

DiSSCo Fed: Federal Support to the Distributed System of Scientific Collections - Contract - FRSI/00/DI1

Summary

DiSSCo, the Distributed System of Scientific Collections is a new world-class Research Infrastructure (RI) for Natural Science Collections. DiSSCo represents the largest ever formal agreement between natural history museums, botanic gardens and collection-holding universities in the world, grouping 1,5 billion specimens. 5,000 scientists. 170+ institutions from 23 countries.

The DiSSCo RI aims to create a new valorisation model for one European collection that digitally unifies all European natural science assets under common access, curation, policies and practices that ensure that all the data is easily Findable, Accessible, Interoperable and Reusable (FAIR principles).

The objectives of the DiSSCo Fed FRSI project was to help the digitisation efforts of the RBINS and RMAC which house the largest collection of natural history in Belgium and one of the biggest in Europe. The DiSSCo Fed is a major add-on of the DIGIT-4, the Digitization Programme of the Belgian Science Policy BELSPO which aims to support the Belgian federal museums, libraries and archives with the digitization of their cultural and scientific patrimony.

DiSSCo Fed focussed on the digitisation of the Types and Illustrated specimens using several high resolution digitisation pipelines and establishing protocols in order to maximise the scientific value of the digital model.

The combined efforts of DIGIT and DiSSCo Fed initiatives allowed RBINS and RMCA to have about 280.000 types and illustrated specimens encoded in the Collections management systems at the end of the project. The initial estimation was about 300.000 type and illustrated specimens, but it seems today that it was an underestimation. It was indeed very difficult to really prioritise the digitisation of the type specimens as they are distributed in the general collection and they have to be discovered among the “regular” specimens. The total number of digitised specimens is at the end of 2022 about 5.7 million of specimens compared to the estimated size of 48 million of specimens.

The use of the high resolution digitisation pipelines allowed to digitise Type and illustrated specimens using appropriate workflows. Specific protocols were also developed for different case studies for the micro CT workflow and multispectral digitisation.

During the 2019-2022 period, the digitisation efforts of RBINS and RMCA produced 39.126 pictures of boxes/drawers, 9.146 pictures of specimens, 12.165 stacked images, 60 multispectral acquisitions, 2.362 3D surface models and 5.735 micro CT files.

Keywords: DiSSCo RI, Digitisation, Natural History collections, Type Specimens, Micro CT, Surface scanning, multispectral imaging