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HOCHSCHULE DARMSTADT UNIVERSITY OF APPLIED SCIENCES

SINCE SYSTEM INNOVATION FOR SUSTAINABLE DEVELOPMENT

# Leather-Design-Guidelines for Sustainable Development **Review Phase 1**

Results of the first Workshop on September 5<sup>th</sup> 2020 and Call for Review

Release:October 2020

#### Background:

This document illustrates the interim results of the subproject "Leather-Design-Guidelines for Sustainable Development" as part of the research project "System innovation for a more sustainable leather chemistry". The key insights will be described based on the workshop on October 5<sup>th</sup> and a shorter "catch-up meeting" with additional participants of the project that were not able to participate in the original workshop.

# **1. Project Briefing**

In an iterative and interactive process the project members (representatives from various parts of the leather supply chains) agreed to the following "project briefing" (see right). This briefing shall be the point of reference throughout the project phase.

#### This project aims at...

... (#1) an open access design guideline for the development of more sustainable leather goods. Specific properties of "more sustainable leather" (tbd), over the entire product life, as well as generall aspects of the use of (tdb) leather as a material are taken into account.

The term "guidelines" refers to a set of principles and techniques that help designing and manufacturing more sustainable leather goods. The guidelines are not meant to be strict formulars but merely impulses to improve design processes in favour of sustainable development.

These guidelines will then (#2) be applied to one or more particular product(s) that shall used as a pilot project which will allow to evaluate the guidelines' usability.



### 2. Overall Structure of the Design-Guidelines

In order to create an initial structure of the leather-design-guidelines a table was proposed during the first workshop that consists of the two axes "categories of product development" (horizontal axis) and "categories of sustainable development" (vertical axis). The table was then edited and filled by participants of the workshop (see fig. 1).

Note: The table is online editable. Please visit the following link to give further feedback concerning the structure and content of the table.



Fig. 1) Screenshot of the interactive table using the online service "Miro"

### 3. Definition of Categories in this Structure

#### 3.1 Categories of Product Development (Horizontal Axis)

**Technical Features** are elements and properties of the product that refer to technical functioning (e.g. connections, material properties, coatings, ...).

**Conceptual Features** refer to the conceptual idea of a product (e.g. displaying the age and "story" of a product by embracing scratches and other signs of use).

Formal-aesthetic Features are aesthetic design elements such as colour, shape, proportion, weight, etc. They are related to technical and conceptual features.

**Business Model Features** refer to concepts and elements that focus on the creation of economic value added (leasing, product-service-systems, etc.).

#### Material Selection (Leather & Supportive Material)

describes all choices and strategies that relate to materials (e.g. selecting materials that can bei traced back or recycled).

Marketing / Communication / Sales Concepts summarize all approaches and aspects that aim at communicating features of the product or system regarding sustainable development (e.g. product information at PoS).

#### 3.2 Categories of Product Design for Sustainable Development (Vertical Axis)

**Design for Longevity** aims at developping products that can be used for a long time due to aspects such as their durability, repairability or versatility. **Design for Reuse** focuses on product and system properties that enable and support second (and third) hand useage.

**Design for Recycling** aims at developping products and systems that facilitate material recycling (e.g. by making it easy to dissamble products and by making sure that these materials do not contain harmful substances).

**Design for Process Optimization** focusses on aspects that improve processes such as production, logistics and packaging (e.g. by avoiding waste).

Design for Risk Management (Health / Environment) refers to features of the product or system that increase safety for humans and the environment throughout the product life (e.g. traceability of chemicals).



# 4. Properties and Aspects of "More Sustainable Leather"

As discussed during the workshop on October 5<sup>th</sup>, the term "more sustainable leather" needs to be defined more clearly. This process of definition within the overall research project "System Innovation for More Sustainable Leather Chemistry" is conducted across and beyond the four subprojects, since all four subprojects refer to different aspects related to "more sustainable leather" (e.g. chemicals, traceability, working standards etc.).

In order to support this definition process, we now ask you to name and rate aspects that define "more sustainable leather" according to your opinion. "Required to be "sustainable" describes features and properties leather needs to have in order to be called "sustainable" while "nice to have" are those that are not required but would make the material even more sustainable.

# 5. Definition of "Use" of Leather Goods

According to the jointly created project briefing (see chapter 1), the term "use" needs to be defined as it outlines the scope of the design guidelines. In order to define this term, we ask you to visit the miro board again and fill in the second frame ("2. Definition of "Use") aspects and topics that you think are part of what is described with the term "use of leather goods" within this subproject.

### Other subprojects

In several subprojects, potential solutions are to be examined to foster "more sustainable leather chemistry". Together the subprojects address different aspects of the system innovation required in this respect. Any person or organisation wishing to contribute to the achievement of the objectives in the subprojects can participate.

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Subproject #2 IT Tools and Governance for Traceability Dr. Julian Schenten   julian.schenten@h-da.de Eleni Kaluziak   eleni.kaluziak@h-da.de	Klick here to go to subproject #2
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Subproject #4 Leather-Design-Guidelines for Sustainable Development Dr. Jonas Rehn   jonas.rehn@h-da.de	Klick here to go to subproject #4

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Further information concerning the project to find under:

sne.h-da.de/leather-chemistry

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