



HELMHOLTZ CLOUD SERVICE SELECTION PROCESS -SHORTENED VERSION FOR HIFIS MEETING ON 21.-22. OCTOBER 2020-

Laura Schollmaier
Service Portfolio Manager

Content

Information on the Service Selection Process

The Service Selection Process in one picture

The Results of the Service Selection – initial Portfolio for Helmholtz Cloud

Selected Services

The Results of the Service Selection – Results per Iteration

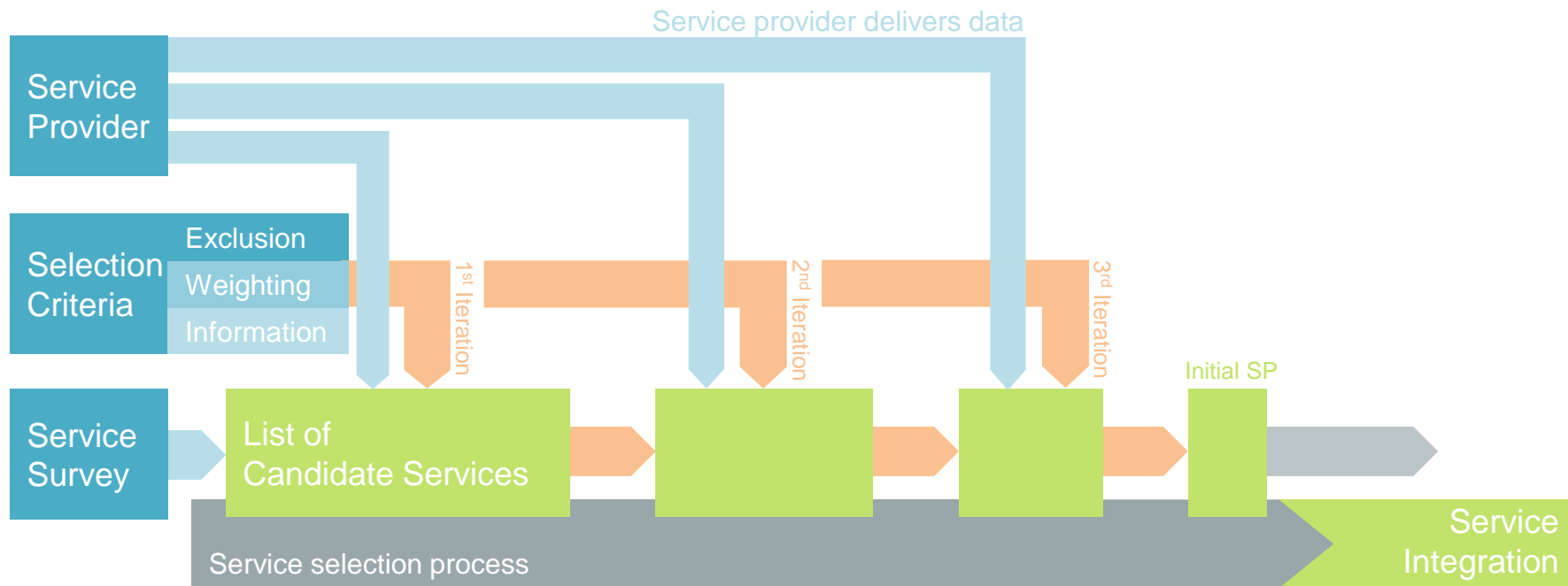
The 1st Iteration of Service Selection

The 2nd Iteration of Service Selection

The 3rd Iteration of Service Selection

Next steps/ Roadmap

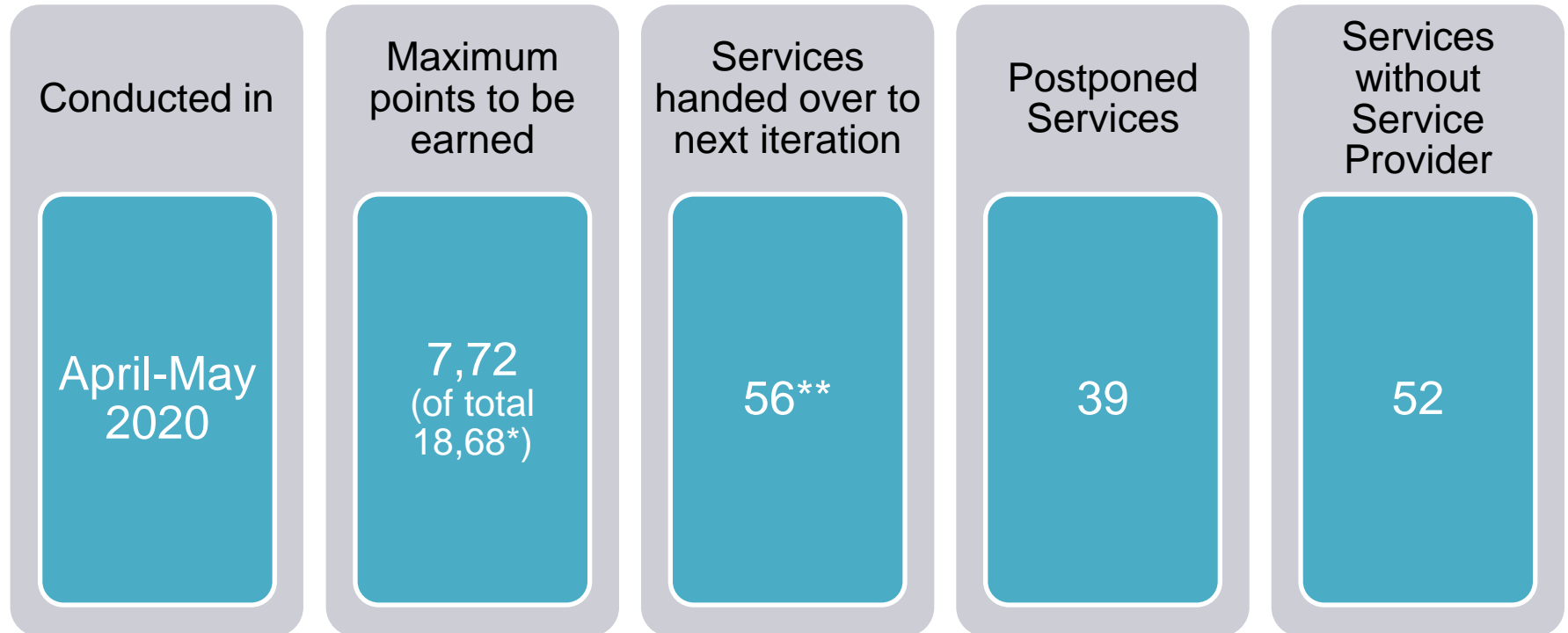
Process Overview



Results of Service Selection – initial Service Portfolio for Helmholtz Cloud

Service	Service Providers	Service Category
OpenStack	Jülich, Jülich (HDF), KIT, DKFZ	Infrastructure Services
Storage (HDF)	Jülich, DESY	
HAICORE (HAICU, HIP)	KIT, Jülich	
Singularity	KIT, Jülich	
Docker	DESY	
GPU Compute Service	Jülich, HZDR	
AWI Marketplace	AWI	
GitLab	HZDR, KIT, Jülich, GEOMAR	Science/Community Services
JupyterHub	Jülich, DESY, DKFZ, HMGU	
B2Share (Invenio)	Jülich	
JupyterHub Notebooks on HPC	KIT	
ODV	AWI	
RODARE	HZDR	
Ocean and Climate Sensor Management	AWI	Collaboration Services
Rocket.Chat	Jülich	
Zammad	HZDR	
Mattermost	HZDR	
Nextcloud (OnlyOffice)	KIT, HZB, DESY	
LimeSurvey	HMGU, DKFZ	
Redmine	HZDR, HMGU	
ShareLaTeX	HZDR	

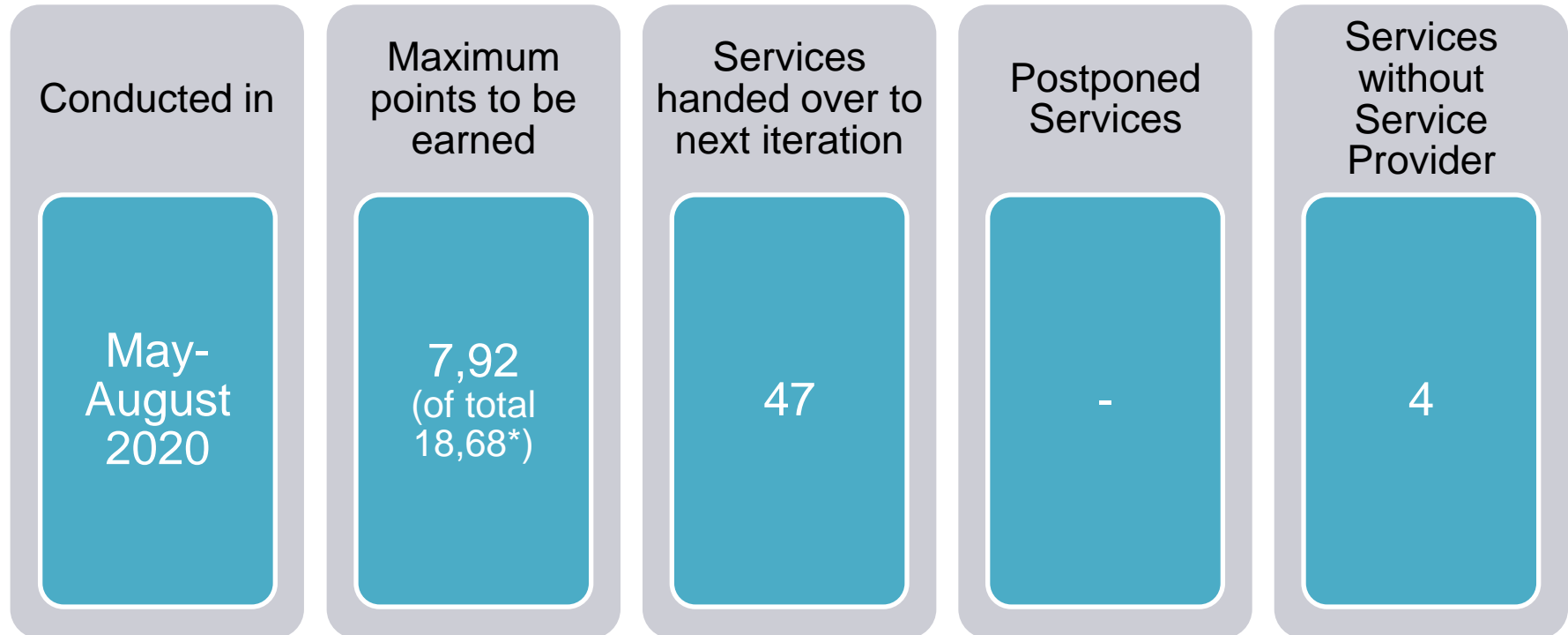
The 1st Iteration of Service Selection – Key Figures



*Total points to be earned during service selection

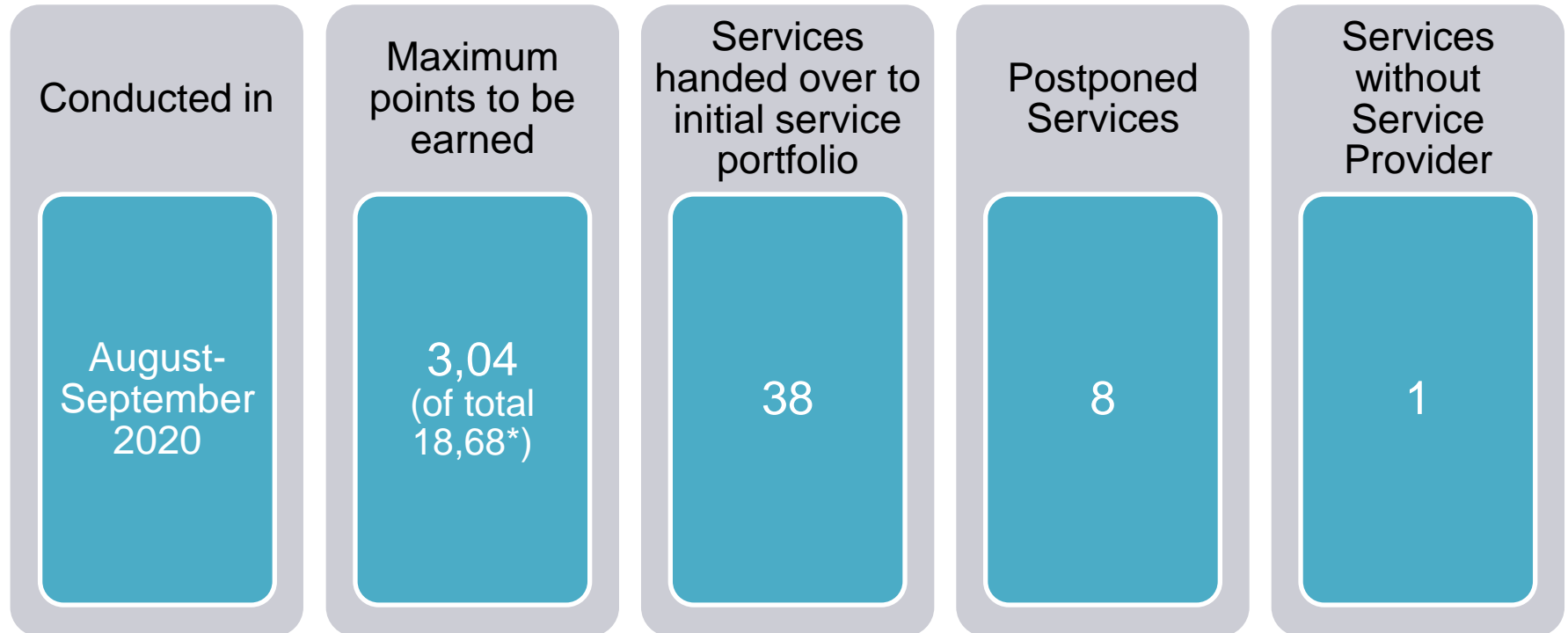
**Services that earned more than 6 Points in evaluation

The 2nd Iteration of Service Selection – Key Figures



*Total points to be earned during service selection

The 3rd Iteration of Service Selection – Key Figures



*Total points to be earned during service selection

Next steps/ Roadmap

October
2020

- Announcement of the initial service portfolio at the beginning of October
- Roadmap for the service integration of the initial service portfolio is about to be created

End of
2020

- First services shall be available in the Technical Platform (Pilot version)

April 2021

- Start of the evaluation of further Services

January
2022

- Review of Initial Service Portfolio

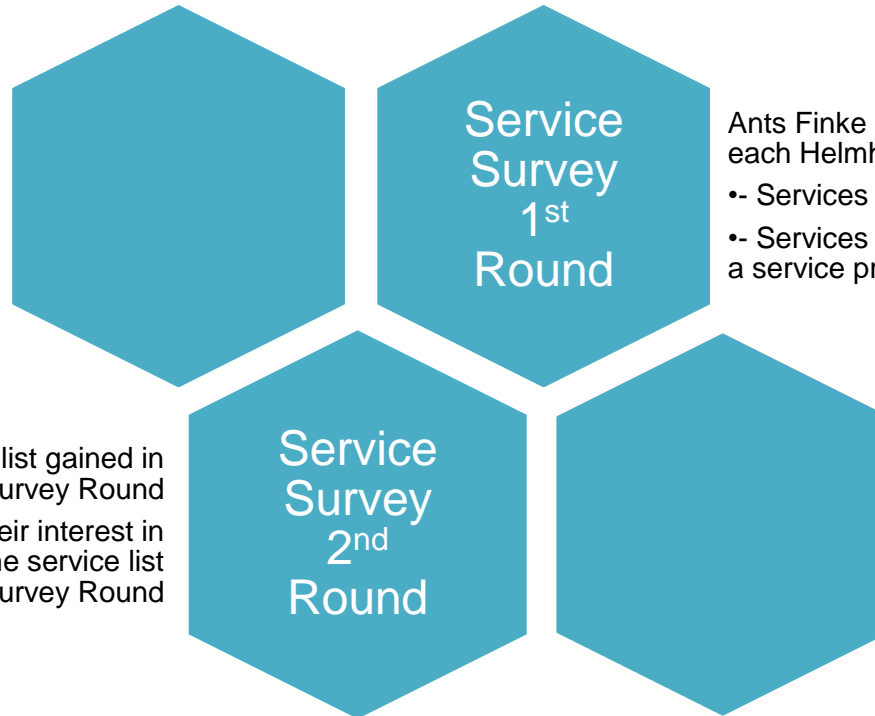
For detailed information on the service selection..

- ..please check out our Technical Documentation:
 - <https://www.hifis.net/doc/service-portfolio/>
- Or get back to:
 - **Laura Schollmaier**
 - HIFIS Cloud Service Portfolio Manager

 - Tel.: +49 30 8062-42855
 - E-Mail: laura.schollmaier@helmholtz-berlin.de

APPENDIX

Our data basis: the service survey



Ants Finke (HZB) and Uwe Konrad (HZDR) visited each Helmholtz center and asked for:

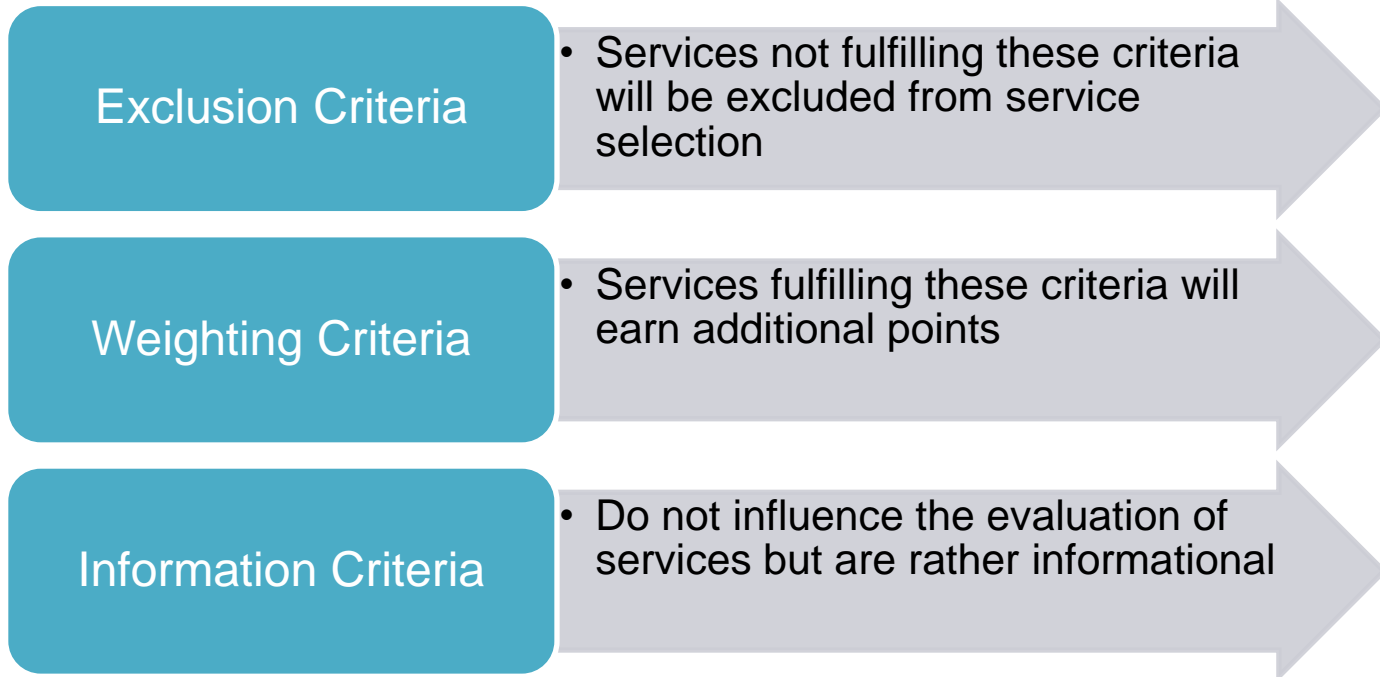
- Services the centers were interested in using
- Services the centers would be willing to offer as a service provider within Helmholtz

Verification of the resulting service list gained in the 1st Service Survey Round

- Centers could announce their interest in services which were added to the service list after their visit in the 1st Service Survey Round

Service Selection Criteria

Criteria Types



Criteria Categories



Service Selection Criteria – Weighting & Point Distribution

Weighting

Matrix comparing the importance of each criterion to all other criteria made up the Weighting of each criterion
(min. 0,13, max. 0,81)

Point distribution

Points reflect how good a service fulfills a weighting criterion; point distribution was defined individually for each criterion
(min. 0, max. 4 points)

Weighting * Point Distribution

Makes up the total points a service reached in terms of a weighting criterion

Service Selection Criteria – Weighting Criteria

0,81

- Service is ready to get integrated into Helmholtz cloud
- Broad range of centers is interested in using the service

0,67

- **Service may be made available for external users**

0,56

- Broad range of communities / user groups is interested in using the service
- Service explicitly supports scientists / their processes

0,50

- **Service has a promising long-term perspective**

0,38

- Service supports incubator interconnection (all platforms)

0,25

- **User effort to enable the service is as low as possible**

0,13

- **Service integration is easy to perform**

Results of Service Selection – Key Figures I/II

How many services were included in the service list after survey/ each iteration was conducted?						
	<i>Service Survey</i>	<i>1st Iteration</i>	<i>2nd Iteration</i>	<i>3rd Iteration</i>	<i>Initial Portfolio</i>	
Every single service	156	180	69	48	38	Services
	39	41	20	18	14	Infrastructure
	48	53	19	15	13	Community/Science
	64	81	30	15	11	Collaboration
	5	5	0	0	0	Others
Distinct services	125	133	35	25	21	Services
	26	26	9	8	7	Infrastructure
	39	42	11	7	7	Community/Science
	56	61	15	10	7	Collaboration
	4	4	0	0	0	Others
How many service providers offer services?						
	<i>Service Survey</i>	<i>1st Iteration</i>	<i>2nd Iteration</i>	<i>3rd Iteration</i>	<i>Initial Portfolio</i>	
	13	13	9	9	9	Helmholtz centers

Results of Service Selection – Key Figures II/II

How many services are excluded or postponed to a later service portfolio?					
Every single service	111	21	8	140	Services
	21	2	3	26	Infrastructure
	34	4	1	39	Community/Science
	51	15	4	70	Collaboration
	5	0	0	5	Others
Distinct services	98	16	8	122	Services
	17	2	3	22	Infrastructure
	31	4	1	36	Community/Science
	46	10	4	60	Collaboration
	4	0	0	4	Others

Results of Service Selection – Services without Providers I/II

Service	Interest votes in Service Survey	Service	Interest votes in Service Survey
Kubernetes Cluster	12	DECK (Nextcloud)	7
Nextcloud with Collabora	11	Eplas	7
Endnote (Cloud)	10	GFZ Data Services	7
LabFolder	10	Medusa	7
MailMan	9	OnlyOffice Project	7
Matrix (protocol)	9	OpenOLAT	7
RDMO	9	Service to acquire DOI	7
Software Catalog System	9	Sheila	7
Polls (NextCloud)	8	Confluence (Project Websites)	6
Helmholtz hosted Webserver	8	Wordpress	6
Confluence (Electronic Laboratory Journal (LIMS))	8	Zotero	6
HGF EaE Specific DMP Tool	8	elabFTW	6
Redmine (Ticketing Tool, Issue Tracker)	8	ESX/ESXi	6
Aspera (Genomic)	7	RedCap	6
mediawiki	7	Lucom Interaction Platform	5

Results of Service Selection – Services without Providers II/II

Service	Interest votes in Service Survey	Service	Interest votes in Service Survey
GESKAT	5	Geo Sensor Management	3
Binder Repositories	4	Invenio	3
Helmholtz Contact Exchange	4	Norm database	3
MySQL and Postgres	4	FMS	3
Jabber eJabberDaemon	4	Chat over IMAP	3
Lync Federation	4	Cell samples (Biology)	2
Continous Improvement Proposal System	4	Eugene	2
Document Management System	4	Geneious	2
IGSN Service (Geo Science)	4	Analytic machines - Community Service	1
onshape	4	Build service & package repository docker hub	1
simscale	4	Data Analytics Services	1
SpectrumProtect HSM	4	SW-Package - Catalog	1
Central Geodata platform	3	Study Conduction Service (observational studies)	0
Electronic Voting	3		
Galaxy Webserver	3		

Results of Service Selection – Postponed Services

B2DROP	Electronic Laboratory Journal (LIMS), New HMGU System
BIDS	OpenBIS
Communityservice (Energy & Information) (Health) (Nuclear Physics)	OpenProject
Communitystorage (Earth & Environment) (Health) (Matter)	OSM Nominatim (Geocoder/Reverse Geocoder)
Distributed Object Storage	OSM Overpass (OSM map data API)
Door	OSM Tileserver (Webserver for map tiles)
Efecte	OTRS
Entire hosting of mail serverGate	PANGAEA
Gate	Rancher
Globus Toolkit	Request Tracker
HeAT Library Server	R-Studio, R-Shiny, R-Project
ICAT	Sandstorm
ILIAS	Stack Overflow Team (local)
Indico	Sympa
Jabber XMPP	UFTP (UNICORE FTP)
Moodle	Virtual Desktop Service

The 1st Iteration of Service Selection – What was part of it



Information gained in service survey

- Evaluation of information gained in the service survey, e.g. on how many communities/centers are interested in using a service, which services the centers are willing to offer as a service provider etc.

Division of the excluded services based on designated characteristics

- Division into the following lists:
 - List of service with an external (non-Helmholtz) service provider
 - List of services without a service provider
 - List of other excluded services

The 1st Iteration of Service Selection – Criteria Applied

#	Category	Criteria	Criteria Type*	Unit measured in	Weighting	Point Distribution				
						4	3	2	1	0
1	Overhead	Service is provided for free	A	Yes/No						
2	Overhead	Service is provided by a Helmholtz center	A	Yes/No						
9	Technical	Services are capable for Helmholtz cloud provisioning	A	Yes/No						
3	Overhead	Service explicitly supports scientists/ their processes	B	Yes/No	0,56	Yes				No
4	Overhead	Broad range of centers is interested in using the service	B	No. of interest votes in Service Survey	0,81	19-16	15-12	11-8	7-4	0-3
5	Overhead	Broad range of communities/ user groups is interested in using the service	B	No. of interested Communities	0,56	>2		2		0-1
8	Overhead	Service is named in the HIFIS proposal	I	Yes/No						
19	Technical	Service is open source	I	Yes/No						

*Criteria Types: A - Exclusion criteria; B - Weighting criteria; I - Information

The 2nd Iteration of Service Selection – What was part of it



Request for further information on services

- Using a prepared table, the centers providing services that earned more than 6 points in the 1st iteration were asked for some more rough information on their services

Information on services which earned less than 6 points in the 1st iteration

- The centers was given the chance to also indicate information on services that earned less than 6 points in the 1st iteration

The 2nd Iteration of Service Selection – Criteria Applied

#	Category	Criteria	Criteria Type*	Unit measured in	Weighting	Point Distribution				
						4	3	2	1	0
11	Technical	Service uses no proprietary data formats/ interfaces (no vendor lock)	A	Yes/No	-	-	-	-	-	-
12	Technical	Service is capable to use Helmholtz AAI	A	Yes/No	-	-	-	-	-	-
6	Overhead	Service is ready get integrated into Helmholtz cloud	B	Timeframe required to get service ready on Service Provider side	0,81	<4 weeks	<2 months	<6 months	<1 year	>1 year
14	Technical	Service may be made available for external users	B	Availability for external Users	0,67	Full Service	-	Limited Service	-	No
17	Technical	Service has a promising long-term perspective	B	Service's Longterm Perspective	0,50	Promising	-	Unknown	-	Terrible

*Criteria Types: A - Exclusion criteria; B - Weighting criteria; I - Information

The 3rd Iteration of Service Selection – What was part of it



<h3>Service Canvas Template</h3>	<ul style="list-style-type: none">• Worked out to gain detailed information on services for criteria evaluation and as basic information for the future service catalogue
<h3>Practical Canvas Examples</h3>	<ul style="list-style-type: none">• As a “proof of concept”, the service canvas was filled out for three example services to verify its applicability:<ul style="list-style-type: none">• JupyterHub (Jülich), GitLab (HZDR), Nextcloud (HZB)
<h3>Explanation Appointments</h3>	<ul style="list-style-type: none">• Besides the practical canvas examples, six appointments in which the service canvas was explained field by field were offered to the service providers

The 3rd Iteration of Service Selection – Criteria Applied

#	Category	Criteria	Criteria Type*	Unit measured in	Weighting	Point Distribution				
						4	3	2	1	0
10	Technical	Service meets data protection and IT security requirements	A	Yes/No	-	-	-	-	-	-
13	Technical	Service supports user deprovisioning	A	Yes/No	-	-	-	-	-	-
20	Service Provider	Service provider must be able to provide the service under increased load of Helmholtz users (scalability)	A	Yes/No	-	-	-	-	-	-
21	Service Provider	Service provider has policies regarding the access to offered Helmholtz cloud services	A	Yes/No	-	-	-	-	-	-
22	Service Provider	Service provider established backup for service data (only applicable for services that store data)	A	Yes/No	-	-	-	-	-	-
7	Overhead	Service supports incubator interconnection (all platforms)	B	No. of incubator platforms supported	0,38	>1	-	1	-	0

*Criteria Types: A - Exclusion criteria; B - Weighting criteria; I - Information

The 3rd Iteration of Service Selection – Criteria Applied

#	Category	Criteria	Criteria Type*	Unit measured in	Weighting	Point Distribution				
						4	3	2	1	0
15	Technical	Service integration is easy to perform	B	Man weeks required in HIFIS for Service Integration	0,13	0-3	4-6	7-9	10-12	12+
16	Technical	User effort to enable the service is as low as possible	B	Service Enabling required by	0,25	None	-	User	-	Admin
18	Technical	Service supports open access APIs etc.	I	Yes/No	-	-	-	-	-	-
23	Service Provider	Service providers are equally distributed among the Helmholtz centers	I	Yes/No	-	-	-	-	-	-
24	Service Provider	Service provider is certified	I	Yes/No	-	-	-	-	-	-
25	Service Provider	Service provider established processes to meet (legal) requirements concerning the deletion of data (data protection relevant)/ storage of data	I	-	-	-	-	-	-	-

*Criteria Types: A - Exclusion criteria; B - Weighting criteria; I - Information