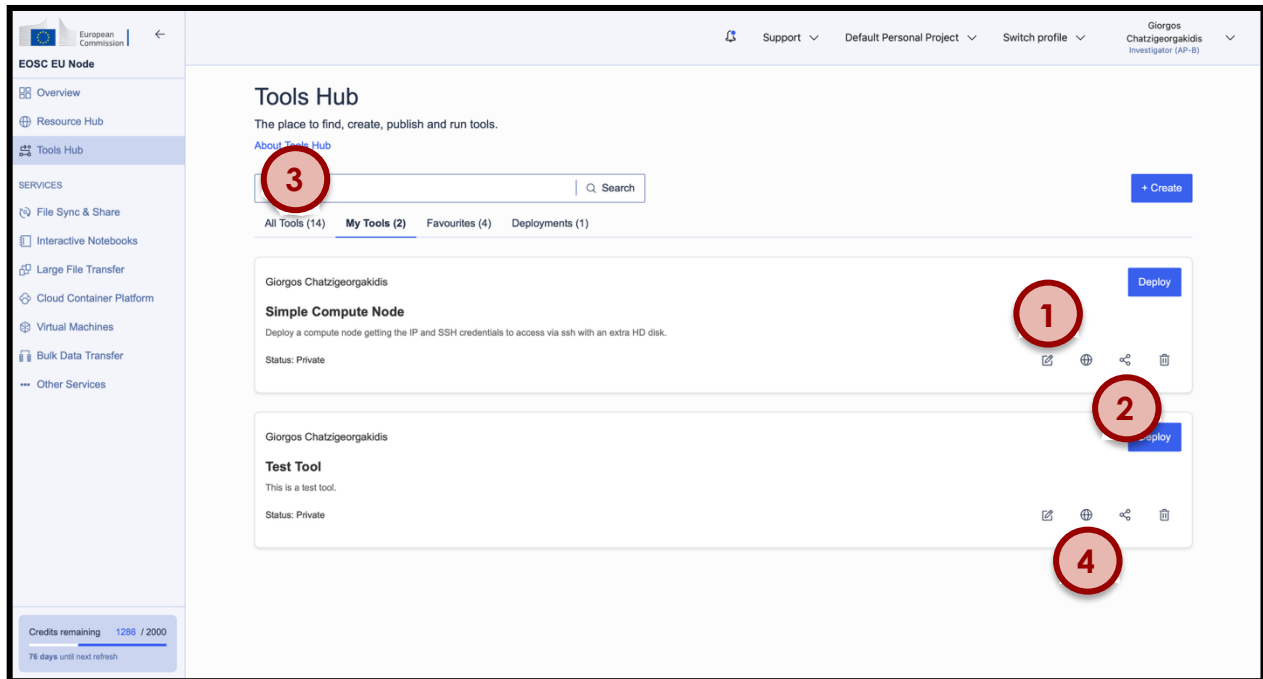
Credits remaining 1236 / 2000
76 days until next refresh

Cancel and Exit

2 Previous Confirm 3

- In the **Review** step you may review the provided information for your tool and confirm it - (1)
- In case of any mistakes, you may go back to apply corrections by either clicking on the edit links of each section, or on the **Previous** button - (2)
- Finally, to create your tool, you must click on the **Confirm** button - (3)
- Your new tool will be listed under **My Tools** (Section 3.4)

3.4. The **My Tools** Tab



- Any tool you have created via the tool creation wizard will be listed in the **My Tools** tab. Here, you have some additional options
- You may edit the metadata and/or provided TOSCA template of your tool by clicking on the **Edit** button - (1)
- You may share the tool with another user. Clicking on the **Share** button generates a link, which can be shared to another person. Of course, they must also be users of the EOOSC EU Node to access the tool - (2)
- Another way to add tools in your **My Tools** tab is by clicking on the **Copy to My Tools** button of a published tool at the **All Tools** tab (Section 1.1). The tools creation wizard opens again for you to optionally edit any of its metadata and/or TOSCA template file - (3)
- Finally, you may request to publish your tool by clicking on the **Publish** button. Before being published, your tool must first be approved by the Back-Office of the EOOSC EU Node. Once your tool is approved you will receive a notification. Publishing your tools makes it available in the **All Tools** tab for other users to also access and use - (4)