



Data Management Plan (DMP): TopSpec - 829157

Deliverable: D9.2 - ORDP: Open Research Data Pilot

The Data Management Plan (DMP) is key in order to make data findable, accessible, interoperable and re-usable (FAIR).

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Version 1.0

1. Introduction

Research data that are acquired by TopSpec will be treated as open source, unless it is defined beforehand as confidential, to follow the principle *“as open as possible, as closed as necessary”*, to allow for scientific publication and protect commercial interests and confidentiality. The DMP has been developed to improve handling of information within TopSpec as well as for long term sharing and reusing of the research data and intellectual property when the project has expired.

The DMP is a living document that will be improved and adjusted over the course of the project whenever requested by the EU or a partner, as well as whenever significant changes occur.

The overall goal of the DMP is to provide a transparent documentation of research data and applications to the broader scientific community. All partners of TopSpec will adhere to the procedures and guidelines described in this document.

2. Data summary (and management)

Expected Data and/or Intellectual Property (IP) description:

WP1: Omnitrap; Mechanical design, ion optical simulations, electronics design/synchronization, mechanical & vacuum assembly, hardware and software.

WP2: Omnitrap; Implementation – various MS/MS techniques, and Application - protein/immunoglobulin analysis.

WP3: Hyper-thermal H-atom gun; Design, hardware and software development as well as protein/immunoglobulin analysis.

WP4: Coulomb explosion MS/MS technique; Design, hardware and software development as well as protein/immunoglobulin analysis.

WP5: pI-Trap-ESI instrumentation; Design, hardware and software development/optimization for larger proteins as well as protein/immunoglobulin analysis.

WP6: Modified Orbitrap mass spectrometer interfaced with the Omnitrap; Design, hardware and software development/configuration/optimization as well as protein/immunoglobulin analysis.

WP7: Signal detection hardware and data processing software: Development/optimization/evaluation of 1) Data acquisition system (FTMS Booster), 2) Data processing software for protein Top Down analysis and 3) Data processing software for immunoglobulin Top Down analysis.

Managing the data:

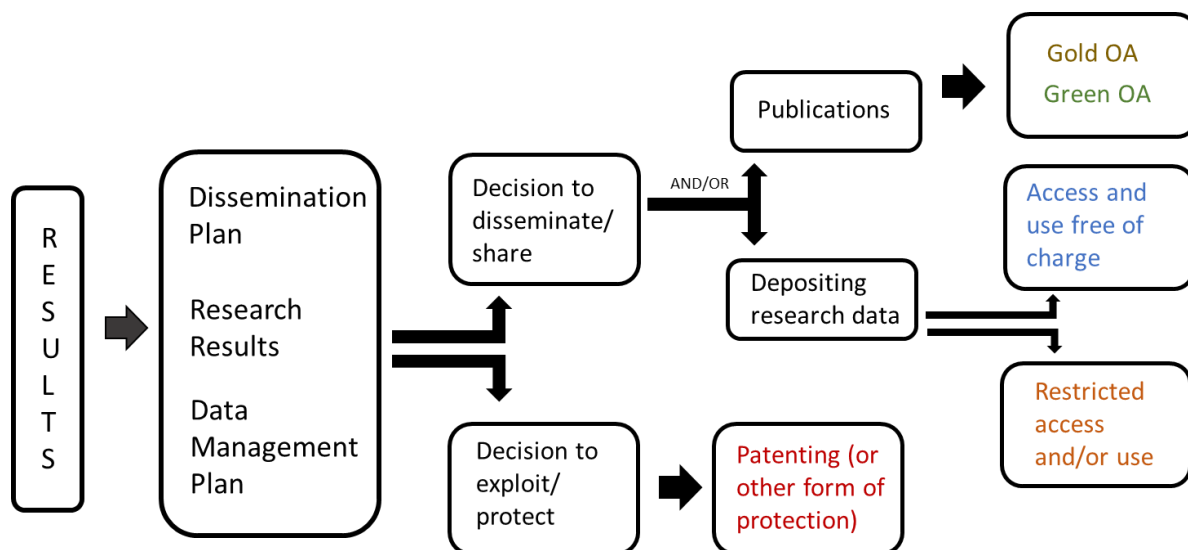


Figure 1. Open Access (OA) policy.

Editorial committee: An editorial committee (KI, FASMATECH, THERMO FISHER, SPECTROSWISS, BIOMOTIF, TNTU, IP, MS VISION), will be established for internal review of results generated in TopSpec prior to presentation to the general public. This includes review of booklets, videos, manuscripts, presentations, posters, leaflets, software, hardware, etc.

Any form of presented data/results arising from TopSpec needs to acknowledge the funding:

“This project has received funding from the European Horizon 2020 research and innovation program under grant agreement No 829157”

Non-confidential information: Non-confidential reports, technical leaflets and presentations both with or without peer-review process in English or local language shall be archived at the TopSpec webpage.

Scientific publications: All scientific publications of TopSpec will be proof-read by the editorial committee prior publication to ensure the quality and coherence of the manuscript as well as to protect potential IP rights of co-authors and innovation for exploitation. The committee will have one month to provide their comments and suggestions.

It is mandatory that all peer-reviewed scientific publications are published as open access either as “**Gold**” standard (immediate access by scientific publisher) or as “**Green**” standard (as online self-archiving, latest 6 months following publication). Data related to the publication should be deposited as a supplement file. During the 6-month embargo (in case of “**Green**” standard publication), restricted access can be given to the abstract only and requests for personal copies should be authorized by the corresponding author.

Following the open access “**Green**” standard TopSpec authors should request that the right to online self-archiving is retained in any future transfers of copyright. Several journal publishers grant the authors right to deposit the post-print in an open access archive and/or to put it on their own webpage. Some journals have an embargo policy stating that they allow open access after a certain period. *The policies of the individual journal need to be checked by the author(s).*

Access and confidentiality: Preliminary data will only be accessible to the involved partners of a respective WP. As agreed in the Consortium Agreement (CA) by each partner, all information declared as confidential background information will be kept as Confidential. However, access rights to results and background needed to undertake the tasks of a party under the TopSpec project shall be granted on a royalty-free basis, unless otherwise agreed for in the CA.

Any foreground information which is disclosed by one party (“Disclosing Party”) to another party (“Recipient”) in connection to TopSpec implementation and which has been explicitly marked as “confidential” at the time of the disclosure (or when disclosed orally has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within 15 calendar days from oral disclosure as confidential information by the Disclosing Party) is treated as “Confidential Information”.

Finalized data will be available to all TopSpec partners and linked collaborators that need these data as input for their tasks. However, certain data and information might be excluded from the open data strategy if there are, for example, commercial interests (IP right protection for result exploitation) or if data are not yet published in peer-reviewed papers.

The editorial committee will monitor results and make sure that data will not be disclosed to the broader public before agreed upon by all partners. For good practice, before data are made available, the results should have been published in scientific journals.

If there is no request for confidentiality, summarized data and results should be made available to all TopSpec partners and beyond. Thus, software, data and research results that are not protected by IP rights and are no longer confidential (i.e. after publication) will be published on the TopSpec homepage and the raw data added to existing repositories or databases.

3. FAIR data

Findable, Accessible, Interoperable, and Reusable (FAIR) and Open Access (OA)

The TopSpec webpage which will be the primary place to store all public results and documentation, as well as to get access to instructions, videos and software's generated both during and following the expiration date of TopSpec. The TopSpec technology will further be spread via open demonstrations and public workshops and lectures throughout the course of the project and beyond.

In addition to the information and links available on the TopSpec webpage, the goal is to store all mass spectrometry-raw data (and potentially other processed file formats) of importance long-term in a selected reputable repository so that the data can easily be accessed and downloaded beyond the TopSpec project using standard communication tools. The data will be assigned a persistent identifier (a DOI or an accession number) to allow it to be cited in published outputs. The data should be stored, labelled and described in such a way that it can easily be exchanged, interpreted and combined with other data sets by human or computer systems to integrate scattered knowledge. Thus, proper citation and clear descriptions of the conditions that allow the reuse of the data shall be defined.

For a stored data set the following information should be given:

- Scope of the data: for what purpose was it generated/collected?
- Particularities or limitations of the data
- Date, lab conditions, who prepared the data, parameter settings, name and version of the hardware and software used
- Raw or processed data information
- Variable names should be explained or self-explanatory

4. Allocation of resources:

All produced TopSpec project data and publications will be shared, managed and stored at the TopSpec webpage which is administrated by the lead beneficiary (KI). The webpage will also serve as a password protected SharePoint of confidential data. Thus, KI will be responsible for the safety and security of both the public and confidential TopSpec data and documents. Password protected access rights will be given to the individual TopSpec partners. The SharePoint will be designed to share and archive information, to enable collaboration between partners and to ensure traceability during the construction of data. Costs of maintaining the webpage and SharePoint will be covered by KI via TopSpec and maintained at least 1 year after TopSpec is finished. If the TopSpec webpage is removed, important data, documents and software will be moved/stored at other webpage and/or database locations.

5. Data security

In order to prevent data loss and secure data recovery, all important data generated during TopSpec will, in addition to the SharedPoint password protected TopSpec storage unit, also be backed up on an external server.

6. Ethical Aspects

The TopSpec partners will carry out the project in compliance with applicable international, EU and national law as well as ethical principles including the highest standards of research integrity. A partner shall not use other partner's results, data or foreground information without obtaining the owning partner's written approval.