

**Deliverable 3.3.1**

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Project Acronym	PhenoMeNal
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Duration of the Project	36 Months
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Work Package Title	Dissemination and Outreach
Deliverable Title	D3.3.1 Web-based Tutorial release 1 “Metabolomics Data Deposition and Analysis through PhenoMeNal”, in the form of video clips
Delivery Date	M18
Work Package leader	UoB
Contributing Partners	EMBL-EBI, ICL, CEA, IPB, UU, UB
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<p>Abstract: This deliverable reports the online tutorials developed as video clips for dissemination and outreach to the user community.</p>	



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## 1. EXECUTIVE SUMMARY

Online tutorials enable distance learning and education for our user community at times and places convenient to them. PhenoMeNal is intensely making use of such web-based tools to provide user documentation on PhenoMeNal tools and services. Here we report the production of online training material on use of the Galaxy workflow component available via YouTube and the PhenoMeNal portal.

## 2. CONTRIBUTION TOWARDS PROJECT OBJECTIVES

The work under this deliverable contributes towards

**Objective 3.3** Provide online training for users interested in the PhenoMeNal grid.

## 3. DETAILED REPORT OF THE DELIVERABLE

Online training material on use of the “Galaxy<sup>1</sup>” component available via the PhenoMeNal portal<sup>2</sup> has been produced using the Camtasia<sup>3</sup> software. The dataset used for the demonstration is Sacurine, the use case dataset for PhenoMeNal. This sub-workflow is part of the Sacurine-statistics workflow available on the W4M e-infrastructure<sup>4</sup> (Giacomoni et al. (2015). Workflow4Metabolomics: a collaborative research infrastructure for computational metabolomics. *Bioinformatics* 31, 1493-1495).

A set of tutorials on KubeNow (integral part of the PhenoMeNal architecture) were also prepared and are available on the PhenoMeNal YouTube channel<sup>5</sup>. These set of tutorials include:

- Introduction to KubeNow
- Creation of Virtual cluster
- Installation of core components
- Deployment of Jupyter
- Testing of Jupyter
- Deployment of Galaxy
- Testing Galaxy

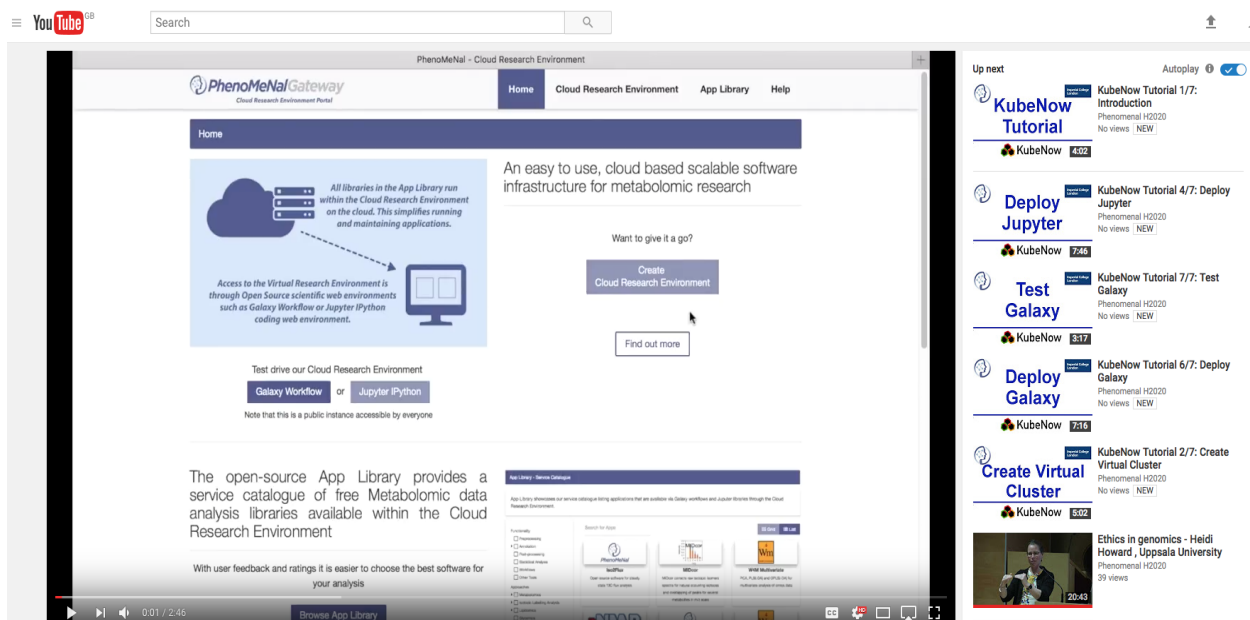
<sup>1</sup> <http://public.phenomenal-h2020.eu>

<sup>2</sup> <http://portal.phenomenal-h2020.eu/home>

<sup>3</sup> <http://discover.techsmith.com/camtasia-brand-desktop/>

<sup>4</sup> <http://workflow4metabolomics.org>

<sup>5</sup> <https://www.youtube.com/channel/UCXGAvsVNQk-aUpckjRC8Ang>



**Figure 1.** Screenshot of the PhenoMeNa YouTube channel showing various tutorial available to user community.

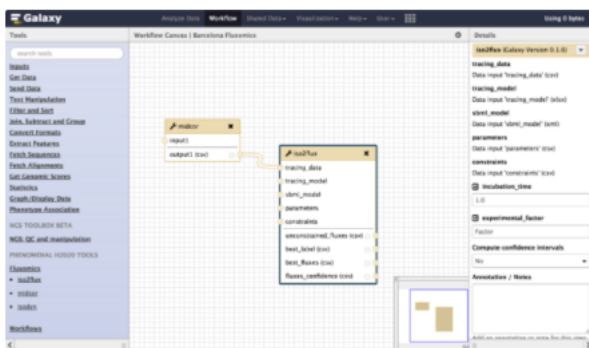
These Web-based tutorials have also been made available through the Home page of the PhenoMeNa portal.

A tutorial is also in development as an application of Stable-Isotope-Resolved-Metabolomics with the objective of the estimation of reaction-fluxes, by fitting model predictions and experimental mass-spectrometry measurements of  $^{13}\text{C}$  carbon propagation. The video is not yet available in youtube channel, but it is accessible in the share Google Drive for PhenoMeNa<sup>6</sup>.

In additional other training materials on PhenoMeNa architecture, software and tools are available as user and developer documentation and tutorials available on “Help” page of the PhenoMeNa portal<sup>7</sup>.

<sup>6</sup> <https://drive.google.com/drive/folders/0B2e3YmwhK4fkCTFOaUVmZ0VUQm8>

<sup>7</sup> <http://portal.phenomenal-h2020.eu/help>

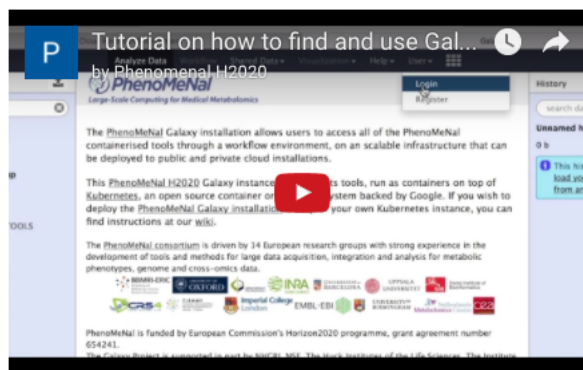


Access your Cloud Research Environment through standard scientific open-source web environments, Galaxy Workflow tool and Jupyter coding environment

### Online User Training

Tutorials on PhenoMeNa Software and Workflows

More Tutorials



**Figure 2** Screenshot of the PhenoMeNa portal Homepage showing tutorials for PhenoMeNa users.

## 4. DELIVERY AND SCHEDULE

The deliverable is submitted on time.

## 5. CONCLUSION

The consortium has continued to concentrate its efforts on establishing links with the wider scientific community to form a strong user base for the services offered. By offering web-based tutorials to provide essential information of the project, we expect that the PhenoMeNa tools and services will be adapted quickly and efficiently.