

## **D3.1: Stakeholder Analysis & Communication and Training Strategy**

Author(s)	Hilary Hanahoe (Trust-IT), Sara Garavelli (Trust-IT), Rene van Horik (DANS)
Status	Final
Version	v1.0
Date	31/08/2015

Abstract: This document presents the outline of the stakeholders targeted by EUDAT, defining different potential levels of engagement and outlining the different communication and outreach plans for each stakeholder, including details of the training programme, action plans and implementation steps. Detailed KPIs and metrics will be provided to monitor the effectiveness of the plan.



Document identifier: EUDAT2020-DEL-WP3-D3.1	
Deliverable lead	TRUST-IT
Related work package	WP3
Author(s)	Hilary Hanahoe (Trust-IT), Sara Garavelli (Trust-IT), Rene van Horik (DANS)
Contributor(s)	Genet Edmonson (SNIC), Hege van Dijke (LIBER), Marieke Polhout (DANS)
Due date	31/07/2015
Actual submission date	31/08/2015
Reviewed by	Daan Broeder (CLARIN) and Giuseppe Fiameni (CINECA)
Approved by	PMO
Dissemination level	PUBLIC
Website	www.eudat.eu
Call	H2020-EINFRA-2014-2
Project Number	654065
Start date of Project	01/03/2015
Duration	36 months
License	Creative Commons CC-BY 4.0
Keywords	EUDAT stakeholders, researcher, research community & research infrastructure engagement, communication and outreach, EUDAT and B2 service training, data lifecycle, KPIs and metrics

*Copyright notice:* This work is licensed under the Creative Commons CC-BY 4.0 licence. To view a copy of this licence, visit <https://creativecommons.org/licenses/by/4.0>.



*Disclaimer:* The content of the document herein is the sole responsibility of the publishers and it does not necessarily represent the views expressed by the European Commission or its services.

While the information contained in the document is believed to be accurate, the author(s) or any other participant in the EUDAT Consortium make no warranty of any kind with regard to this material including, but not limited to the implied warranties of merchantability and fitness for a particular purpose.

Neither the EUDAT Consortium nor any of its members, their officers, employees or agents shall be responsible or liable in negligence or otherwise howsoever in respect of any inaccuracy or omission herein.

Without derogating from the generality of the foregoing neither the EUDAT Consortium nor any of its members, their officers, employees or agents shall be liable for any direct or indirect or consequential loss or damage caused by or arising from any information advice or inaccuracy or omission herein.



## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>1. COMMUNICATION AND OUTREACH .....</b>	<b>6</b>
1.1. Objectives .....	6
1.2. EUDAT Stakeholders Analysis, Communication Strategy and Plans.....	6
1.3. Research, e-Infrastructures and Data Centres .....	8
1.4. Research Communities .....	11
1.5. Researchers .....	12
1.6. Secondary Stakeholders .....	13
<b>2. HORIZONTAL COMMUNICATION TOOLS .....</b>	<b>15</b>
2.1. EUDAT Website (www.eudat.eu) .....	15
2.2. EUDAT Working Group Support .....	16
2.3. EUDAT Legal Web App.....	16
2.4. Social Networks .....	16
2.5. Press and Media Channels.....	16
2.6. Event Participation .....	17
2.7. Communication Database .....	18
2.8. Audio Visuals .....	18
2.9. Position Papers .....	19
2.10. EUDAT Conference .....	19
2.11. Communication Material.....	19
2.12. EUDAT Terminology Database.....	20
2.13. EUDAT Internal Communication.....	20
2.14. Communication and Outreach Strategy Key Performance Indicators (KPIs) .....	20
2.15. Communication and Outreach Strategy Timing .....	21
<b>3. EUDAT TRAINING STRATEGY .....</b>	<b>22</b>
3.1. Summary.....	22
3.2. Training Abstract .....	22
3.3. Training Glossary .....	23
3.4. Introduction.....	23
3.5. The Data Lifecycle.....	23
3.6. Target Groups .....	24
3.7. EUDAT Services.....	25
3.8. Training Matrix .....	25
3.9. Training Components .....	26
3.10. Register of Training Components .....	27
3.11. Organisation of Training Events .....	27
3.12. Planning and Resources.....	28
3.13. Performance Indicators .....	30

## LIST OF FIGURES

Figure 1: EUDAT www.eudat.eu home page screenshot .....	15
Figure 2: DataONE data lifecycle .....	24
Figure 3: EUDAT B2 Services mapped (approximately) mapped to the DataONE data lifecycle model .....	24
Figure 4: Training activities and their relation with other EUDAT WPs .....	28



## LIST OF TABLES

Table 1: EUDAT offer and primary stakeholder overview .....	8
Table 2: Research and e-Infrastructures targeted.....	9
Table 3: Research, e- infrastructures and Data Center engagement tools and expected impact .....	11
Table 4: Research community engagement tools & expected impact.....	12
Table 5: Researcher engagement tools & expected impact.....	13
Table 6: EUDAT media channel sample.....	17
Table 7: EUDAT Event Participation Sample.....	18
Table 8: EUDAT promotional material.....	20
Table 9: EUDAT Dissemination and Communication Key Performance Indicators.....	20
Table 10: Training Matrix.....	26
Table 11: Allocation of resources in relation to the activities carried out in the EUDAT training task.....	29
Table 12: Preliminary List of training events .....	30



## EXECUTIVE SUMMARY

The purpose of work package 3 — Communication, Training, and Outreach — is to raise awareness of EUDAT and its offer, focusing its activities on creating an international, multi-disciplinary user base to showcase EUDAT offer, provide high-level training and manage internal communications and messaging ensuring all members of the consortium have the correct messages and tools to effectively promote the offer.

Through its first project phase (2011–2014), EUDAT has laid the foundations of the European CDI as a *network of collaborating, cooperating centres, combining the richness of numerous community-specific data repositories with the permanence and persistence of some of Europe's largest scientific data centres*. Together, these actors developed a first set of common services for accessing and preserving research data, addressing the needs of a broad range of users, from small and medium size scientific communities, to larger scientific organisations.

During this three year period, EUDAT will evolve the Collaborative Data Infrastructure (CDI) as a healthy, vibrant and self-sustaining data-infrastructure for Europe.

**This CDI will primarily engage research communities in Europe and offer a wide range of data services to support existing European research infrastructures and researchers from all disciplines.**

It is important to emphasize that EUDAT operates in a **European landscape** of developing or already existing data infrastructures, and it is fundamental to engage with these entities by providing strong data infrastructure components and generic services on which they can rely to build up their data strategy and e-infrastructure capacity.

EUDAT's interaction with research communities is coordinated by WP4 (Community Requirements and Engagement). WP3 will support WP4 in the engagement with communities and help to regularly synchronize such communication across the WPs. The policy and sustainability activities performed by WP2 (Service Strategy, Policy and Sustainability) will be supported and disseminated through a series of outreach activities coordinated by WP3. Given the external focus of WP7 (Cross-Infrastructure Services), support in communicating and disseminating activities and achievements in this area will be closely agreed and implemented between WP3 and WP7. Given the core importance of WP5 (Service Building) and WP6 (Operations), naturally the outputs and developments in both of these WPs will be central to the regular communication of the updates and progress of the EUDAT initiative to the target stakeholders.

**Communication, training and outreach activities will support the realization of this by using the SMART approach, which is based on specific, measurable, achievable, relevant and timely objectives, where “measurable” refers to the KPIs used to gauge impact, as explained in subsequent sections.**

EUDAT has set highly ambitious targets for this second phase of the initiative, to which effective implementation of communication, outreach & training activities will contribute immensely. These include 5,000 researchers actively using EUDAT services and engaging with 50 research communities. These measurable targets will be evidenced in the reports.

To achieve these and other objectives, this deliverable provides an outline of the stakeholders targeted by EUDAT, defining different potential levels of engagement and outlining the different communication and outreach plans for each stakeholder, including details of the training programme, action plans and implementation steps. Detailed KPIs and metrics have been provided to monitor the effectiveness of the plan.

This document is divided into two main parts, one focusing on the dissemination, communication and outreach strategy and plans with the other focusing on the training strategy and plans. Both strategies, while closely linked and synchronised, will be planned and executed as two separate strategies with their own individual timing and key performance indicators.



# 1. COMMUNICATION AND OUTREACH

## 1.1. Objectives

Two of the three tasks in this work package are dedicated to directly performing Communication and Outreach activities:

- *Task 3.1 Communication, Outreach and Events* with three subtasks focusing on Communication & Outreach Strategy & Tools, Strategic & Targeted Content Generation and EUDAT & Third Party Events;
- Task 3.3 focusing on EUDAT's Digital Presence in terms of the Web Platform & App as well as the Graphic Design, branding and visuals. Task 3.3 is also closely linked to the Training activities (task 3.2) covered in detail in Section 4 of this deliverable.

Specific Communication and Outreach objectives are to:

- ensure high visibility of the project among its key stakeholders through the management and use of appropriate communication channels;
- stimulate the uptake and use of the EUDAT services;
- design specific actions aimed at building an international community in the area of data services;
- ensure that all project partners can identify and understand the information needs of specific target audiences.

## 1.2. EUDAT Stakeholders Analysis, Communication Strategy and Plans

Building on the collaborative model adopted in the previous project, together with the offer in terms of data services, training and consultancy, EUDAT has started its second phase by analysing and identifying its target primary and secondary stakeholder groupings to define tangible communication and outreach and training activities to ensure regular and close engagement with them. Interaction with each group will have different levels of priority, activities and outputs, examples of which are provided below.

**EUDAT will engage and mobilize the following target stakeholders: research & e-Infrastructures & data centres, research communities, researchers, data managers & librarians, international/European/national/regional funding agencies, policy makers.**

EUDAT has, since its inception, been working on the principle that the *research communities should be in the driving seat* for selecting the main services, but are also directly participating in the design and development of the services, as part of multi-disciplinary task forces. This active involvement increases the likelihood of a broader uptake of the developed services, as they are made available.

**KEY (PRIMARY) EUDAT STAKEHOLDERS are research & e-Infrastructures & data centres, research communities, researchers.**

### 1.2.1. EUDAT Offer and Primary Stakeholder Overview

The table below gives an overview of the EUDAT offer and to which stakeholder group it applies. In the interest of streamlining the communication activities with those of training and community engagement (WP4), the “customer” or end user has been classified. These four (Individual Researchers, Community manager, Data Project Principle Investigator (PI), Service provider) cover the different end users in each of our three stakeholder groups. Eventual additional end users will be included. The messaging and communications will also evolve from macro (research & e-Infrastructures & data centres, research communities, researchers) to micro (Individual Researchers, Community manager, Data Project Principle Investigator (PI), Service provider) over the lifetime.



Overall, while fine tuning the messages and tailoring to the stakeholder / end user, the main offer is related to the B2Service suite as outlined in the matrix below:

Service Name	Description	Category	Research & e-Infrastructures & data centres, research communities, researchers stakeholder “customer”			
			Individual Researchers	Community manager	Data Project Principle Investigator (PI)	Service provider
B2SAFE	B2SAFE is a robust, safe and highly available service which allows community and departmental repositories to implement data management policies on their research data across multiple administrative domains in a trustworthy manner.	Data objects management including replication		x		
B2SHARE	B2SHARE is a user-friendly, reliable and trustworthy way for researchers, scientific communities and citizen scientists to store and share small-scale research data from diverse contexts.	Data objects publishing and registration	x	x		
B2DROP	B2DROP is a secure and trusted data exchange service for researchers and scientists to keep their research data synchronized and up-to-date and to exchange with other researchers.	Data deposit and sharing	x	x		
"Metadata Catalog (under development)"	The Metadata Catalog is the service for managing descriptive meta-data associated to registered data object.	Data description		x		
B2FIND	B2FIND is a simple, user-friendly metadata catalogue of research data collections stored in EUDAT data centres and other repositories.	Data discovery	x	x		
B2STAGE	B2STAGE is a reliable, efficient, light-weight and easy-to-use service to transfer research data sets between EUDAT storage resources and high-performance computing (HPC) workspaces.	Data transfer	x	x		



B2HANDLE	B2HANDLE is the distributed services managing the provisioning of PIDs and namespaces.	Reference Registration	X (resolution, resolving)	X (registering PIDs and namespaces)		x
B2ACCESS	B2ACCESS is the central user identification service regulating access to services through a fine-grained control mechanism. It represents the (AAI) front-end to other EUDAT services.	Central Authentication Service supporting multi credentials	x	x	x	x
B2HOST	B2HOST is framework providing communities and researches the capability to deploy and operate their own applications and data-oriented services on machines next to the data storage location.	Cloud Platform	x	x		

Table 1: EUDAT offer and primary stakeholder overview

EUDAT has representatives from national data centres, supercomputing centres (e.g., BSC, CSC), scientific and research communities (ENES, etc.), inside the consortium and those coupled with close engagement and synergies with Research Infrastructures (e.g., CLARIN, U2CONNECT) and e-infrastructures (e.g., EGI.eu, GEANT, PRACE, XSEDE) will guarantee achievement of the measureable goals and KPIs.

**SECONDARY STAKEHOLDERS: data managers & librarians, international/European/national/regional funding agencies and policy makers.**

The following paragraphs detail engagement plans for each of the EUDAT stakeholder groups.

### 1.3. Research, e-Infrastructures and Data Centres

Research & e-Infrastructures and data centres (including repositories) have a high EUDAT priority due to the fact that EUDAT provides services and expertise to support these stakeholders to carry out their tasks effectively. In essence, they are formally structured with the capacity to join the EUDAT CDI and benefit from the EUDAT offer.

The EUDAT consortium includes direct representation and involvement of 7 active research infrastructures in the areas of social sciences and humanities (CLARIN), earth and atmospheric science (EPOS, ICOS), climate science (ENES), biodiversity (LTER), and life sciences (VPH, ELIXIR,).

Additionally, activity in WP7 dedicated to interaction with other e-infrastructures (namely, EGI, GEANT, HELIX NEBULA, OPENAIRE, PRACE, RDA) will be supported by WP3 in terms of content generation, EUDAT and third-party event support, training activities, etc.

In terms of research and e-Infrastructures, the table below outlines the targets with whom EUDAT will continue to interact (based on different levels of engagement in phase I) or with whom it will establish collaboration and engagement. This is a non-exhaustive list:<sup>1</sup>

<sup>1</sup> Details of the new CoE and VRE initiatives at the time of generating this deliverable were based on a set of acronyms.



Classification (based on EFSRI)	Existing EUDAT engagement	Engagement during Phase II
Biological and Medical Sciences	BBMRI, DIXA, ECRIN, ELIXIR, EMBRC, INCF, MAPPER, NEUGRID, VPH	ANAE, EATRIS, ERINHA, EUROBIOIMAGING, EU-OPENSOURCE, INFRAFRONTIER, INSTRUCT, ISBE, MIRRI
Energy		ECCSEL, EU-SOLARIS, HIPER, IFMIF, MYRRHA, WINDSCANNER
Environmental Sciences	AGINFRA, BIOVEL, DRIHM, EISCAT 3D, EMSO, ENES, EPOS, EURO-AGRO, GBIF, GEO-SEAS, IAGOS, ICOS, LIFEWATCH, LTER Europe, SCIDIP-ES, VERCE	COPAL, SIOS
Materials and Analytical Facilities	ISIS - stfc, NoMaD	EMFL, ESS, EUROFEL
Physical Sciences and Engineering	EURO AIDA VO, PANDATA, WLCG	CTA, E-ELT, KM3NET, SKA
Social Sciences and Humanities	CESSDA, CLARIN, DARIAH	LIBER, EUROPEANA
e-Infrastructures	EGI, GEANT, HELIX NEBULA, OPENAIRE, PRACE, RDA	EARTHSERVER2, INDIGO DATA CLOUD, OPENMINTED, PHENOMENAL
(New) e-Infrastructures, Centers of Excellence (CoEs) & Virtual Research Environments (VREs)		AARC, BioExcel, BlueBRIDGE, COEGSS, E-CAM, EDISON, EoCoE, ESIWACE, EVER-EST, LEARN, MAGIC, MaX, MuG, OpenDreamKit, OpenMinTed, POP, READ, SCIGAIA, SESAMENET, TANDEM, Thor, VI-SEEM, VRE4EIC, West-Life

Table 2: Research and e-Infrastructures targeted

In terms of data centers, based on the direct involvement of several national level data centers, many of the benefits and opportunities of EUDAT for research and e-Infrastructures are equally valid for national level centres and their users.

### 1.3.1. Main Benefits for Engagement

EUDAT is a user-driven, service-oriented, trusted, secure and sustainable data infrastructure that offers solutions for **finding, sharing, storing, replicating, staging and performing computations** with primary and secondary research data. EUDAT supports research & e-Infrastructures and data centres to offer valuable insights and services to their users, including ensuring that users can easily share their data with their peers in other countries and in return gain easy access to data provided elsewhere. The common policies and services provided by EUDAT are a perfect tool to ensure that a data centre's infrastructure is compatible with other research data infrastructures. EUDAT provides a perfect forum to ensure that efforts are not happening in isolation but in sync with similar efforts elsewhere. EUDAT helps infrastructures in implementing a strategic approach to data that focuses on data management, such as handling metadata and facilitating replication of data, rather than just providing storage.

Another important objective of EUDAT is to **foster interoperability between existing European e-Infrastructures**. Interoperability must be sought between all e-Infrastructure components and specific actions must be taken to ensure that scientists can access networking, computing and data resources in a seamless way and reap the benefits of years of investments and efforts in setting up the European e-Infrastructure ecosystem.



### 1.3.2. Main Communication and Outreach Tools and Expected Impact

Tools	Description	Outputs	Expected Impact
Calls for data pilots	EUDAT will run periodically “calls for data pilots” inviting research & e- infrastructures & data centres to make use of EUDAT services by offering them free storage & human resources to help them join the CDI.	30 pilot collaboration projects will be supported over 2 calls	Engagement of at least 10 RI & e-I & data centres
Joint PRACE Call	EUDAT will be directly involved in a joint call with PRACE offering storage solutions and services to PRACE applicants	Data for 24 months after the end of the PRACE grant, free of charge, and up to 1PB of total space	At least one PRACE pilot supported
eInfrastructure collaboration	Through WP7 activities, EUDAT will establish different collaboration activities with other e- infrastructures	3 joint workshops organized over the project lifetime, 1 joint position paper with at least 1 other e- infrastructure	Increased engagement with communities and users
Press releases	Press releases to be distributed to scientific Press	3 press releases	Increased awareness about EUDAT services
Interviews <sup>2</sup>	Interviews with representatives of RIs & data centers exploring their current challenges and the benefits EUDAT can bring.	5 interviews	Increased awareness about EUDAT services
eNewsletter	Delivery of newsletters with targeted content of interest to RI & data centres	Monthly newsletters	400 views
Audio Visual	Presenting the EUDAT offer & benefits for RIs & data centres	1 video	100 views
Success stories	Publication of success stories on specific web channels.	3 success stories from research communities	200 views
Events	<p>Identification of research sector events to showcase results and to organize uptake collaborations (See paragraph 4.4);</p> <p><b>5 EUDAT User Forums</b> (M12 (Feb2016), M20 Oct 2016), M24 (Feb 2017), M28 (June 2017) &amp; M36 Feb 2018)) focusing on clustering along themes and challenges identified in synergy with the communities as well as the EUDAT offer, where the aim is to encourage re-use and take-up of EUDAT results. The User Forums will also be the platform to showcase and present the Call for Collaboration results and achievements.</p> <p>1 EUDAT conference (M16 (June 2016))</p>	Position paper e- publication and recommendations for future user and community engagement.	4 <i>Research Infrastructures or data centres join the CDI</i>

<sup>2</sup> All the EUDAT material (with exception of pictures & videos) is delivered under CC-by license. People can share, use, and build upon the EUDAT work by quoting EUDAT.



User documentation	Promotion of user documentation via a dedicated e-newsletter for RIs & data centres with a dedicated area on the website	1 eNewsletter	<i>Number of newsletter views</i>
--------------------	--	---------------	-----------------------------------

Table 3: Research, e- infrastructures and Data Center engagement tools and expected impact

## 1.4. Research Communities

Although research communities from different disciplines have different ambitions and approaches – particularly with respect to data organization and content – they also share many basic service requirements. This commonality makes it possible for EUDAT to establish common data services, designed to support multiple research communities, as part of the Collaborative Data Infrastructure (CDI) as envisaged by the High Level Expert Group on Scientific Data in its 2010 report *Riding the Wave*.

### 1.4.1. Main Benefits for Engagement

In almost all research communities, there is a growing awareness that the “rising tide of data” will require new approaches to data management and that data preservation, access and sharing should be supported in a much better way. Very few communities do not speak about major changes to come, nor feel they are ready to face the current challenges. Indeed, most communities are confronted with an extreme increase in data volumes and in complexity.

In some cases, in particular in the life science domain, the expected volume of data to be handled in the coming years is simply too big to manage at a single site and new solutions for storing data are needed. From the perspective of the biomedical community, another challenge is to ensure that the data can be accessed while preserving the legal requirements of patient anonymity and confidentiality.

For this stakeholder grouping is essential to communicate that EUDAT services responding to these challenges are easy & quick to install and can be customised to match community services, and to create thin layers that map community data into the EUDAT collaborative data infrastructure.

### 1.4.2. Main Communication and Outreach Tools and Expected Impact

Tools	Description	Outputs	Expected Impact
Calls for data pilots	EUDAT will run periodically “calls for data pilots” inviting research communities to make use of EUDAT services by offering them free storage resources and human resources to help them join the CDI.	30 data pilots projects will be supported through 2 calls.	Engagement of 20 research communities
Press releases	Press releases to be distributed to scientific Press	3 press releases	Increased awareness about EUDAT services
Interviews	Interviews with representatives of research communities exploring their current challenges and the benefits EUDAT can bring.	5 interviews	Increased awareness about EUDAT services
e-Newsletter	Delivery of newsletters targeted to researcher communities with specific attractive content	Monthly newsletters	300 views
Audio Visuals	Presenting the EUDAT offer & specific benefits for research communities, for instance through simple video animations or comic strips.	1 video	100 views
Success stories	Publication of success stories on specific web channels.	3 success stories from research communities	500 views



Tools	Description	Outputs	Expected Impact
Events	<p>Identification of research sector events to showcase results and to organize uptake collaborations (See paragraph 4.4);</p> <p><b>5 EUDAT User Forums</b> (M12 (Feb2016), M20 Oct 2016), M24 (Feb 2017), M28 (June 2017) &amp; M36 Feb 2018)) focusing on clustering along themes and challenges identified in synergy with the communities as well as the EUDAT offer, where the aim is to encourage re-use and take-up of EUDAT results. The User Forums will also be the platform to showcase and present the Call for Collaboration results and achievements.</p> <p>Participation to the EUDAT conference</p>	Position paper e-publication and recommendations for future user and community engagement.	<i>5 new research communities joining EUDAT</i>
User documentation	Promotion of user documentation via an eNewsletter for researcher communities & dedicated web space on the website	1 eNewsletter	<i>300 newsletter views</i>

Table 4: Research community engagement tools &amp; expected impact

## 1.5. Researchers

One of the main objectives of EUDAT is to **provide European researchers with seamless access to European resources in the area of networking, computing, cloud, and data services**. Researchers (from academia and industry) can **share, discover and re-use data via the EUDAT CDI services**.

### 1.5.1. Main Benefits for Engagement

EUDAT services allow researchers to benefit from a simple, efficient, trustworthy and affordable collaborative data infrastructure, connect with Europe's most powerful supercomputers and be supported by a pool of experts to tackle their data challenge.

### 1.5.2. Main Communication and Outreach Tools and Expected Impact

Tools	Description	Outputs	Expected Impact
Articles	3 Articles on the most relevant online journals will be produced during the project lifetime to ensure the communication of the EUDAT results to the scientific community.	3 articles	Increased awareness about EUDAT services
Audio Visuals	1 video presenting the EUDAT offer specifically for researchers, or for instance simple video animations or comic strips.	<i>1 video</i>	<i>300 views</i>
Success stories	Publication of success stories on specific web channels.	3 success stories from individual researchers	<i>200 views</i>
Events	<p>Identification of research sector events to showcase results and to organize uptake collaborations (See paragraph 4.4);</p> <p>Organisation of 5 EUDAT User Forums (M12 (Feb2016), M20 Oct 2016), M24 (Feb 2017),</p>	Position paper e-publication and recommendations for future user and community engagement.	<i>40% researchers as participants</i>



Tools	Description	Outputs	Expected Impact
	M28 (June 2017) & M36 Feb 2018)) focusing on clustering along themes and challenges identified in synergy with the communities as well as the EUDAT offer, where the aim is to encourage re-use and take-up of EUDAT results. The User Forums will also be the platform to showcase and present the Call for data pilot results and achievements.  Participation to the EUDAT conference		
User documentation	Promotion of user documentation via an eNewsletter for researchers & dedicated web space on the website	3 eNewsletters	200 newsletter views
Training	Dedicated training courses for Researchers		

Table 5: Researcher engagement tools &amp; expected impact

## 1.6. Secondary Stakeholders

**SECONDARY STAKEHOLDERS: data managers & librarians, international/European/national/regional funding agencies and policy makers.**

This set of stakeholders will be targeted in close collaboration with WP2 and WP4. A special target group for the Research Data Alliance is included as many efforts can be synchronised in this area.

### 1.6.1. Data Managers and Librarians

The professional library network across Europe but also globally. In particular, EUDAT aims to reach librarians and data managers working at research libraries, national libraries, library organisations and information centres, who in turn represent the researchers and research interests of their institutions. They can act as a key channel, promoting EUDAT products and services to the researchers generating data and the research infrastructures that store it. They have access to extensive networks and are therefore vital channels in terms of promoting widespread awareness about EUDAT.

EUDAT offers a wide range of secure data services which are ideally placed to support research communities, individual researchers and data repository managers. EUDAT can provide guidance on archiving, replicating, processing and cataloguing data, as well as sharing, discovering and re-using data via the EUDAT CDI services.

#### Main Engagement Activities:

- Promotion of EUDAT at dedicated conferences & workshops (e.g., LIBER, Europeana Tech conferences, etc.)
- Involvement of key representatives in EUDAT working groups and dedicated meetings

#### Main Outputs:

- 1 video montage / interview with stakeholder grouping promoting EUDAT offer (M27)
- 1 Data manager / librarian Use Case (M20)

### 1.6.2. International, European, National and Regional Funding Agencies

EUDAT leverages past investments made by funding agencies to the development of research infrastructures. Engagement with funding agencies is required to further sustain future activities and attain international and European funding. Stabilizing a permanent governance structure based on a sustainable funding model should be an objective of engagement.

#### Main Engagement Activities:



- Participation at high-level policy events to ensure clear coordination of European activities.
- Global harmonisation and engagement with key players internationally is key to address key policy issues such as movement of open data across borders in order to achieve truly interoperable global data infrastructures.
- Engagement with funding agencies is also required to further sustain future activities and attain international and European funding.

**Main Outputs (in close collaboration with WP2):**

- Persistency policy adapted to European and national requirements. 1 sustainability statement / report (extract from WP2) for distribution at M36
- 1 EUDAT sustainability statement for research stakeholders to be released by M36

**1.6.3. Policy Makers**

EUDAT supports the European Commission policy on Open Access to Research Data by developing appropriate services and tools for easy open deposit of research data and increased sharing of restricted data, including sensitive data. EUDAT believes fundamentally in open access. All nodes joining the CDI will be strongly encouraged to adopt open access policies towards their collections in return for the benefits of EUDAT replication and management services.

**Main Engagement Activities:**

- Participation at high-level policy events to ensure clear coordination of European activities.
- Efforts to provide prototypical services to research communities through coordinated calls.

**Main Outputs:**

- 1 high level policy report for distribution to 30 policy makers (M36)

**1.6.4. Research Data Alliance (RDA)**

In addition EUDAT supports the Research Data Alliance (RDA) initiative and is working within RDA to foster interoperability at a global level and remove barriers for sharing and (re)using data and services. EUDAT2020 will represent the CDI stakeholders in RDA, coordinate EUDAT input and evaluate and implement, whenever relevant, the recommendations coming from RDA.

**Main Engagement Activities:**

- Participation to RDA plenary meeting and Working/ interest Groups
- Synchronised training activities in Europe
- Support for RDA Europe call for collaboration projects
- Support for take-up of RDA output

**Main Outputs:**

- At least two EUDAT data pilot calls include RDA output implementation



## 2. HORIZONTAL COMMUNICATION TOOLS

### 2.1. EUDAT Website ([www.eudat.eu](http://www.eudat.eu))

The main communication tool that is used for communication is the web-based collaborative platform for European Research Data Services, Expertise and Technology Solutions, hosted on [www.eudat.eu](http://www.eudat.eu).

This is the place where stakeholders can assess, select, and monitor EUDAT services through a series of features, with the final aim to build awareness of the EUDAT offer and find the most appropriate solution.

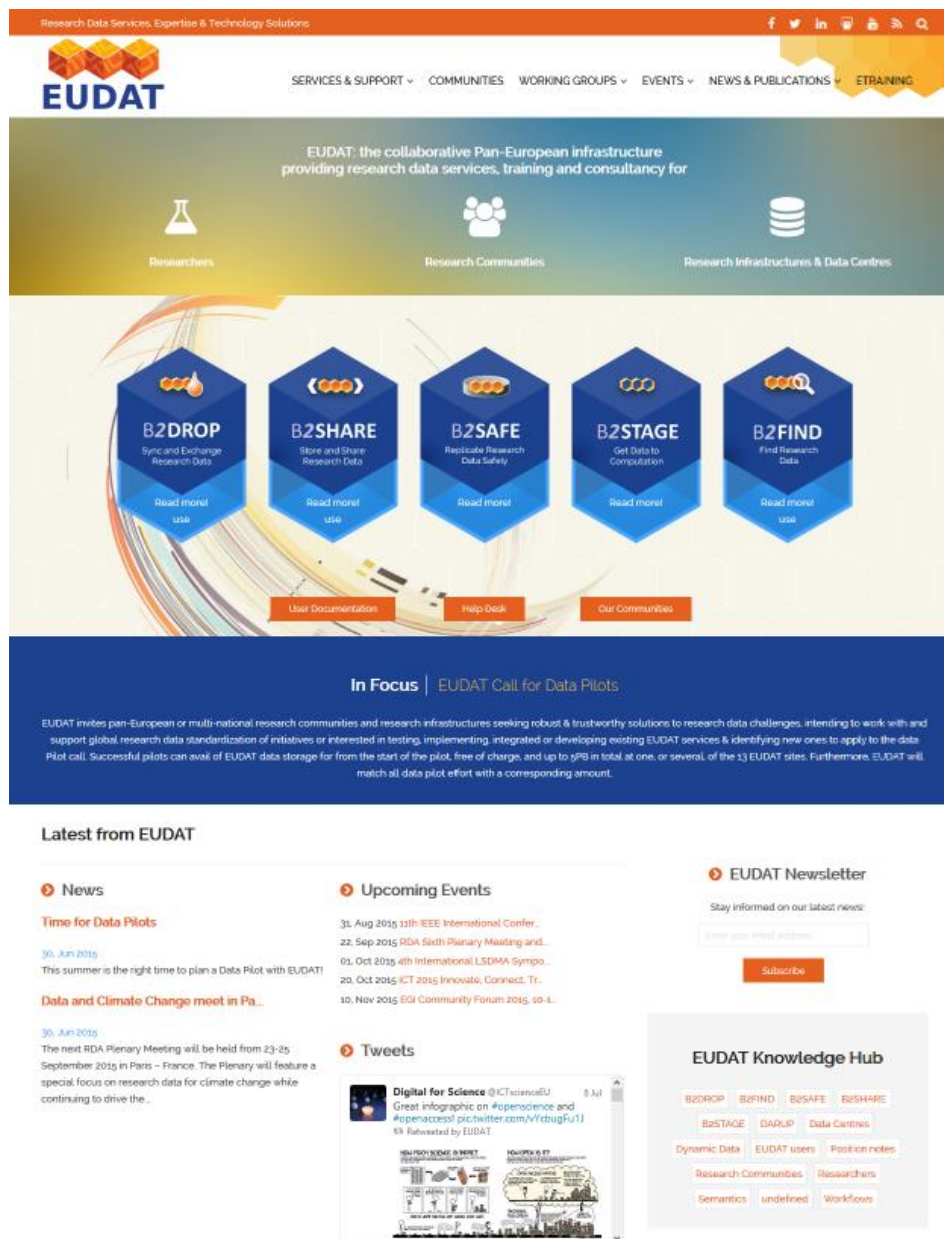


Figure 1: EUDAT [www.eudat.eu](http://www.eudat.eu) home page screenshot

The collaborative web platform in particular has different areas dedicated to:

- Specialized content for the primary stakeholder target groups
- Catalogue of EUDAT B2SERVICES
- The support documentation and help desk
- Collaborative area for the Working Groups

The content management system is based on Drupal 7 and a dedicated newsletter tool that allows monitoring and assessment of the newsletter analytics.



## 2.2. EUDAT Working Group Support

The purpose of the EUDAT Working Groups (managed under WP4) is to gather expertise and work on issues that have a scope and interest that go beyond EUDAT and/or for which some of the expertise resides outside of the EUDAT consortium. Working Groups allow EUDAT to associate external experts and stakeholders to the project's activities in an efficient and flexible manner and make it possible for the project to quickly adapt to new requests or developments. Four working groups will be set up focusing on:

- Semantics
- Federated Data Mining
- Reproducible Data Science
- New databases for large time series

WP3 will provide virtual collaborative web spaces on the eudat.eu web site as well as providing support for the organisation of the WG meetings and promoting and communicating WG outputs and results.

## 2.3. EUDAT Legal Web App

The EUDAT (Virtual) Legal Helpdesk / (Virtual) Legal Information Platform (to be released by M8) will consist of two elements a database of structured legal information and a search tool that will allow users to quickly find relevant entries in the database. It is built upon content generated by an expert during the first phase of EUDAT and is aimed at individual researchers and data managers, organisation legal contacts etc. The main topics covered are Copyright including copyright licensing, orphan work, etc., sui generis database rights, personal data and Intellectual property law. The content will be deployed in the form of a web app where users respond to a set of questions in order to determine the relevance of specific entries for this particular user. At the end of the process, a database containing only the relevant information can be printed out in one document or further searched using keywords.

## 2.4. Social Networks

EUDAT is leveraging on the social networks accounts created for the previous initiative, namely

- Twitter ([https://twitter.com/Eudat\\_eu](https://twitter.com/Eudat_eu)),
- LinkedIn (<https://www.linkedin.com/pub/eudat-project/51/a45/30a>),
- Slideshare (<http://www.slideshare.net/EUDAT/>)
- Youtube (<https://www.youtube.com/user/EUDATTraining>) mainly dedicated to training content

The continuous online presence through prominent social networks will inform, guide and solicit research practitioners via a growing body of knowledge. An important consideration is that social media accounts require constant updating and monitoring for them to be a real success. All web platform content pieces are designed to allow the user to share content pieces through social media channels.

Twitter will be mainly used to provide brief real time updates and news and to promote event activities; LinkedIn will be mainly used to bring on board new relevant stakeholders and in directly relation to public information on the EUDAT working groups, send target messages and to create and follow discussion groups; Slideshare to disseminate training material and EUDAT presentations; YouTube to upload and store webinars, videos and other audio visual material.

Specific KPIs linked to Social media activity include:

- Twitter (Tweets over project lifetime): 600
- Twitter (Followers over project lifetime): 1000
- LinkedIn (Discussions over project lifetime): 7
- LinkedIn (Followers over project lifetime): 400

## 2.5. Press and Media Channels

Press Releases will be delivered in conjunction with the main project milestones to ensure timely communication of the progress of the project. In support of EUDAT awareness raising and visibility a selection



of press and media channels will be targeted. Web-based ICT and Technology Media are used as primary sources by ICT professionals (e.g., ComputerWorld, Computer Weekly, eWeek Europe, etc), including broader technology watch (Innovations Report, CORDIS news, 24N.biz) and some targeted at the high-tech research infrastructures (HPC Wire, iSGTW, Supercomputing online, e-IRG Newsletter). Other channels include European press agencies and EU channels, policy channels (e.g., EurActiv, EUObserver, EuropeanVoice.com and European Voice, Europa.eu, EuroParliament, etc.), national press, TV and Radio.

The list below is not exhaustive and targets may be added to or some removed over the lifetime of the project. At the same time, it is imperative to highlight that not all of these channels may be contacted, they will be selected on a case-by-case basis according to the communication content. In addition, all the partners will exploit at their best also their own press offices and media channels in order to create the right visibility for the project outcomes.

Media Channels	Overview	Target Audience
<b>Computer Weekly (UK)</b> ( <a href="http://www.computerweekly.com/Home/">http://www.computerweekly.com/Home/</a> ) Europe	ICT news and analysis targeting senior IT decision-making professionals. Press releases and announcements.	Popular ICT & Technology Media Channel
<b>CORDIS Press Service</b> ( <a href="http://cordis.europa.eu/fetch?CALLER=EN_PRESS">http://cordis.europa.eu/fetch?CALLER=EN_PRESS</a> ) <b>CORDIS Wire</b> ( <a href="http://cordis.europa.eu/news/home_en.html">http://cordis.europa.eu/news/home_en.html</a> ) Europe	EC-based dissemination channels updated daily targeting enterprise, government and particularly research organisations across EU27 operating in ICT. Press releases and announcements.	Policy channel
<b>eWeek Europe</b> ( <a href="http://www.eweekeuropa.co.uk/">http://www.eweekeuropa.co.uk/</a> ) Europe	Targets ICT, business and open source communities with its main focus on cloud computing, Green IT, open source, Web2.0, mobile and wireless, networking. Press releases and announcements.	Popular ICT & Technology Media Channel
<b>EUObserver</b> ( <a href="http://euobserver.com">http://euobserver.com</a> )	A source of EU related news and information, editorially focused	Policy channel
<b>EURACTIV</b> ( <a href="http://www.euractiv.com">http://www.euractiv.com</a> )	EU news and policy debates	Policy channel
<b>HPCWire</b> ( <a href="http://www.hpcwire.com/">http://www.hpcwire.com/</a> ) International	Web-based channels with international outreach on High Performance Computing with weekly circulation to subscribers.	Popular ICT & Technology Media Channel
<b>Innovations Report</b> ( <a href="http://www.innovations-report.com/">http://www.innovations-report.com/</a> ) Europe	Web-based and focused on cross-domain ICT sectors, business and R&D. Press releases and announcements.	Popular ICT & Technology Media Channel
<b>InfoWorld</b> ( <a href="http://www.infoworld.com/index.html">http://www.infoworld.com/index.html</a> ) International	Web-based news channel targeting mainly business and developer communities with frequent coverage particularly of cloud computing. Open Call and conference press releases.	Business Media Channel
<b>iSGTW</b> ( <a href="http://www.isgtw.org">http://www.isgtw.org</a> )	International weekly online publication that covers distributed computing and the research it enables. Through iSGTW a scientific readership of over 8700 can be reached.	Popular ICT & Technology & Business Media Channel
<b>TechWorld</b> <a href="http://techworld.com">http://techworld.com</a> (UK)	Web-based ICT and business news. Press releases and announcements.	Popular ICT & Technology & Business Media Channel
<b>The Information Daily</b> ( <a href="http://www.egovmonitor.com">http://www.egovmonitor.com</a> )	Online publisher of news updates, features, and event content focused on public policy development and implementation.	Policy Channel

Table 6: EUDAT media channel sample

## 2.6. Event Participation

EUDAT will actively participate in a series of events organized by third parties or in collaboration with EUDAT to promote its solutions and results to different target stakeholders. A total of 45 events will be attended and



the table below gives a limited and non-exhaustive example of events. The internal EUDAT management tool collects all the relevant details to track and monitor event participation.

Event	Date	Target Audience	EUDAT type of Engagement
e-Infrastructures and RDA for data intensive science: pre-RDA plenary workshops	22/09/2015	Researchers, scientists, research communities, community managers, research & e- infrastructures	Organisers, EUDAT presentation and outputs
RDA Plenary 6	23-25/09/2015	Data Practitioners from all over the world	EUDAT Community participation
The Challenge of Big Data in Science	01/10/2015	Scientific communities seeking data solutions	EUDAT promotional material
ICT2015	20-22/10/2015	All ICT stakeholders	Networking session with EGI and PRACE and presence on the EC stand for Open Science policy
IVOA Interoperability meeting	30/10/2015	Data practitioners, computer scientist	astronomy interoperability framework developers
EGI Community Forum 2015	10-13/11/2015	Scientific community	EUDAT Training session, Joint EGI-PRACE-EUDAT workshop
eIRG Workshop	23-24-25/11/2015	Scientific community, Researchers, Policy Maker	Policy, eInfrastructures
EUDAT 1st User Forum	02-03/09-10/02/2016	Researchers, scientists, research communities, community managers, research and e- infrastructures	EUDAT Community participation
eIRG Workshop	00/03/2016	Scientific community, Researchers, Policy Maker	Policy, eInfrastructures
RDA Plenary 7	01-03/03/2016	Data Practitioners from all over the world	EUDAT Community participation
EUDAT Conference	June 2016	Researchers, scientists, research communities, community managers, research and e- infrastructures	Training, service demonstration, new developments, etc.
EGI –EUDAT-GEANT Joint Community Event	26-30/09/2016	Researchers, scientists, research communities, community managers, research and e- infrastructures	Community solutions and requirements, training, eInfrastructures
RDA Plenary 8 - International Data Week	10-16/09/2016	Data Practitioners from all over the world	EUDAT Community participation
RDA Plenary 9	3-7/04/2017	Data Practitioners from all over the world	EUDAT Community participation

Table 7: EUDAT Event Participation Sample

## 2.7. Communication Database

A communication and dissemination database will be set up to keep track of how the community is building and categorize relevant stakeholders. Contacts will be incremented thanks to partner efforts, through social networks, participation to events, organisation of events, synergies and strategic alliances.

For the project database a final target of over 1000 contacts at the end of the project has been defined. The database will be constantly updated by Trust-IT and will be exploited by EUDAT to create awareness on EUDAT results.

**Outputs:** 1 communication and dissemination database with 2000 contacts.

## 2.8. Audio Visuals

Audio visual items will be created to raise awareness and understanding of the EUDAT offer.

- Five B2SERVICE animated videos (to be produced and released by Feb 2016)
- Three targeted videos for primary stakeholders
- Four video interviews and / or montage



**Outputs:** 12 audio visuals

## 2.9. Position Papers

A series of EUDAT position papers will be generated and released, highlighting EUDAT position on a range of topics including community engagement, specific domain engagement, and technical challenges, policy and data management. These papers will target different stakeholders and will be generated by the User Board and WP2 and WP4 activities.

**Outputs:** average 3 papers per year in conjunction with research activities and results (Total 9).

## 2.10. EUDAT Conference

The EUDAT2020 conference (organised by WP3 and taking place at M15) will be a mid-term platform to (1) showcase EUDAT2020 results to the complete stakeholder landscape; (2) interact with the EUDAT2020 community; (3) understand what related initiatives are producing and how EUDAT2020 can synergise with them; (4) raise awareness of the EUDAT offer; and (5) train EUDAT users and joiners. The conference will offer different visibility opportunities to achieve these objectives through keynote and parallel presentations, lightning talks, training courses, exhibition, poster and demo areas, networking.

**Incentives:** best poster, demo, exhibition stand and awards. **Outputs:** EUDAT conference with 250 participants.

## 2.11. Communication Material

EUDAT2020 is leveraging on the original EUDAT logo to maintain continuity with the previous phase. However, a revamp of the graphics design has been made to harmonize the new website to the services graphics interfaces. Therefore also new templates have been developed and made available to the consortium for use in all official EUDAT communications and announcements.

This new branding will be also used in all project dissemination tools and materials, spanning posters, fliers, pop-up banners, the web platform graphics, etc., to facilitate the communication of EUDAT target messages. In particular during the project lifetime the following promotional and dissemination material will be produced<sup>3</sup>:

Promotional material	Description	Quantity
<b>EUDAT flier</b>	Fliers including the promotion of the services and the early achievements of the initiative. They will be distributed at relevant events.	4
<b>EUDAT Pop up Banner</b>	Pop up banner to use at events to give visibility to the EUDAT main message.	1
<b>EUDAT Poster</b>	Posters to be used at events to showcase the interim results of the projects	3
<b>Partner Promotional Kit</b>	Partner-specific posters have been produced for each EUDAT partner to promote the initiative within their institutes and at specific partner events.	35
<b>Give-aways</b>	Appropriate give-aways such as bookmarks, cards, gadgets will be produced during the life of the project to incentivise the stakeholder engagement.	
<b>Templates</b>	Set of standard presentations on EUDAT offer and specific B2service offer.	At least 6 per year
<b>B2Service Logos and GUIs</b>	Set of streamlined B2Service logos and graphic user interfaces developed and implemented on the various service provider web platforms (e.g. b2share.eudat.eu)	At least 1 per service

<sup>3</sup> Please note that the promotional material will be used to disseminate EUDAT at target events and it has been conceived in order to reflect the progress of the project.



**Table 8: EUDAT promotional material.**

## 2.12. EUDAT Terminology Database

A terminology database listing and defining, sometimes difficult to understand, terms in the Data Management world that should be used in EUDAT outside communication (and preferably also within). Terminology might differ from what is used by the stakeholder communities and organizations. The terminology database will also contain the list of acronyms.

## 2.13. EUDAT Internal Communication

In order to ensure that all partners and staff working in the 35 organisations that are involved in EUDAT are informed on developments, activities, achievements and milestones, WP3 will develop and manage an internal newsletter (provide monthly from M6) to offer highlights and updates entitled “In case you missed it .. “. This tool will also increase familiarity and navigation of the internal project wiki (confluence).

## 2.14. Communication and Outreach Strategy Key Performance Indicators (KPIs)

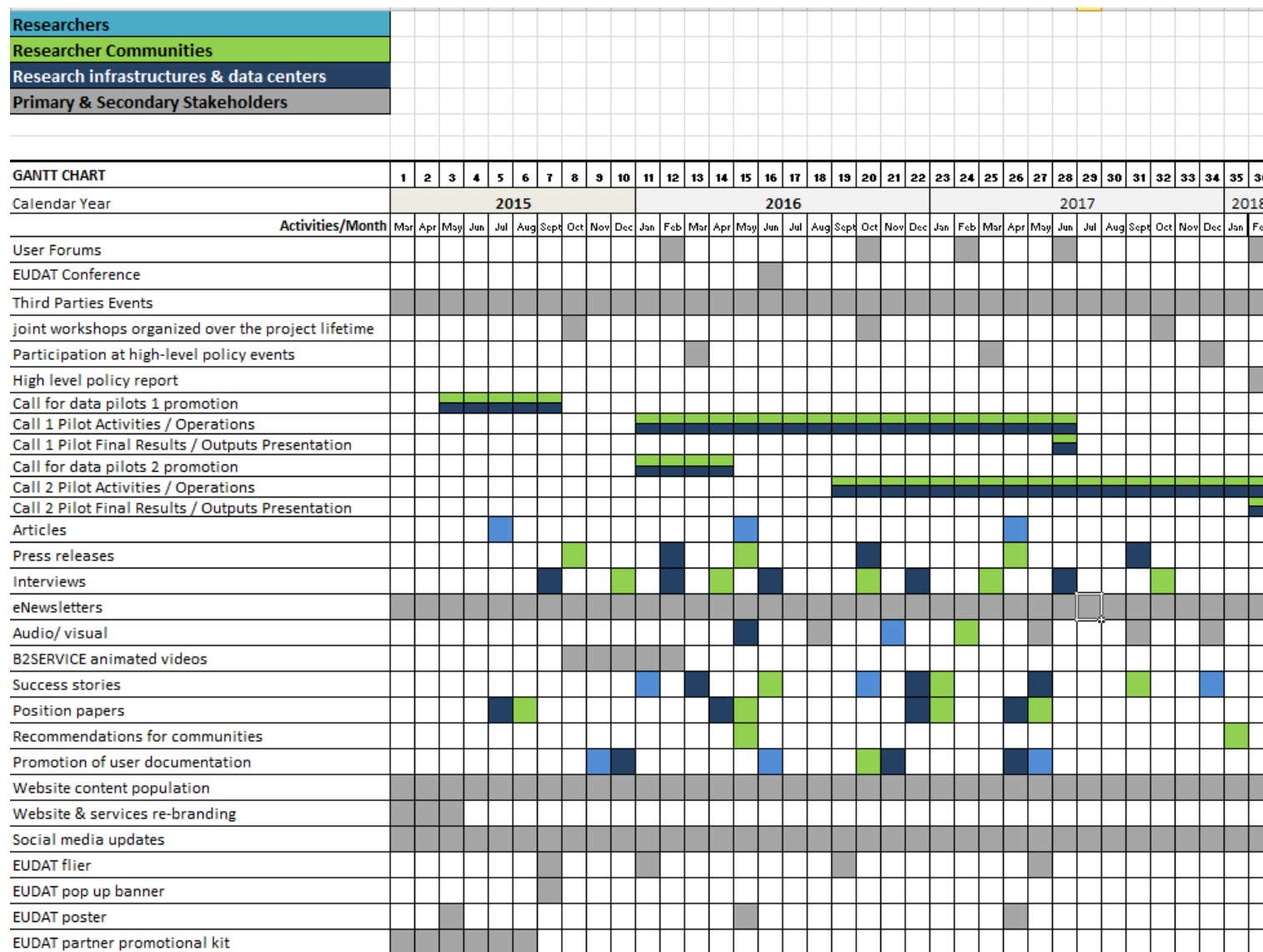
The impact of the activities described in this plan will be measured through a core set of six-monthly key performance indicators (KPIs) wherever they are quantifiable. Key indicators are:

KPIs	Total	M1-6	M7-12	M13-18	M19-24	M25-30	M31-36
Contact Database (starting point 1000)	2000	300	350	400	300	350	300
On-line registered members	300	50	50	50	50	50	50
Articles and Success Stories	24	4	4	4	4	4	4
Interviews with EUDAT users and members	30	8	5	4	5	2	6
Monthly Newsletters	36	6	6	6	6	6	6
Press Clippings	90	15	15	15	15	15	15
Press Releases	12	2	2	2	2	2	2
Audio-visuals	12	2	2	2	2	2	2
Position Papers and Reports	9	1	2	2	1	1	2
EUDAT Conference	1	0	0	1	0	0	0
User Forum	5	0	1	1	1	1	1
Participation to external events	45	7	10	7	7	7	7
Twitter (Tweets over project lifetime)	600	100	100	100	100	100	100
Twitter (Followers over project lifetime)	1000	170	170	170	170	170	170
LinkedIn (Discussions over project lifetime)	7	1	1	2	1	1	1
LinkedIn (Followers over project lifetime)	400	70	70	70	60	70	60

**Table 9: EUDAT Dissemination and Communication Key Performance Indicators**



## 2.15. Communication and Outreach Strategy Timing





### 3. EUDAT TRAINING STRATEGY

#### 3.1. Summary

*The aim of the EUDAT training programme is to support the implementation and usage of the EUDAT services in order to improve the infrastructure for research data management. The EUDAT training programme is aimed at three target groups (researchers, research communities, research infrastructures), each divided into three learning levels (beginner, intermediate, expert). Knowledge and skills are transferred and evaluated at training events. They can have a wide range of formats (workshop, face-to-face training, webinar, contribution to conference, etc.). A training event consists of training components, such as presentations, instructions or exercises. Training components are collected in a training register. The training register will be populated with (1) existing training components, (2) adjusted training components and (3) training components that will be developed by EUDAT. The training register provides training components for training events. The number and complexity of training events organized is determined by a gap analysis (= empty cells in the training matrix) and the available resources (trainers, expertise, training components). The training matrix and register provides that a coherent and balanced training programme can be implemented.*

#### 3.2. Training Abstract

This document contains the strategy to design, co-ordinate and maintain a coherent and balanced training programme. The aim of the training programme is to support the implementation and usage of the EUDAT services<sup>4</sup>.

The EUDAT training programme consists of a number of training events that can have different appearances, such as a webinar, a presentation or a (conference) workshop.

The training events are aimed at the three target groups of the EUDAT infrastructure: (1) individual researchers, (2) research communities, and (3) research infrastructures and data centres.

The learning goals of the training events concern the understanding and usage of services provided by EUDAT for the three different target groups. Ideally for each target group three learning levels are distinguished: (1) beginner (no knowledge at all of the topic), (2) intermediate (a basic knowledge of the topic but no regular professional usage), and (3) expert (a good knowledge of the topic and a regular professional use).

The development and execution of the training programme is done in the following way. An assessment is carried out of available existing training components, for example created by the EUDAT consortium in the past or by other initiatives. The following situations can occur: (1) an existing training component fits in the EUDAT training program without any modification, (2) an existing training component has to be adjusted in order to fit it in the training matrix, or (3) a training component has to be developed.

A register of training components will be created that can be used by trainers to compile a training event. Each training component will be documented so its applicability can be assessed.

The process to create the EUDAT training programme consists of four phases: (1) consultation, research, and compilation of the training register, (2) creation and adjustment of training components, (3) implementation of the training events, (4) creation of a business plan for training events.

As part of the EUDAT project the EUDAT infrastructure will be improved, extended and populated with new services. A number of work packages in the EUDAT project will provide the means to do this. In case a mature and stable service is delivered by these services the training register will be adjusted. The relevant work packages in this respect are: WP2 – Service strategy, Policy and Sustainability; WP4 – Community Requirements and Engagement; WP5 – Service Building; WP6 – Operations; WP7 – Cross-infrastructure Services.

---

<sup>4</sup> The three main information sources for the EUDAT Training strategy are: (1) an evaluation of the training activities of the EUDAT-1 project, (2) the outcomes of an online consultation survey (3) interviews with key people in the EUDAT initiative.



### 3.3. Training Glossary

- **EUDAT Service Catalogue:** Catalogue of integrated technology and data solutions. Examples are: (1) B2SHARE, (2) B2FIND, (3) B2STAGE, (4) B2SAFE, (5) B2DROP, (6) Identification, (7) Registration, (8) Authentication and Authorization, (9) Monitoring (Situation in July 2015, within the framework of the EUDAT2020 project the services will be adjusted and new services will be developed).
- **Learning level:** Competencies a learner can achieve (beginner / intermediate / expert).
- **Target group:** Group of people at whom a training event is aimed. Three target groups are distinguished (researchers / research communities / research infrastructures and data centres).
- **Training:** Organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge or skill.
- **Training component:** Self-contained presentation, text, multimedia file, exercise, etc. that aims to transfer knowledge or skills.
- **Training event:** Event where knowledge transfer occurs. Can have different appearances and using different training components.
- **Training matrix:** Table with codes that represent the relation between learning levels of target groups in relation to the phases in the DLC model and target group.
- **Training register:** List of training components with a detailed description.
- **Training strategy:** Plan to realise and implement the EUDAT training activities and components.

### 3.4. Introduction

The description of the EUDAT training strategy consists of the following parts:

- Context of the training programme: research data management and the data lifecycle
- Elaboration of the target groups for the training events (in relation to the research communities)
- EUDAT Services
- Training matrix
- Register of training components
- Creation of training components
- Organisation of training events
- Evaluation of the training events
- Planning and resources

### 3.5. The Data Lifecycle

The “Essentials for Data Support” website states “Research data have a longer lifecycle than the period in which they were created. One way to look at it is by using a research lifecycle. The meaning of the data varies with every phase of the research cycle they are in. A research lifecycle is intended to help illustrate how the various phases in the life of research data tie in with each other and how the choices you make in one phase influence the data quality in the other. A lifecycle helps to shift the short-term perspective to a long-term one: what is the intended purpose for these research data? How do you make sure that the choices you make when you collect data are robust enough to enable reuse and long-term storage? There are many lifecycles in circulation and all are tailored to a user group's needs<sup>5</sup>.”

There is a common understanding that a number of stages can be distinguished concerning the role and function of research data in the scientific communication process. A number of models are developed that

<sup>5</sup> See: <<http://datasupport.researchdata.nl/en/start-de-cursus/i-definities/research-lifecycle/>> [Cited, July 7 2015]



visualise the research data life cycle model. An example of data lifecycle is the model provided by the DataONE initiative is included below:<sup>6</sup>

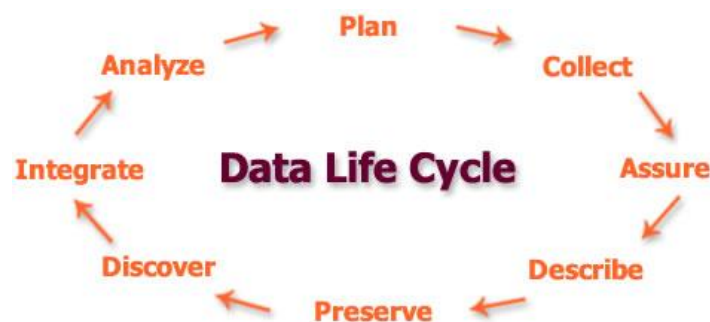


Figure 2: DataONE data lifecycle

"Research data management concerns the organisation of data, from its entry to the research cycle through to the dissemination and archiving of valuable results. It aims to ensure reliable verification of results, and permits new and innovative research built on existing information<sup>7</sup>". Research data management will be an important training topic of the EUDAT training programme. Several stakeholders and informants mention it as a subject for training activities. A number of project partners in EUDAT2020 are experts in the field of research data management and they will provide the training components and training events for this.

The data lifecycle will play a role in the EUDAT training strategy as reference model for training programme. It will help to attribute the EUDAT services to the daily research reality and to create a coherent training scheme. The data lifecycle model will support the adjustment of the existing services as well as the introduction of new services. The figure below contains a mapping of the EUDAT B2 services to the DataONE data lifecycle model<sup>8</sup>.

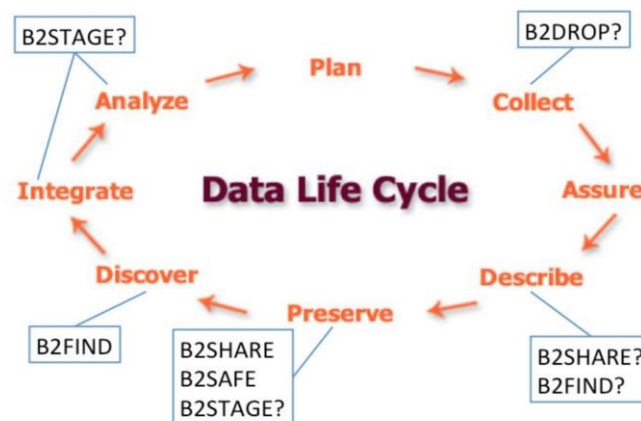


Figure 3: EUDAT B2 Services mapped (approximately) mapped to the DataONE data lifecycle model

### 3.6. Target Groups

This section covers the main target groups of the EUDAT infrastructure and services at which training activities are targeted. The EUDAT website makes a distinction between three user groups: these are (1) researchers, (2) research communities, and (3) data infrastructures / data centres. The EUDAT service catalogue makes a distinction between four types of consumers of the services. These are (1) Individual

<sup>6</sup> See: < <https://www.dataone.org/best-practices> > [Cited, August 25 2015]

<sup>7</sup> Whyte, A., Tedds, J. (2011). 'Making the Case for Research Data Management'. DCC Briefing Papers. Edinburgh: Digital Curation Centre. Available online: <<http://www.dcc.ac.uk/resources/briefing-papers>> [Cited, August 7 2015]

<sup>8</sup> Taken from Deliverable 2.1.3. of the EUDAT project. D2.1.3: EUDAT Sustainability Plan (final) p. 10



researcher, (2) Community manager (3) Data project Principle investigator and (4) service provider. Both classifications are clustered and described.

#### (Individual) Researchers

EUDAT is primarily designed to provide data services for European researchers. Researchers (from academia and industry) can store, share, discover and reuse data via the EUDAT CDI services. Researchers barely work in isolation and are part of a community (see next target group). The EUDAT infrastructure, however, does provide services that can be used by researchers individually.

#### Research communities / Community manager

EUDAT addresses the needs of research communities who are producing or using (very) large data sets for research purposes ensuring that the data is managed and stored in a secure and professional and persistent manner. Work package 4 of the EUDAT2020 project (Community Requirements and Engagement) provides valuable input for the determination of the communities for which relevant training events can be organised<sup>9</sup>.

#### Data infrastructures and Data centres / Data project Principle Investigator / Service provider

EUDAT is a user-driven, service-oriented, trusted, secure and sustainable data infrastructure that offers solutions for finding, sharing, storing, replicating, staging and performing computations with primary and secondary research data. EUDAT supports research infrastructures and data centres to offer valuable insights and services to their users, including ensuring that users can easily share their data with their peers in other countries and in return gain easy access to data provided elsewhere. The common policies and services provided by EUDAT are a perfect tool to ensure that a data centre's infrastructure is compatible with other research data infrastructures. EUDAT provides a perfect forum to ensure that efforts are not happening in isolation but in sync with similar efforts elsewhere. EUDAT helps infrastructures in implementing a strategic approach to data that focuses on data management, such as handling metadata and facilitating replication of data, rather than just providing storage. In the context of engaging with the communities and offering services, EUDAT offers consultancy services on all aspects of the data lifecycle.

### **3.7. EUDAT Services**

EUDAT develops and supports a number of services to manage research data. Existing services are improved and adjusted and new services are developed and deployed. The training strategy will take the actual situation concerning the status of the services into consideration as outlined in Table 1 – EUDAT offer and primary stakeholder overview, based on the state of art in August 2015. The overview of the EUDAT service portfolio as well as details on the current state of the services will be updated on a regular basis. For this intensive communication between the people involved in the training task and the developers of the services has been established.

Currently 17 services are distinguished: B2SAFE, B2SHARE, B2DROP, Metadata catalog, B2FIND, B2STAGE, B2HANDLE, B2ACCESS, B2HOST, Data Project Coordination Portal, Data Policy Manager, HelpDesk, CREG (central information system), CMON (Central Monitoring System), Service Portfolio Catalog, SLA Catalog and Usage Accounting System.

### **3.8. Training Matrix**

The aim of the training matrix is to assess to what extent training components for EUDAT services are available with respect to the distinguished target groups. The training matrix helps to:

- compile a list of training events that cover as much as possible EUDAT services for specific target groups and learning levels.

<sup>9</sup> Work package 4 maintains a “community list” that can be found at: <https://confluence.csc.fi/display/EUDAT2/Community+List>  
[Cited, 8 July 2015]



- assess which training topics are underrepresented in order to determine where to put effort to develop new training events.

		(Individual) Researchers			Research communities / Community manager			Data infrastructures and Data centres / Data project Principle Investigator / Service provider		
	Training level	Beginner	Intermediate	Expert	Beginner	Intermediate	Expert	Beginner	Intermediate	Expert
	Service Name									
01	B2SAFE									
02	B2SHARE									
03	B2DROP									
04	Metadata Catalog									
05	B2FIND									
06	B2STAGE									
07	B2HANDLE									
08	B2ACCESS									
09	B2HOST									
10	Data Project Coordination Portal									
11	Data Policy Manager									
12	HelpDesk									
13	CREG									
14	CMON									
15	Service Portfolio Catalog									
16	SLA Catalog									
17	Usage Accounting System									

Table 10: Training Matrix

An inventory will be carried out in order to determine to what extent training components are available related to specific services aimed at a specific target group.

### 3.9. Training Components

A training component is a self-contained presentation, text, multimedia file, exercise, etc. that aims to transfer knowledge or skills. Examples are powerpoint-presentations (in a number of formats, e.g. native powerpoint format, converted to PDF, potential with narrative / sound), multimedia files (e.g. Youtube movie), website, etc. Training components are used to compile training events, such as workshops, webinars, summer schools, etc. Ideally training components can be used and reused in different training events.

A collection of cohesive training components that are created during the EUDAT-1 project are available at a dedicated website<sup>10</sup>. In case they are in line with the learning goals and target group, they are candidates to be used in new training events.

For the training events in first instance existing training components are used. In case they are not suitable it is either the case that an existing training component is adapted or that a new training component is created. This will be done in close cooperation with the developers of the EUDAT services.

A register of training components is setup (see next section) that has the function of an information source for the organisation of training events. Directions for the development for new training components are

<sup>10</sup> <<http://eudat.eu/eudat-ettraining>> cited, July 9 2015



based on an online survey, consultation of EUDAT experts, desk-research and the topic of an external event (e.g. a workshop at a conference) at which EUDAT provides training activities.

### 3.10. Register of Training Components

A training component is a self-contained presentation, text, multimedia file, exercise, etc. that aims to transfer knowledge or skills. In order to assess the value a training component can have for a training event, a number of description fields are attached to it. Below an overview of description fields is given.

- Title – Title of the training component
- Description – Short description of the content of the training
- Keywords – Keywords / tags that cover the content of the training component
- Date of creation – Date the training component was created
- Target group – Description of the audience for which the training component was intended
- Training level – Beginner / Intermediate / Expert
- Creator – Person(s) / organisation that created the training component
- Rights holder – The owner (person(s) / organisation) of the training component
- License – Statement under what condition the training component can be used (preferably Open Access)
- Format – Storage format of the training component
- Location (address / identifier) – Place on internet where the training component can be found
- Training classification(s) – Applicable classifications of the training matrix
- EUDAT service(s) – Name of EUDAT Service for which the training component is relevant
- Training event – Name of the training event at which the training component was used
- Date of training event – Date(s) the training component was used
- Trainers – Names of trainers that used the training component

The first version of the training register will be released in October 2015 and maintained during the remainder of the EUDAT2020 project. A number of training events are given in an appendix.

### 3.11. Organisation of Training Events

Three types of training events can be distinguished:

- Training event that is part of an existing event (e.g. a training workshop at a conference)
- Independent, EUDAT branded training event (e.g. a course to assist in the uptake of an EUDAT service, or a workshop)
- Online training component (e.g. Webinar)

A training plan contains details of the practical implementation of the training events. This plan will be adjusted periodically as more details on several aspects of the organisation become available. Examples of these aspects are: more detailed overview of existing events that are potential hosts / co-organisers of training events, evaluation data of existing events (e.g. how much time does it cost to organise a training event, suggestions for improvement / other training events by participants), results of an internal consultation of “EUDAT insiders”, available resources (people, time, expertise) that can be used for the organisation of a training event. An appendix contains the first version of a training plan.

The training plan is compiled in close cooperation with other work packages in the EUDAT project. This is illustrated in the figure below.



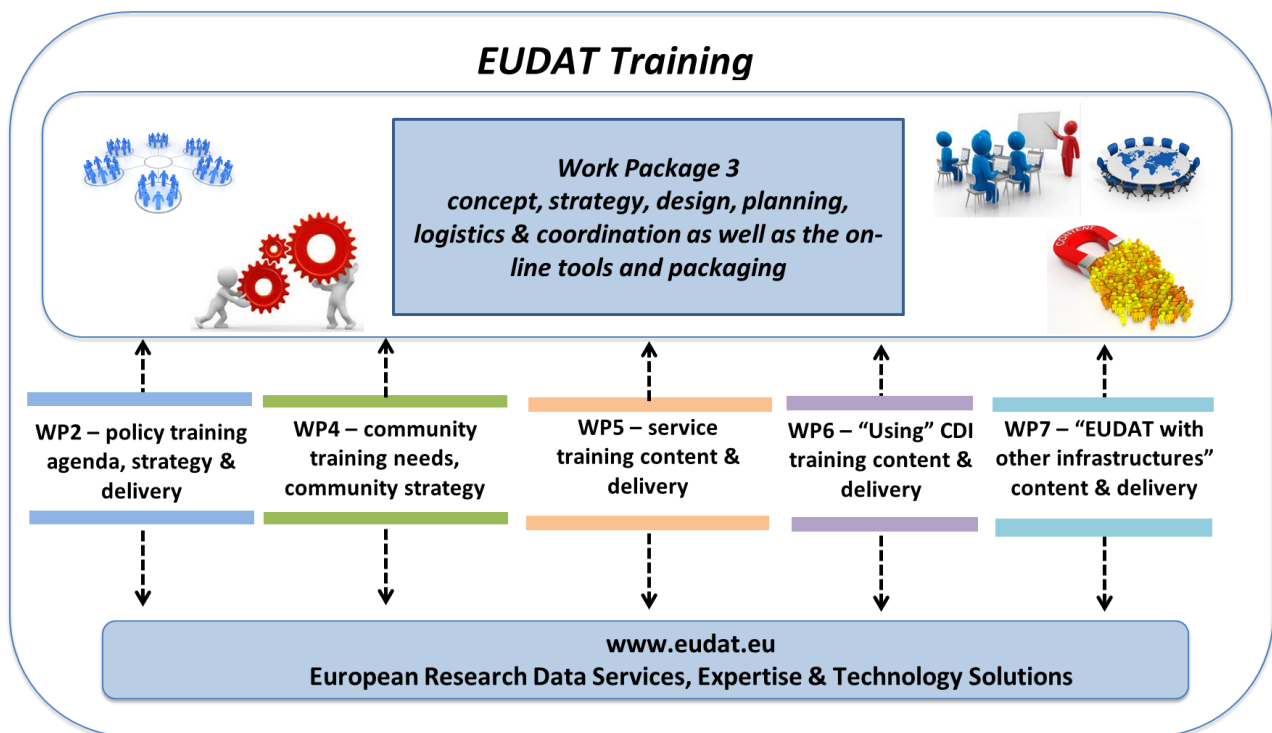


Figure 4: Training activities and their relation with other EUDAT WPs

Each training event contains an evaluation by the participants. They are asked to what extent the event met their expectations, what they think of the quality of the training event, and which suggestions they have to improve the event or suggestions for other training events. The evaluations of the training event will be analysed and will be used for a number of purposes. For example, to improve the quality of the training component, to improve the quality of the training event, to set up new training events and components, etc. The evaluation survey of a training event consists of the following items:

1. Characteristics of the respondent (name, role, affiliation, address)
2. What discipline are you associated with
3. How would you describe yourself: researcher, data-manager, software developer (multiple choices possible)
4. Did the training meet your expectations?
5. Suggestions for improvement
6. Quality of the training (bad / moderate/ good / excellent)
7. What is your opinion on part x of the training (this is asked for each part of the training event)
8. Are EUDAT services of interest for your organisation?
9. Do you think this EUDAT service is well explained and the service will fit your needs
10. What type of digital objects do you manage / use / preserve?
11. Additional / specific questions / remarks

### 3.12.Planning and Resources

The creation of the training strategy, the collection and creation of training content, the organisation of training events as well as the creation of a business plan for training activities will be carried out in the period March 2015 – February 2018. This period of 36 months consists of the following parts:

1. Consultation and research (March 2015 – September 2017)
2. Implementation of training register (July 2015 – October 2015)
3. Evaluation of the available training components (August 2015 – February 2018)
4. Maintenance of the training register (August 2015 – February 2018)



5. Creation and updating of training components (August 2015 – February 2018)
6. Implementation of training events (November 2015 – February 2018)
7. Creation of business plan for training events (September 2017 – February 2018)

For the training (task 3.2) in EUDAT 51 person months are available, spread over five partners. These are DANS (24 PM), TRUST-IT (12 PM), JISC/DCC (6 PM), ESDF (6 PM) and SURFSARA (3 PM).

The available resources are used as follows (the PMs are rounded):

1. Coordination of the training task (task 3.2) in work package 3 (10%) – 5PM
2. Creation and maintaining register of training components (10%) – 5PM
3. Filling of training register (10%) – 5 PM
4. Creation of training components (content development in cooperation with other WPs) (30%) – 15 PM
5. Providing training activities (organizing training events) (40%) – 20 PM

The table below provides details on the available resources for the partners in the training task and how these resources are allocated.

Partner	DANS	TRUST-IT	ESDF	DCC/JISC	SURFSARA
<i>Available pm</i> <i>Activities</i>	24	12	6	6	3
<b>1. Coordination of Training task</b>	5	1	-	-	-
	<i>Training strategy, coordination and business plan</i>	<i>Coordination. Alignment with WP3 and other WPs</i>			
<b>2. Creation and management of training register</b>	2	3	-	-	-
	<i>Design, development and coordination</i>	<i>Management of training register (packaging &amp; editing of training components). Community Liaison</i>			
<b>3. Maintaining training register</b>	1	1	1	1	1
	<i>Adding training components to register &amp; documentation</i>	<i>Adding training components to register &amp; documentation</i>	<i>Adding training components to register &amp; documentation</i>	<i>Adding training components to register &amp; documentation</i>	<i>Adding training components to register &amp; documentation</i>
<b>4. Creation of training components</b>	6	4	2	2	1
	<i>Creation of training components that are used in training events (in cooperation with trainers, also from other WPs)</i>	<i>Creation of training components that are used in training events (in cooperation with trainers, also from other WPs)</i>	<i>Creation of training components that are used in training events</i>	<i>Creation of training components that are used in training events</i>	<i>Creation of training components that are used in training events</i>
<b>5. Providing training events</b>	10	3	3	3	1
	<i>Organization of training events &amp; evaluation. Instruction and support of trainers (either internal or external) Act as trainer in field of expertise</i>	<i>Organization of training events &amp; evaluation. Act as trainer in field of expertise</i>	<i>Act as trainer in field of expertise</i>	<i>Act as trainer in field of expertise</i>	<i>Act as trainer in field of expertise</i>

**Table 11: Allocation of resources in relation to the activities carried out in the EUDAT training task**



Each EUDAT service is assigned a coordinator (from task 3.2) who is responsible for providing content for the training register, assessment and creation of training components, internal interaction, identification of trainers and feedback to TRUST-IT and DANS for community liaison and the organisation for the training events.

### 3.13. Performance Indicators

The aim is to achieve the following results within the training task.

- Training register with 40 training components (about 50% developed by EUDAT)
- 10 training events organised and evaluated (each attended by at least 20 people), including:
  - 1 Summer school in 2017 (multi-day, tracks for different target groups, attendance 60 people)
  - 2 internal workshops/training events
  - 5 webinars

#### 3.13.1. Proposed List of training events

The table below contains an initial list of training events, both “stand-alone” EUDAT events as well as training in cooperation with other initiatives.

TRAINING EVENT	DATE	LOCATION	FORMAT & FOCUS	NOTE
EGI COMMUNITY FORUM	10-13 Nov 2015	Bari, Italy	Workshop 3 HOURS	
WEBINAR 1	Dec 2015			
EUDAT 1 <sup>ST</sup> USER FORUM	Feb 2016	Rome, Italy		Focus on “Call for data pilots”
WEBINAR 2	Apr 2016			
EUDAT CONFERENCE	Jun 2016	Berlin, Germany		
WEBINAR 3	Sep 2016			
EGI – GEANT – EUDAT (2 <sup>ND</sup> ) USER FORUM	Oct 2016	Krakow, Poland		
EUDAT 3 <sup>RD</sup> USER FORUM	Feb 2017			Focus on “Call for data pilots”
INTERNAL WORKSHOP 1				
WEBINAR 4	Apr 2017			
EUDAT 4 <sup>TH</sup> USER FORUM	Jun 2017			
EUDAT TRAINING SUMMER SCHOOL	Jul 2017		1 week	
WEBINAR 5	Sep 2017			
EUDAT 5 <sup>TH</sup> USER FORUM	Feb 2018			
INTERNAL WORKSHOP 2				

Table 12: Preliminary List of training events