Annexe 4   FAIR data and request – MOLGENIS suite – database and catalogue software

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Functionality
The FAIR data and request is the collective name for a generic (and possibly publicly) accessible database (catalogue), including routes for searching the data and for requesting access to the data (request workflow) for individual research purposes, studies, biobanks and data collections.

The FAIR data and request functionality is based on the MOLGENIS software (Swertz et al, Nat Rev Genetics 2007; Swertz et al, BMC Bioinformatics 2010). This software is free and open source, available to everyone (http://molgenis.github.io/). If assistance is required in setting up and maintaining the FAIR data environment, this can in principle be provided by GCC after agreements have been made (contact e-mail address: molgenis-support@umcg.nl). Below are several options with corresponding prices for MOLGENIS suite software, data management, functional management and helpdesk support. See also the specifications below.

Options:	MOLGENIS SUITE	Price:
	Software:	
☐	MOLGENIS open source software, self-installed and hosted on the customer's own server, with no support (no technical, functional or data management support). Access to the GCC community.	Free
☐	MOLGENIS software, hosted by GCC - small: 1 application / database including 10 hours / year for support and functional management (management of users, and user and group accounts).	€ 200,= per month
☐	MOLGENIS software, hosted by GCC - large: 3 applications / databases including 10 hours / year for support and functional management (management of users, and user and group accounts).	€ 250,= per month
	Installation and starting up:	
☐	Doing it yourself	Free
☐	Help with setting up (max 4 hours per study / catalogue).	Free
☐	Setting up, data modelling and uploading the first dataset (s) into the data warehouse	Please ask us for a quote.
	Extra support (2nd-line helpdesk for users):	
☐	10 support calls (each of max 2 hours) per year	€ 1500,=
☐	Extra requirements	Please ask us for a quote.
	Data management:	
☐	Doing it yourself	Free
☐	Standard data management support (version management, migrations, release management)	Please ask us for a quote. (depends on complexity of the data model)
☐	Extensive data management support (import new datasets, adapt the data model, create and adapt mappings, extension of functionality (e.g. homepage / menu structure change) with the exception of changes to the source code.	Please ask us for a quote.

Short description of the project for which the database/catalogue will be created:

Does the catalogue dataset / database contain personal data?
- ☐ Yes => a separate data processing agreement is required
- ☐ No

Technical specifications:	MOLGENIS small:	MOLGENIS large:
No. of MOLGENIS applications	1	3
No. of databases (PostgreSQL)	1	3
Backup	1 GB	3GB
Backup additional GB/month	€ 0,20	€ 0,20
Backup frequency	Daily. Only 1 backup is retained for read-only data.	Daily. Only 1 backup is retained for read-only data.
Backup history	Daily, retained for max 45 days.	Daily, retained for max 45 days.
Processor cores	4	8
Memory	4 GB	8 GB
Disk space	20 GB	40 GB
Network	1 Gbps switched network	1 Gbps switched network
Network traffic (fair use principle)	100 GB	100 GB
Extra network traffic GB/maand	Please ask us for a quote.	Please ask us for a quote.

Furthermore, the service includes:

- Backups of the database, application (WAR file and configuration) and OS image. This enables a quick recovery of the data / application on another machine in case of calamities.
- Read-only databases have 1 backup on a disk on another server. Transactional databases (user editable) have a 3 day, 1 week, 1 month backup schedule on tape. The backups are destroyed at the end of the project or at the request of the user. The data is only really deleted when all data of all users on the tape can be deleted.
- SSL certificates from the University of Groningen (* .rug.nl). HTTPS security is realized on all servers with these. Costs for certificates from other providers are not included in the price.
- Regular updates of the application. GCC is responsible for upgrades and only supports the current and 1 previous version of MOLGENIS.
- A service level up-time of 98% (max 45 hours / year down-time during the service window) with a 1x per hour monitoring service that, in case the application is off-line, will send an email notification.