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D6.3 Data Management Plan

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## 1 Version Log

Version	Date	Released by	Nature of Change
DRAFT	07/10/2016	Judy Barrett (UCL)	Initial Draft for discussion
DRAFT v2	20/10/2016	Judy Barrett (UCL)	For internal Consortium Review For external Review
1.0	03/11/2016	Judy Barrett (UCL)	Revised version with reviewer's comments included, in particular, focus on research data rather than all data

# 2 Definitions and Acronyms

Acronyms	Definitions
СА	Consortium Agreement
CC	Creative Commons
CSA	Coordination and Support Action
Data	Information, in particular facts or numbers, collected to be examined and considered as a basis for reasoning, discussion, or calculation. In a research context, examples of data include statistics, results of experiments, measurements, observations resulting from fieldwork, survey results, interview recordings and images. The focus is on research data that is available in digital form. (European Commission, 2016)
Dataset	A grouping of data
Digital Curation	Selection, preservation, maintenance and archiving of electronically stored data
DITOs	Doing It Together science
DMP	Data Management Plan
DS	Data Set
EC	European Commission
ECSA	European Citizen Science Association / Verein der Europäischen Bürgerwissenschaften
eutema	EUTEMA GMBH
FAIR	Findable, Accessible, Interoperable and Reusable
GA	Grant Agreement
H2020	Horizon 2020 Programme
IPR	Intellectual Property Rights
KI	Kersnikova Institute
Meritum	Centrum Szkolen I Rozwoju Osobistego Meritum
Metadata	A description of data
MP	Medialab Prado, Madrid
Open Access	Access that is free to all and free of any restrictions

Open Data	Data that can be freely used, shared and built on by anyone for any purpose
OpenAIRE	Open Access Infrastructure for Research in Europe
PPSR	Public Participation in Scientific Research
RBINS	Institut Royal des Sciences Naturelles de Belgique
Repository	A location in which data is stored or managed
RRI	Responsible Research and Innovation
Tekiu	Tekiu Limited
UCL	University College London
UNIGE	Universite de Geneve
UPD	Universite Paris Descartes
WS	Waag Society

## 3 Executive Summary

The DITOs Data Management Plan (DMP) is Deliverable 6.3 (D6.3) from the coordination and support action (CSA), Doing It Together science (DITOs), grant agreement (GA) 709443. This deliverable introduces the first version of the DMP.

The DMP describes the way in which the DITOs consortium will manage the datasets that will emerge from the project, and use the best practice in terms of metadata and archiving to ensure that the data can be useful for other potential users, including researchers, practitioners in the field of citizen science, or any other interested party.

It provides information about what datasets the consortium is aiming to preserve and in which format.

## 4 Introduction

This document's aim is to lay out the preliminary DMP for the DITOs project. The purpose of the document is to put in place the definitions, explanations and details that will facilitate the potential reuse of the data that will be collected during the project. The DMP will allow this data to be findable, accessible, interoperable, and reusable (FAIR), in accordance with the Horizon 2020 Open Research Data pilot.

## 4.1 Project Background

DITOs is a citizen science project, with the aim to increase citizen science awareness and involvement by 1) increasing the public's confidence and level of engagement and 2) by informing and encouraging policy makers to understand the benefits of citizen science. The DITOs project consortium consists of the following 11 partners:

Partner Acronym	Partner	Organisation Type	Country
ECSA	European Citizen Science Association / Verein der Europäischen Bürgerwissenschaften	Policy-making organisation	Germany
eutema	EUTEMA GMBH	Business	Austria
KI	Kersnikova Institute	Civil society organisation	Slovenia

Meritum	Centrum Szkolen I Rozwoju Osobistego Meritum	Policy-making organisation	Poland
MP	Medialab Prado, Madrid	Museum	Spain
RBINS	Institut Royal des Sciences Naturelles de Belgique	Research institution	Belgium
Tekiu	Tekiu Limited	Business	UK
UCL	University College London	Research institution	UK
UNIGE	Universite de Geneve	Research institution	Switzerland
UPD	Universite Paris Descartes	Research institution	France
WS	Waag Society	Civil society organisation	Netherlands

The DITOs project has 7 work packages (WPs) as follows:

Work Package	Description	Lead Partner	Contributing Partners
WP1	Biodesign	UPD	UCL, WS, ECSA, MP, KERSNIKOVA, MERITUM, UNIGE, Tekiu
WP2	Environmental Sustainability	MP	UCL, RBINS, ECSA, KERSNIKOVA, MERITUM, Tekiu
WP3	Public Engagement and Capacity Building	WS	all
WP4	Policy Engagement for RRI	ECSA	all
WP5	Evaluation	eutema	all
WP6	Coordination, Support and Management	UCL	all
WP7	Ethics Requirements	UCL	all

The following is a short, high level description of the work packages:

WP1 Biodesign focuses on the delivery of activities in biotechnology and synthetic biology. It includes opportunities to participate in active research, ranging from contributing unused computer resources to actively working in a laboratory with scientists. This will be combined with exhibitions and public discussions, and the use of real-time collaborative online tools to create and conduct projects using open data standards.

WP2 Environmental Sustainability is built around the delivery of activities in the area of environmental sustainability, covering a wide range of topics including

ecological observations, energy production and consumption, food production and consumption, waste management, air and soil quality and urban water cycle. It will provide public opportunities to participate in active research, as well as exhibitions and public discussions. Results will be spread by grassroots showcases organised by the participants themselves, travelling exhibitions, making use of social media, as well as showcasing by innovation hubs, public institutions and other networked organisations.

WP5		
valuation	WP1	WP2
	Biodesign	Environmental Sustainability
	Events related to Biodesign which	Events related to Environmental
WP3	are targeted at members of the	Sustainability which are targeted
Public Engagement and Capacity	public and researchers	at members of the <b>public and</b>
Building	rescurencia	researchers
WP4	Events related to	Events related to
WP4	Biodesign which	Environmental
Policy Engagement	are targeted at	Sustainability which are
for RRI	policy makers	

#### Figure 1-The DITOs Work Packages

WP3 Public Engagement and Capacity Building is a dissemination and support work package, focusing on the engagement of the public and researchers in the thematic activities using, for example, online and offline media and travelling exhibitions. This work package will also include the dissemination of project learning to the public and to researchers, the establishment and operation of the DITOs webbased information space and knowledge-sharing platform. WP3 will establish ECSA as a permanent pan-European knowledge and resource centre for building capacity in citizen science.

WP4 Policy Engagement and RRI is the complementary outreach work package focusing on specific mechanisms to communicate with and engage policy makers at local, national and EU levels. DITOs will engage politicians and funding agencies through the use of targeted discussions, Discovery Trips, guidelines and summaries,

culminating in developing policy briefs, policy recommendations and the organisation of a Pan-European Policy Forum in Brussels.

WP5 Evaluation has two important aspects, which are different but complementary. The first is to gather and evaluate feedback on the processes and outcomes from DITOs own activity. The second is to provide organisations with a robust framework for evaluating citizen science and DIY science activities in different contexts, from public exhibitions to DIY workshops. The evaluation framework will thus form part of the permanent legacy of the project.

WP6 Coordination, Support and Management focuses on the management of DITOs as a whole, the coordination of the programme of activity, communication between partners and resolution of disputes. It will address the crucial issues of Intellectual Property Rights (IPR), innovation management, business models and sustainability in citizen science; it also dedicates specific effort to open data management in the context of citizen science and DIY science.

WP7 Ethics Requirements is an additional work package, which was required by the EC, and contains documentation of the consortium data protection procedures and ethics guidelines.

## 4.2 DMP Objectives

The DMP identifies the datasets that will be generated and used during the project with respect to each work package and defines each dataset's purpose and life cycle.

The project is in itself a study of how to perform and evaluate such activities, with many of the deliverables being guidelines and proposals on how to run future projects and ensure that citizen science continues to grow and flourish.

This means that there are two categories of dataset within DITOs:

- those concerned with data on how to run citizen science activities (e.g. event attendance statistics and mailing lists) and also
- those concerned with data generated from the citizen science activities performed during the project (e.g. air quality monitoring measurements)

For the former, this document defines the data that will be stored during the project and archived after the project, alongside associated processes, whilst for the latter, the aim is to identify principles and enable good practices. The production of individual data plans for each individual citizen science project is beyond the scope of a CSA DMP. It is anticipated that some partners <u>may</u> identify 'showcase' projects for which data management of results may be evaluated, or schemas such as PPSR\_CORE (Public Participation in Scientific Research), currently under development by the Citizen Science Association, may be trialled, with appropriate feedback noted, but this is beyond the scope of the DITOs aims.

Because DITOs is focusing on how citizen science projects should run, and encompasses a wide range of scientific practices, our focus is on the information about citizen science activities and not on the scientific outputs of these activities. Thus, we will focus only on the first point above.

The DMP is not a fixed document – it will evolve with the lifecycle of the project as increasing detail emerges and as procedures and methodologies are developed in

response to ongoing project evaluations. It will be updated whenever significant changes arise, such as (but not limited to):

- New data
- Changes in consortium policies
- Changes in consortium composition

The document will be revisited before the month 15 periodic review of the project and at the end of the project, in line with Guidelines on FAIR Data management in Horizon 2020 (European Commision, 2016)

This document should be read in conjunction with deliverables D7.2 and D7.1 which examine respectively the use of the data in conjunction with local and EU Data Protection Policy and the ethical use of data; this document is therefore restricted purely to the mechanics of the data management.

In accordance with Guidelines on FAIR Data management in Horizon 2020 (European Commision, 2016), the objectives of the deliverable are:

- To identify the datasets that the DITOs CSA will produce;
- To define how these datasets will be made 'FAIR' (Findable, Accessible, Interoperable and Reusable);
- To define the allocation of resources (costs and responsibility) for data management during and after the project;
- To define procedures for data security (including data recovery as well as safe storage) during the project and for long term preservation.

It is the responsibility of every partner to ensure they notify the coordinator of changes in the data they are collecting during the project.

## 5 Data Management Plan

### 5.1 Datasets Identified

All DITOs partners have identified the datasets that will be produced by each WP as show below.

Dataset Name and Outline of Data	Dataset Custodian	WP
DS1_DITOs_BioDesign_Events_Evaluation	UPD	1
Biodesign event statistics and evaluations (qualitative and quantitative).		
	MP	2
DS2_DITOs_Enviromental_Sustainability_Events_Evaluation		
Environmental sustainability event statistics evaluations event statistics and evaluations (qualitative and quantitative).		

Dataset Name and Outline of Data	Dataset Custodian	WP
DS3_DITOs_Capacity_Building_Tools_Results	WS	3
Project website and its supporting tools (e.g. event mapping tools, discussion forums) and online engagement statistics.		
DS4_DITOs_Policy_Engagement_RRI	ECSA	4
Public engagement and Discovery Trip event statistics and evaluation (qualitative and quantitative).		
DS5_DITOs_Evaluation	eutema	5
Framework for evaluating citizen science and gathering feedback.		
DS6_DITOs_Business_Model_Innovation_Plan	UCL	6
This dataset consists of project outputs, such as deliverables. It is not research data, but has been included in the plan for completeness of data security and backup procedures.		
DS7_DITOs_Involvees	UCL	6
Consortium members, global subscribers to mailing lists, participants.		
DS8_DITOs_Promotional_Material	WS	3
Event materials and outputs (such as Project Newsletters, blogs, tweets, social media posts, presentations, photographs, videos) which have been analysed/referred to by papers/research.		

Details for each dataset are given in section 6 - Dataset Details.

## 5.2 FAIR Data

This section is written using the standard H2020 template for FAIR data given in Guidelines on FAIR Data management in Horizon 2020 (European Commision, 2016).

For ease of understanding and to ensure completeness of the H2020 DMP requirements, the template prompts are included below as questions (Q), with the answers (A) underneath.

#### 5.2.1 Making Data findable, including Provisions for Metadata

Q: Are the data produced and/or used in the project discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. persistent and unique identifiers such as Digital Object Identifiers)?

A: All data will have an associated metadata document (stored as a .txt file) which describes key aspects of the data, as defined in APPENDIX 1- Metadata to be recorded against each Dataset.

Q: What naming conventions do you follow?

A: Event listings are stored in a central spreadsheet and individual events are assigned a unique identifier of the format XXX\_YYYYMMDD where XXX is the partner

short name (as defined in the definitions and acronyms table) and YYYYMMDD is the start date of the event.

Project deliverables are assigned a unique identifier DITOs-D9.9-YYYYMMDD.

All files made publicly available should reference DITOs in their name, with the recommendation that the convention DITOs-xxxxxxx where xxxxxxx is a meaningful short description.

Photographs and audio/visual recordings should be named DITOs-XXX-YYYYMMDDnnnnnnn where XXX-YYYYMMDD is the event identifier and nnnnn is a brief description of the event/photograph content.

Q: Will search keywords be provided that optimize possibilities for re-use?

A: Yes, an allowance has been made for this in project metatdata.

Q: Do you provide clear version numbers?

A: Filenames will include creation date in YYYYMMDD format. Deliverable reports will have a data identification sheet and version log.

Q: What metadata will be created? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

A: Every Dataset will have an associated text document with its associated metadata. An appropriate scheme for a CSA project is being evaluated, but at minimum the information associated with each dataset is given in APPENDIX 1- Metadata to be recorded against each Dataset.

#### 5.2.2 Making Data openly accessible

Q: Which data produced and/or used in the project will be made openly available as the default? If certain datasets cannot be shared (or need to be shared under restrictions), explain why, clearly separating legal and contractual reasons from voluntary restrictions. Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data closed if relevant provisions are made in the consortium agreement and are in line with the reasons for opting out.

A: The only data which will not be made openly accessible will be data which contains personally identifiable information (e.g. individual evaluation forms) These will be summarised and any individual forms used for research publications (such as inclusion in 'user stories') will be redacted or anonymised before online storage.

Q: How will the data be made accessible (e.g. by deposition in a repository)?

A: During the project, a subset of summary data (e.g. event visitor statistics and feedback summaries) will be made accessible by one or more methods below:

- Via newsletters, reports and other publications on the online knowledge sharing platform (togetherscience.eu) developed as part of WP3;
- Via partner's local websites;

#### • Via social media.

Detailed data will be available to all consortium partners via the project shared drive (with the exception of individual questionnaires which will be stored at each partner's premises) The access to this drive is restricted to project partners.

Should other individuals wish to access the data for research purposes during the project, it will be openly shared on request.

At the end of the project, data to be preserved (as identified in section 4.1) will be stored in a suitable data repository. This repository will be identified at a later date as the project progresses.

Q: What methods or software tools are needed to access the data?

A: Data will be published using standard file formats (pdf, csv) according to <u>http://data-archive.ac.uk/create-manage/format/formats-table</u> (accessed 19/10/2016).

Q: Is documentation about the software needed to access the data included?

A: With the exception of the knowledge sharing platform, all data will be accessed using standard tools according to <u>http://data-archive.ac.uk/create-</u><u>manage/format/formats-table</u> (accessed 19/10/2016).

The knowledge sharing platform is a bespoke platform which is in itself a deliverable and as such, D3.1 will document the platform. It should be noted that the majority of data disseminated via the platform will be data which is sourced from other DITOs data (e.g. event mappings – the 'raw' data is the project event journal spreadsheet).

Q: Is it possible to include the relevant software (e.g. in open source code)?

A: This is not seen as being a requirement, but should it be needed we will provide the required open source to access and analyse the data. E.g. the CS participation map is using Kibana open source for visualizing and analysing the data.

Q: Where will the data and associated metadata, documentation and code be deposited? Preference should be given to certified repositories which support open access where possible. Have you explored appropriate arrangements with the identified repository?

A: For the duration of the project, this will be stored on the shared drive. The appropriate archive repository will be identified at a later stage.

Q: If there are restrictions on use, how will access be provided?

A: At this stage, no restrictions are envisaged; should it be required, the appropriate open software will be provided to access the data or export the data to standard formats.

Q: Is there a need for a data access committee?

A: This is not anticipated at this stage in the project.

Q: Are there well described conditions for access (i.e. a machine readable license)?

A: It is planned that the knowledge sharing platform will incorporate machine readable Creative Commons (CC) licensing for all data shared during the project.

The requirements for archiving will be addressed when the repository is identified, but the underlying FAIR principles will be adopted.

Q: How will the identity of the person accessing the data be ascertained?

A: During the project, data will only be accessible on a password-controlled central storage facility.

For data published via the knowledge-sharing platform, this may contain the facility for end users to identify themselves (at their choice) and if this is the case, it may be possible to record such usage, but this facility is yet to be fully evaluated and will be examined further at a later date.

### 5.2.3 Making Data interoperable

Q: Are the data produced in the project interoperable, that is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc. (i.e. adhering to standards for formats, as much as possible compliant with available (open) software applications, and in particular facilitating re-combinations with different datasets from different origins)?

A: Yes – we use standard file formats as noted above.

Q: What data and metadata vocabularies, standards or methodologies will you follow to make your data interoperable?

A: Every dataset will have metadata.

Q: Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?

A: Citizen Science is by definition inter-disciplinary so PPSR\_CORE will be interdisciplinary, too.

Q: In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies?

A: This is not anticipated to be an issue.

#### 5.2.4 Increase Data Re-Use (through clarifying Licences)

Q: How will the data be licensed to permit the widest re-use possible?

A: It is planned that CC Licenses will be used for all data to be preserved.

Q: When will the data be made available for re-use? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

A: It is not envisaged that the project will publish or seek patents. The data collected and analysed during the project will be made openly available at the end of the project.

Q: Are the data produced and/or used in the project useable by third parties, in particular after the end of the project? If the re-use of some data is restricted, explain why.

A: All Personal Identifiable Information will be restricted to internal usage and not going to be shared with third parties. For shared information, standard format, open source software, and proper documentation will guarantee re-usability by third parties.

Q: How long is it intended that the data remains re-usable?

A: 10+ years.

Q: Are data quality assurance processes described?

A: DITOs has a quality assurance board; document D6.4 'Self-Assessment' address procedures to ensure data quality.

### 5.3 Allocation of Resources

An allowance of EUR 5000 has been made by the co-ordinator to cover the archiving and storage requirements (including manpower to prepare and manage data as well as storage fees).

### 5.4 Data Security

#### 5.4.1 Security of Data during the Project

Personal data such as individual questionnaire responses will be stored by partners in locked cabinets and shredded at the end of the project.

During the project regular data backups will be taken.

Section 6 Dataset Details identifies in detail:

- Partner responsible for securing data and the method of securing it;
- Partner responsible for backing up data.

For each dataset, a responsible partner has been identified – that partner will be responsible for ensuring everyone involved in the data is aware of their individual responsibilities.

#### 5.4.2 Storage of Data in Repositories after the Project

Citizen Science is inherently about open access to data for download and reuse. Data will be appropriately anonymised/redacted and will be published under the CC Attribution 4.0 International License.

It is anticipated that all data will be available for at least 10 years after the end of the project.

In addition, Project deliverables (public) will be submitted to the UCL Discovery Website, which is the public repository of the institution for research outputs. This will ensure FAIR conditions for the reports, papers, and deliverables that will be produced by the project.

### 5.5 Ethical Aspects

All data will be suitably anonymised before being made public; Event participants will sign appropriate disclaimers and permissions as identified in D7.1/D7.2.

### 6 Dataset Details

NB. All personal data on data identified for preservation to be redacted/ anonymised. Only photographs/recordings where participants are not the main focus of the event will be stored (see D7.2 for more detail on data protection)

## 6.1 DS1\_DITOs\_BioDesign\_Events\_Evaluation

Custodian: UPD, Work Package: WP1

WP1 Type of Data	Description	Access mechanism		During	Access during project C=consortium P=responsible partner	Backup / security during project P=responsible	X=selected examples may be	Preserved format	be	Access after project U=unrestricted
	Cookbooks and other									
	documents produced to aid									
Reports	event organisers.	word	doc	WP1 drive	С	UPD	Y	pdf	1-24	U
Participant	Questionnaires on paper			Partner's						
Satisfaction	completed by event		Physical	locked						
Surveys	attendees	n/a	Paper	cupboards	Р	Р	S	pdf	100	U
Participant										
Satisfaction										
Summaries	Summary of questionnaire	excel	xls	WP1 drive	С	UPD	Y	csv	10000 rows	U
	Photographs taken during			Media drive						
Event	event (with participants'	any picture		– partner's						
photographs	permission)	tool	jpg/png	folder	С	Р	S	jpg/png		

WP1 Type of Data	Description	Access mechanism	Working	Primary Storage During Project	project C=consortium	Backup / security during project P=responsible	X=selected examples may be	Preserved format	Volume to be preserved	Access after project U=unrestricted
Event				Partner's						
consent	Photography/ recording		Physical	locked						
forms		n/a	Paper	00000000	Р	Р	N	N/a	n/a	n/a
		any media		Media drive – partner's						
recordings	permission)	tool	mv4	folder	С	Р	S	mp4		
	information gathering forms/spreadsheets for partners to complete. Information gathered will be									
•	used for final delivery	word/excel	doc/xls	WP1 drive	Р	UPD	N	n/a	n/a	n/a
	Includes flyers, Event programmes, promotional videos.	word/excel/p	Doc/ppt	Media drive – partner's folder	A	P	x	n/a	n/a	n/a
		proprietary software (e.g. eventbrite)		Partner's	<u>.</u>			., ~		
Event		and local		local						
bookings	citizens booking for events		xls	storage	Р	Р	N	n/a	n/a	n/a
Event contacts databases	local subscribers email lists	varies with partner (e.g. meetup) and local extracts		Partner's local storage	Р	P				

WP1 Type of Data		Access mechanism		-	project C=consortium	Backup / security during project P=responsible	X=selected examples may be		be	Access after project U=unrestricted
								varies with		
Showcase	Code/data generated/event			Partner's				event but in line with		will vary with
										-
project		varies with		local	_	_		0		project and CS
outcomes	F - J	event	various	storage	Р	Р	Y	practice	projects	participants
	List of projects from DITOs									
	events to showcase/feature -									
	these will be a few selected									
	events where CS								1	
	participants' have given								spreadshee	
	explicit permission to share								t of	
	results and methods for								metadata	
	reports – plan to identify the			WP1					for	
Showcase	event and data following CSA			central					associated	
project list	metadata guidelines	excel/word	doc/xls	drive	Р	UPD	Y	csv	projects	U

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## 6.2 DS2\_DITOs\_Environmental\_Sustainability\_Events\_Evaluation

## Custodian: MP, Work Package: WP2

WP2 Type of Data	Description	Access mechanism	Working Format			Backup / security during project P=responsible	X=selected examples may be		Volume to	Access after project U=unrestricted
	Cookbooks and other								-	
Reports	documents produced to aid event organisers.	word	doc	WP2 drive	с	MP	Y	pdf	1-24	U
Participant Satisfaction	Questionnaires on paper completed by event		Physical	Partner's locked						
Surveys	attendees	n/a	Paper	cupboards	Р	Р	S	pdf	100	U
Participant Satisfaction										
Summaries	Summary of questionnaire	excel	xls	WP2 drive	С	MP	Y	csv	10000 rows	U
Event	Photographs taken during event (with participants'	any picture		Media drive – partner's						
photographs	permission)	tool	jpg/png	folder	с	Р	S	jpg/png		
Event				Partner's						
consent	Photography/ recording		Physical	locked						
forms	consent form	n/a	Paper	cupboards	Р	Р	N	N/a	n/a	n/a
Event	Recordings taken during event (with participants'	any media		Media drive – partner's						
recordings	permission)	tool	mv4	folder	С	Р	S	mv4		

	information gathering									
	forms/spreadsheets for									
Day-to-day	partners to complete.									
working	Information gathered will be				_					
documents	used for final delivery	word/excel		WP2 drive	Р	MP	N	n/a	n/a	n/a
Event	Includes flyers, Event			Media drive						
promotional	programmes, promotional	word/ excel/		<ul> <li>partner's</li> </ul>						
material	videos.		Doc/ ppt	folder	A	Р	Х	n/a	n/a	n/a
		proprietary								
		software								
		(e.g.								
		eventbrite)		Partner's						
Event		and local		local						
bookings	citizens booking for events	extracts	xls	storage	Р	Р	N	n/a	n/a	n/a
		varies with								
Event		partner (e.g.		Partner's						
contacts		meetup) and		local						
databases	local subscribers email lists	local extracts	xls	storage	Р	Р				
								varies		
								with		
								event but		
								in line		
Showcase	Code/data generated/event			Partner's				with CSA		will vary with
project	outputs from showcase	varies with		local				good		project and CS
outcomes	project list	event	various	storage	Р	Р	Y	practice	0-20 projects	participants
	List of projects from DITOs									
	events to showcase/feature -									
	these will be a few selected								1	
	events where CS								spreadsheet	
	participants' have given								of metadata	
	explicit permission to share			WP2					for	
Showcase	results and methods for			central					associated	
project list	reports – plan to identify the	excel/word		drive	Р	MP	Y	csv	projects	U
p. 5jeet not	plan to lacitly the		0.00,7.10		l.				[P. 9]0000	-

event and data following CSA					
metadata guidelines					

# 6.3 DS3\_DITOs\_Capacity\_Building\_Tools\_Results

Custodian: WS, Work Package: WP3

WP3 Type of Data	Description	Access mechanism	Working Format	-	C=consortium P=responsible	project P=responsible	Preserved after project? Y=all data S=representative sample N=no data X=selected examples may be used in other data, but source not preserved	Preserved	Volume to be preserved	Access after project U=unrestricted
-	Knowledge Sharing Platform source code	Standard editing software	Tbc	WS servers	ws	ws	Y	Tbc	Tbc	Tbc
	Event data used by knowledge sharing platform	Standard database tools	Tbc	WS servers	WS/UNIGE	ws	N	n/a	n/a	n/a
Knowledge	Items such as reports, blog entries, photographs, recordings, comments uploaded by partners and event participants	Knowledge sharing platform	Pdf / jpg /mv3/4 etc.	WS servers	0	WS	Y	Pdf /jpg /mp3/4 etc.	The	

WP3 Type of Data	Description			Primary Storage During	C=consortium P=responsible	Backup / security during project P=responsible	· · · · <b>,</b> · · · · · · · · ·	Preserved format	Volume to be preserved	Access after project U=unrestricted
		Via		-					-	
Online usage statistics –	Raw data on social media posts and knowledge sharing									
raw	platform access	xls	xls	WS	WS	WS	N	n/a	n/a	n/a
Online usage statistics - summaries	Summary extracts from raw	Xls	Xls	ws	С	ws	c	Csv	Tbc	U
summaries		Photoshop /	AIS	VV 5		VV 5	S	CSV		0
Branding	Logo designs, printed	other professional								
source Data	material designs	editing tools		WS	WS	WS	N	n/a	n/a	n/a
			Pdf, jpg,	Central media drive,						
Branding		•	-	branding						
Products	Logos, promotional material			folder	С	WS	Х	n/a	n/a	n/a
Photographs and	Discovery trip and science bus photographs and	Appropriate	Pdf, jpg, gif, png, mv3/4	Media drive – partner's						
recordings	recordings	•	-	folder	С	Р	S	Tbc	Tbc	U

WP3 Type of Data	<b>Description</b> Policy briefs, recommendations, findings	Access mechanism	Working Format	-	C=consortium P=responsible	Backup / security during project P=responsible	Preserved after project? Y=all data S=representative sample N=no data X=selected examples may be used in other data, but source not preserved	Preserved format	be	Access after project U=unrestricted
Reports	from discovery trips / science bus		doc	WP3 drive	с	WS	Y	pdf	1-24	U
Participant Satisfaction Surveys	Questionnaires on paper completed by discovery trips / science bus attendees		Physical Paper	Partner's locked cupboards	Ρ	Ρ	s	jpg	100	U
Participant Satisfaction Summaries	Summary of questionnaires	excel	xls	WP3 drive	с	ws	Y	csv	10000 rows	U
Event consent forms	Photography/ recording consent form	n/a	Physical	Partner's locked cupboards	Ρ	Ρ	N	n/a	n/a	n/a

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## 6.4 DS4\_DITOs\_Policy\_Engagement\_RRI

## Custodian: ECSA, Work Package: WP4

WP4 Type of Data	Description	Access mechanism	Working Format	Primary Storage During Project	C=consortium P=responsible	Backup / security during project P=responsible	Preserved after project? Y=all data S=representative sample N=no data X=selected examples may be used in other data, but source not preserved	Preserved format	Volume to be preserved	Access after project U=unrestricted
and	Discovery trip and round table photographs and recordings	Appropriate viewing software	Pdf, jpg, gif, png, mp3/4 etc.	Media drive – partner's folder	с	Ρ	S	Tbc	Tbc	U
	Policy briefs, recommendations, findings from discovery trips and round tables	word	doc			ECSA	Y	pdf	1-24	U
Participant Satisfaction Surveys	Questionnaires on paper completed by discovery trip and round table attendees	n/a	Physical Paper	Partner's locked cupboards	Ρ	Ρ	S	jpg	100	U
Participant Satisfaction Summaries	Summary of questionnaires	excel	xls	WP4 drive	С	ECSA	Y	csv	10000 rows	U

WP4 Type of Data	Description	Access mechanism		During	C=consortium P=responsible	project P=responsible	Preserved after project? Y=all data S=representative sample N=no data X=selected examples may be used in other data, but source not preserved	Preserved format	be	Access after project U=unrestricted
Event				Partner's						
consent	Photography/ recording		Physical	locked						
forms	consent form	n/a	Paper	cupboards	Р	Р	N	n/a	n/a	n/a
	Items such as blogs and reports on ECSA website		Pdf, doc, jpg etc.	ECSA servers	o	ECSA	x	n/a	n/a	n/a

## 6.5 DS5\_DITOs\_Evaluation

## Custodian: eutema, Work Package: WP5

WP5 Type of Data	Description	Access mechanism		-	C=consortium P=responsible	Backup / security during project P=responsible		Preserved format	Volume to be preserved	Access after project U=unrestricted
Evaluation reports	Reports on evaluation progress	Word	Doc	WP5 drive	с	eutema	Y	Pdf	1-12 reports	U
Evaluation summary data	Spreadsheets used to verify evaluation report	Excel	Xls	WP5 drive	с	Eutema	Y	Csv	Tbc	tbc

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## 6.6 DS6\_DITOs\_Business\_Model\_Innovation\_Plan

Custodian: UCL Work Package: All

Type of Data	Description	Access mechanism		-	C=consortium P=responsible	Backup / security during project P=responsible		Preserved format	Volume to be preserved	Access after project U=unrestricted
				Relevant WP,						
CSA	Formal deliverable from			deliverable					1-12	
deliverable	DITOs CSA	Word	Doc	folder	С	Р	Y	Pdf	reports	U
Academic publication	Academic publication arising from DITOs CSA	Word	Doc	Partners local storage	P	Ρ	Y	Pdf	1-6 papers	U
Dissemination record	Record of dissemination events about DITOs	Excel/ googleform	Xls	WP6 drive	с	UCL	Y	Csv	50 rows	U

# 6.7 DS7\_DITOs\_Involvees

Custodian: UCL Work Package: All

				•	C=consortium P=responsible	Backup / security during project	Preserved after project? Y=all data S=representative sample N=no data X=selected examples may be used in other		Volume to	Access after
		Access	Working	During	Partner	P=responsible	data, but source	Preserved	be	project
Type of Data	Description	mechanism	Format	Project	O=open access	partner	not preserved	format	preserved	U=unrestricted
	List of subscribers, including									
	event attendees,									
Contacts	participants, contributors.			Central						
database	(all with consent given)	Excel	Xls	drive	С	UCL	Ν	N/A		

## 6.8 DS8\_DITOs\_Promotional\_Material

Custodian: WS Work Package: 3

Type of Data	Description			-	Access during project C=consortium P=responsible Partner O=open access	project P=responsible		Preserved	Volume to be preserved	Access after project U=unrestricted
	Items such as project newsletters, blogs, tweets,									
	social media posts, presentations, photographs,									
	videos which have been									
Publicity	analysed/referred to by	Project drive	Jpg, doc	Central						
material	papers/research	media folder	etc.	drive	С	WS	S	Pdf/jpg etc.	tbc	U

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## 7 Conclusions

This DMP identifies the data that is planned to be stored during and after the DITOs CSA. It will need revision as the project progresses and the value of data collected is evaluated, alongside decisions to collect additional data.

The identification of a suitable data repository is the project's next priority; once this has been identified, the DMP will be revisited and revised accordingly to the requirements of the repository.

Once the repository has been identified, a comprehensive review against OpenAIRE guidelines will also be undertaken.

As the knowledge sharing platform (D3.1) is being developed alongside this DMP, the use of CC licensing will be re-evaluated and other equivalent alternatives sought if these are technically more appropriate.

## 8 References

European Commision, 2016. *Guidelines on FAIR Data Management in Horizon 2020.* [Online] Available at:

http://ec.europa.eu/research/participants/data/ref/h2020/grants\_manual/hi/oa\_pilot/h 2020-hi-oa-data-mgt\_en.pdf

European Commission, 2016. *Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020 v3.1.* [Online]

Available at:

http://ec.europa.eu/research/participants/data/ref/h2020/grants\_manual/hi/oa\_pilot/h 2020-hi-oa-pilot-guide\_en.pdf

[Accessed 03 November 2016].

## **1** APPENDIX 1- Metadata to be recorded against each Dataset

Each WP folder on the central drive should contain a doc file with the following information:

Field	Value						
Project Name	DITOs						
Principal Investigator	Muki Haklay						
Project Description	Citizens have a major role to play in addressing the challenges to a sustainable future. It is by 'doing science together' that we combine our resources and expertise to raise awareness, build capacity, and innovative lasting solutions grounded in society. We address the call for Pan-European public outreach in science with and for society, through a tangible 'Do It Together' (DIY) method for wide and deep public engagement and participation in science.						
	This project will support and build upon DIY, grassroots, and frugal innovation initiatives so that in the short and medium term we sustain localised capacity building and in the long term the effects of these grassroots efforts channel into policy makers at different levels, from external advice to societal inputs, regarding appropriate research and innovation policies. 'Doing-It-Together science' (DITOs) aims to build the institutional and policy foundations for deep public engagement in science and technology in Europe.						
Funding Sources	Horizon 2020						
Responsible Organisation	Partner name						
Contact Person	Partner Contact Name						
Contact Email	Partner Email						
Data Overview	Dataset description as given by this document						
Technical Information of Files	For qualitative data, description and format of each element						
Coding Instrument	The name of the mechanism for accessing files						
Data Collection Start Date							
Data Collection End Date							
Confidentiality Classification	Confidential/Public						
Data Subject	Events/Methodology/Technology/People						
Keywords	List of keywords						

## 2 APPENDIX 2 – Creative Commons Licence

All publicly-available reports should contain the following creative commons text:

**Copyright Notice** 



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