

Feedback form for user communities

Dear use case representatives, thanks for your participation to the APARSEN-EGI Community Workshop on Managing, Computing and Preserving Big Data for Research. During the workshop a number of presentations were delivered providing information about services and toolkits for data curation, preservation, data repository certification, data management etc., please refer to the agenda to double check the information provided

(<https://indico.egi.eu/indico/conferenceTimeTable.py?confId=2052#20140304.detailed>).

With this feedback form EGI and APARSEN are collecting expressions of engagement for the establishment of a collaboration with your user community in the areas of:

- Technical services and toolkits,
- training,
- consultancy,
- education,
- business development.

This feedback form allows you to define the specific areas in which your community is willing to engage. Your feedback will be defined to (1) further refine your requirements and (2) define a common work plan.

If you are willing to engage, please specify the areas of interest below.

SUBMISSION DEADLINE: 21 March 2013

Scientific community

[please specify the related projects and the scientific discipline]

The reference programme is the initiative for the preservation of the data produced by the scientific experiments on the International Space Station (ISS) and other space platforms.

The initiative is promoted by Telespazio s.p.a. (the main Italian company for space-based services), CNES and DLR (French and German Space Agencies), with the support of the USOC (network of the European scientific operational centres of ISS) and European Space Agency (ESA).

Scope of the initiative is establishing a data e-infrastructure able to collect and preserve in the long term the data and knowledge generated by the European scientific experiments performed in space on ISS and other space platforms, promoting the exploitation of the data in compliance with the applicable legal constraints and policies.

The ISS is the largest space platform permanently manned and operative in Low Earth Orbit to perform scientific experiments and observations. The ISS programme is a cooperation among USA, Russia, Japan, Europe (ESA member states), Canada and implemented by the respective Space Agencies.

The scientific utilization of the ISS and other space platforms in Europe is mainly managed by ESA within the ESA ELIPS programme. Currently ELIPS involves about 1500 scientists from 16 European countries. ELIPS implements about 40 experiments/year on ISS, 30-35 experiments/year on other platforms and about 30 experiments/year in ground-based facilities. In addition, national research programmes produce other experiments managed by the national space agencies.

Experiments concern most of scientific disciplines; main fields of investigations are Human Physiology and Medicine, Animal and Plant Physiology, Biology, Biotechnology, Condensed Matter Physics, Fluid Mechanics and Combustion, Material Science and Technology.

Contacts

[please specify the people that in your community will be our contact in the collaboration]

Luigi Carotenuto

Telespazio s.p.a. – via E. Gianturco 31 – 80146 Napoli – Italy

phone: +39 081 6042 480; mobile: +39 3483737316

e-mail: luigi.carotenuto@telespazio.com

Data management planning

See presentation: <https://indico.egi.eu/indico/contributionDisplay.py?contribId=30&confId=2052>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
The ISS use case is developing its DMP, in close cooperation with the Space Agencies and the scientists responsible for the experiments that generate the data
- Need of Training/Consultancy/Education: ...
Not envisaged for the ISS use case

OAIS Compliance

See presentation: <https://indico.egi.eu/indico/contributionDisplay.py?contribId=20&confId=2052>
and <https://indico.egi.eu/indico/contributionDisplay.py?contribId=22&confId=2052>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
OAIS compliance either certification are not formally required by the ISS stakeholders.
However, the ISS use case is willing to examine existing tools supporting data archiving in compliance with OAIS, if available, to assess their possible utilization for preserving ISS data.
- Need of Training/Consultancy/Education: ...

Consultancy and/or training for tool utilization might be needed for the ISS use case

Audit and certification of data repositories

See presentation: <https://indico.egi.eu/indico/contributionDisplay.py?contribId=21&confId=2052>, <https://indico.egi.eu/indico/contributionDisplay.py?contribId=31&confId=2052> and <https://indico.egi.eu/indico/contributionDisplay.py?contribId=32&confId=2052>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
Not envisaged for the ISS use case
- Need of Training/Consultancy/Education: ...
Not envisaged for the ISS use case

Persistent ID bridge

See presentation: <https://indico.egi.eu/indico/contributionDisplay.py?contribId=33&confId=2052>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
- The ISS use case needs PI for its digital objects; access to the data is subjected to restrictions and needs to be authorized for each specific experiment and each user; therefore the PI provision has to provide the desired granularity. Being the PI for ISS information still to be assigned, at the moment there are no conflicts to be solved; therefore, bridging between different systems of PI at the moment is not envisaged.
- Need of Training/Consultancy/Education: ...
Not envisaged for the ISS use case

Metadata packaging

See presentation: <https://indico.egi.eu/indico/contributionDisplay.py?contribId=23&confId=2052>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
The ISS use case will develop its own metadata schema and ontology. The ISS use case is willing to examine existing tools supporting metadata packaging, in compliance with OAIS, if available, to assess their possible utilization for supporting metadata ingestion and packaging for ISS information.

- Need of Training/Consultancy/Education: ...
Training for tool utilization might be needed for the ISS use case

Provisioning of data services in the EGI federated cloud

See presentation: <http://www.egi.eu/news-and-media/presentations#fedcloud>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
The ISS use case might use the following services:
User Authentication and Accounting: a user that requires access to ISS proprietary data has to be prior identified and authenticated; successively the user may submit the data access request for evaluation. If authorized by the governance of ISS data, the service will provide the user with an account for data access. Evidence of user identification might be provided to ISS stakeholders upon request.
Secure storage: the ISS use case intends to implement a pilot case of data preservation for ISS; for the purpose of the pilot, some ISS data might be archived on the secure storage; access to data has to be authorized by the ISS data governance; data exchange, upon authorization, has to use encryption.
Other services, as computing, open data, protected data analysis, virtual laboratory could be made available to the scientists upon request.
- Need of Training/Consultancy/Education: ...
Not envisaged for the ISS use case

Data access support

See presentation:

<https://indico.egi.eu/indico/contributionDisplay.py?sessionId=0&contribId=23&confId=2052>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
Access to ISS data has to be authorized; the ISS use case has to make data findable by external users through a description of space experiments and of the domain.
To this purpose the ISS use case intends to develop a knowledge base that will provide an exhaustive description of the experiments, of their scientific domains and of the ISS context. The knowledge base will be accessible over the web and will provide visibility of the existing preserved data.
- Need of Training/Consultancy/Education: ...
Not envisaged for the ISS use case

Data re-use and value proposition

See presentation: <https://indico.egi.eu/indico/contributionDisplay.py?contribId=42&confId=2052>

Requirements

[please specify requirements in each category]

- Do you have a need for this service, and if yes how would you like to apply it to your use case?
The service definition is not clear. The value of the ISS use case stems from making available data and knowledge that otherwise would be totally inaccessible and eventually lost. The provided data and information is relevant for conducting research and possibly supporting education. Data re-use is not envisaged within the ISS use case (which is focused on creation and injection of data and information from on-going experiments), but it represents the goal of the initiative in the medium term.
- Need of Training/Consultancy/Education: ...
Not envisaged for the ISS use case

Value proposition and business planning

See presentation: <https://indico.egi.eu/indico/contributionDisplay.py?contribId=43&confId=2052>

Requirements

This section is key to help justifying WHY you understand implementing DP is a need for your community. Feel free to contact Ruben Riestra (ruben.riestra@grupoinmark.com) if you require additional guidance.

- **Profile of the direct (targeted) beneficiaries.** Who will benefit from the proposed development / deployment of DO practices: Institutions, Researchers, Who else? Please provide any reference or link (own estimation/any publication/statistics) enabling to understand the identification profile/size and behaviours of the communities you want to benefit → [please specify]
The first direct beneficiary of the ISS data initiative are the members of the scientific community, firstly in Europe, performing research in the scientific domains related to the experiments carried out in space.
The second target beneficiary is the group of space agencies managing space research experiments, which will receive support (data, information, tools) for accounting products and productivity of space research.
- **Other potential beneficiaries, beyond the targeted ones.** Who else will be direct or indirectly benefitted: any particular industries and/or well identified sector of the society (please avoid saying all, everybody, etc.) → [please specify]
A first potential beneficiary may be represented by the field of the education and formation; Entities engaged in that domain may use space data and information about space experiments within their courses to set lessons and/or exercises exploiting actual data and space research projects.
A second potential beneficiary may be represented by industrial entities that may exploit space data for developing innovative products or services.

- **Type of impacts.** Please exemplify the most important change(s) enabled by the actual/continuous usage of preserved data/content. As much as possible, map those changes to the beneficiaries described in a) and b) → [please specify]

Scientists and engineers working in science and technology domains in Europe are about 15 millions, according to Eurostat (about 10000 time more than the community presently engaged in space research). Even if a small percentage of this population would access and make use of the preserved information and data, such data re-use would easily increase the scientific return of space experiments.

The main changes enabled by the usage of preserved information would include enlarging the community significantly, stimulating new use of existing data, new proposals of space experiments, increasing cooperation opportunities and knowledge share.

- **Need of Training/Consultancy/Education:** [please specify]