

29-04-2025

Deliverable D4.2:

Data Management Plan

Deliverable D4.2

Contractual Date: 28-02-2024
Actual Date: 29-04-2025
Grant Agreement No.: 101123118
Work Package: WP4
Task Item: T4.2
Lead Partner: EITD

Authors: Andrea Biancini (EITD)

Abstract

This Data Management Plan (DMP) outlines how data within the project is managed in a FAIR (findable, accessible, interoperable, and reusable) manner. The DMP has been created in accordance with the Horizon Europe Data Management Plan Template. The DMP should include information on the handling of research data during and after the end of the project, what data will be collected, processed, and/or generated, how data will be curated and preserved, and other relevant issues. By following the guidelines outlined in the DMP, project partners can ensure that data is managed in a way that maximizes its value and impact.

© EIT Digital on behalf of the SPECTRO project.

The activities leading to these results has received funding from the European Community's DIGITAL Programme under Grant Agreement No. 101123118 (SPECTRO).

This document is licensed under a [Creative Commons Attribution 4.0 license](https://creativecommons.org/licenses/by/4.0/)



Versioning and contribution history

Version	Date	Authors	Notes
0.1	07/11/2023	Andrea Biancini (EITD)	Draft version.
0.2	30/11/2023	Andrea Biancini (EITD)	Accepted revisions from partners.
0.3	05/02/2024	Andrea Biancini (EITD)	Integrated information form UNITN regarding data formats, long term preservation and other modifications.
0.4	11/04/2025	Romane Léauté (EITD)	Restructured deliverable according to PO comments during review meeting.

Table of Contents

1	Introduction.....	4
1.1	SPECTRO.....	4
1.2	Work Package 4.....	5
1.3	Deliverable 4.2	5
1.3.1	Purpose.....	5
1.3.2	Objectives.....	5
2	Data Summary.....	6
2.1	Data sets overview and description	6
2.2	Data security.....	10
2.3	Data breach mitigation and corrective measures	10
2.4	Retention period	13
3	FAIR data.....	14
3.1	Making data findable, including provisions for metadata.....	14
3.2	Making data openly accessible	14
3.3	Making data interoperable	15
3.4	Increase data re-use (through clarifying licences)	15
4	Allocation of resources	16
5	Ethical aspects.....	17

6	Processing of personal data.....	17
7	FSTP Funding	18
7.1	Financial support to EU students	19
7.2	Types of scholarships available	19
7.3	How to apply.....	19
7.4	Eligibility requirements.....	20
7.5	Selection criteria.....	21
7.6	Promotion of diversity	21
7.7	Payment arrangements	21
7.8	Number of scholarships available	22
7.9	FSTP applicants data management.....	22
8	Other issues	22

Table of Figures

No table of figures entries found.

Table of Tables

Table 1: Data sets overview.....	7
Table 2: Data sets description and utility	9
Table 3: Data types, breach likelihood, mitigation and corrective measures	13
Table 4: Data sets accessibility.....	15

1 Introduction

This Data Management Plan has been created following the Horizon Europe FAIR DMP template, which has been designed to be applicable to any Horizon Europe project that produces, collects or processes research data.

This document is intended to follow the best practices for a FAIR data management¹.

Definition: FAIR data management

In general terms, your research data should be 'FAIR', that is findable, accessible, interoperable and re-usable. These principles precede implementation choices and do not necessarily suggest any specific technology, standard, or implementation-solution.

This Data Management Plan is a set of questions, from the Horizon Europe template, that were answered with a level of detail appropriate to the project. This DMP is intended to be a living document in which information can be made available on a finer level of granularity through updates as the implementation of the project progresses and when significant changes occur

As a minimum, the DMP should be updated in the context of the periodic evaluation/assessment of the project. If there are no other periodic reviews envisaged within the grant agreement, an update needs to be made in time for the final review at the latest.

1.1 SPECTRO

SPecialised Education programmes in CybersecuriTy and Robotics (SPECTRO) will focus on the design and delivery of two double-degree master's programmes (ISCED Level 7, 120 ECTS) in two key digital technology areas for the future of Europe: (1) Cybersecurity, and (2) Robotics. The two specialised master's programmes, which will also include a minor in Innovation and Entrepreneurship, will be designed and delivered by a consortium consisting of 12 higher education institutions (7 of which involved in Cybersecurity and 8 in Robotics) from 7 different countries, 2 innovative SMEs, 1 leading research centre in Information Systems and EIT Digital, a pan-European organisation with in-depth knowledge and experience in the digital skills domain.

¹ FAIR Data Principles (FORCE11 discussion forum): <https://force11.org/group/fairgroup/fairprinciples>

FAIR principles (article in Nature): <https://www.nature.com/articles/sdata201618>

The master's programmes developed by SPECTRO partners will address the labour market needs, foster strong interactions and mobility between academia and business, strengthen knowledge triangle integration, promote entrepreneurship, and considerably boost the growth of the existing EIT Digital ecosystem, one of the largest digital ecosystems in Europe. In addition to the two master's programme, SPECTRO partners will also develop and deploy a series of self-standing learning modules on topics related to Cybersecurity and Robotics. These modules will lead to four different certifications, which will be released by participating higher education institutions and EIT Digital. Dedicated marketing, promotion, communication, and dissemination activities will be carried out by SPECTRO partners to maximise the outreach of project activities and to attract the desired target audience to the master's programmes and self-standing modules. SPECTRO will expand the specialised education offer in Europe and will contribute to reducing the current shortage of digital specialists in Europe, by providing training to more than 1000 European citizens in Cybersecurity and Robotics.

1.2 Work Package 4

The objectives of Work Package 4 are:

- To ensure the overall management of the project and effectively monitor the project, in administrative, technical, and financial terms.
- To guarantee high-quality content and management with the aim of securing effective progress.
- To coordinate the enrolment process of participants to SPECTRO education programmes.
- To ensure the establishment of effective and sustainable partnerships within the consortium.

It is concerned with undertaking the technical and scientific coordination of the SPECTRO project as well as the administrative and financial management. This work package will ensure that appropriate quality control and reporting mechanism are applied across the project.

1.3 Deliverable 4.2

1.3.1 Purpose

The SPECTRO Data Management Plan has been prepared with these two purposes:

1. to describe the data management life cycle for the data to be collected, processed and/or generated by the SPECTRO project;
2. include information on the handling of research data during and after the end of the project, what data will be collected, processed and/or generated, how data will be curated and preserved, and resource and budgetary planning for data management.

1.3.2 Objectives

- Ensure effective management of research data throughout the project life cycle.
- Describe the data management life cycle for the data to be collected, processed and/or generated by the project.
- Ensure that research data is findable, accessible, interoperable and re-usable (FAIR).

- Ensure that research data is managed in compliance with the General Data Protection Regulation (GDPR).
- Reflect the current state of consortium agreements on data management and be consistent with exploitation and Intellectual Property Rights (IPR) requirements.
- Provide an overview of all datasets collected and generated by the project and define the consortium's data management policy and approach.

2 Data Summary

2.1 Data sets overview and description

In order to provide an overview of the different data sets that are currently and will be produced in the SPECTRO project, we need to distinguish two types of data:

1. Non-sensitive data produced by the project and released for potential reuse in other projects or research activities.
2. Operational data used to implement the activities described in the project. This data includes very frequently also sensitive data about students and participants to training activities.

The following table shows the data type, the origin of the data, the related WP number and the format, in which the data will be presumably stored.

#	Data type	Type	Origin	WP#	Format
1	Market review of Cybersecurity sector.	Non-sensitive	Derived data by other reports and market data.	WP1	PDF
2	Market review of Robotics sector.	Non-sensitive	Derived data by other reports and market data.	WP2	PDF
3	Literature review data on Cybersecurity.	Non-sensitive	Derived data by publications or published reports.	WP1	PDF
4	Literature review data on Robotics.	Non-sensitive	Derived data by publications or published reports.	WP2	PDF
5	Recruitment cycle data about participants (incl. FSTP applicants)	Operational	Primary data	WP1, WP2	CSV and PDF
6	Personal data of students participating to master programmes.	Operational	Primary data	WP1, WP2	CSV
7	Data on participants to self-standing modules.	Operational	Primary data	WP1, WP2	CSV
8	Satisfaction survey from students at the end of a learning course or activity.	Operational	Primary data	WP1, WP2	CSV

9	Marketing data related to communication and dissemination activities.	Operational	Primary data	WP3	CSV
---	---	-------------	--------------	-----	-----

Table 1: Data sets overview

Table 2 describes the data set and the purpose of the data collection of data generation in relation with the objectives of the project. Additionally, it shows the data utility for clarifying to whom the data might be useful.

#	Data type	Description & Purpose	Utility
1	Market review of Cybersecurity sector.	Description The data contains the result of a market review analysis done on the field of cybersecurity. The analysis will be performed by analyzing publicly available market data and by interviewing economic actors in the sector. Purpose The collection of this data will serve as an input to the process of review of the master program curriculum. This data will also serve to guide the definition of the content for the self-standing learning modules.	The data could be useful for research on the cybersecurity sector. It can also be useful for other educational institutions and to organizations and business to better understand the current state of the market, identify the latest trends and threats and make informed decisions about cybersecurity products and services.
2	Market review of Robotics sector.	Description The data contains the result of a market review analysis done on the field of robotics and autonomous systems. The analysis will be performed by analyzing publicly available market data and by interviewing economic actors in the sector. Purpose The collection of this data will serve as an input to the process of review of the master program curriculum. This data will also serve to guide the definition of the content for the self-standing learning modules.	The data could be useful for research on the robotics and autonomous systems sector. It can also be useful for other educational institutions and to organizations and business to better understand the current state of the market, identify the latest trends and threats and make informed decisions about robotics products and services.
3	Literature review data on Cybersecurity.	Description The data contains the result of a literature review done on the field of cybersecurity. The analysis will be performed by analyzing publications, articles and course syllabus from other universities and higher education institutions.	The data could be helpful to researcher interested in understanding the current state of knowledge in the field of cybersecurity, identify gaps in the literature and develop research question and hypotheses. The data can also be useful for policymakers by helping the development

#	Data type	Description & Purpose	Utility
		Purpose The collection of this data will serve as an input to the process of review of the master program curriculum on cybersecurity. This data will also serve to guide the definition of the content for the self-standing learning modules.	of policies and regulations that are evidence-based and effective.
4	Literature review data on Robotics.	Description The data contains the result of a literature review done on the field of cybersecurity. The analysis will be performed by analyzing publications, articles and course syllabus from other universities and higher education institutions. Purpose The collection of this data will serve as an input to the process of review of the master program curriculum on cybersecurity. This data will also serve to guide the definition of the content for the self-standing learning modules.	The data could be helpful to researcher interested in understanding the current state of knowledge in the field of cybersecurity, identify gaps in the literature and develop research question and hypotheses. The data can also be useful for policymakers by helping the development of policies and regulations that are evidence-based and effective.
5	Recruitment cycle data about participants (incl. FSTP applicants)	Description This data includes all the personal information of candidates applying for the master programmes. The data will include contact information, CV history and study track records for all applicants. Purpose Data is gathered for administrative purposes and to enable the selection of candidates, including the awarding of scholarships, based on their recent educational and professional history.	Researchers can use this data, after anonymization, to study the qualifications and backgrounds of candidates applying for master's programmes or jobs. The data can help researchers identify trends and patterns in the qualifications and backgrounds of successful candidates and develop research questions and hypotheses. Personal data could be shared with relevant third parties (i.e. employers or recruitment agencies) upon collection of individual and informed consent of participants.
6	Personal data of students participating to master programmes.	Description This data includes all the personal information of students of the master programmes. The data will include contact information, CV history and study track records for all students and will be managed by the guesting universities following the general rules for all students.	Researchers can use this data, after anonymization, to study the qualifications and backgrounds of learners of the self-standing modules. The data can help researchers identify trends and patterns in the qualifications and backgrounds of online students and develop research questions and hypotheses.

#	Data type	Description & Purpose	Utility
		Purpose Data is gathered for administrative purposes and to enable participation to the courses and track of the student's path.	Personal data could be shared with relevant third parties (i.e. employers or recruitment agencies) upon collection of individual and informed consent of students.
7	Data on participants to self-standing modules.	Description Data related to the registration and participation to self-standing modules. This data includes contact information and digital addresses of all participants. The data also includes information regarding eventual certifications obtained by the participants. Purpose Data is gathered for administrative purposes to enable the access to the online platform and the tracking of the study activities.	Researchers can use this data, after anonymization, to study the qualifications and backgrounds of learners of the self-standing modules. The data can help researchers identify trends and patterns in the qualifications and backgrounds of online students and develop research questions and hypotheses. Personal data could be shared with relevant third parties (i.e. employers or recruitment agencies) upon collection of individual and informed consent of participants.
8	Satisfaction survey from students at the end of a learning course or activity.	Description Data related to the results of the satisfaction survey gathered from students of master and self-standing modules. Purpose Data is gathered to implement a quality improvement process and to improve courses and training material.	The data is of interest to the project participants to obtain workable feedback and encourage continuous improvement cycle of the courses materials and trainings paths. It will not be publicly available unless anonymized.
9	Marketing data related to communication and dissemination activities.	Description Data regarding the communication and dissemination campaign on social networks and digital channels. Purpose Digital marketing will be a central part of the strategy of attraction to candidate students to the project's program. Collecting operational data is fundamental for digital communication to work effectively.	The anonymized data could be helpful to digital marketing agencies or marketing professional interested in evaluating the effectiveness of their digital marketing campaigns and identify areas for improvement. Researchers can use this anonymized data to study the effectiveness of digital marketing campaigns and identify trends and patterns in the participation of potential students or customers.

Table 2: Data sets description and utility

2.2 Data security

The project will implement the following measures to ensure the security of the data recorded on the Microsoft Teams platform used to store all relevant project data:

1. **Access controls:** Access to the data will be restricted to authorized personnel only. The project will use Microsoft Teams to manage access controls, including role-based access controls and multi-factor authentication.
2. **Backup and recovery:** The project will implement a backup and recovery plan to ensure that the data is recoverable in the event of a disaster or system failure. The project will use the Microsoft's platform backup and recovery capabilities to ensure that the data is protected.
3. **Data retention and disposal:** The project will implement a data retention and disposal policy to ensure that data is retained only for as long as necessary and disposed of securely when it is no longer needed.
4. **Monitoring and auditing:** The project will implement monitoring and auditing procedures to ensure that the data is being used appropriately and that any unauthorized access or use is detected and addressed.

The project will also ensure that all personnel involved in the project are trained in data security best practices and that they understand their roles and responsibilities in protecting the data. The project will also ensure that all data management activities are compliant with relevant regulations and guidelines.

2.3 Data breach mitigation and corrective measures

In case of a data breach, here are general recommended key steps to take after detecting the breach:

1. Contain the Breach

The first critical action is to contain the breach and prevent further unauthorized access. This involves:

- Isolating compromised systems from the network
- Revoking access for potentially compromised users
- Securing affected systems to stop ongoing data leakage

2. Activate Response Team

Quickly assemble and activate an incident response team, including IT security specialists, legal representatives, and communications professionals. Brief key executives and establish a centralized communication channel.

3. Assess the Situation

Conduct a rapid assessment to determine:

- What data was exposed and who it belongs to

- The scope and impact of the breach
- Which systems were affected
- Potential vulnerabilities that led to the breach

4. Document Everything

Create a detailed timeline of the breach discovery, all response actions taken, and decisions made. This documentation is crucial for investigations, and regulatory reporting.

5. Notify Relevant Parties

Determine who needs to be notified based on legal requirements and the nature of the compromised data. This may include:

- Affected individuals
- Law enforcement
- Regulatory bodies
- Business partners

6. Secure Systems and Data

Take immediate steps to enhance security:

- Change access credentials for all affected accounts
- Enable additional security measures like encryption
- Restrict access to sensitive data and systems

7. Initiate Investigation

Work with relevant experts to:

- Analyze logs and system access
- Determine the root cause of the breach
- Identify and implement necessary remedial measures

The Data Protection Officer (DPO) of the project can be reached at the following address, for any question or requests: privacy@eitdigital.eu

The table below presents, for each data type, the breach occurrence likelihood, preventive mitigation measures and recommended corrective measures in case of a breach.

#	Data type	Breach Occurrence Likelihood	Mitigation measures (preventive)	Recommended corrective measures
1	Market review of Cybersecurity sector.	Low	- Implement secure storage and access control to authorized personnel only. - Use private communication channels for sharing with restricted access to authorized personnel only.	- Notify researchers and collaborators. - Contain the breach by revoking unauthorized access. - Conduct a root cause analysis. - Strengthen data-sharing protocols.
2	Market review of Robotics sector.	Low	- Implement secure storage and access control to authorized personnel only. - Use private communication channels for sharing with restricted access to authorized personnel only.	- Notify researchers and collaborators. - Contain the breach by revoking unauthorized access. - Conduct a root cause analysis. - Strengthen data-sharing protocols.
3	Literature review data on Cybersecurity.	Low	- Implement secure storage and access control to authorized personnel only. - Use private communication channels for sharing with restricted access to authorized personnel only.	- Notify researchers and collaborators. - Contain the breach by revoking unauthorized access. - Conduct a root cause analysis. - Strengthen data-sharing protocols.
4	Literature review data on Robotics.	Low	- Implement secure storage and access control to authorized personnel only. - Use private communication channels for sharing with restricted access to authorized personnel only.	- Notify researchers and collaborators. - Contain the breach by revoking unauthorized access. - Conduct a root cause analysis. - Strengthen data-sharing protocols.
5	Recruitment cycle data about participants (incl. FSTP applicants)	Medium	- Implement secure storage and access control to authorized personnel only. - Anonymize sensitive information, when possible	- Notify affected participants about the breach. - Provide guidance on monitoring for identity theft. - Implement stricter access control mechanisms.
6	Personal data of students participating to master programmes.	Low	- Implement secure storage and access control to authorized personnel only. - Anonymize sensitive information, when possible	- Report the breach to relevant authorities - Inform students promptly and offer support services - Provide guidance on monitoring for identity theft.

#	Data type	Breach Occurrence Likelihood	Mitigation measures (preventive)	Recommended corrective measures
				- Implement stricter access control mechanisms.
7	Data on participants to self-standing modules.	Low	- Implement secure storage and access control to authorized personnel only. - Anonymize sensitive information, when possible	- Notify affected participants about the breach. - Provide guidance on monitoring for identity theft. - Implement stricter access control mechanisms.
8	Satisfaction survey from students at the end of a learning course or activity.	Low	- Implement secure storage and access control to authorized personnel only. - Anonymize sensitive information, when possible	- Remove or anonymize exposed data retroactively if possible. - Strengthen survey platform security.
9	Marketing data related to communication and dissemination activities.	Medium	- Restrict access to marketing databases. - Use encryption for sensitive marketing-related information.	- Monitor for phishing or spam activities using leaked data. - Reassess marketing database access policies.

Table 3: Data types, breach likelihood, mitigation and corrective measures

2.4 Retention period

The retention period for the project varies depending on the status of the applicant and the purpose of data retention:

- For beneficiaries receiving EU funding, personal data is typically retained for 10 years after the end of the year following closure of the project².
- For other data sets, including personal data, it is retained for up to 5 years after the end of the year following closure of the project.

² https://www.edps.europa.eu/system/files/2024-08/24-08-01_edps_opinion_retention_periods_personal_data_marie-sklodowska-curie_en.pdf

3 FAIR data

3.1 Making data findable, including provisions for metadata

To ensure that the data generated during the project is findable, we will implement the following provisions:

- All data will be recorded in a predeterminate structure and with an agree format.
- Data structure and format will ensure interoperability and ease of use.

To ensure that the data is discoverable, we will implement the following mechanisms:

- Data will be made available through appropriate repositories and archives to enable discovery and reuse.
- Data will be assigned unique identifiers to enable easy identification and tracking.
- Data will be stored in a structured and organized manner to enable efficient searching and browsing, appropriate metadata and keywords will also be identified for effective indexing and search.

3.2 Making data openly accessible

The following table is highlighting which data described in Table 1: Data sets overview will be made openly available. It also explains why several datasets cannot be shared because of particular reasons and, in this case, an alternative solution will be presented.

#	Data type	Openly available	Justification	Alternative solution
1	Market review of Cybersecurity sector.	Yes	Results of this analysis will be described in the project deliverable D1.1.	(not relevant)
2	Market review of Robotics sector.	Yes	Results of this analysis will be described in the project deliverable D2.1.	(not relevant)
3	Literature review data on Cybersecurity.	Yes	Results of this review will be described in the project deliverable D1.1.	(not relevant)
4	Literature review data on Robotics.	Yes	Results of this review will be described in the project deliverable D2.1.	(not relevant)
5	Recruitment cycle data about participants (incl. FSTP applicants)	No	The sensible data about students involved in the recruitment process of the project will not be released, in respect to GDPR and any other regulation that may apply.	Data will be pseudo-anonymized. Statistical data about the recruitment cycle and student admissions will be described in the project deliverables D4.4, D4.5, D4.6, D4.7.

#	Data type	Openly available	Justification	Alternative solution
6	Data of students participating to master programmes.	No	The sensible data about students participating to courses and learning activities of the project will not be released, in respect to GDPR and any other regulation that may apply.	Statistical data about the student participation to the master will be described in the project deliverables D1.2, D1.3, D1.4, D2.2, D2.3, D2.4.
7	Data on participants to self-standing modules.	No	All personal data, including contact information, regarding students, will not be make openly available, in respect to GDPR and any other regulation that may apply.	Statistical data about the student participation to the master will be described in the project deliverables D1.2, D1.3, D1.4, D2.2, D2.3, D2.4.
8	Satisfaction survey from students at the end of a learning course or activity.	No	All personal data of students, including contact information and opinion on the course quality, will not be make openly available, in respect to GDPR and any other regulation that may apply.	Statistical data about the student satisfaction expressed for the courses attended will be described in the project deliverables D1.2, D1.3, D1.4, D2.2, D2.3, D2.4.
9	Marketing data related to communication and dissemination activities.	No	The granular and analytical marketing data used to guide communication and dissemination activities will not be released.	Statistical aggregated data about marketing and dissemination activities will be released in deliverables D3.2, D3.3, D3.4, D3.5.

Table 4: Data sets accessibility

The data made available, will be registered in official project deliverables and, as such, will be published on the project website and on the EC portal for public access.

3.3 Making data interoperable

All the data shared by the project will use document standards that will make it interoperable. The data will be released with docx or xlsx file formats promoting interoperability by providing a standardized, open, and flexible way to exchange and reuse data across different systems and applications.

3.4 Increase data re-use (through clarifying licences)

To permit the wides re-use of data, all openly available project deliverables and main results will be released with a Creative Commons Attribution (CC-BY) license, unless this conflicts with the license of the some input source. This license allows others to distribute, remix, and build upon the data, even commercially, as long as they credit the original source.

The data released under this license does not include:

Deliverable D4.2
Data Management Plan
Project: SPECTRO (101123118)

- any sensible information regarding students, that will be protected adequately,
- the master course, that will remain property of the producing entity, and
- the online training modules.

This data will maintain a shared ownership between the beneficiaries that have generated them. The reason for not releasing this data openly involves:

- **Intellectual Property Rights (IPR) Protection:** The master course may involve proprietary content or methodologies developed by the producing entity. Opening up this material could infringe on intellectual property rights, which are designed to protect the creators' or institutions' innovations and investments.
- **Commercial Exploitation:** If the material is intended for commercial exploitation, making it openly available could undermine the potential market value and the ability of the producing entity to recover development costs or generate revenue. This is often a consideration in projects where commercialization of results is a key objective.
- **Privacy and Confidentiality:** Courses may contain sensitive information, personal data, or case studies that are not suitable for open distribution due to privacy laws or confidentiality agreements. In such cases, the protection of this information takes precedence over open access.
- **Quality Control and Brand Integrity:** The producing entity may wish to retain control over the dissemination and use of the course materials to ensure they are used in a manner that maintains the quality, integrity, and reputation of the educational content and the institution.

4 Allocation of resources

The following resources will be allocated to ensure effective data management throughout the project:

1. **Personnel:** Data management will be overseen in Task 4.5 of the WP4. The task will permit all partners involved in these activities to dedicate resources, including personnel, to the tasks and activities related to data management. A data manager will be appointed to oversee the implementation of the data management plan and ensure compliance with relevant regulations and guidelines. The data manager will be responsible for creating and maintaining the metadata, ensuring data quality, and managing the storage and security of the data. The data manager will also be responsible for training project personnel in data management best practices.
2. **Infrastructure:** The project will allocate resources for the storage and backup of data in secure locations. For this purpose, the project will use the website and the Teams instance of the coordinator partner: EIT Digital.
3. **Budget:** The project will allocate a budget for data management activities. The budget will also include provisions for the dissemination and sharing of data, including the use of appropriate repositories and archives.
4. **Deliverables:** This deliverable D4.2 of the project describes an initial data management plan. The project will also include deliverables for the dissemination and sharing of data.

The allocation of resources will be reviewed and updated throughout the project as necessary to ensure that the data management plan remains effective and compliant with relevant regulations and guidelines. The project will also

ensure that the allocation of resources is consistent with exploitation and Intellectual Property Rights (IPR) requirements.

Our proposed approach for long-term data preservation involves selecting critical datasets for retention based on their potential for future research and educational use, storing them in a domain-relevant FAIR-compliant digital repository (Zenodo: <https://zenodo.org/>) for at least 10 years, and ensuring their accessibility through open, non-proprietary formats and comprehensive metadata, while adhering to legal and ethical standards for data sharing.

5 Ethical aspects

The project will ensure that all data management activities are conducted in compliance with relevant ethical guidelines and regulations. The following ethical aspects will be considered:

1. **Informed consent:** The project will obtain informed consent from all participants before collecting any data. Participants will be informed about the purpose of the data collection, how the data will be used, and any potential risks or benefits associated with the data collection. A template Consent form for collection of personal data is available in Annex 1.
2. **Data privacy:** The project will ensure that all data is collected, stored, and shared in compliance with relevant data privacy regulations. The project will implement appropriate measures to protect the privacy and confidentiality of the data, including encryption, access controls, and data anonymization where necessary.
3. **Data ownership:** The project will ensure that all data is owned by the appropriate parties and that any intellectual property rights are respected. The project will also ensure that any data sharing or dissemination is conducted in compliance with relevant regulations and guidelines.
4. **Data sharing:** The project will ensure that any data sharing or dissemination is conducted in compliance with relevant regulations and guidelines. The project will also ensure that any data sharing or dissemination is conducted in a manner that respects the privacy and confidentiality of the data.
5. **Data retention and disposal:** The project will implement a data retention and disposal policy to ensure that data is retained only for as long as necessary and disposed of securely when it is no longer needed.

6 Processing of personal data

As described in Table 1: Data sets overview, the project will be collecting and processing personal data of specific participants:

- Participants applying to SPECTRO Master programmes (incl. FSTP applicants)
- Students participating to SPECTRO Master programmes
- Participants to SPECTRO self-standing modules

Participants applying to SPECTRO Master Programme applicants must submit their application via the admission portal. Applicants are required to provide certain personal information to the system (i.e contact information, ID, email and postal addresses). All applicants must read and agree with EIT Digital [Privacy policy](#) and Master School Terms and Conditions and consent to allow EIT Digital to store and process their personal information. The documentation to read explains the grounds for personal data processing, the purpose for personal data collection, and the measures in place to protect personal data.

Students participating to SPECTRO Master programmes sign a Student agreement contract with the EIT Master School Office. EIT Digital provides Master School students with a management system to administer the relevant aspects of the Programme. Students are required to provide certain personal information to the system (i.e. bank details, contact information, transcript of records). The collection and management of EIT Digital Student Data is described under Article 11 of the Student Agreement Contract.

Participants to SPECTRO self-sanding modules must enrol to the Icarus AI platform to access the courses. Participants are required to provide certain personal information to the system (i.e contact information). All applicants must read and agree with the [Privacy Policy](#) to allow EIT Digital and Icarus AI to store and process their personal information. The documentation to read explains the grounds for personal data processing, the purpose for personal data collection, and the measures in place to protect personal data.

EIT Digital takes reasonable security measures to protect all personal data from destruction, loss, modification or any other unauthorised processing. EIT Digital do not store personal data for longer than necessary for the purposes for which it is stored.

Any applicant or student has the right to request free access to the personal data processed by EIT Digital to request the correction or removal of their data or to request a restriction of the processing. They may also request the portability of their data and you may object to the processing of your personal data, without substantiation in the case of direct marketing, or substantiated in other cases.

When the processing of their personal data is based on their consent, they may revoke this at any time. Revocation of consent does not affect the lawfulness of the processing based on consent before withdrawal.

Requests may be redirected to privacy@eitdigital.eu.

Participants also have the right to file a complaint with the supervisory authority, which is the Commission for the Protection of Privacy. It can be reached by mail at Rue de la Presse 35, 1000 Brussels, and by e-mail at the following address: commission@privacycommission.be.

7 FSTP Funding

FSTP Funding stands for Financial Support for Third Parties, also known as “Cascade funding”. the mechanism of cascade funding was created to make the process of applying for public funding from the European Commission easier

and faster. For each cascade funding initiative, intermediary organisations form a consortium of partners that puts in common its expertise to:

- Filter most of the administrative procedures
- Receive the money and then distribute it
- Training innovators before funding them.

The communication and the selection of innovators takes place in what is commonly called “open calls”. Open calls are open to any individual or organisation that match a defined set of criteria. During a period of three months, innovators can apply if they are eligible to receive funding. Following the application deadline, a selection process takes place in order to choose the most promising applicants who will later be granted European funding as well as support services to enhance their professional growth.

In the framework of the SPECTRO project, FSTP is distributed via scholarships granted to SPECTRO Master School Students.

7.1 Financial support to EU students

SPECTRO provides eligible students the financial support to take part to the education programmes and offers scholarship programmes to promote diversity in terms of gender, age, social and economic background. SPECTRO’s scholarships allow the greatest number to have access to high-quality education in digital areas and increase diversity among students and future digital experts. The students awarded a scholarship will be financially supported during their two years of studies in one of the double-degree in Masters’ programmes offered by SPECTRO. All details about the Cascade funding call are available on the [Funding and Tender portal](#) of the European Commission.

7.2 Types of scholarships available

Three types of scholarships are available:

- scholarship of excellence, including a full tuition fee waivers and a monthly allowance,
- full tuition fee waivers,
- half tuition fee waivers.

The monthly allowance will be weighted based on the country correction coefficient (CCCs) of the country where a student is studying. Thus, the monthly allowance provided to a student it can vary between the first and second year of studies.

7.3 How to apply

To apply to a SPECTRO scholarship, candidates must enrol into one of SPECTRO two master’s programmes.

Enrolment is done via a single application portal, EITD Application Portal. When enrolling to one of the two master’s programmes, applicants are given the opportunity to select 3 options as Entry University and 3 options as Exit University with order of priority. It gives students a wider choice: applicants who would not be accepted to their

preferred education institution might still be accepted by another education institution. At the same time, as the capacity of each education institution is limited, the multiple-option offer ensures that a high number of applications is processed.

To apply to the two SPECTRO Master's programme, candidates are required to upload into the application portal the following documentation:

- **Degree Certificate/Diploma** in its original language and translated into English (If your university does not provide this service, the translation has to be done by an authorised translator and his/her credentials, signature and stamps must be visible in the translated document). In case of ongoing studies, a statement certifying that you are in the final year of your studies. The statement must be written by the degree administration office (or equivalent department) confirming that you are enrolled on the final year of your education and giving your expected completion date.
- **Official and stamped transcript of records in original language and translated into English.** All courses taken must be included. Please scan the front and back of every document- all stamps and signatures must be fully visible.
- **Proof of English proficiency.** The requirement of English proficiency will vary depending on the higher education institution/country selected by the applicant. Please refer to EITD Master School website 'Admissions' tab for more information.
- **Curriculum Vitae** including details on your academic and professional career.
- **A letter of motivation** (maximum 3 pages) to prove the innovative potential of the applicant and their need for financial support. In this letter applicants will be required to discuss and/or propose an entrepreneurial idea and to explain their financial situation and need for financial support.
- **Supporting documents regarding the applicant's financial situation** (e.g. credit report).
- **An official ID**, such as passport or National ID.
- The allocation of scholarships will be done at the end of the selection process and before sending the letter of acceptance.

7.4 Eligibility requirements

SPECTRO scholarships are available to nationals of one of the eligible countries:

- EU Member States (including overseas countries and territories (OCTs))
- Listed EEA countries and countries associated to the Digital Europe Programme (associated countries) or countries which are in ongoing negotiations for an association agreement and where the agreement enters into force before grant signature

Only students enrolled and accepted in one of SPECTRO Masters' programme are eligible to financial support. When receiving their letter of acceptance and study offer, students will be notified of their scholarship allocation.

7.5 Selection criteria

The scholarships will award applicants based on merit. To quantify merit, a merit score (on a scale from 1 to 5, with 5 being the maximum) will be given to each applicant accepted to one of the master's programmes. Three elements will be considered in assigning a merit score:

- previous academic and professional experience of an applicant,
- curriculum vitae, and
- letter of motivation, which also includes the motivation for an applicant to receive financial support.

The initial merit score value will be an average of the two merit scores assigned by the two Local Programme Coordinators accepting an applicant (the Local Coordinator at the Entry University and the Local Coordinator at the Exit University). The merit scores assigned by Local Programme Coordinators will be reviewed by Programme Leaders to ensure uniformity between the scores given by Local Programme Coordinators from different universities and different countries. A final meeting including the Programme Leaders, all Local Programme Coordinators and the Quality Assurance Manager of the SPECTRO project will be set at the end of each Recruitment Period to agree and deliberate on the final merit score of each applicant.

7.6 Promotion of diversity

The SPECTRO scholarship programme will thrive to promote diversity and inclusion through its scholarship opportunities:

- Priority will be given to female applicants from any EU country or EU-associated country. The scholarship programme for women will aim increase female participation in master's programmes in Cybersecurity and Robotics.
- Priority will be given to applicants from RIS countries - included in the EIT Regional Innovation Scheme (RIS). The scholarship programme for participants from RIS countries is aimed to support the participation of students from countries with moderate or modest innovation score and with lower gross domestic product. Countries eligible to take part to the RIS include 1) EU members states, 2) Horizon Europe associated countries, and 3) outermost regions such as Guadeloupe, and Réunion (France), the Azores and Madeira (Portugal), and the Canary Islands (Spain).

7.7 Payment arrangements

The scholarship is reflected as a discount in the tuition fee. The candidates are informed of the net amount of the tuition fee, after deducting the applicable amount of the scholarship.

- half tuition fee waivers: the nominal value of the granted scholarship is of 2,500EUR per year

- full tuition fee waivers: the nominal value of the granted scholarship is of 5,000EUR per year
- scholarship of excellence, including a full tuition fee waivers and a monthly allowance: the nominal value of the granted scholarship is of 5,000EUR plus a monthly allowance of 900 EUR weighted based on the country correction coefficient (CCCs) of the country where a student is studying.

The students awarded a scholarship will be financially supported **during their two years of studies**.

7.8 Number of scholarships available

Scholarships are allocated on a rolling basis. The exact distribution of scholarships of each type in each scholarship programme will be decided by the SPECTRO consortium before the closing of each recruitment campaign and will be based on criteria defined in the project and aimed at sustaining enrolments to both master programs and at reaching all project KPIs. The exact number of scholarships available will be updated for each cycle on the [Funding and Tender portal](#) of the European Commission.

7.9 FSTP applicants data management

FSTP applicants' data is managed in the data set 'Recruitment cycle data about participants (incl. FSTP applicants)'. Please refer to sections 2 Data Summary and 6 Processing of personal data for details.

As a contractual obligation, EITD must publish FSTP beneficiary information (post-award). The result of each FSTP call and the scholarships awarded will be available on the [SPECTRO webpage](#).

8 Other issues

Data management in the project will be performed following the European Commission's Horizon Europe procedures. In particular this document represents the Data Management Plan (DMP) as requested in the program and describes the data management life cycle for the data to be collected, processed, and/or generated by the project.

The project will require collection of the KPIs and their sharing with the EU. The legal indicators for SO4 have been established in Annex II of Regulation, establishing the DIGITAL Programme. Underlying definitions and concepts of the indicators can be found in the Commission Staff Working Document "Monitoring and Evaluation Framework for the Digital Europe Programme" (pages 24 and 25). Indicators refer to the number of persons who have received training to acquire advanced digital skills supported by the Programme, the number of enterprises, in particular SMEs, having difficulty recruiting ICT specialists (when applicable) and the number of people reporting an improved employment situation after the end of the training supported by the Programme. The submission form (KPI tab) will take the gender dimension into account and will collect, where possible, sex aggregated data on participants of the training courses and the completion rate.

References

[DIGITAL]	https://digital-strategy.ec.europa.eu/en/activities/digital-programme
[SPECTRO]	http://eitdigital.eu/spectro/

Glossary

Community	A group of users, organised with a common purpose, and jointly granted access to resources. It may act as the interface between individual users and the resources. (see also [WISE-SCI])
DPO	Data Protection Officer
EC	European Commission
EIT	European Institute of Innovation and Technology
KIC	Knowledge and Innovation Community
GA	Grant Agreement
GDPR	General Data Protection Regulation
R&S	Research and scholarship

Annex 1. Template consent form for processing of personal data

[Organisation Name] [Organisation Address] [Contact Information] [Website]

1. Purpose of Data Processing [Organisation Name] ("we", "our", "us") need to collect and keep some of your personal data in order to [insert specific purpose]. [Organisation Name] is committed to protecting your personal data in accordance with the General Data Protection Regulation (GDPR)³. We seek your consent to process your personal data for the following purpose(s): *[select or draft all that applies]*

- Collection and use of personal data (e.g., name, contact details, identification documents, etc.) for [specific purpose].
- Image/voice recording for [specific purpose, e.g., event documentation, marketing, training, etc.].
- [other]

2. Type of Data Collected The personal data we collect includes:

- [List of relevant data types, e.g., full name, email, phone number, photographs, video/audio recordings, etc.]

3. Legal Basis for Processing Processing of your personal data is based on your explicit consent as per Article 6(1)(a) of the GDPR. You have the right to withdraw consent at any time without affecting the lawfulness of processing based on consent before its withdrawal.

4. Data Sharing and Retention Your data may be shared with [list of third parties if applicable] strictly for the stated purposes. We will retain your data for [retention period] after which it will be securely deleted.

5. Your Rights Under GDPR, you have the right to:

- Access, correct, or erase your data.
- Restrict or object to processing.
- Withdraw consent at any time.

To exercise these rights, contact us at privacy@eitdigital.eu and [your contact details].

You also have the right to file a complaint with the supervisory authority, which is the Commission for the Protection of Privacy. It can be reached by mail at Rue de la Presse 35, 1000 Brussels, and by e-mail at the following address: commission@privacycommission.be.

6. Consent Declaration By signing below, you confirm that you have read and understood this consent form and agree to the processing of your personal data for the specified purpose(s).

³ General Data Protection Regulation (Regulation (EU) 2016/679): <https://eur-lex.europa.eu/eli/reg/2016/679/oj>

Name: _____

Signature: _____

Date: _____

Withdrawal of Consent If you wish to withdraw consent, please contact us at [your contact details].

For Official Use Only Processed by: _____

Date: _____