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EXECUTIVE SUMMARY

With the increasing maturity and sophistication of EUDAT's services, additional communities are seeking to apply to become members of the underpinning Collaborative Data Infrastructure (CDI) as data providers, service providers or applications developers. Task 2.3 is focused on developing a Community Integration Toolkit (CIT), a key component in aiding new communities to prepare themselves to participate in the infrastructure and thus grow the adoption of EUDAT's shared services model.

In EUDAT Deliverable D2.3.1: Community Integration Toolkit (initial) we summarised the first steps in the development of the CIT. Like other European infrastructure projects such as the Partnership for Advanced Computing in Europe (PRACE) and the European Grid Initiative (EGI) we concluded that the key components required in the toolkit included, at least a service catalogue, a software repository, service and operational level agreements and a terms of use/ acceptable use policy.

In the interim it has become clear that the elements of the CIT cannot be developed in isolation from the various roles, responsibilities, processes and procedures that underpin the efficient and effective delivery of the services. User service provisioning must be part of an overall service management system (SMS) that oversees a rolling programme of service qualification, monitoring and improvement, using formal good practice service management techniques. In EUDAT Deliverable 2.3.2: Community Integration Toolkit (final) we explored an implementation of an EUDAT SMS within the FedSM¹ framework. The resulting FitSM standard is being developed as a 'lite' version of ITIL² adapted to the delivery of services on federated systems. We developed a number of elements of the CIT within this framework building on current operational processes involving EUDAT partners that:

- develop/ manage data repositories;
- develop EUDAT services that synchronise and exchange, store and share, replicate, stage and find data in repositories;
- provide EUDAT services; and,
- use EUDAT data services.

In this deliverable we report on initial feedback on the capabilities of the CIT in meeting the needs of these various communities. The feedback sought further clarifications which have been addressed in later versions of the underlying Deliverable 2.3.2. The various components of the CIT will be continuously improved as part of an EUDAT SMS which will be deployed in the follow on EUDAT2020 project.

¹ The EU Federated Service Management project and related FitSM standards. See <http://www.fedsm.eu/>.

² ITIL, the IT Infrastructure, a widely accepted best-practice approach to IT service management developed originally by the UK Government. See http://en.wikipedia.org/wiki/Information_Technology_Infrastructure_Library and <http://www.itil-officialsite.com/>

1 INTRODUCTION

The overall purpose of WP2 within EUDAT³ is to ensure the ongoing relevance of the shared services developed during the project. The focus of Task 2.3 is 'To facilitate the integration of additional communities in the guise of data-providers, data-users and resource providers within the federated shared services network created by the project through the development of a Community Integration Toolkit (CIT)'. In Deliverable 2.3.1 we identified that the key components required by the toolkit. These included:

- EUDAT Services Catalogue.
- repository of validated software with training on implementation and optimisation.
- Service Level Agreements which capture the level of services to be delivered to customers.
- Operational Level Agreements governing service delivery within the infrastructure.
- Terms of Use Agreement which capture users' responsibilities.

The deliverable also discussed how different communities could join and leave the CDI.

In EUDAT Deliverable D2.3.2: we argued that the components of the CIT could not be developed in isolation and needed to be integrated into a coherent Service Management System (SMS). We went on to explore a potential implementation of the EUDAT operational processes within the FitSM standard⁴. In Section 2 we summarise very briefly the FitSM approach and how this maps onto the various components of a CIT. In addition we recall the broad-brush capability assessment of where EUDAT is against the FitSM standard.

The main focus of Task 2.4 was initially to undertake pilot case studies to test the feasibility of the protocols and procedures for new community integration. These would enable us to identify potential gaps and assist the closer integration of additional members of the communities already represented in EUDAT as well as demonstrating the potential of membership of EUDAT to new research communities. Given the radical change in focus of deliverable 2.3.2, to look at embedding the CIT within a SMS, there has been less time to pilot an implementation of the CIT per se. Full pilot case studies would ideally require a complete SMS implementation which is a significant task.

However it is worth noting that the feasibility of the protocols and procedures for new community integration has been tested in-depth through the deployment of current operational practices as described in other EUDAT deliverables and on the EUDAT website. This deliverable has developed a questionnaire that explores the degree to which the adoption of a CIT based on an underlying SMS would meet the needs of the various communities. In Section 3 we present a questionnaire sent to the various stakeholders to seek their feedback and in Section 4 we discuss early feedback. In Section 5 we summarise next steps for the CIT and the development of the EUDAT SMS.

³ EUDAT Description of Work: <https://confluence.csc.fi/download/attachments/7602253/DOW+EUDAT+%28283304%29.pdf>

⁴ <http://www.fedsm.eu/>

2 CIT AND FITSM

The CIT needs to be clear as to what services the various stakeholders are expecting to receive and deliver and their consequent roles and responsibilities. These vary according to the participants:

- Users need to abide by an acceptable use policy/ specific licensing conditions, they need access to training and should be active in providing feedback on the current status of services and their future development.
- Data providers need to make sure that they can support access to their users' data via the current CDI service configuration and provide a help-desk to their users for specific queries. Queries relevant to the service provider need to be escalated as appropriate. The data provider needs to contribute to documentation and training on how to access their data and either manage their own documentation or work with EUDAT agreed standards. The Data Providers need to maintain a validated software repository for their specific processes including AAI mechanisms, licence conditions, security response and change management.
- Service providers need to commit to supporting the various CDI components, in particular the good-practice processes captured in the FitSM standard. Work in progress needs to establish the potential effort involved in meeting the various requirements.
- Application/ Technology Developers need to provide validated distributions through appropriate repositories such as github, to ensure consistency across the infrastructure. They need to publish major/ minor/ release plans addressing new functionality/ technology implementations of the application and integration with other B2-services. They need to provide technical help-desk support, bug-fixes and consult users to seek feedback.

In Deliverable 2.3.2: Community Integration Toolkit (final), we concluded that the CIT needs to be built on an effective and efficient Service Management System (SMS). Unsurprisingly, given the complexity of service management provisioning, there has been a lot of work in this area and EUDAT decided to explore the FitSM light-weight standard as it is being developed to support federated system management in similar projects within Europe.

FitSM defines seven classes of *General Requirement for a Service Management System* which include: Top Management Commitment & Responsibility, Documentation, Defining The Scope of Service, Planning Service Management, Implementing Service Management, Monitoring And Reviewing Service Management and Continually Improving Service Management.

The approach taken by FedSM to meet these requirements is rooted in a common approach from IT Service Management: a process model. A process model divides the broad range of activities needed to manage a service into a set of distinct processes, dealing with different aspects of the overall effort. Each process has defined input and outputs, defined roles and connections to other processes. Within FedSM, a process model based on that from the ISO/IEC 20000 standard⁵ is used, although it is compatible with other models such as that from the ITIL framework⁶. FedSM defines fourteen process specific requirements that include: Service Portfolio Management, Service Level Management, Service Reporting, Service Availability & Continuity Management, Service Availability & Continuity Management, Capacity Management, Information Security Management, Customer Relationship Management, Supplier Relationship Management, Incident & Service Request Management, Problem Management,

⁵ ISO/IEC standard on IT service management. See http://en.wikipedia.org/wiki/ISO/IEC_20000

⁶ ITIL , the IT Infrastructure, a widely accepted best-practice approach to IT service management developed originally by the UK Government. See http://en.wikipedia.org/wiki/Information_Technology_Infrastructure_Library and <http://www.itil-officialsite.com/>

Configuration Management, Change Management, Release & Deployment Management and Continual Service Improvement Management. FitSM defines a series of roles and responsibilities that are embedded in the various processes.

In Deliverable 2.3.2, section 4.4, we presented an initial assessment of how well the current operational processes within EUDAT are doing. Overall EUDAT has at least ad-hoc capabilities in all areas with many areas having repeatable and completely defined processes. So the FitSM standard provides a good basis for supporting the development of the Community Integration Toolkit. We also presented a table – reproduced below that showed how the key stakeholders interact with the various processes in the SMS. The major components of the CIT identified in Deliverable 2.3.1 included a service catalogue with a repository of validated software (PR1), various OLAs and SLAs (PR2) and a User Agreement (part of the SLA process). The delivery of these two prime processes to appropriate levels requires the additional twelve processes.

The various stakeholders need to contribute to the FitSM General Requirements which focus on the commitment to a service oriented, process driven approach with monitoring, review and continuous improvement built in. All partners within the Infrastructure need to sign up to the Service Management Plan and contribute as required to reviews of Operational Services and Future Plans. In the following we comment briefly on stakeholders’ interaction with the various Processes Specific Requirements and their relationship with the components of the CIT.

Process	User/ Data Provider	Service Provider	Application/ Technology Developers
PR1: Service Portfolio Management	Involvement in a Service Enabling Team. Inform on future research requirements.	Implement services, inform on future technical options.	Develop with well-defined plans and integrate into well managed services. Services defined in the Service Catalogue Portfolio and software deposited in repository.
PR2: Service Level Management	Define requirements for services that meet the needs of the user community. Users need to sign an Acceptable Use policy/ Terms of Use Agreement and a SLA.	Agreed understanding of the availability of the service and how to access support. Service providers need to sign a SLA with users and an OLA with EUDAT.	Clear description of what functionality will be delivered, when and how it will be supported. Application/ Technology Developers need to sign an ALA with EUDAT.
PR3: Service Reporting	Ensure service meets user requirements. Flags up problems. Reports/ Reviews agreed in SLA.	Monitors efficiency and effectiveness of service delivery – informs problem and release management. Reports/ Reviews agreed in OLA.	Input to feature/ functionality development plans. Reports/ Reviews agreed in ALA.

Process	User/ Data Provider	Service Provider	Application/ Technology Developers
PR4: Service Availability & Continuity		Ensures that the various services are available and that fail-over plans are in place.	Develop services that appear to be homogeneous at Service Providers, independent of local specifics.
PR5: Capacity Management		Ensures that the services can meet the peak/ evolving demands.	
PR6: Information Security Management	Respect terms of use agreement. Protect user data.	Ensures access to a secure infrastructure.	Ensure applications address vulnerability issues.
PR7: Customer Relationship	Builds on PR2 and PR3 which review current service delivery and informs service/ application development.		
PR8: Supplier Relationship Management		Address problems raised in periodic reports and plan changes to improve services as a result of user feedback.	Address problems raised in periodic reports and plan changes to improve functionality/ performance as a result of user feedback.
PR9: Incident & Service Request Management	Respond as per SLA.	Respond as per OLA.	Respond as per ALA.
PR10: Problem Management		Identify recurring incidents and escalate to release and change management processes.	Update development plans as appropriate and issue fixes or initiate release or change management processes.
PR11: Configuration Management		Catalogue the key components/ building blocks for each of the services captured in a validated software repository.	Provide input to the configuration management database.
PR12: Change Management	Data Providers to participate in service enabling team.	Major changes such as the introduction of a new service or a change in the underlying technology are implemented	Participate in service enabling team.

Process	User/ Data Provider	Service Provider	Application/ Technology Developers
		through a service enabling team which includes users and Application/ Technology Developers.	
PR13: Release & Deployment		Build on the change management process to deliver releases that address the requirements expressed through the Change Management process.	
PR14: Continuous Service Improvement Management	Communicate what could be improved in delivery of current services and hoped for developments.	Deliver service improvements.	Deliver applications functionality improvements.

Table 1: FitSM Processes and the CIT

3 CIT/ SMS FEEDBACK QUESTIONNAIRE

The questionnaire in the table below was sent to various members of the EUDAT community to explore how well the implementation of the various components presented in Deliverable 2.3.2 met their needs. The emphasis was on trying to identify gaps.

The questionnaire was sent to the following people:

Role	Organisation
Stefan Zasada	VPH; UCL
Michael Mirtl	LTER; Umweltbundesamt Osterreich
Hannes Thiemann	ENES; DKRZ
Dieter van Uytvanck	CLARIN
Alberto Michelini	EPOS; INGV

Table 2: People consulted for feedback on SMS/ CIT

In the following we refer to sections within the EUDAT Deliverable D2.3.2: Community Integration Toolkit (final). Could you please complete the table below and return the document to richard.blake@stfc.ac.uk by close of play 20th March 2015.

Question	Response
Name:	
Organisation:	
Role:	
User/ Data Provider	
Do the requirements in section 2.2 meet the needs of your community. Are there any gaps, if so what are they?	
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that is useful to you. What additional information would be useful?	
Does the guidance in section 5.2.1 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	
Does the Service Level Agreement in Annex D meet your needs. In particular are the service target levels appropriate? Are there any additional service levels that you would like to see included?	
Are you happy with the Customer (User) responsibilities spelt out in Section D.11?	

Are you happy with the Service Provider's responsibilities spelt out in Section D.10?	
Do you any comments on the User Agreement presented in Annex G.	
Any Other Comments?	
Service Provider	
Can you deliver the activities discussed in Section 2.2 which are needed to support the B2-Services? Are there any gaps and if so what are they?	
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	
Does the guidance in section 5.2.2 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	
Do you have a Service Management System, if so what is it?	
Do your operational processes map easily onto the FitSM processes discussed in Section 4.2? If not – what are the potential problems?	
As a Service Provider into EUDAT, do you agree broadly with the Capability Level Assessment presented in Section 4.3? Are there any areas of significant difference?	
Does the Service Level Agreement presented in Annex D meet your needs? In particular are the service target levels appropriate?	
Are you happy with the Service Provider's responsibilities to customers presented in Annex D.10?	
Does the Operational Level Agreement presented in Annex E meet your needs?	
Are you happy with the Service Provider responsibilities to EUDAT spelt out in Section E.10?	
Are you happy with the EUDAT Operations Coordination Team's responsibilities to you?	

Do you any comments on the User Agreement presented in Annex G?	
Any Other Comments?	
Applications Provider	
Can you deliver the supporting activities discussed in Section 2.2 which are needed to deliver the B2-Services? Are there any gaps and if so what are they?	
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	
Does the guidance in section 5.2.3 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	
Does the Application Level Agreement presented in Annex F meet your needs? In particular are the service target levels appropriate?	
Are you happy with the EUDAT Operations Control Team's responsibilities to you?	
Are you happy with the Application Provider responsibilities to EUDAT spelt out in Section F.10?	
Do you any comments on the User Agreement presented in Annex G?	
Any Other Comments?	
Additional Feedback	
Any further comments?	

Table 3: CIT/ SMS Questionnaire

4 STAKEHOLDER FEEDBACK ON THE EUDAT CDI/ SMS

We received three written responses to the questionnaire and these are provided in Annex A. Other verbal feedback has also been incorporated in the following.

User/ Data Provider

The requirements fit well with what the user communities want.

It would be useful to understand the effort required to use the services and what needs to be done to select services. Once the Service Catalogue has been completed there needs to be a mechanism for users specifying which of the B2-Services the user is requesting.

The development plans in the Service Catalogue entry should include foreseeable changes in the interfaces or functionality. The service owner should perhaps be an institution rather than an individual.

In terms of Data quality, EUDAT would like to see repositories moving towards DSA accreditation.

More information needs to be provided about leaving the CDI. This is actually covered in more detail in the various Service Level, Operational Level and Application Level agreements.

Ownership of the data is not transferred but clearly sufficient rights need to be transferred to support the use of the B2-Services.

The User Agreement could probably be trimmed down a bit. It probably needs to be accepted through an “OK” button as real signatures could act as an obstacle to uptake.

Service Provider

Demonstrating disaster recovery could be a challenge.

The various service levels, say on query response or availability, need to be agreed as does the frequency of monitoring. Users/ Data Providers felt that the targets were perhaps a little low whereas Service Providers thought that they were a little high. It is probably better to start with realistic targets and then tighten them up as the systems bed down.

Application Developer

The user representatives/ data providers want to see clear milestones for the development of new services. This would be helpful in planning the uptake and further integration of services. They would also like to see a more rapid response to queries with higher percentage target levels within the various response time categories.

The timescales for responding to the questionnaire were less than ideal but some useful feedback has been received. This has tended to focus on clarification of detail rather than issues of principle. This summary can be updated as and when we receive further responses. The feedback will be used to inform future iterations of the various elements of the Community Integration Toolkit and the EUDAT Service Management System as part of the EUDAT2020 project.

5 EUDAT CIT AND SMS – NEXT STEPS

The components of the FitSM standard provide a very coherent starting point for meeting the needs for integrating the various user/ data developer, applications developer and service provider stakeholders within the ever expanding EUDAT community. Feedback from the various participants within the EUDAT project has been limited to data but not unpositive.

In terms of next steps EUDAT could:

- Embrace the FitSM standard as policy.
- Build on EUDAT Deliverable 2.3.2: Community Integration Toolkit (final) to develop more detailed processes and procedures that address the FitSM standard.
- Undertake an assessment of the various stakeholders' current capabilities and define what level of SMS maturity that it wants to deliver.
- Embed the Community Integration Toolkit within the SMS.
- Develop a wiki presence to support the SMS/ CIT.
- Implement plans to improve the service to reach the required level of maturity.

It is worthwhile reflecting that the EUDAT project has been very successful in growing both its applications portfolio, the number of communities served and the number of service providers. It has had a very promising start and as it enters its second phase it has a very good initial service management system on which to build.

ANNEX A. RESPONSES

A.1. Hannes Thiemann

Question	Response
Name:	Hannes Thiemann
Organisation:	DKRZ
Role:	Data manager
User/ Data Developer	
Do the requirements in section 2.2 meet the needs of your community. Are there any gaps, if so what are they?	Costs from a user perspective? Does a “selection of services” imply that I can choose only some of them?
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that is useful to you. What additional information would be useful?	“Development plans”: are there any foreseeable changes in the interfaces and or functionalities. Instead of naming individuals it is required to name the institution which is responsible.
Does the guidance in section 5.2.1 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	I believe it is not yet decided if DSA is declared to be the only acceptable certification. In 5.2.1. there is nothing on “leaving” the CDI.
Does the Service Level Agreement in Annex D meet your needs. In particular are the service target levels appropriate? Are there any additional service levels that you would like to see included?	D.1. You say the ownership is not transferred. Are there any rights granted at all? For public (meta)data B2FIND needs the right to access, map, share and distribute them. What is P1/2/3? It is risky to define the hours to solve a query. I would propose to leave this out. D.8.2. Is it monthly or 6-monthly? From a user perspective I would like to have the disaster recovery being demonstrated by the providers. From a provider perspective this is a nightmare. Do we want this?
Are you happy with the Customer (User) responsibilities spelt out in Section D.11?	yes
Are you happy with the Service Provider’s responsibilities spelt out in Section D.10?	As service provider: “should monitor the performance of the services against the target levels on a monthly basis” is quite often

Do you any comments on the User Agreement presented in Annex G.	Don't have time to read it in detail. From a user perspective it is rather long. Signing those if, for example, I only want to use b2share for a single file or b2find seems to be a bit overshooting.
Any Other Comments?	
Service Provider	
Can you deliver the activities discussed in Section 2.2 which are needed to support the B2-Services? Are there any gaps and if so what are they?	Most of it does not apply to us. In general we could deliver,
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	From a provider perspective I would like to have information on usage patterns in advance.
Does the guidance in section 5.2.2 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	Not all the items are necessary for all services. This seems to be b2safe-biased. No information on leaving the CDI.
Do you have a Service Management System, if so what is it?	No
Do your operational processes map easily onto the FitSM processes discussed in Section 4.2? If not – what are the potential problems?	Sorry, too long to read.
As a Service Provider into EUDAT, do you agree broadly with the Capability Level Assessment presented in Section 4.3? Are there any areas of significant difference?	Can't tell.
Does the Service Level Agreement presented in Annex D meet your needs? In particular are the service target levels appropriate?	Issues may be with office hours and time to solve issues. Reporting is demanding (really required?).
Are you happy with the Service Provider's responsibilities to customers presented in Annex D.10?	yes
Does the Operational Level Agreement presented in Annex E meet your needs?	Sometime very confusing: is it about OLA or SLA? No time to read in detail.
Are you happy with the Service Provider responsibilities to EUDAT spelt out in Section E.10?	yes
Are you happy with the EUDAT Operations Coordination Team's responsibilities to you?	Too early to tell, has to be defined which of the responsibilities are applicable.

Do you any comments on the User Agreement presented in Annex G?	Same comment as already made earlier in this doc.
Any Other Comments?	
Applications Provider	No opinion on this
Can you deliver the supporting activities discussed in Section 2.2 which are needed to deliver the B2-Services? Are there any gaps and if so what are they?	
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	
Does the guidance in section 5.2.3 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	
Does the Application Level Agreement presented in Annex F meet your needs? In particular are the service target levels appropriate?	
Are you happy with the EUDAT Operations Control Team's responsibilities to you?	
Are you happy with the Application Provider responsibilities to EUDAT spelt out in Section F.10?	
Do you any comments on the User Agreement presented in Annex G?	
Any Other Comments?	
Additional Feedback	
Any further comments?	

A.2. Alberto Michelini

Question	Response
Name:	Alberto Michelini
Organisation:	INGV
Role:	Research Director and currently Director of the National Earthquake Center

User/ Data Developer	User and data producer
Do the requirements in section 2.2 meet the needs of your community. Are there any gaps, if so what are they?	The requirements fit nicely with what the communities seek. Note that some communities may have not even addressed some of the issues listed.
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that is useful to you. What additional information would be useful?	I think it is very good.
Does the guidance in section 5.2.1 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	Yes, I think this is very good.
Does the Service Level Agreement in Annex D meet your needs. In particular are the service target levels appropriate? Are there any additional service levels that you would like to see included?	Yes. Please note that the links to the EUDAT Central Monitoring System do not work.
Are you happy with the Customer (User) responsibilities spelt out in Section D.11?	Yes. It is fine.
Are you happy with the Service Provider's responsibilities spelt out in Section D.10?	Yes.
Do you any comments on the User Agreement presented in Annex G.	Not really.
Any Other Comments?	No
Service Provider	
Can you deliver the activities discussed in Section 2.2 which are needed to support the B2-Services? Are there any gaps and if so what are they?	N/A
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	N/A
Does the guidance in section 5.2.2 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	N/A
Do you have a Service Management System, if so what is it?	N/A

Do your operational processes map easily onto the FitSM processes discussed in Section 4.2? If not – what are the potential problems?	N/A
As a Service Provider into EUDAT, do you agree broadly with the Capability Level Assessment presented in Section 4.3? Are there any areas of significant difference?	N/A
Does the Service Level Agreement presented in Annex D meet your needs? In particular are the service target levels appropriate?	N/A
Are you happy with the Service Provider’s responsibilities to customers presented in Annex D.10?	N/A
Does the Operational Level Agreement presented in Annex E meet your needs?	N/A
Are you happy with the Service Provider responsibilities to EUDAT spelt out in Section E.10?	N/A
Are you happy with the EUDAT Operations Coordination Team’s responsibilities to you?	
Do you any comments on the User Agreement presented in Annex G?	
Any Other Comments?	
Applications Provider	
Can you deliver the supporting activities discussed in Section 2.2 which are needed to deliver the B2-Services? Are there any gaps and if so what are they?	As community representative providing services already, it is important that the development of new services has clear milestones. I think that it is fine as presented.
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	Yes, very helpful.
Does the guidance in section 5.2.3 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	No , I think that as presented is good.
Does the Application Level Agreement presented in Annex F meet your needs? In particular are the service target levels appropriate?	Yes it does meet our needs. Yes, they seem OK although I would have preferred slightly higher percentage to “Response to general and user based queries” (e.g., “Time to solve ticket -> 240 hours” 80% would be nice to have it higher, e.g., 90%)

Are you happy with the EUDAT Operations Control Team's responsibilities to you?	Yes. Very much.
Are you happy with the Application Provider responsibilities to EUDAT spelt out in Section F.10?	Yes.
Do you any comments on the User Agreement presented in Annex G?	No.
Any Other Comments?	No
Additional Feedback	
Any further comments?	I think that all this must be tested with new communities adopting the EUDAT CDI and see if the whole machine works.

A.3. Dieter van Uytvanck

Question	Response
Name:	Dieter van Uytvanck
Organisation:	CLARIN
Role:	Technical Director, EUDAT community contact
User/ Data Developer	
Do the requirements in section 2.2 meet the needs of your community. Are there any gaps, if so what are they?	I find it rather difficult to relate the very conceptual and abstract wording of section 2.2 with our concrete community requirements. I suppose it matches however.
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that is useful to you. What additional information would be useful?	Yes. Re development plan: exactly timed milestones would be helpful to plan the uptake/further integration of the services.
Does the guidance in section 5.2.1 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	Yes, they meet our needs.
Does the Service Level Agreement in Annex D meet your needs. In particular are the service target levels appropriate? Are there any additional service levels that you would like to see included?	Looks OK, although 95% for the B2-services availability is not extremely ambitious (CLARIN starts with 97.5% for it's A-services) However, it's probably better to start with a realistic goal and perform better than the other way around.

Are you happy with the Customer (User) responsibilities spelt out in Section D.11?	Largely yes. I suppose “The customer shall ensure that all users sign a Terms of Use agreement (see Annex G) for access to the EUDAT Collaborative Data Infrastructure.” means clicking on an OK button somewhere, as real-life signatures would threaten uptake.
Are you happy with the Service Provider’s responsibilities spelt out in Section D.10?	Yes
Do you any comments on the User Agreement presented in Annex G.	No
Any Other Comments?	No
Service Provider	
Can you deliver the activities discussed in Section 2.2 which are needed to support the B2-Services? Are there any gaps and if so what are they?	
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	
Does the guidance in section 5.2.2 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	
Do you have a Service Management System, if so what is it?	
Do your operational processes map easily onto the FitSM processes discussed in Section 4.2? If not – what are the potential problems?	
As a Service Provider into EUDAT, do you agree broadly with the Capability Level Assessment presented in Section 4.3? Are there any areas of significant difference?	
Does the Service Level Agreement presented in Annex D meet your needs? In particular are the service target levels appropriate?	
Are you happy with the Service Provider’s responsibilities to customers presented in Annex D.10?	
Does the Operational Level Agreement presented in Annex E meet your needs?	

Are you happy with the Service Provider responsibilities to EUDAT spelt out in Section E.10?	
Are you happy with the EUDAT Operations Coordination Team’s responsibilities to you?	
Do you any comments on the User Agreement presented in Annex G?	
Any Other Comments?	
Applications Provider	
Can you deliver the supporting activities discussed in Section 2.2 which are needed to deliver the B2-Services? Are there any gaps and if so what are they?	
Does the Service Catalogue/ Portfolio description template in Annex B capture the sort of information that will be useful to you in delivering the B2-services. What additional information would be useful?	
Does the guidance in section 5.2.3 on Joining and Leaving the CDI meet your needs. Are there any gaps, if so what are they?	
Does the Application Level Agreement presented in Annex F meet your needs? In particular are the service target levels appropriate?	
Are you happy with the EUDAT Operations Control Team’s responsibilities to you?	
Are you happy with the Application Provider responsibilities to EUDAT spelt out in Section F.10?	
Do you any comments on the User Agreement presented in Annex G?	
Any Other Comments?	
Additional Feedback	
Any further comments?	

ANNEX B. GLOSSARY

AAA	Authentication, Authorization and Accounting
AAI	Authentication and Authorization Infrastructure
AUP	Acceptable Use Policy
AuthN	Authentication – the process of identifying an entity by means of a credential that the entity is exposing via a secure mechanism
AuthZ	Authorization – the process of granting access to a service
Availability	of a service over a given period is defined as the fraction of time the same was UP during the known interval in the given period.
Backend Storage	The Backend Storage (or Local Long Term Archive, i.e., Local LTA) includes storage technologies (e.g. dCache) and hardware (e.g. tapes, disks) but also file systems (e.g. GPFS). Closely related is also the network interconnectivity to these elements that should not be forgotten.
Bit-stream preservation	This form of preservation is concerned with the maintenance of existing manifestations of a digital resource. Its function is to ensure the continuing integrity of, and controlled access to, the digital objects which are contained within the preservation storage environment, including their associated metadata. It is sometimes referred to as passive preservation contrary to the “content preservation”.
B2FIND	Brand of the EUDAT Joint Metadata Service
B2SAFE	Brand of the EUDAT Safe Replication Service
B2SHARE	Brand of the EUDAT Simple Store Service
B2STAGE	Brand of the EUDAT Data Staging Service
Capability	is the ability of an IT Service to carry out an activity. Service providers are registered according to their ability to provide the B2-service and Operational service suite of processes. Examples of functional Capability are user management, authentication and authorization, and job submission. Examples of non-functional capabilities are messaging, accounting, and monitoring.
Confidentiality	Ensuring that information is accessible only to those authorized to have access and is protected throughout its lifecycle.
CDI	EUDAT Collaborative Data Infrastructure
CERT	Computer Emergency Response Team
CIT	Community Integration Toolkit

CLARIN	Common Language Resources and technology Initiative. An ESFRI project in the Social Sciences and Humanities domain.
CMS	Content Management System
COBIT	Control Objectives for Information and Technology
CROWD	Centralized Identity Management solution from Atlassian
CSIRT	Computer Security Incident Response Team
Curation	Provision of domain-dependent contextual support for permanent access to the meaning of data – including metadata, lexica, etc
Curation and Preservation	The process of ensuring that data can be re-used over time.
Data	Information received, preserved and communicated by the Service Provider. They can include data and metadata.
DoW	Description of work – usually the EUDAT description of work is meant.
DSA	Data Seal of Approval – http://www.datasealofapproval.org
EB	EUDAT Executive Board
EGI	European Grid Initiative
ENES	European Network for Earth System Modelling
EPIC	European Persistent Identifier Consortium http://www.pidconsortium.eu
EPOS	European Plate Observing System. An ESFRI project in the Environmental Sciences domain.
EUDAT	European Data Project
FedSM	Federated Storage Management project
FitSM	Standard for lightweight service management in federated IT infrastructures
FP7	Seventh Framework Program
HPC	High Performance Computing
ICT	Information and communication technologies
Incident	Unplanned disruption of operation in a service or degradation of service quality (versus the expected or agreed level of operation according to Service Level Agreements).
Integrity	Quality of being bit stream of data being complete and unaltered.
iRODS	Integrated Rule-Oriented Data System http://www.irods.org

ISO	International Organization for Standardization
IPR	Intellectual Property Right
ITIL	Information Technology Infrastructure Library
ITSM	Information Technology Service Management
Key performance indicator (KPI)	Metric that is used to track the performance, effectiveness or efficiency of a service or process. Note: KPIs are generally important metrics that will be aligned to critical success factors and important goals. KPIs are therefore a subset of all possible metrics, intended to allow for monitoring and correcting/improving the effectiveness and/or efficiency of a system or process.
Operations Coordination Team (OCT)	Oversees services that are provided to EUDAT by the Service Providers and the Applications/ Technology developers, in collaboration of its EUDAT partners. The SRO chairs the Team. These services include security, monitoring, authorisation, access and identity.
OLA	Operational Level Agreement between a service provider or federation member and another part of the service provider's organisation or the Federation to provide a service Component or subsidiary service needed to allow provision of services to Customers
PID	Persistent Identifier
PM	EUDAT Project Manager
PMO	EUDAT Project Management Office
Policy	Documented set of intentions, expectations, goals, rules and requirements, often formally expressed by top management representatives in an organisation or federation. Note: Policies are then realised in processes, which are in turn made up of procedures that people carry out.
PRACE	Partnership for Advanced Computing in Europe
Preservation	Provision of generic support for permanent access to 'physical' data – the bits and bytes – including storage, replication, provenance, etc
Problem	The underlying cause of one or more incidents. Problem is the cause of one or more Incidents. Problem management can feed through to change management and subsequent release management processes.
Procedure	Specified set of steps or instructions to be carried out by an individual or team to perform one or more activities of a process. Note: For example, a procedure called "maintain service catalogue" may cover the steps to be carried out to perform the activities of adding, changing or removing services in/from the service catalogue. Alternatively, separate procedures for adding a service, changing a service or removing a service may be defined.
QA	Quality assurance

QoS	Quality of Service
RI	Research Infrastructure
Reliability	of a service over a given period is defined as the ratio of the time interval it was UP over the time interval it was supposed (scheduled) to be UP during the known interval in the given period
Response time	Means the amount of time elapsed between the initial submission to the support through the agreed escalation mechanism and the first response indicating that the ticket has been taken in charge.
Resource Coordination Tool (RCT)	Administrative solution to handle the Resource Provisioning management. The solution is based on a database with a web front-end where service providers can enter resource requests, resource queries can be done, and site administrators can manage the information about their provided resources. This platform is also referred as Resource Coordination Tool or RCT.
Risk	Possible negative occurrence that would impact the service or service provider. Note: Risk is made up of the probability of the threat entailed, the vulnerability to that threat of some asset, and the impact the threat would have, if it occurred.
Role	Set of responsibilities, connected behaviours or actions collected into a logical unit that can be assigned to an individual, team or group. Note: An individual may have multiple roles.
RP	Resource Provider: an organizational instance that provides maintains and operates processing, storage and network resources at a site.
RT	Request Tracker, commonly abbreviated to RT, is a ticket-tracking system written in Perl used to coordinate tasks and manage requests among a community of users.
SAF	EUDAT Services and Architectural Forum
Service hours	An agreed time period when a particular Service should be Available.
SCI	A Trust Framework for <i>Security</i> Collaboration among <i>Infrastructures</i>
Senior Responsible Owner	The Senior Responsible Owner (SRO) leads EUDAT Operations, and is responsible for coordinating the operations of the infrastructure across the project. The SRO is responsible for the enforcement of the EUDAT Service Level Agreements, Operational Level Agreements and Application Level Agreements.
Service	A way to Provide value to a user/customer through bringing about results that they want to achieve. Note: Services provide value when taken on their own (unlike the components they are made up of). For instance, for a hotel customer the room cleaning is not a service as it provides value only if you are using the larger service of staying in the hotel.

Service catalogue	User/customer facing list of all live services offered along with relevant information about these services. Note: The service catalogue can be regarded as a filtered version of the service portfolio that is offered to customers/users.
Service Customer	Either the users of a service or a data provider supporting a community of users.
SLA	Service Level Agreement between a customer and service provider that specifies the service to be provided and the service targets that define how it will be provided.
Service management plan	Overall plan for implementing and operating a service management system.
Service management system (SMS)	Overall management system that controls and supports management of services within an organisation or federation.
Service Provider	Service Provider: a person, team or organizational instance in charge of deploying, maintaining and operating (providing) a service on top of resources provided by a resource provider (RP). A service provider does not necessarily provide the resources which are used. However, after a deployment and pre-production phase, services can be handed over to service operators at the centres which are providing the resources. In this case, Service and Resource Provider are located at the same site.
Service portfolio	Internal list that details all the services offered by the service provider (those in preparation, live and discontinued). Note: The service portfolio includes meta-information about services such as their value proposition, target customer base, cost and price, risk to the provider, service level agreements offered and operational level agreement supporting them.
Service Owner	A person who is in charge of coordinating the timely provisioning of requested services.
SVN	Subversion – a version control system http://subversion.apache.org
Support hours	An agreed time period when support for a particular service should be Available.
TTS	Trouble Ticket System
VO	Virtual Organisation