



TOSCA 101191394
Manufacturing Processes and Digital **To**ols for more **S**ustainable **C**omposite **A**erostructures

Deliverable D1.1: "Data Management Plan – Summary"

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Lead Beneficiary: ITA
Contributions by: All

Dissemination Level		
PU	Public	
SEN	Sensitive information	X

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History of Changes

Change made	Explanation
Summarized from D1.1	To make it publicly available

List of Abbreviations

AFP	Automated Fibre Placement
CAD	Computer Aided Design
DMP	Data management plan
FAIR	Findable, Accessible, Interoperable and Reusable
SHM	Structural Health Monitoring

1. PUBLISHABLE SUMMARY

Deliverable D1.1 defines the initial **Data Management Plan (DMP)** for the TOSCA project. Its main purpose is to establish a common framework for how project data will be **collected, generated, processed, documented, stored, accessed, shared, preserved and, where appropriate, made publicly available** throughout the project lifecycle. As an initial version, the document provides a preliminary framework that will be progressively refined as project activities and datasets become better defined.

The DMP describes the general categories of information expected to be produced by the project, covering both **project-management information and technical/research data** generated through design, manufacturing, experimental activities, simulations, monitoring, inspection, digital tools and communication activities. It also establishes different levels of access depending on whether information is confidential, consortium-restricted or suitable for public dissemination.

A central element of the document is the definition of a **standard dataset-description framework** (Table 1) to be used by project partners. This framework captures information such as the dataset purpose and origin, responsible parties, applicable legal or licensing conditions, metadata and standards, access and sharing rules, expected formats and volumes, update frequency, archiving arrangements, responsibilities, resources and ethical considerations. Dataset descriptions are intended to be reviewed and updated during the project, making them a core component of the evolving DMP.

Dataset	Title	Responsible partner	Confidentiality level
01	Project coordination information data	PROFACTOR	Consortium-confidential
02	3D CAD models	Éire	To be defined
03	Vitrimer, prepreg and tape characterization & recycling process	CIDETEC	Consortium-confidential
04	Information on the repair process developments	GMI	Confidential / internal use
05	Resistance welding process parameters and data	AIMEN	To be defined
06	Experimental data for cure comparison	Éire	To be defined
07	SHM experimental data	GMI	Confidential / internal use.
08	Impact detection data	ITA	Potentially public
09	Delamination damage prediction caused by impact events	ITA	To be defined
10	Data transfer for real-time recording of AFP	ADD / FIDAMC	To be defined
11	SHM experimental data	GMI	Confidential / internal use.
12	Labelled FScan images	PROFACTOR	Public
13	Experimental data during resistance welding	AIMEN	To be defined
14	Experimental data for induction welding	Éire	To be defined
15	Experimental data of AFP controller	ADD	To be defined

Table 1. Dataset to be collected and confidentiality level

The document also establishes the application of the **FAIR data principles**, aiming to ensure that appropriate research data are Findable, Accessible, Interoperable and Reusable. This includes the use of suitable identifiers, metadata, standards, access mechanisms, licensing information and provenance, with more detailed implementation measures to be developed in later revisions.

In addition, the DMP addresses **data security, controlled sharing, legal compliance and ethical aspects**. It foresees secure environments and appropriate access rights for project information, while public research outputs may be deposited in suitable repositories when dissemination and intellectual-property conditions permit. Personal data, where processed for legitimate project-related purposes, must be handled in accordance with applicable data-protection requirements.

Overall, D1.1 provides the **baseline governance structure for responsible data management across the TOSCA project**, ensuring a consistent approach among partners while allowing the plan to evolve as datasets, exploitation requirements and dissemination decisions mature.