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HOCHSCHULE DARMSTADT  
UNIVERSITY OF APPLIED SCIENCES

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SYSTEM INNOVATION FOR  
SUSTAINABLE DEVELOPMENT

**FINAL ONLINE CONFERENCE**

# Darmstadt Leather Project

More Sustainable Chemistry Along the Leather Supply Chains

## Conclusions ...and Outlook:

## Guiding principles towards “More Sustainable Leather Chemistry”

Dr. Julian Schenten



# Conclusion



Harmonisation of Standards



**Traceability:** Pilots show proof of concept, but rulebook is missing. Investigate chances and engage!



**Chemical and Process Innovations:** Assessment tool pilot, ongoing research on CMF

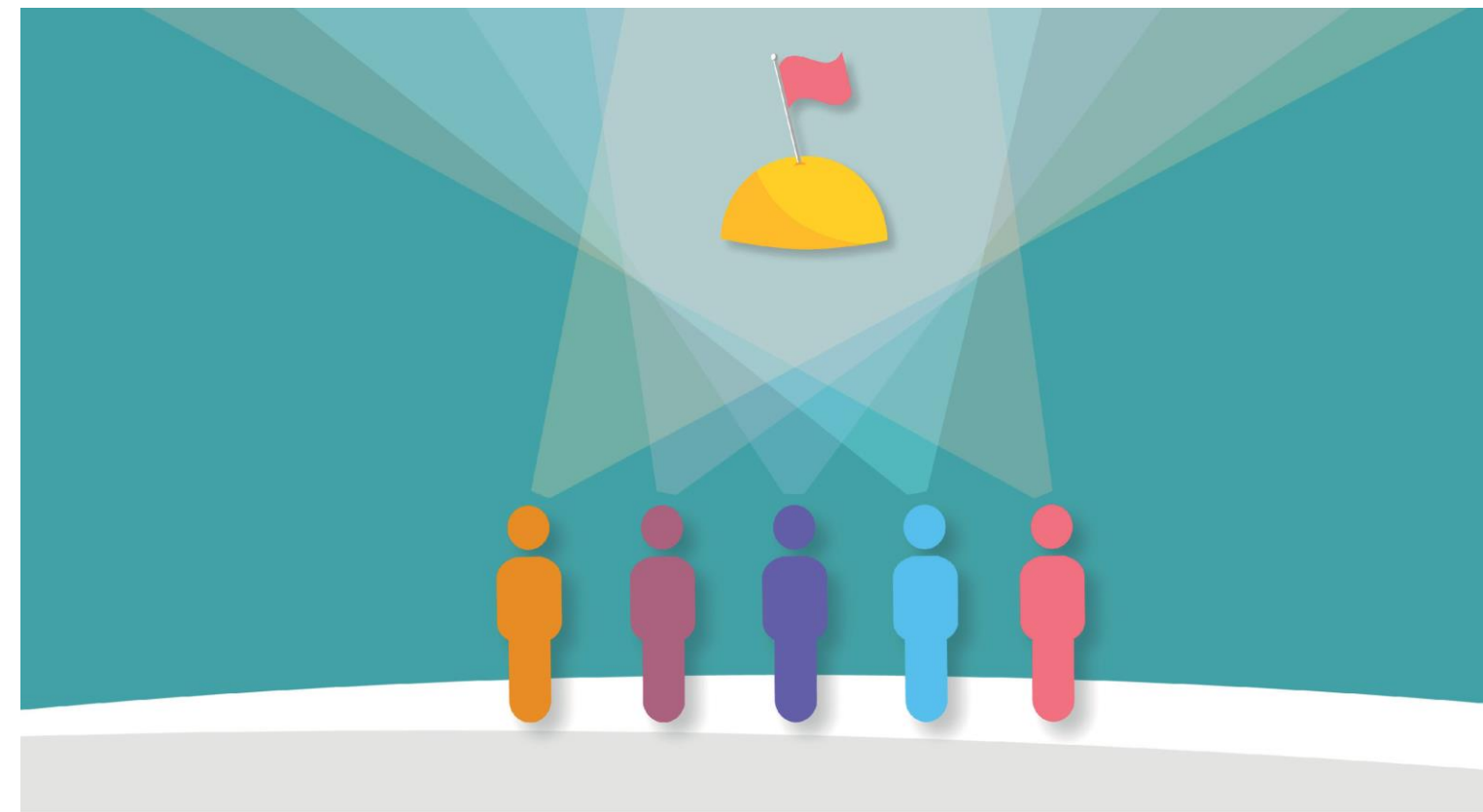


**Design Guidelines:** Handbook released - ready for roll-out



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But this does not have to be the end of the story....



# Guiding Principles for more sustainable leather chemistry

- ▶ Capturing 5 year project experience
- ▶ Created by industry (chemicals, leather, brands), and (leather) research
- ▶ 15 Principles (procedural + substantive)
- ▶ Context: Preamble and background paper
- ▶ Current status: Finalization (today: Draft)

Discussion paper | Guiding principle "More Sustainable Leather Chemistry"

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3	Sustainable Economic activity	A More Sustainable Leather Chemistry strives to resolve the trade-offs often associated with a sustainable economy. It enables companies to operate under fair competitive conditions while building resilience and generating profits. At the same time, business models are based on more sustainable production methods (No. 6).
4	Fulfillment of legal obligations	A More Sustainable Leather Chemistry defines the fulfilment of local (production or marketing) legal requirements in the areas of environment, occupational health and safety, and social welfare as a minimum qualitative requirement.
5	Legal developments	For a More Sustainable Leather Chemistry, companies need to respond to regulatory developments and prepare where necessary to ensure that they comply with future legislation.
6	More sustainable production methods	A More Sustainable Leather Chemistry is based on the iterative review of more sustainable production methods with the least or no negative impacts of processes and products (throughout the life cycle) in terms of environment, health and safety and social aspects.
7	Life cycle approach and product ecosystems	A More Sustainable Leather Chemistry means that all impacts related to functionality (performance, durability, etc.), environment, health and safety, social and economic aspects – as well as their interactions – are considered throughout the life cycle of products within their product ecosystem.
8	Chemicals Management (CM)	I. A More Sustainable Leather Chemistry requires that companies adopt and implement effective chemical management that ensures that risks identified using standardised procedures (e.g. OECD) are (1) adequately controlled with regard to human health and the environment throughout the life cycle, and at the same time (2) measures are taken to avoid risks (risk prevention). The following also applies to the CM: II. The CM must at least refer to all substances for which the respective applicable law (No. 4) standardises requirements. III. CM is also a learning process (No. 1). CM must therefore refer to all substances that (may) be identified as problematic in the foreseeable future due to legal developments (No. 5). IV. The CM basically examines the particularly effective and at the same time costly "hazard-based" approach, i.e. the aim is to substitute substances on the basis of the known problematic properties, provided that preferable alternatives are available.
9	Environmental management	I. A More Sustainable Leather Chemistry requires, as far as not covered by No. 8, to ensure through appropriate environmental management that, as far as possible, no or only minor negative impacts on the environment (resources) occur, taking into account: <sup>*</sup> II. Use of pesticides and fertilisers

<sup>\*</sup> Overview according to UNECE 2021, [Business Process Analysis for Sustainability and Circularity in the Leather Value Chain](#), 15 (adapted; see further references op. cit.).

# Guiding Principles for more sustainable leather chemistry

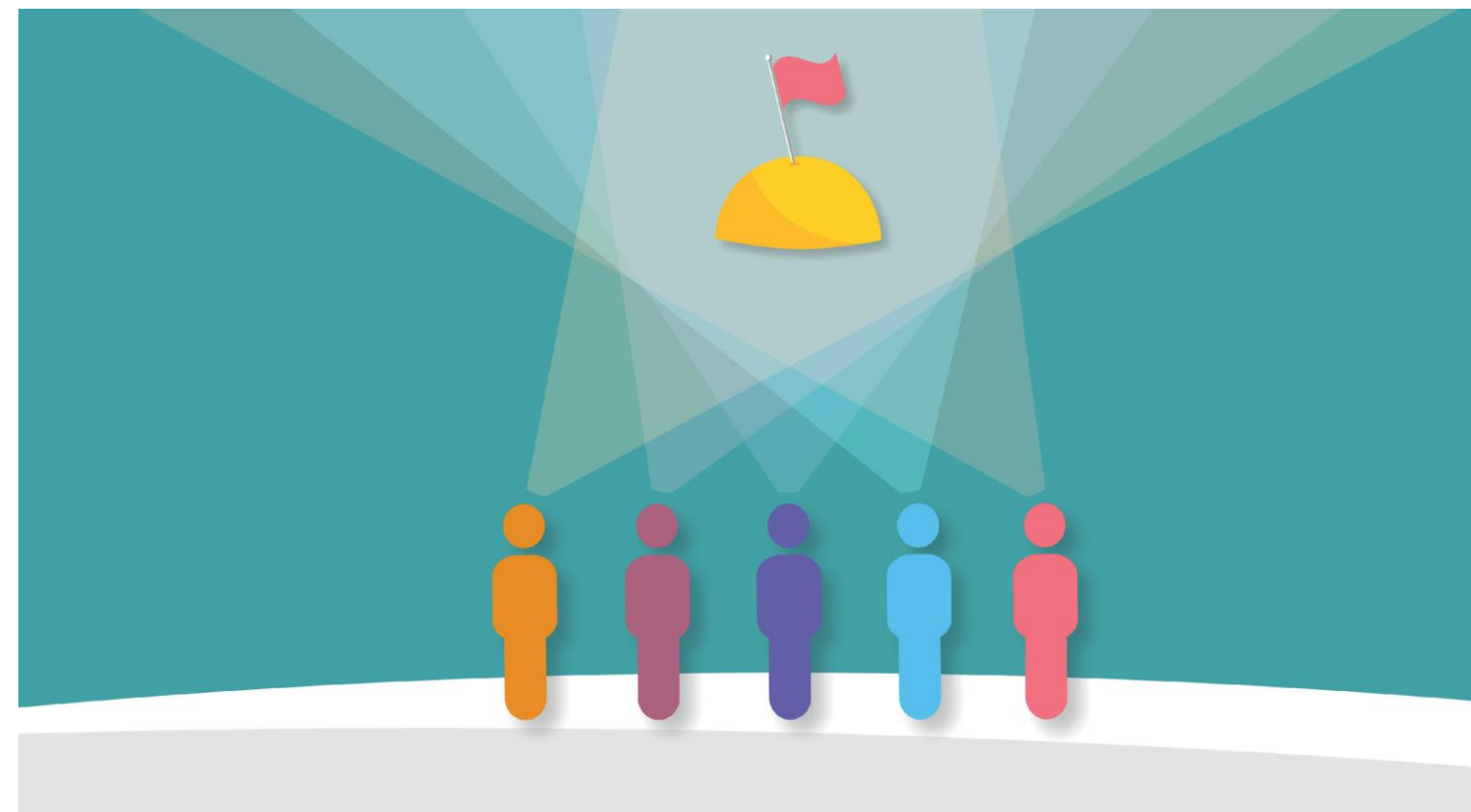
- ▶ Goal: International **level playing field**
- ▶ Can be used as a mission statement
- ▶ Guidance for **companies**: Benchmark and advance business models, operations and strategies
- ▶ Benchmark and advance **standards**
- ▶ Work towards alignment with target scenario
- ▶ Framework to further develop and roll-out subproject solution approaches
- ▶ **Official launch soon**





# More Sustainable Chemistry in the Leather Supply Chains

## We can work it out!



[sne.h-da.de/leather-chemistry](https://sne.h-da.de/leather-chemistry)