

#### INKREATE

# Transfer the real 3D world to interactive creative endeavours in apparel industry.

#### **Deliverable 8.4 Data Management Plan**

# Date: 05-06-2017 Dissemination Level: Public

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 731885

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# **Document control page**

Code	D8.4					
Version	100					
Date	05-06-2017					
Dissemination	Public					
level						
Category	Report					
Participant	IBV					
Partner(s)						
Author(s)	Juan V. Durá, Alfredo Ballester					
Work Package	WP 8					
Status	Draft Ready for internal review Project Coordinator accepted					
Version Notes	Version	Author(s)	Date	Changes made		
	001	Juan V. Durá	23-05-2017	First draft		
	002	A. Ballester	29-05-2017	Minor changes.		
	100	Juan V. Durá	06-05-2017	Approved for submission		

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### 1 Executive summary

The Data Management Plan (DMP) of the InKreate project is designed according the guidelines "Guidelines on FAIR Data Management in Horizon 2020". Research data should be findable, accessible, interoperable and reusable (FAIR).

The DMP is a living document. Current version includes the data that will be collected according to the DoA (description of Action). The DMP will be updated if any data not foreseen in the DoA is collected during the project.

The only partner who collects data during the project is the Institute of Biomechanics of Valencia (IBV). IBV collects human shapes (3D scans) and personal data according to ethical principles and legislation to scientific research, as described in the Deliverable 9-1.

The collected data will be curated using interchangeable formats to facilitate the access of third parties: STL for 3D data and CSV for personal data.

All data is deposited in Zenodo repository (https://www.zenodo.org) with Creative Commons Licences CC-BY. This way, third parties are enabled to access, mine, exploit, reproduce and disseminate (free of charge for any user) the data collected during the project.

## 2 Purpose of the data collected

Part of the developments that will be carried out during INKREATE will be based on libraries of 3-D body shapes, and applications to generate models of such shapes from user data and 2-D pictures. Those development activities will require 3-D scans of human bodies. That collection will be done by IBV, in experimental activities with external volunteers. This involves recording, storing and managing personal data, including images of the participants' bodies. All pictures and scans will be taken in the Laboratory of Human Shapes of IBV. These activities will be done according to ethical principles and legislation to scientific research, as described in the Deliverable 9-1.



Figure 1. 3-D body scanner.

### 3 Data curation

3D scans will be stored in STL files. STL is a standard file format supported by many software packages, and it is widely used for rapid prototyping, 3D printing and computer-aided manufacturing. STL files describe the surface geometry of a three-dimensional object. An STL file describes a raw unstructured triangulated surface by the unit normal and vertices (ordered by the right-hand rule) of the triangles using a three-dimensional Cartesian coordinate system.

In addition, the following personal data will be recorded for each participant:

- Gender
- Birth date
- Country of residence

- Weight
- Stature and other anthropometric measures

These data will be recorded in electronic format in using comma-separated values (CSV) file. CSV files stores tabular data in plain text. CSV is a common data exchange format that is widely supported by consumer, business, and scientific applications (e.g. Microsoft EXCEL).

The data will be deposited in Zenodo repository (<u>https://www.zenodo.org</u>) with Creative Commons Licences CC-BY. This way, third parties are enabled to access, mine, exploit, reproduce and disseminate (free of charge for any user) this research data.

# 4 Conclusion

This report explains the Data Management Plan (DMP) of the InKreate project. The DMP is designed according the guidelines "Guidelines on FAIR Data Management in Horizon 2020". Research data should be findable, accessible, interoperable and reusable (FAIR).