

1st Meeting for SP4 of the **Joint Program of Nuclear Materials (EERA)**

CETA-CIEMAT proposed contributions to WP4



Manuel Rubio del Solar

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Needs addressed by SP4 / WP4

- Scientists have reported us the lack of a common resource to be used for knowledge through a given community (e.g. The Radiation Damage group, the Multi Scale Modeling community, etc.)
- This shared entry point could offer access to research resources, applications code, dissemination material and computing power.
- Members of a given community could use it in order to contribute with their own material, to run applications, etc.
- Other members, such as students, new researchers, etc. could access to that shared tool looking for a concrete resource (e.g. A parameters set that configure a concrete Radiation Damage experiment.)

Some existing solutions

- Some tools can be used to cover part of these needs:
 - Resource sharing could be provided by a Content Management Systems.
 - Remote code running is offered by science gateway portals, such as SCI-BUS, Liferay, etc.
 - Code porting, improvement and sharing can be provided by project forges.
- However it does not exist a common portal offering a suite of functions covering all needs of a research community.
- This is the key point in which we play our main role.

What do we propose for the above needs?

A integrated portal for the SP4 - WP4 related community providing:

- ▶ Access to distributed computing infrastructures. The computing power exploitation must be offered in a seamless and easy-to-use way for the non IT user.
- ▶ A web portal for sharing scientific material within a given community.
 - Experiments configurations, research and training material, etc.
- ▶ A complete suite for code running. Applications can be run on cloud mode.
- ▶ Experiments results can be directly represented through the web browser.
- ▶ Federated Authentication, which provides a secure and unique system for users validation. More security is given to the user.
- ▶ Since it is a web-based system, no requirements of additional software are presented.

CETA-CIEMAT Background

- A skilled multi-disciplinary team proficient on IT and Scientific Methods.
- A computing resources infrastructure offering HPC, HTC and GPU models.
- Experience on FP7 projects:
 - EDGeS
 - EDGI
 - EELA2
 - Alice
 - Ibercivis

Thanks for your attention

Contact at:

<http://www.ceta-ciemat.es>

ceta@ciemat.es