Introduction
* 1. Name of your organisation:  * 2. Country (of your organisation):
6

### **Policies and Procedures**

The following questions address the policies and procedures regarding data management (acquisition, storage and access). With digital research data is meant all digital information regarding scientific research. This ranges from experimental data, theoretical models, to official publications in a journal.

pos €	Journal and e-journal publications
€	e-books
ê	Reports
É	Theses
É	Data sets
€	Auxiliary material (e.g. software)
É	Illustrative material (e.g. images, videos, animations and sound)
ê	Don't know, please forward this survey to another colleague (provide email address later in this survey)
ê	Other (please specify)

### Policies and Procedures (cont.)

*	4. Please indicate which of the following types of digital research data you store:
	(multiple answers possible)

€	Standard office documents (text documents, spreadsheets, presentations
€	Network-based data (web sites, e-mail, chat history, etc.)
ē	Databases (DBASE, MS Access, Oracle, MySQL, etc.)
ē	Images (JPEG, JPEG2000, GIF, TIF, PNG, SVG, etc.)
ē	Structured graphics (CAD, CAM, 3D, VRML, etc.)
ē	Audiovisual (multimedia) data (WAVE, MP3, MP4, Flash, etc.)
ē	Scientific and statistical data formats (SPSS, FITS, GIS, etc.)
ē	Raw data (device specific output)
ē	Plain text (TXT in various encodings)
ē	Structured text (XML, SGML, etc.)
ē	Archived data (ZIP, RAR, JAR, etc.)
€	Software applications (modelling tools, editors, IDE, compilers, etc.)
€	Source code (scripting, Java, C, C++, Fortran, etc.)
ē	Configuration data (parameter settings, logs, library files)
€	Other, please specify below.

\* 5. Please provide us with an estimate of the volume of stored digital data (excluding back ups) as well an estimate of its volume in 2 and 5 years.

	0MB	1-100MB	100MB-1GB	1GB-1TB	1TB-1PB	1PB-10PB	>10PB	Don't know
Current	ja	<b>j</b> n	ja	jn	jn	<b>j</b> n	<b>j</b> to	<b>j</b> n
In 2 Years	<b>j</b> n	<b>j</b> m	<b>j</b> m	<b>j</b> m				
In 5 Years	jn	jn	ja	ja	jn	ja	<b>j</b> n	<b>j</b> m

\* 6. Do you have policies and procedures in place which determine what kinds of data is accepted for storage/preservation by your organisation, and how and when it needs to be submitted?

jm	Yes
jn	No
m	Don't know

## Policies and Procedures (cont.)

## $^{\star}$ 7. Do these procedures address the following?

	Yes	No	Don't know
Selection criteria regarding what to	jn	<b>j</b> n	<b>j</b> n
submit/accept.			
Requirements regarding standard formats.	<b>j</b> m	<b>j</b> m	<b>j</b> n
Information about copyrights of data submitted.	j'n	j'n	<b>j</b> α
The way in which data is submitted.	<b>j</b> m	jn	<b>j</b> m
Responsibilities for data storage and management.	ja	<b>j</b> α	<b>j</b> n
Liability when data is lost or affected.	<b>j</b> m	<b>j</b> n	<b>j</b> m

# Policies and Procedures (cont.)

$^\star$ 8. Do you have policies in place which require those who submit data to show who has previously enhanced, annotated or had access to the data?
j <sub>r∩</sub> Yes
j <sub>∩</sub> No
j⁻∩ Don't Know
$^{\star}$ 9. Do you have policies and an infrastructure to guarantee that data are properly managed and maintained to ensure continued access and usability?
j⁻∩ Yes
jn No
jn Don't Know
$^{\star}$ 10. Do you have security protocols that protect stored data from unauthorized modification, damage or deletion?
jn Yes
j₁ No
j⁻∩ Don't Know
* 11. Do you arrange training for/give advice to researchers/research institutes to ensure good practice when they submit digital research data?
ensure good practice when they submit digital research data?
ensure good practice when they submit digital research data? $$j_{\text{T}}$$ $$\gamma$$
ensure good practice when they submit digital research data?  jn Yes  jn No
ensure good practice when they submit digital research data?  jn Yes  jn No  jn Don't Know  * 12. Do you have procedures to determine ownership and for identifying and
ensure good practice when they submit digital research data?  jn Yes  jn No  jn Don't Know  * 12. Do you have procedures to determine ownership and for identifying and managing data rights?
ensure good practice when they submit digital research data?  jn Yes  jn No  jn Don't Know  * 12. Do you have procedures to determine ownership and for identifying and managing data rights?  jn Yes
ensure good practice when they submit digital research data?  jn Yes  jn No  jn Don't Know  * 12. Do you have procedures to determine ownership and for identifying and managing data rights?  jn Yes  jn No
ensure good practice when they submit digital research data?  jn Yes  jn No  jn Don't Know  * 12. Do you have procedures to determine ownership and for identifying and managing data rights?  jn Yes  jn No  jn Don't Know  * 13. Do you arrange training for/give advice to researchers/research institutes to
ensure good practice when they submit digital research data?  jm Yes  jm No  jm Don't Know  * 12. Do you have procedures to determine ownership and for identifying and managing data rights?  jm Yes  jm No  jm Don't Know  * 13. Do you arrange training for/give advice to researchers/research institutes to ensure good practice when they submit digital research data?

j <sub>n</sub> No	arrangements/mean		
jn Don't know			
S			
Yes (please specify)	5		
	6		

## **Operational Resources**

Preservation means that data is specifically curated to be re-usable in the long term. The following questions address the preservation of digital research data.

# \* 15. Please indicate which of the following digital research data you PRESERVE for the long term: (multiple answers possible)

0	riong torm (manipio anonoro possible)
€	Standard office documents (text documents, spreadsheets, presentations)
€	Network-based data (web sites, e-mail, chat history, etc.)
€	Databases (DBASE, MS Access, Oracle, MySQL, etc.)
€	Images (JPEG, JPEG2000, GIF, TIF, PNG, SVG, etc.)
€	Structured graphics (CAD, CAM, 3D, VRML, etc.)
€	Audiovisual (multimedia) data (WAVE, MP3, MP4, Flash, etc.)
€	Scientific and statistical data formats (SPSS, FITS, GIS, etc.)
€	Raw data (device specific output)
€	Plain text (TXT in various encodings)
€	Structured text (XML, SGML, etc.)
€	Archived data (ZIP, RAR, JAR, etc.)
€	Software applications (modelling tools, editors, IDE, compilers, etc.)
€	Source code (scripting, Java, C, C++, Fortran, etc.)
€	Configuration data (parameter settings, logs, library files)
€	Other, please specify below.
<b>*</b> 16.	Does your organisation have any of the following preservation strategies in
pla	ce?
€	Migration (periodic conversions of file formats to popular formats of today)
€	Normalisation (conversion of all data to one standardized file format sustainable over time)
€	Emulation (no conversions of the original data but capturing the original software used to access it)
€	Outsourced to a third-party service
€	No preservation strategies in place
€	Don't know
é	Other (please specify)

* 17. Do you think your current infrastructures will scale with future requirements?
jn Yes
j₁∩ No
jn Don't Know
* 18. Do you share infrastructures with other organizations?
j <sub>n</sub> Yes
j₁∩ No
jn Don't Know

Operational Resources (cont.)		
19. How are (or should) these shared infrastructure (be) managed?		

Operational Resources (cont.)
$^{\star}$ 20. Do you think there will be a need for sharing resources?
j <sub>™</sub> Yes
j <sub>∩</sub> No
jn Don't Know
* 21. Do the tools and infrastructure available to you suffice for the digital preservation objectives you have to achieve?
j <sub>n</sub> Yes
j₁ No
j <sup>™</sup> Don't know

#### Access

The following questions address if and how data, stored at your organisation, can be accessed by external users.

\* 22. If data stored at your facility can be accessed by third party users then do you have procedures in place arranging the level of access (e.g. read-only, annotation rights)?



\* 23. Do you have procedures determining what is made available in conformity with legal, ethical and other considerations?

m	Yes
<b>j</b> n	No
<b>j</b> m	Don't Know

* 24. Are the rules and regulations with regard to access laid down in a 'terms and conditions' statement which has to be accepted by users before access is granted to	
them?	)
j <sub>n</sub> Yes	
jn No	
jn Don't Know	

Access (cont.)
$^{\star}$ 25. Is it possible for users of the data stored at your organisation to link to that data when referencing it in a journal?
j <sub>n</sub> Yes
j∩ No
j₁ Don't Know
$^{\star}$ 26. Have procedures been established for the peer review of data to be made available to others?
jn Yes
j₁ No
jn Don't know

Access (cont.)	
27. Is it made clear to users that the data has been subject to peer review?	
jn Yes	
jn No	
j⁺∩ Don't know	

nan	cial Resources			
28.	Is funding for dig	ital preservation curr	ently an issue for you	u? Will it be an issue ir
5 y	ears or 10+ years			
Curre	ant	Yes	No 4-0	Don't know
5 year		ja ja	ja jn	ja jn
10+ y		jn	ja	ja ja
29.	What are your ma	in sources of fundin	g?	
€	Research funder			
ê	Research community (research	archers collectively)		
€	Government (national fund	ling)		
é	European Union (European	n funding)		
€	Commercial sponsoring			
€	Don't know			
ê	Don't know Other (please specify):			
ē	Other (please specify):	vho is responsible fo	r preservation of digi	ital research data?
€ 30.	Other (please specify):		r preservation of digi	ital research data?
€ 30.	Other (please specify):  In your opinion, v		r preservation of digi	ital research data?
€ 30. (mu	Other (please specify):  In your opinion, vultiple answers po		r preservation of digi	ital research data?
€ 30. (mu	Other (please specify):  In your opinion, vultiple answers po		r preservation of digi	ital research data?
€ 30. (mu	Other (please specify):  In your opinion, vultiple answers po Research funder Researcher	ssible)	r preservation of digi	ital research data?
€ 30. (mu € €	Other (please specify):  In your opinion, valtiple answers por Research funder Researcher The researcher's institute	ssible)	r preservation of digi	ital research data?
€ 30. (mu € € €	Other (please specify):  In your opinion, valtiple answers por Research funder Researcher The researcher's institute Research community (research	ssible)	r preservation of digi	ital research data?
€ 30. (mu € € € €	Other (please specify):  In your opinion, valtiple answers por Research funder Researcher The researcher's institute Research community (research publisher A coalition of publishers	ssible)		ital research data?
6 30. (mu	Other (please specify):  In your opinion, valtiple answers por Research funder Researcher The researcher's institute Research community (research publisher A coalition of publishers	archers collectively)		ital research data?
6 30. (mu	Other (please specify):  In your opinion, valtiple answers poor Research funder Researcher The researcher's institute Research community (research	archers collectively)		ital research data?
6 30. (mu 6 6 6 6 6 6 6 6	Other (please specify):  In your opinion, valtiple answers por Research funder Researcher The researcher's institute Research community (research community) A coalition of publishers A specialised external organizational library	archers collectively)		ital research data?
6 30. (mu 6 6 6 6 6 6 6 6	Other (please specify):  In your opinion, valtiple answers por Research funder Researcher The researcher's institute Research community (research community) A coalition of publishers A specialised external organizational library Research library	archers collectively)		ital research data?
6 30. (mu 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Other (please specify):  In your opinion, valtiple answers por Research funder Researcher The researcher's institute Research community (research community) Research a coalition of publishers A specialised external organism National library Research library Government	archers collectively)		ital research data?

(mu	ultiple answers possible)
€	Research funder
€	Researcher
€	The researcher's institute
É	Research community (researchers collectively)
Ē	Publisher
É	A coalition of publishers
ē	A specialised external organisation (Portico, CLOCKSS, etc.)
ē	National library
ē	Research library
ē	Government (national funding)
ē	European Union (European funding)
ê	Commercial organisation (profit data centre)
Ē	Don't know
É	Other (please specify)

### Reasons for and threats to preservation

# $^{\star}$ 32. Please indicate how important you think the following reasons for preserving digital data are:

	Very important	Important	Slightly important	Not important
If research is publicly funded, the results should become public property and therefore properly preserved.	jn	jα	j∙ı	jα
It will stimulate the advancement of science (new research can build on existing knowledge).	<b>j</b> m	<b>j</b> n	<b>j</b> n	<b>j</b> n
It may serve validation purposes in the future.	jα	<b>j</b> n	<b>j</b> n	<b>j</b> α
It allows for re-analysis of existing data.	<b>j</b> n	<b>j</b> n	<b>j</b> m	<b>j</b> m
It may stimulate interdisciplinary collaborations.	<b>j</b> o	<b>j</b> n	Ĵτ	<b>j</b> o
It potentially has economic value.	<b>j</b> n	<b>j</b> n	<b>j</b> m	<b>j</b> n
It is unique.	jm	jm	<b>j</b> m	<b>j</b> ra

### $\star$ 33. How important do you regard the following threats over the next 10 years?

	Very Important	Important	Slightly Important	Not Important	Don't Know
Users may be unable to understand or use the data e.g. the semantics, format or algorithms involved	jo	<b>j</b> n	<b>j</b> α	jα	jα
Lack of sustainable hardware, software or support of computer environment may make the information inaccessible	j'n	jm	jm	<b>j</b> m	<b>j</b> m
Evidence may be lost because the origin and authenticity of the data may be uncertain	<b>j</b> n	jα	<b>j</b> n	<b>j</b> α	<b>j</b> n
Access and use restrictions (e.g. Digital Rights Management) may not be respected in the future	<b>j</b> n	<b>j</b> n	<b>j</b> m	<b>j</b> n	jn.
Loss of ability to identify the location of data	<b>j</b> to	ja	<b>j</b> o	<b>j</b> o	<b>j</b> ta
The current custodian of the data, whether an organisation or project, may cease to exist at some point in the future	j'n	<b>j</b> m	<b>j</b> m	<b>j</b> m	j'n
The ones we trust to look after the digital holdings may let us down	jn	<b>j</b> n	ja	<b>j</b> a	<b>j</b> n

* 34. Do you think that an international infrastructure for data preservation and access	
should be built to help guard against some of these threats?	
j <sub>n</sub> Yes	
j∩ No	
jn Don't Know	

Reasons for and threats to preservation (cont.)	
35. What do you think this infrastructure should look like?	
5	
6	

Reasons for and threats to preservation (cont.)		
val	Apart from an infrastructure, what do you think is needed to guarantee that uable digital research data is preserved for access and use in the future? (multiple swers possible)	
É	Training	
é	More knowledge/expertise	
é	More resources (financial and operational)	
É	More digital repositories/archives	
É	Nothing else	
ê	Other (please specify)	

#### **Final questions**

# \* 37. Regarding current movements in scholarly communication, which of the following scenarios do you think is likely to happen:

jn The publication process will not change much. The traditional publication model will not alter in terms of peer review and dissemination via research journals. Publishers and their journal programmes will remain the central player in the certification of quality and the branding excellence.

jn Similar as the previous option, except that open access journals will become mainstream via the author-pays model, and most articles are also accessible via institutional repositories. Paid-for subscriptions will each the end of their lifetime.

in A hybrid model, combining subscription-based journals and open access journals, while the journal model remains dominant.

jn Most research results will be Open Access and available for free via institutional repositories, leading to fast commoditization of research information. Publishers and their journal programmes will be under strain and face difficulties to keep their business models healthy because of the availability of so much free information. As a consequence, many smaller and more specialised journals will disappear, publishers will face severe challenges to survive in the journal market.

publishers will become news aggregators, selecting and combining latest research outcomes residing in institutional repositories (overlaid journals).

jn The publisher will become a provider of information management services to free and open access content. Content such as publications and research data are commoditized and freely available, users can have (open) access to it. Publishers offer search tools and evaluation services for the free content as a paid-for service for better findability, retrievability and usability of the free content.

jm	Other (please specify)

# \* 38. Do you think the following initiatives would be useful for raising the level of knowledge about preservation of digital research data?

	Very useful	Useful	Slightly useful	Not useful	Don't know
Workshops on preservation	ja	to	<b>j</b> a	<b>i</b> to	ho
of digital material	J.,	J	J	) .	J
User-oriented training	<b>i</b> n	m	m	in	In
sessions on digital	J: i	Jii	J: i	J : 1	J
preservation					
International knowledge	ho	to	<b>i</b> ta	<b>i</b> n	ho
platform/forum on digital	Jsi	Jsi	Jsi	J	Jsi
preservation					
Development of	h	<b>t</b> n	<b>i</b> n	in	<b>i</b> n
guidelines/manuals on	J: i	J: i	J: 1	J : 1	J: 1
how to preserve digital					
data					

\* 39. Would you be prepared to be interviewed by telephone after completion of this survey in order to help to shape the European preservation infrastructure?

jm	No
jm	Yes. Please provide your email address.

jn No		
j <sub>n</sub> Yes		
1. Are thei	e others to whom we should send t	his questionnaire?
j <sub>n</sub> No		<b>4</b>
	provide the email address of a person to whom we may	send this questionnaire.
2. Do you	want to be informed about the resul	ts of this survey?
jn No		
jn Yes		
Please provide y	our email address, unless provided above:	

Thank you!
Thank you very much for answering our questions. With your answers we are able to outline the current state of preservation and access of digital data in science.
If you entered your email address we will inform you about the final results of this project. In any case, you can visit our website www.parse-insight.eu.
Please click 'done' to finish this survey.