

---

# **Data Guidelines Documentation**

**SciLifeLab**

**Aug 20, 2020**



---

## Contents

---

<b>1</b>	<b>COVID-19</b>	<b>2</b>
<b>2</b>	<b>Genomics</b>	<b>2</b>
<b>3</b>	<b>Imaging</b>	<b>2</b>
<b>4</b>	<b>Metabolomics</b>	<b>2</b>
<b>5</b>	<b>Proteomics</b>	<b>2</b>
<b>6</b>	<b>General information</b>	<b>2</b>



SciLifeLab is committed to the principles of *FAIR* (Findable, Accessible, Interoperable and Reusable) research data, i.e. that data should be easily accessed, understood, exchanged and reused. We work actively to ensure that the investments done by the society in research infrastructure resources can achieve the highest possible impact.

Research data management concerns the organization, storage, preservation, and sharing of data that is collected or analysed during a research project. Proper planning and management of research data will make project management easier and more efficient while projects are being performed. It also facilitates sharing and allows others to validate as well as reuse the data.

The purpose of these guidelines is to serve as an information resource to researchers regarding research data management. Click on any of the data types for guidance on good data management practices during the data life cycle, including available infrastructures for data generation and analysis and appropriate data repositories for sharing. There is also overarching guidance, applicable to all data types, on e.g. metadata standards and managing sensitive data under General information.

Data types:	Generic guidance:
<div data-bbox="557 426 786 485" data-label="Section-Header"> <h1>CHAPTER 1</h1> </div> <div data-bbox="612 655 797 697" data-label="Section-Header"> <h2>COVID-19</h2> </div> <div data-bbox="199 856 641 898" data-label="Section-Header"> <h3>1.1 General information</h3> </div> <div data-bbox="199 928 797 1119" data-label="Text"> <p>Please see the <a href="#">Swedish COVID-19 Data Portal</a> for the latest information regarding Swedish efforts in COVID-19 research, including data generating facilities. Also see the <a href="#">European COVID-19 Data Portal</a> and <a href="#">Horizon 2020 guidelines</a> regarding COVID-19 for useful information on European level.</p> </div> <div data-bbox="199 1165 552 1209" data-label="Section-Header"> <h3>1.2 Data Life Cycle</h3> </div> <div data-bbox="199 1234 797 1362" data-label="Text"> <p>The data life cycle is typically divided into design, generation, analysis, storage &amp; archiving, and sharing. Below you will find information about standards and infrastructure resources available during these phases.</p> </div> <div data-bbox="215 1367 781 1736" data-label="Diagram"> </div> <div data-bbox="199 1795 474 1837" data-label="Section-Header"> <h4>1.2.1 Data design</h4> </div> <div data-bbox="199 1850 797 1946" data-label="Text"> <p>During this phase you plan for which data is needed to answer your research question. High quality science is often only possible if the resource facilities you intend</p> </div>	<div data-bbox="1170 426 1416 485" data-label="Section-Header"> <h1>CHAPTER 6</h1> </div> <div data-bbox="1068 655 1416 697" data-label="Section-Header"> <h2>General information</h2> </div> <div data-bbox="818 852 1419 1138" data-label="Text"> <p>The following sections contain general guidelines, independent of datatype. Metadata contains information about appropriate standards for (meta)data formats. If sensitive data is part of your project, we recommend reading the Sensitive data page. Also, there is a collection of Data protection officers (for sensitive data processing) and Research data offices (for data management guidance) at the different universities who can assist you further.</p> </div> <div data-bbox="818 1182 1175 1226" data-label="Section-Header"> <h3>6.1 FAIR principles</h3> </div> <div data-bbox="818 1253 1419 1316" data-label="Text"> <p><b>FAIR</b> stands for Findable, Accessible, Interoperable and Reusable:</p> </div> <div data-bbox="860 1316 1419 1980" data-label="List-Group"> <ul style="list-style-type: none"> <li>• To be <b>Findable</b>: Data and metadata should be easy to find by both humans and computer systems. Basic machine readable descriptive metadata allows the discovery of interesting data sets and services.</li> <li>• To be <b>Accessible</b>: Data and metadata should be stored for the long term such that they can be easily accessed and downloaded or locally used by machines and humans using standard communication protocols.</li> <li>• To be <b>Interoperable</b>: Data should be ready to be exchanged, interpreted and combined in a (semi)automated way with other data sets by humans as well as computer systems.</li> <li>• To be <b>Reusable</b>: Data and metadata are sufficiently well-described to allow data to be reused in future research, allowing for integration with other compatible data sources. Proper citation must be facilitated, and the conditions under which the data can be used should be clear to machines and humans.</li> </ul> </div> <div data-bbox="1302 1957 1432 1988" data-label="Section-Header"> <h4>Contents</h4> </div> <div data-bbox="818 1980 1419 2100" data-label="Text"> <p>In <a href="#">Wilkinson, et al 2016</a> a set of principles were defined for each of these properties. Below, each of the principles are explained further as adapted from <a href="#">FAIR principles translation</a>.</p> </div>

These pages are provided to you by [NBIS](#) data management team and [SciLifeLab Data Centre](#). You can reach us by sending an email to [data-management@scilifelab.se](mailto:data-management@scilifelab.se).