Deliverable D1.1: Design rules

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SEVENTH FRAMEWORK PROGRAMME

FP7-ICT-2013-10: Objective ICT-2013.8.1 Technologies and scientific foundations in the field of creativity

Publishable short non-confidential summary:

Deliverable 1.1: Design rules

This deliverable formulates the design rules which will enable the drawings produced by the collaborative drawing/design in the cloud tool (incorporating the add-on smart functions) to be converted to printed layers by the translation tool. It forms the database of rules to be embodied in the software tool developed in tasks 2.3 and 2.4. Functions to be mapped are electroluminescent, colour changing, proximity sensing and piezoelectric. The fabrics which will be available for printing are also specified and typical layer thicknesses.

The design rules are formulated in terms of the layers which need to be printed, the permissible orientation of these layers and the conductive path rules for the electronics. Each function is covered in turn in a dedicated following section: 2, electroluminescent; 3, colour changing; 4, proximity sensing and 5, piezoelectric.

In section 6 the fabrics suggested by the design partners BASE, Diffus and ZHA are considered first qualitatively and then from the viewpoint of thermal and UV curing and their adhesion to the pastes to be printed. This results in a ranked shortlist of 9 fabrics for further consideration and evaluation by both the design partners and the printing partners.

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GSoft - Grafixoft - http://www.grafixoft.com/ - Bulgaria

Diffus – Diffus Design - http://www.diffus.dk/ - Denmark

Base – Base Structures Ltd - http://www.basestructures.com/ - UK

Zaha – Zaha Hadid Architects - http://www.zaha-hadid.com/ - UK

Ardeje – Ardeje - http://www.ardeje.com/ - France