DeepOmics, a Digital Environnemental Engineering Platform for Omics data

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DeepOmics, a Digital Environnemental Engineering Platform for Omics data

Context: DeepOmics is an Information System (IS) that meets the needs for 1) storing and querying data from environmental biotechnology processes (such as anaerobic digestion, activated sludge etc...) at the scale of laboratory reactors, pilots or full-scale plants, 2) comparing and cross-referencing these operational data (or metadata) with data characterizing the microbial communities involved and their dynamics, to produce knowledge and 3) promoting the production of FAIR data and the interoperability with EnviBIS (ENVIronmental Biorefinery Information System).
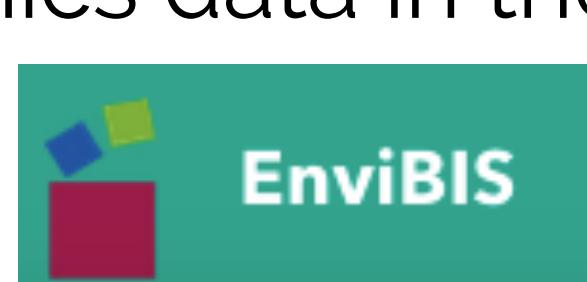
DeepOmics users:
All French academics & their parners upon request
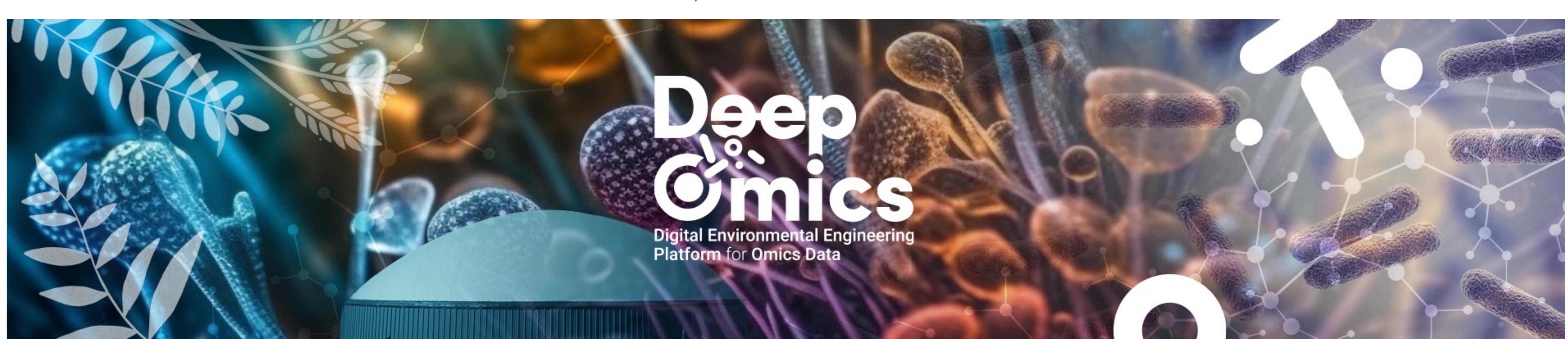
From prototype to today

Upload project metadata from **EnviBIS** to integrate all metaomics data in the repository

FAIR

FAIR Visualize and analyze metagenomics data with **easy16S**

easy16S

In progress

Additional process categories, such as **bioelectrochemical processes**

DeepOmics
Digital Environmental Engineering
Platform for Omics Data

Documentation, user guide and use cases

FAIR
Inter-operability through an open API rest & "semantization" of Symfony entities

Some figures:
28 projects,
45 experiments,
7 mesurement campains,
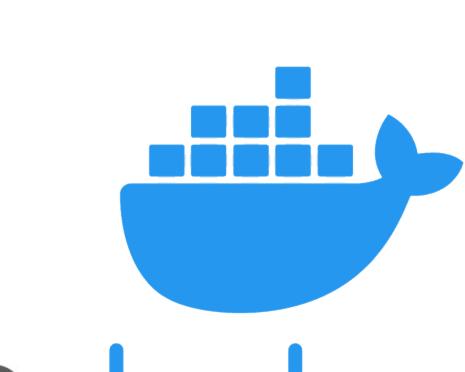446 fastq files,
686 Biosample results

In the future

SOON: Uploading project metadata and fastq sequence files in **ENA** with associated DOI (an IFB collaboration) *FAIR*

Intra- and inter-project **data query module,** to adress biological questions

The system's underlying tech.:

AngularJS   Symfony   PostgreSQL   GitLab docker

Centre
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