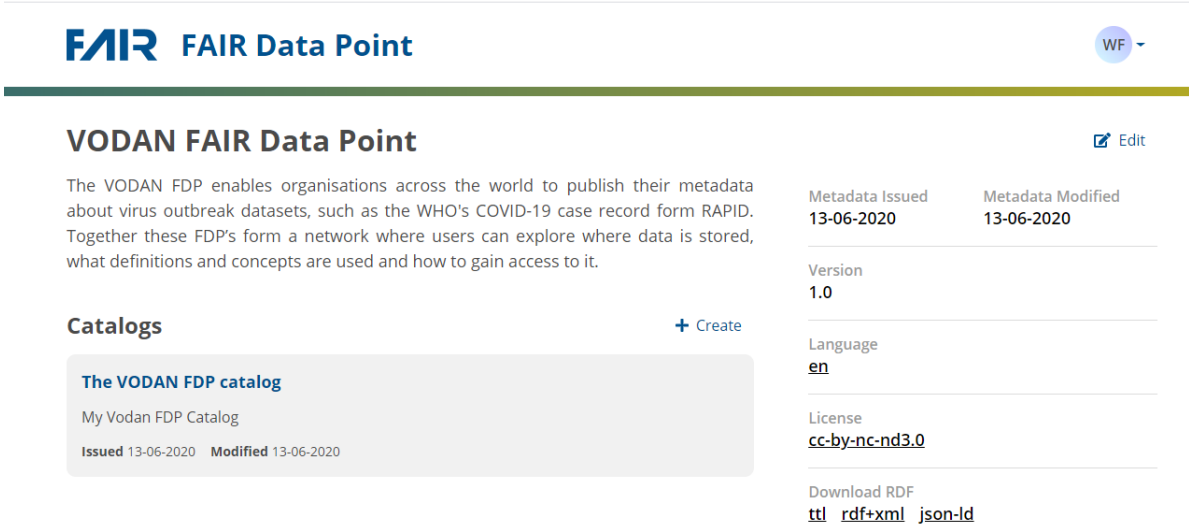
VODAN FAIR Data Point

The VODAN FAIR Data Point (FDP) is developed within the VODAN (Virus Outbreak Data Access Network) implementation network. With a VODAN FDP, organisations across the world can publish their metadata about virus outbreak datasets, such as the WHO's COVID-19 case record form RAPID. Together these FDP's form a network where users can explore where data is stored, what definitions and concepts are used and how to gain access to it. The goal is to evolve the VODAN FDP into data stations where data can be accessed and analysed remotely.

The VODAN Fair Data Point

In the VODAN implementation network CODATA, RDA, WDS, and GO FAIR supported by many other organisations (see the VODAN manifesto) work on current challenges around the use and reuse of data pertaining virus outbreaks, like the current COVID-19 pandemic. These challenges range from suboptimal data management, to limited data reuse, lack of semantic interoperability and limited access. The organisations involved in the VODAN implementation network have collaborated to implement the VODAN FAIR Data Point to address these challenges.



The FAIR Data Point

The FAIR Data Point (FDP) is a software that allows data owners to expose metadata of their datasets in a FAIR manner and allows data users to discover properties about offered datasets (metadata). The dataset can, if license conditions allow, also be made publicly accessible.

The FDP is distributed in nature. We believe that big data warehouses spanning multiple domains are not feasible and/or desirable due to issues concerning scalability, separation of concerns, data size, costs, etc. A completely decoupled and distributed infrastructure also does not seem realistic. The scenario we envision has a mixed nature, with a number of reference data repositories, containing a relevant selection of core datasets, e.g., EBI's repositories, integrated with smaller distributed data repositories, e.g., different biobanks, datasets/dababases created within the scope of research projects, etc.

Many different data repositories and datasets should interoperate in order to allow increasingly complex questions to be answered. Data interoperability, however, takes place in different levels, such as syntactical and semantical. A collection of FDPs aim to address some of these interoperability issues by enabling data owners to expose the metadata of their data in a FAIR manner thereby fostering Findability, Accessibility, Interoperability and Reusability.

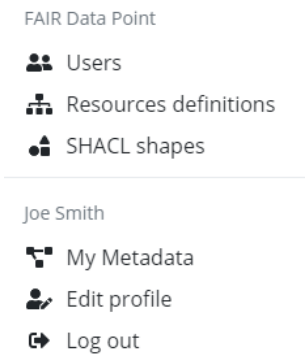
The VODAN FDP is developed as a stand-alone web application. However, the functionality of the FDP can be also embedded in other applications to provide FAIR data accessibility to the metadata of the application's datasets. For instance, an existing data repository from a hospital may choose to use the VODAN FDP to publish its metadata.

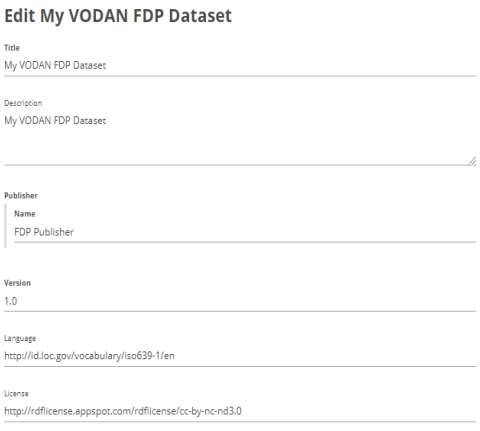
The functionality of a VODAN FDP

There are two main users of the VODAN FDP. On the one hand there is the perspective of the owners of data and the publishers of the metadata. On the other hand we have the perspective of the visitors of the VODAN FDP.

The FDP owner

The owner of the data uses the VODAN FDP to publish metadata. This includes, but is not limited to, data about the publisher, the license and access rights, the latest updates and a semantic model of the available data. The installation of the VODAN FDP comes with most of the metadata already included but the user can edit the metadata or create new metadata. The management of the metadata is secure and only available to authorised users.

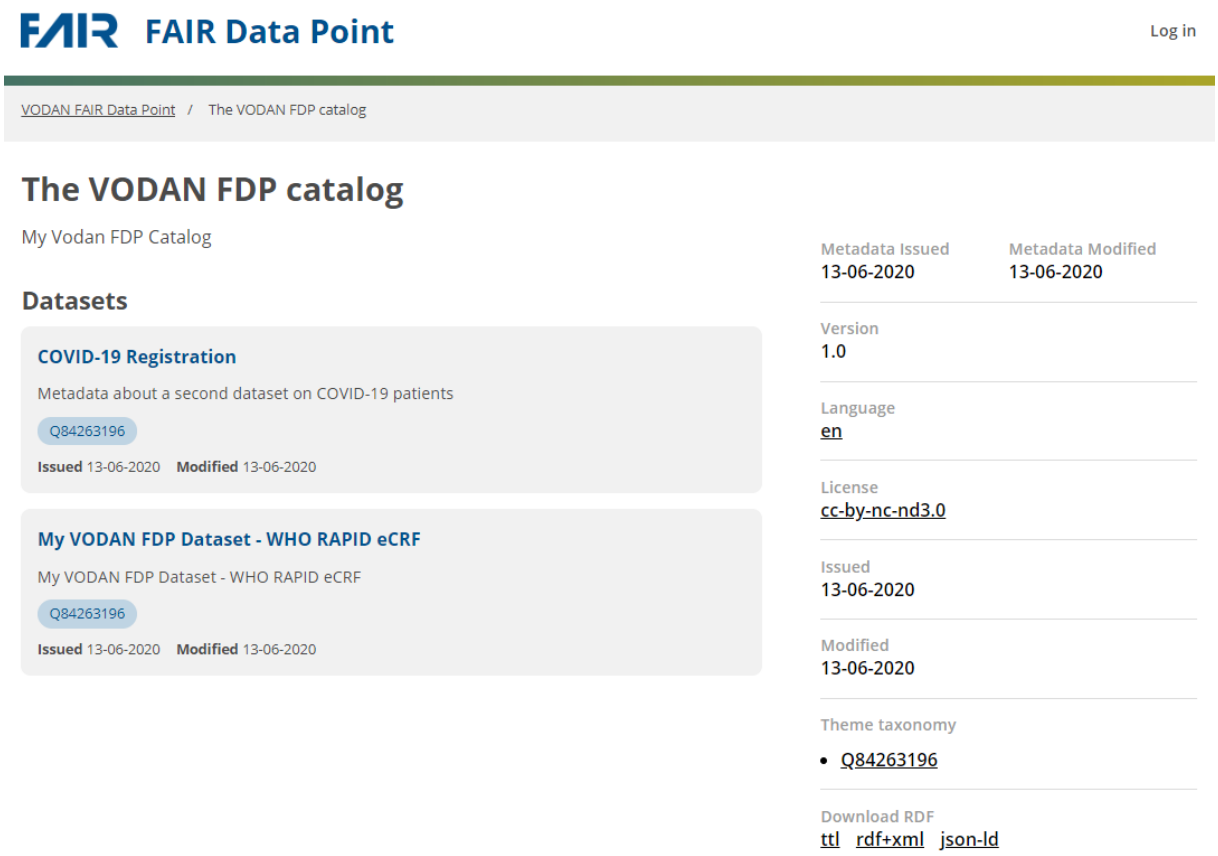




The FDP visitor

The visitor of a VODAN FDP can use the metadata to explore what data the data owner has, browse through the different datasets, see how the data can be interpreted and what has to be done to gain access to the data. The visitor can be a person, but also a machine that explores or indexes metadata since the VODAN FDP offers both a user interface and restful API's.

If the data owner has open data published in the VODAN FDP, the visitor can also download the data itself.

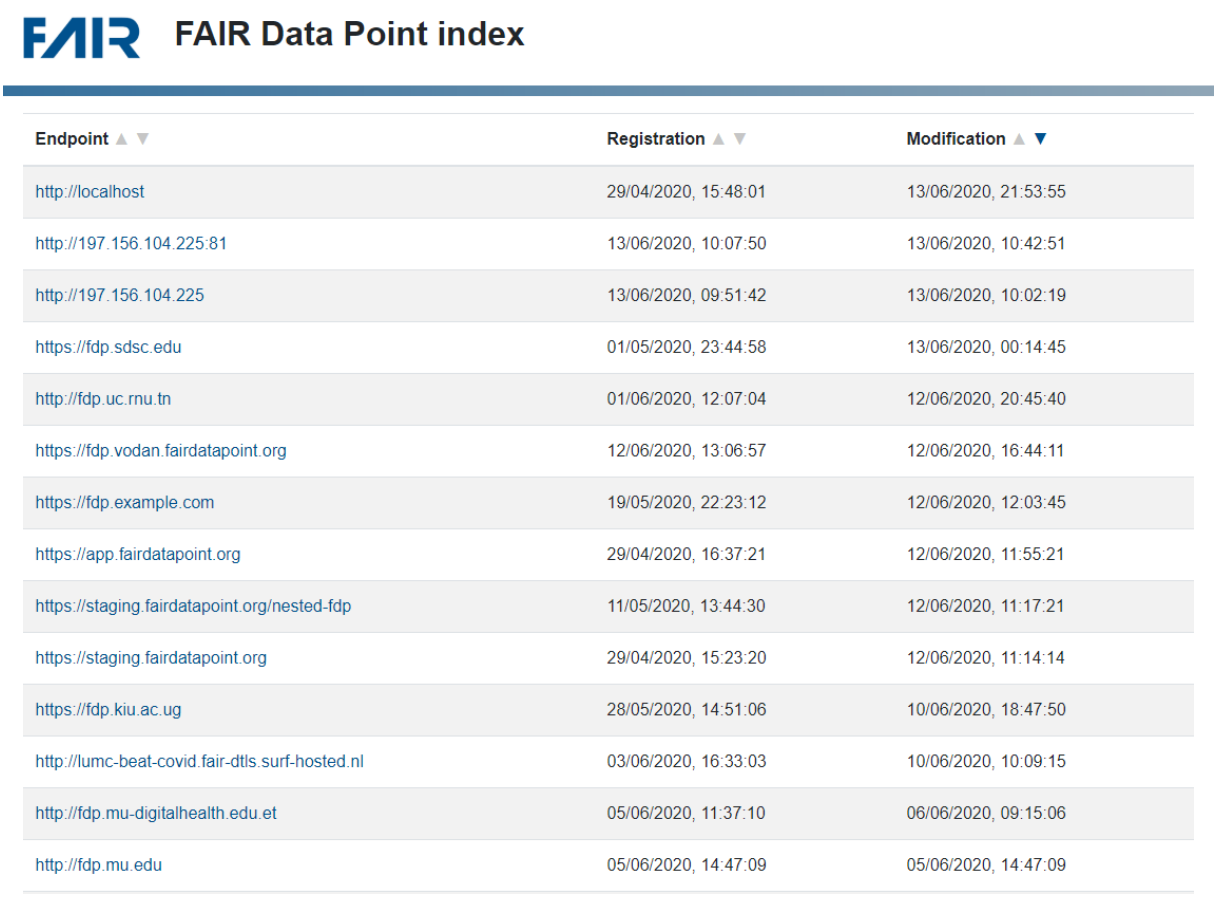


The VODAN Semantic Data model

With the VODAN FDP the semantic data model for the WHO's COVID-19 case record form RAPID is included. This model aims at providing semantic references to the questions and answers of the form used for registration of new patients with COVID-19 symptoms. For more information on the semantic data model, see https://github.com/FAIRDataTeam/WHO-COVID-CRF.

Where can I find a VODAN FDP?

Every FDP is indexed and published on home.fairdatapoint.org. Here you can find all deployed FAIR Data Points.



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Endpoint ▲ ▼	Registration ▲ ▼	Modification ▲ ▼
http://localhost	29/04/2020, 15:48:01	13/06/2020, 21:53:55
http://197.156.104.225:81	13/06/2020, 10:07:50	13/06/2020, 10:42:51
http://197.156.104.225	13/06/2020, 09:51:42	13/06/2020, 10:02:19
https://fdp.sdsc.edu	01/05/2020, 23:44:58	13/06/2020, 00:14:45
http://fdp.uc.rnu.tn	01/06/2020, 12:07:04	12/06/2020, 20:45:40
https://fdp.vodan.fairdatapoint.org	12/06/2020, 13:06:57	12/06/2020, 16:44:11
https://fdp.example.com	19/05/2020, 22:23:12	12/06/2020, 12:03:45
https://app.fairdatapoint.org	29/04/2020, 16:37:21	12/06/2020, 11:55:21
https://staging.fairdatapoint.org/nested-fdp	11/05/2020, 13:44:30	12/06/2020, 11:17:21
https://staging.fairdatapoint.org	29/04/2020, 15:23:20	12/06/2020, 11:14:14
https://fdp.kiu.ac.ug	28/05/2020, 14:51:06	10/06/2020, 18:47:50
http://lumc-beat-covid.fair-dtls.surf-hosted.nl	03/06/2020, 16:33:03	10/06/2020, 10:09:15
http://fdp.mu-digitalhealth.edu.et	05/06/2020, 11:37:10	06/06/2020, 09:15:06
http://fdp.mu.edu	05/06/2020, 14:47:09	05/06/2020, 14:47:09

Following the link of one of the FAIR Data Points will take you to the FDP as a visitor.