



Future Fashion Design  
Real-time, Accurate Fabric to Garment Virtual  
Prototyping in Collaborative Environments

## D1.2 First Periodic Progress Report

Contract No. FP7-ICT-285026-FFD

Workpackage	WP 1 – Workpackage 1
Author	Martin Knuth, Martin Steiger, Marco Hutter
Version	2 (Preliminary)
Date of Delivery	M12
Actual Date of Delivery	M12
Dissemination Level	Public
Responsible	Fraunhofer IGD
Data Included From	All Partners

The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n°285026



---

The FFD Consortium consists of:

---

Fraunhofer IGD	Project coordinator	Germany
Athens Technology Center SA		Greece
Assyst GMBH		Germany
Scotcad Textiles Limited		United Kingdom
Fratelli Piacenza S.P.A.		Italy
Consitex SA		Switzerland

---

**Contact Information:**

Dr Jörn Kohlhammer

Fraunhofer IGD

Fraunhoferstraße 5

64283 Darmstadt

Germany

e-mail: [joern.kohlhammer@igd.fraunhofer.de](mailto:joern.kohlhammer@igd.fraunhofer.de)

Phone: +49 6151 155 646

# 1 Publishable Summary

The FFD project aims to remove the main barriers inhibiting the wider adoption of Virtual Prototyping by textile and clothing companies by drastically improving the speed of obtaining realistic garment simulations, the accuracy of textile simulation and functional integration aspects. The new business model will offer strong improvements in product development efficiency and services at low-cost while opening new market opportunities for CAD and PDM/PLM system vendors.

The main business objective of Future Fashion Design is to enable fashion development teams to unleash their full joint creativity potential in an open, online collaborative system featuring rich 3D virtual representations, where virtuality is very close to reality.. Several steps of the current production pipeline do not yet have an appropriate representation in existing virtual prototyping systems. A key overall technical objective is therefore to define representations of these steps which allow the user to retain the whole relevant product information throughout the various engineering stages.

The methods which are developed in this project will allow the automatic creation of seam definitions and textures and formalize the representation of both in a way that makes it possible to cover the whole virtual product development pipeline. The increased accuracy and speed of the garment simulation, which is targeted in WP4, will allow a quick and reliable evaluation of the virtual prototype, as well as an efficient exploitation of the new level of integration that is provided by this support of the virtual phase between the first design steps and the final production of fabric and garment samples. The proposed future product development will thus be based on a completely virtualized design and prototyping process, and reduce the time to production for new collections.