



N4U INTRODUCTION

N4U (neuGRID for you) will expand neuGRID services and will outreach to new user communities by providing a web-based gateway to neuroimaging research and by providing users access to the resources they need. While

neuGRID pioneered the lower infrastructural layers and service focusing on Alzheimer's disease, N4U will further develop the infrastructure to meet the needs of broader user communities, expanding its range of users to address other diseases as well. N4U is an FP7-funded project with numerous partners all



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neuGRID4you has received funding from the European Commission's Seventh Framework Programme (FP7/2007-2013) under grant agreement n°283562



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over Europe, Canada and the US.

N4U NEWS

The N4U project has now successfully reached its year one!

Several developments took place since the beginning of the project: the project website is deployed (www.neugrid4you.eu) together with scientific applications on the science gateway and a user board is put in place with active users-members. The management structure of the Specific Support Centre has been identified and the development of services, including the help desk and knowledge base has started, allowing users to interact with the Science Gateway technical staff but also with each other.

SCIENCE GATEWAY

More and more services are currently available in the N4U Science Gateway.

The N4U pipelines are gradually being installed (e.g. Freesurfer, FSL, Civet), seed resources are integrated and installed (e.g. GISELA, LAL), the software repository containing all the necessary packages to install a gateway is ready (available here: <http://repo.maatg.fr/apt>). N4U is exploring expanding to cloud services: meetings were held with a private cloud provider and relevant tests took place. The LONI pipeline workflow management system was migrated into the SHIWA science gateway, thus enabling interoperability among different workflow environments. An analysis base was designed to provide a persistency layer for N4U community together with an index to all external data, which include neuroimaging algorithms, pipelines, image files and data files. This will work as a catalogue to find the location of external data stored on the infrastructure and will help data sharing among the N4U research community.



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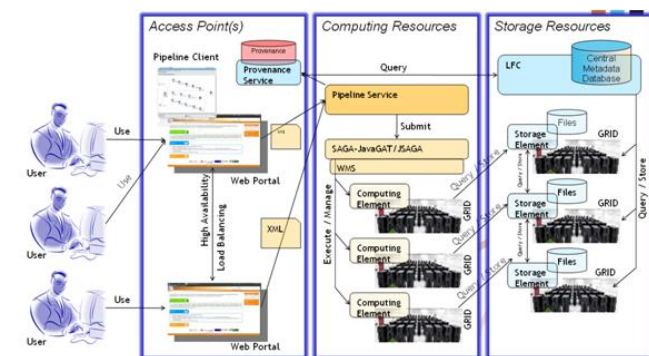


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TRAININGS

Several trainings were organized for N4U users. The N4All manual available (http://neugrid4you.eu/documents/17278/20055/N4all_manual.pdf) following registration at the Science Gateway, is ready to help users explore the N4U Science Gateway.

The Knowledge Base Population currently in place also helps new users explore the platform and receive support. Interactive tutorials are currently being prepared to help users have a real visual experience on two examples of analysis with BrainBrowser and Desktop Fusion.



N4U Architecture

COLLABORATIONS

N4U is continuously exploring collaborations: a cooperation agreement with the DECIDE project (<https://www.eu-decide.eu/>) is under way to continue collaboration based on sharing of applications and data. Collaboration is already in place with EGI/EMI. An article about the LINGA challenge and sharing of resources can be found online <http://cordis.europa.eu/wire/index.cfm?fuseaction=article.Detail&RCN=28167>.

Collaboration discussions are also ongoing with projects Sim-e-Child and French funded CATI project: the former is now fully interoperable with N4U infrastructure, and the latter aims at interfacing its infrastructure with N4U. Collaboration with the CNRS-Supported Life Science Grid Community (LSGC) is also under way, allowing to integrate LSGC tools in the N4U platform. Contacts have also been established with



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representatives from different research communities from the white matter diseases, psychiatry, geriatrics and radiology fields.

years of N4U's computational power.

ANALYSIS CHALLENGE

The N4U Analysis Challenge will demonstrate how N4U handles a relevant and substantial scientific problem by comparing the accuracy and reproducibility of commonly used hippocampus atrophy algorithms. Benchmark results will be made available to N4U users to help them choose which algorithm to use for their research problem. The accuracy and reproducibility benchmarks will also be run on new brain atrophy algorithms as they are made available on N4U again allowing users an easy way to compare the performance of the new algorithms as compared to the established standards. The Analysis Challenge will take about 30 to 40 core

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