



Leather Learning Series: Part Three

Leather Processing: Stages, Challenges, Solutions

Tuesday, October 13th, 2020

Speakers



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Responsible Leather Round Table (RLRT)

Now

The Responsible Leather Round Table (RLRT) by Textile Exchange is a neutral space for anyone with interest in the leather industry to learn, share information, and look for opportunities to drive positive action.

Next

Join us on **December 15th** at **10 am EST/4 pm CET**, for the **RLRT Summit**.

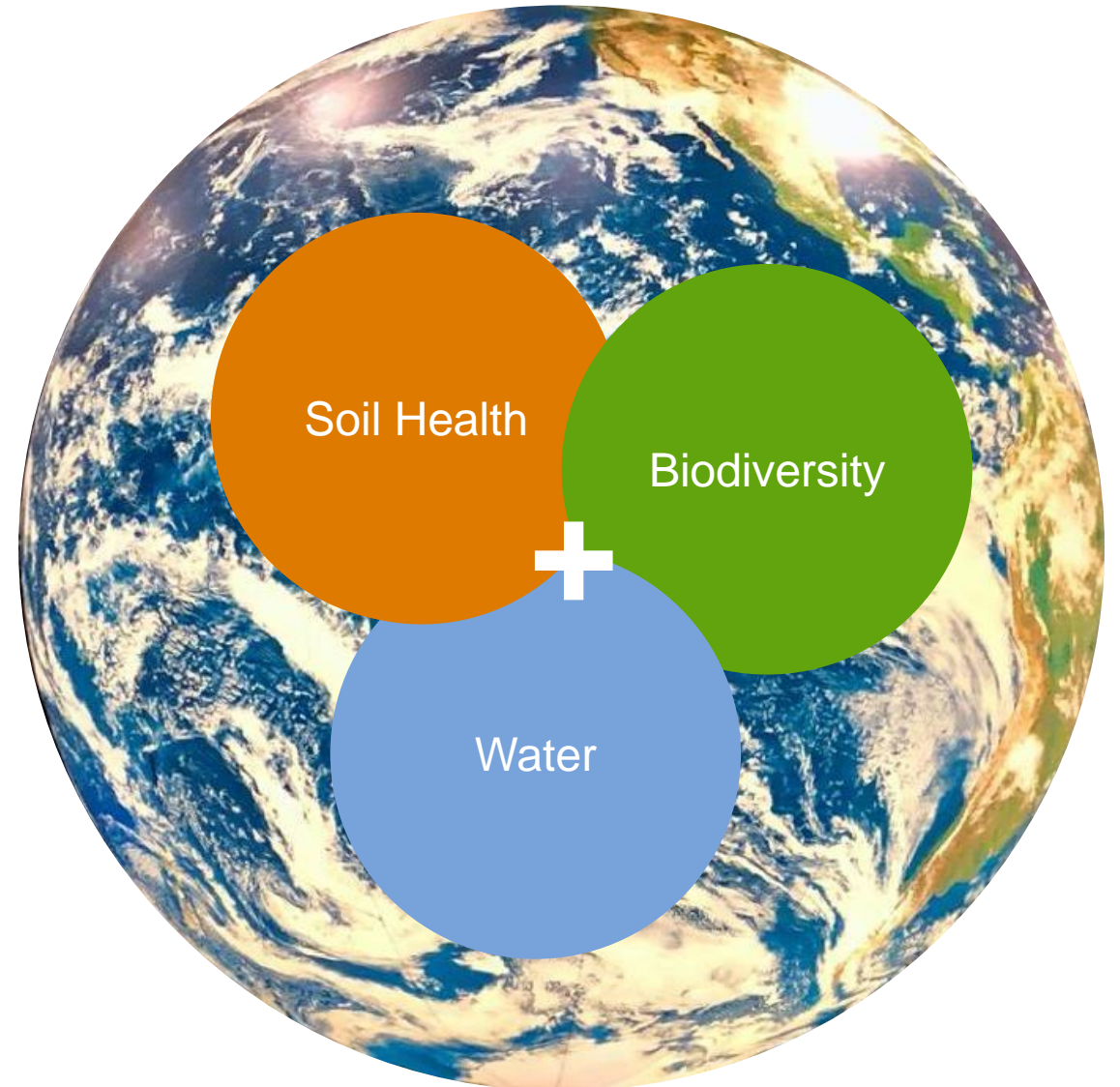
<https://textileexchange.org/event/round-table-summit-responsible-leather-round-table/>

Climate+

Textile Exchange's strategic intent over the next 10 years is to be a driving force for urgent climate action in textile fiber and materials production, specifically:

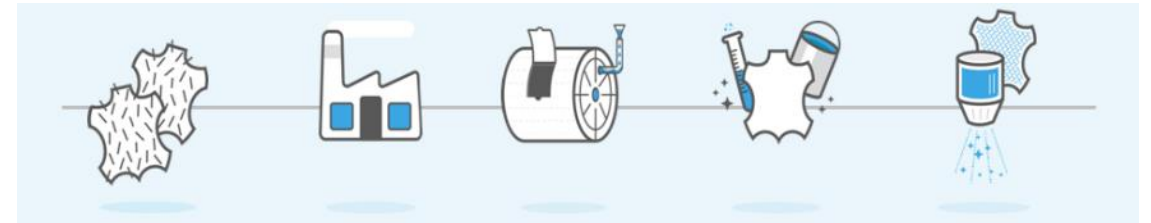
Enabling and guiding the textile industry to reduce GHG emissions (CO2 equivalents) **35% to 45% by 2030** in the pre-spinning phase of textile fiber and materials production.

Amplifying positive impacts in soil health, water, and biodiversity.





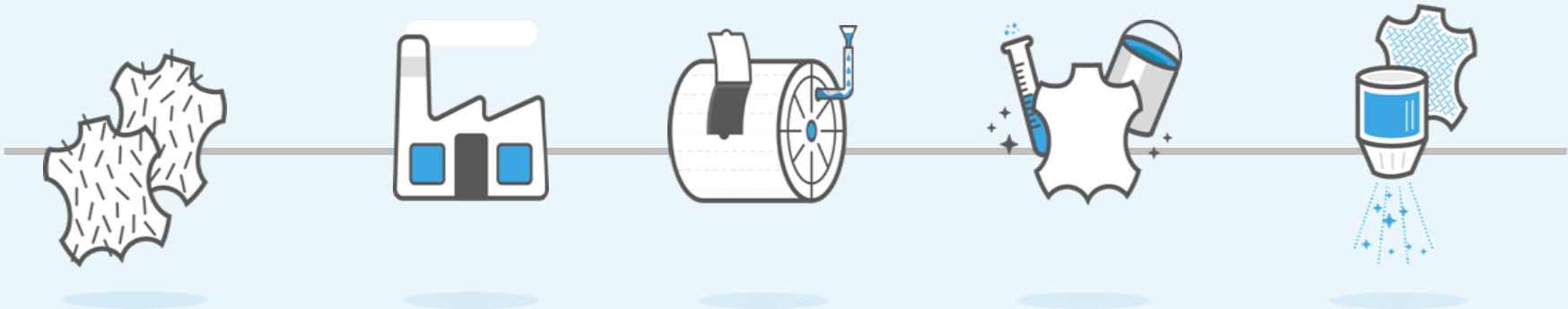
LEATHER PROCESS



MICHAEL COSTELLO

Director of ESG (Environment, Social & Governance)

Leather Process



Raw Hide

Preservation
Salting
Chilling
Freezing

Beamhouse

Soaking
Liming
Fleshing
Deliming
Bating

Tanning

Pickling
Degreasing
Tanning
Splitting
Shaving

Re-tanning

Dyeing
Fatliquoring
Samming
Drying
Staking

Finishing

Buffing
Milling
Spraying
Coating
Grading

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SOCIAL AND ENVIRONMENTAL ASPECTS IN THE LEATHER INDUSTRY

CHALLENGES AND OPPORTUNITIES

Fernando Bellese 10/13/2020

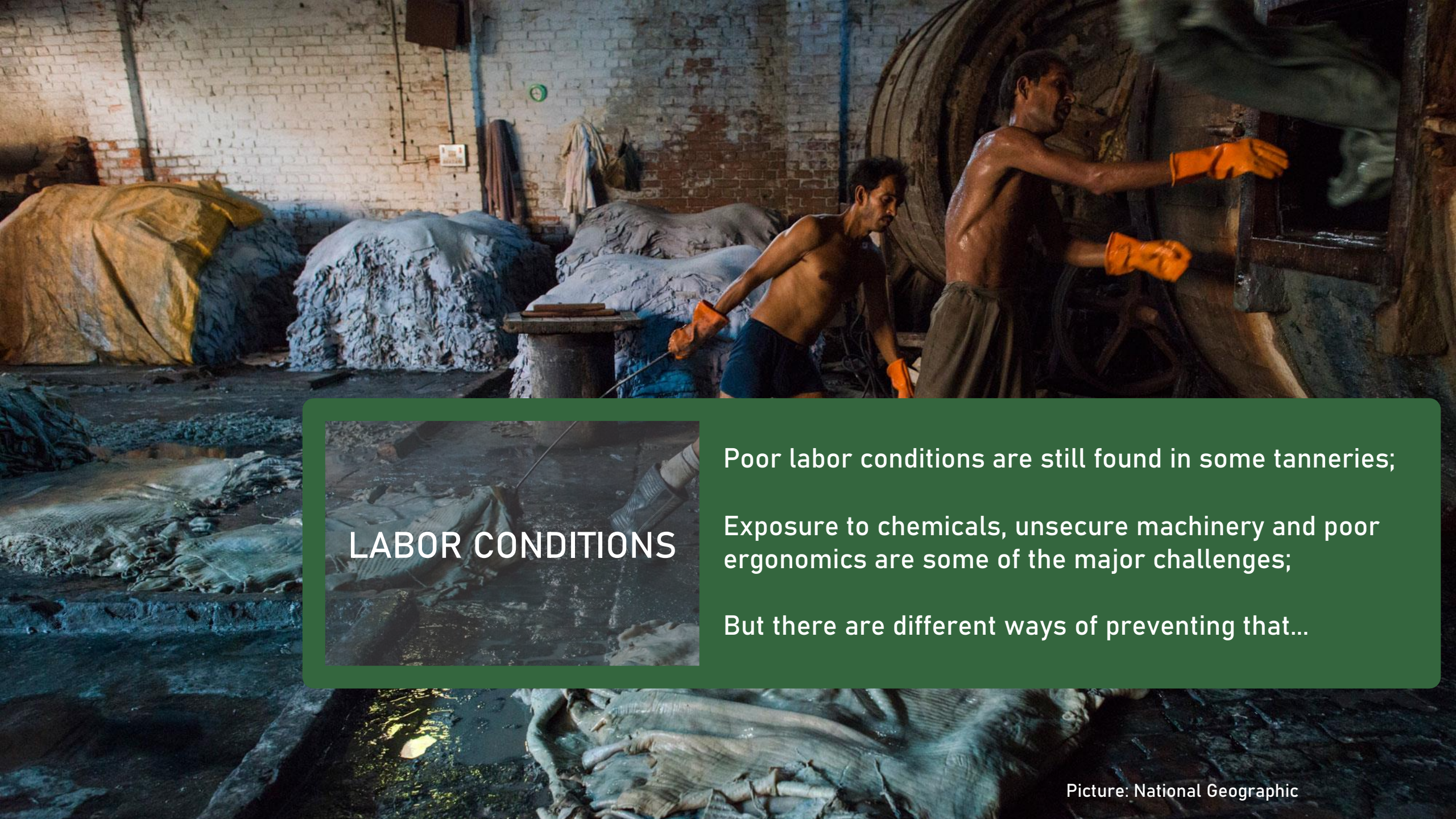


LEATHER IS ONE OF
THE OLDEST
INDUSTRIES IN THE
WORLD...

It has evolved considerably with time;

But there are still challenges...

...and good opportunities for further improvement.



LABOR CONDITIONS

Poor labor conditions are still found in some tanneries;

Exposure to chemicals, unsecure machinery and poor ergonomics are some of the major challenges;

But there are different ways of preventing that...

Modern management systems;
Advanced machinery and IPEs;
Safer chemicals;

LABOR CONDITIONS



POLLUTION

Resource intensive industry;

Requires high investments to operate efficiently;

If not managed correctly can be a major source of pollution.

More efficient processes and higher chemical uptake;

State-of-art wastewater treatment plants;

Joint approaches for more efficient use of resources;

Well regulated and strong multi-stakeholder initiatives;



ROADMAP TO
ZERO



**LEATHER
WORKING
GROUP**



HIGHER EFFICIENCY

Energy: From 10 MJ to under 3 MJ/SQFT of finished leather;

Water: From 45 L to around 10 L/SQFT of finished leather

PrimeAsia achieved 80% of recycled water in China;



**CHALLENGES IN THE
SUPPLY CHAIN**

Deforestation;

Animal Welfare;

Cattle Emissions;

Labor Conditions;

Lack of transparency;



Tanneries are an important link between the two ends of the value chain;

Clear communication with suppliers may result in positive changes;

THE LEATHER
INDUSTRY CAN BE
PART OF THE
SOLUTION



Promoting best practices at farm level by:

- Ensuring better use of natural resources;
- Holding strict animal welfare standards;
- Contributing to lower emissions;
- Providing Traceability to the farm of birth;
- Increasing transparency through third-part verification;

WE DIDN'T GET HERE
ALONE

BUT WE NEED TO CONTINUE TO
WORK TOGETHER AND IN A
TRANSPARENT WAY.



The first step to improve things is to understand the challenges...

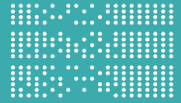
...the second is to act responsibly.



PrimeAsia
QUALITY LIFESTYLE LEATHERS

h_da

HOCHSCHULE DARMSTADT
UNIVERSITY OF APPLIED SCIENCES



s:ne

SYSTEM INNOVATION FOR
SUSTAINABLE DEVELOPMENT



Multi-stakeholder approach to more sustainable leather chemistry

Julian Schenten
sne.h-da.de/leather-chemistry/
Darmstadt University of Applied
Sciences



Bundesministerium
für Bildung
und Forschung



Gemeinsame
Wissenschaftskonferenz
GWK

**Innovative
Hochschule**



More sustainable chemistry



Conceptual understanding:

„more sustainable chemistry“

- ▶ No harm to people and the environment due to toxicity
- ▶ Reduced use of natural resources

More sustainable leather chemistry - challenges



Leather production entails many classified **substances** considered **hazardous** that may pose risks to workers and the environment

- Transportation and storage: biocides, pesticides and salts in effluents
- Beamhouse (*soaking*): effluents with high chemical oxygen demand/COD
- Tanning: high salt concentrations in effluents (*pickling*), salts, biological oxygen demand/BOD, COD, chrome VI (*tanning*)
- Re-tanning: dyes and additives (*dying*), COD + BOD, chlorinated fatliquors (*fatliquoring*)
- Finishing: volatile organic solvents/VOC released from solvent based agents, per- and polyfluorinated compounds/PFCs (*coating*)



Consumer protection: Chrome VI, dyes, PFCs ...



End of Life: Today generally not biodegradable without treatment (e.g. synthetic coatings)

Achieving more sustainable chemistry is a multi-stakeholder task

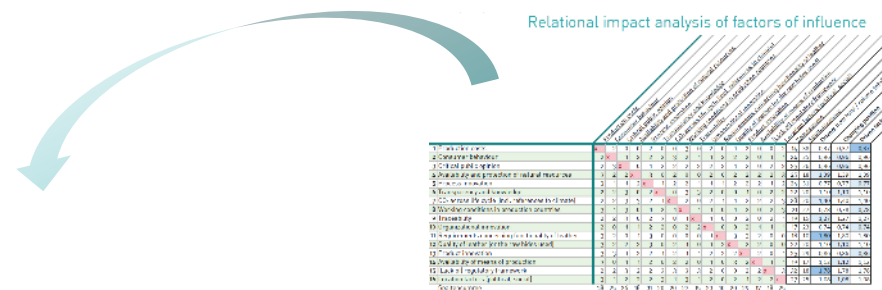


From individual perspectives...



...to a system view

What are driving and driven factors of influence?



Driven

- Process innovation, Product innovation, Production costs, Organizational innovation

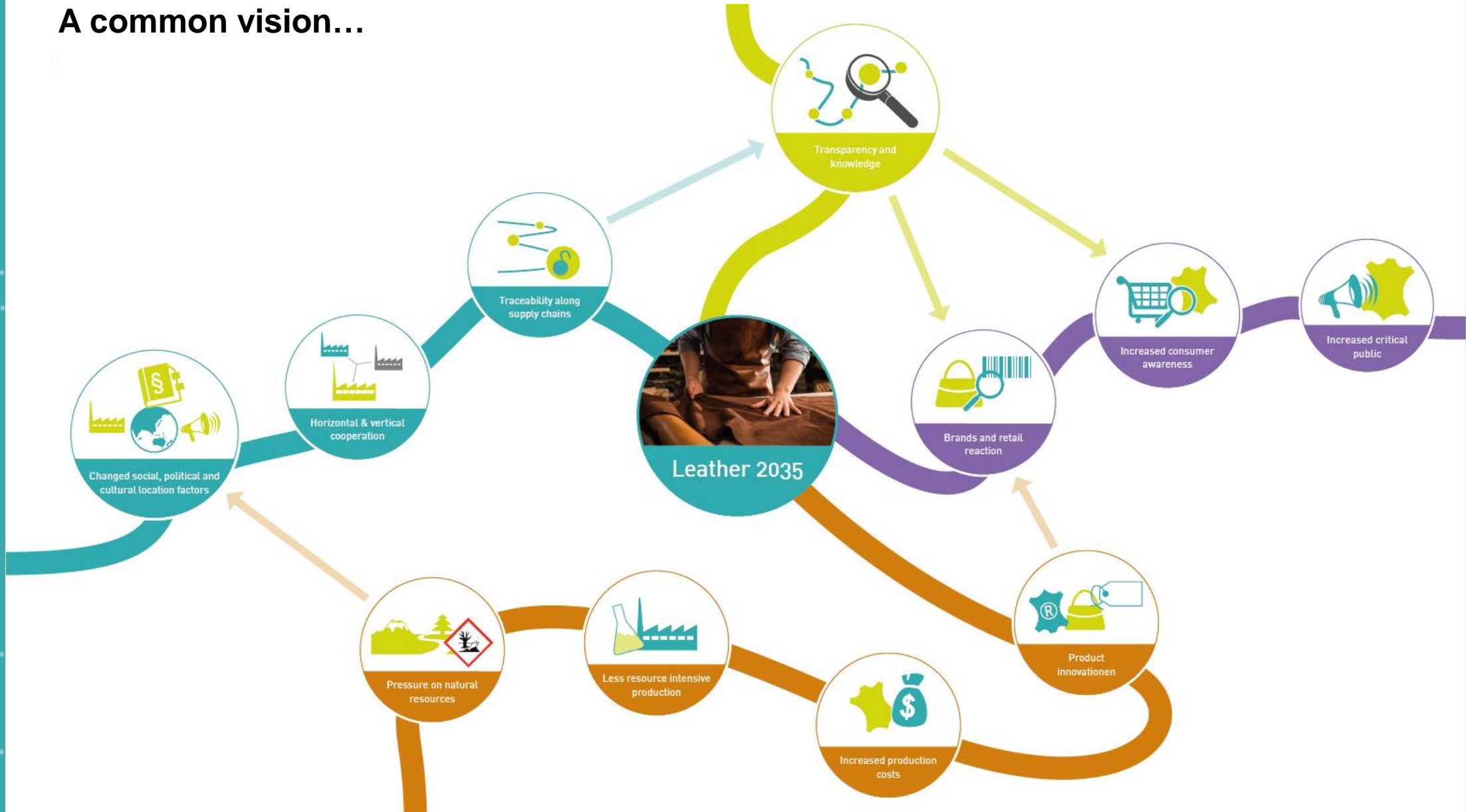
Driving

- **(Lack of) regulatory framework, Availability and protection of natural resources, CO₂ across life cycle, Requirements concerning functionality of leather, Traceability**

Depends...

- Consumer behaviour, Critical public opinion, Location factors (political, social), Quality of raw hides used, Transparency and knowledge, Working conditions, Means of production

A common vision...



„How much would you be willing to pay for leather shoes similar to those pictured here? “



Conventional production [n=380]

98,45 €

Environmental friendly and save production [n=396]

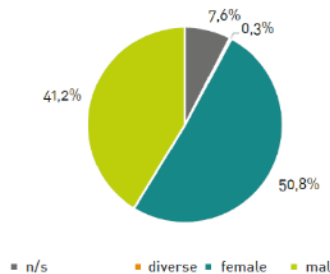
131,42 €

Environmental friendly and healthy production & hide traceability [n=397]

145,82 €

Full results soon at
sne.h-da.de/leather-chemistry/

Gender



Sample size: 577
 Age: 47,73 (SD= 13,63)
 Nationality: 90,2 % German
 Region: Darmstadt-Dieburg
 Period: April - June 2020

Thank you for your attention

- Transformation requires sector wide cooperation, horizontally and vertically
- Gain systemic view and common problem understanding
- **Engage**

sne.h-da.de/leather-chemistry/
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Subproject #1
Harmonisation of standards for a “more sustainable” leather chemistry

Dr. Julian Schenten | julian.schenten@h-da.de



Subproject #2
IT Tools and Governance for Traceability

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 Eleni Kaluziak | eleni.kaluziak@h-da.de



Subproject #3
Chemical und Process Innovation

Prof. Dr. Frank Schael | frank.schael@h-da.de



Subproject #4
Leather-Design-Guidelines for Sustainable Development

Dr. Jonas Rehn | jonas.rehn@h-da.de

Solutions

Environmental & Social Concerns within the Leather Value Chain

Deborah Taylor

Managing Director, Sustainable Leather Foundation CIC

Consultant, United Nations Economic Commission for Europe

Consultant, Leather Impact Accelerator, Textile Exchange



Consumers are better informed and more conscious of the effects that production & consumption have on the earth's natural resources

Reduce ↓

Carbon Emissions

Pollution

Hazardous Chemistry

Deforestation

Land Conversion

Increase ↑

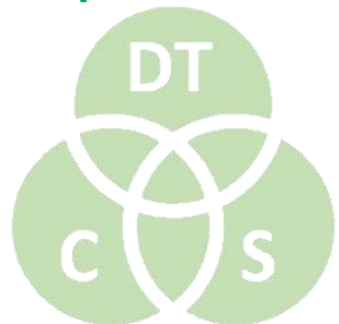
Good Animal Husbandry & Welfare

Health & Welfare of workers

Best Practice for Machinery

Best Practice for Processing

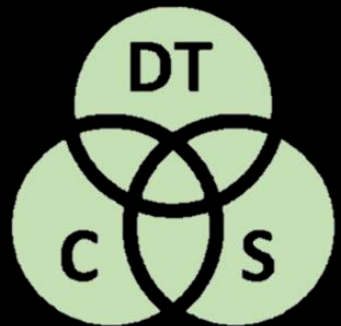
Collaborative cross-sector innovation and cooperation







Landscape of auditing and certification bodies

Solutions for the Leather Value Chain

- Type of Certification / Verification
- Scope of Work
- Geographic Coverage
- Specific Specialties

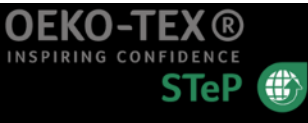


Leather Only Programmes Solutions for the Leather Value Chain

	Geographic Coverage	EMS	Chemicals	Traceability	Carbon Footprint	Social	Governance	Specialty	Org Type	Restrictions
 <small>ASSOCIATION POUR L'ASSURANCE QUALITÉ DES FABRICANTS DE BRACELETS CUIR</small>	Global	✓	✓	✓	✗	✓	✗	Watch strap leather	Membership subs Audits	Small market
	Brazil (links with Italy)	✓	✓	✓	✗	✓	✓	De-forestation	Country Association subsidised Audits	Not global – country focussed
	Italy (links with Brazil & Spain)	✓	✓	✓	✗	✓	✓	ISO Standards	Country Association subsidised Audits	Not global – country focussed
	Global	✓	✓	✓	✗	✗	✗	Industry standard for environmental	Membership subs Audits	Env. Only Mgmt structure
	Global	✓	✓	✓	✓	✓	✓	Consumer focus Whole Value Chain	Membership subs Audits	New org Still in piloting stage

Other Programmes

Solutions for the Leather Value Chain

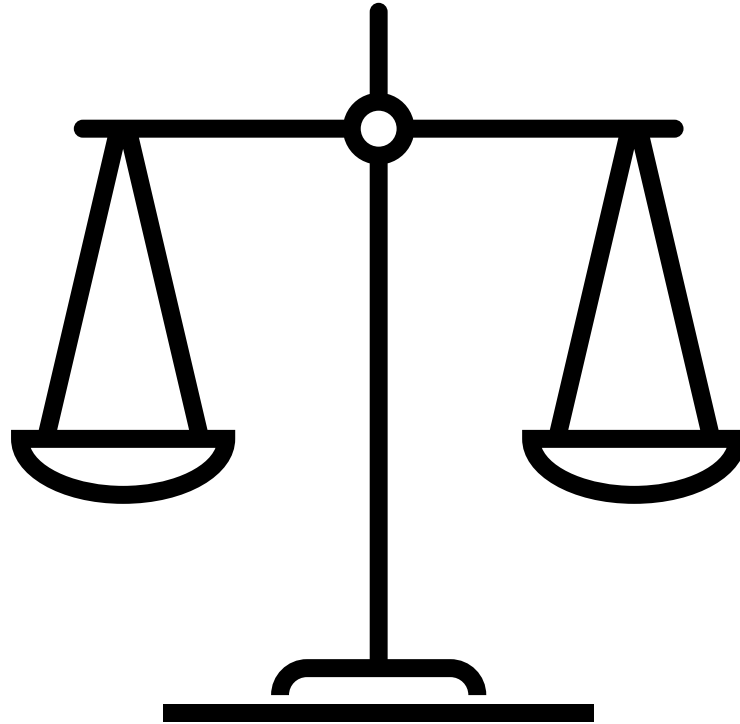
	Geographic Coverage	EMS	Chemicals	Traceability	Carbon Footprint	Social	Governance	Specialty	Org Type	Restrictions
	Europe & Asia	✓	✓	✓	✗	✓	✓	New laser marking technology	Full service testing, audits, training	Commercial for profit
	Global	✓	✓	✓	✗	✓	✓	Various systems for leather & textile	Full service testing, audits, training	Commercial for profit
	Global ?	✗	✗	✗	✓	✗	✗	Aggregated impact score for materials	Membership subs Donors	Not accurate metrics or representative of all aspects
	Global	✗ ✓	✓	✗	✗	✗	✗	MRSL Wastewater	Membership subs Donors	Limited in scope

Points to Consider

Solutions for the Leather Value Chain

- Not easy to do direct comparisons as all programmes use different types of audit system / structure
- Many brands still need to do additional auditing to satisfy their needs / obligations
- Lack of standard regulation around many aspects of concern globally
- Challenging to harmonise without either huge investment or damaging less advanced economies and livelihoods

Need for
harmonisation
and
standardisation



Need to protect
social economic
sustainability for
many leather
producing
countries



Other Solutions

Solutions for the Leather Value Chain



leather **UK**



International
Council of Tanners



Solidaridad



LEATHER HIDE
COUNCIL OF AMERICA

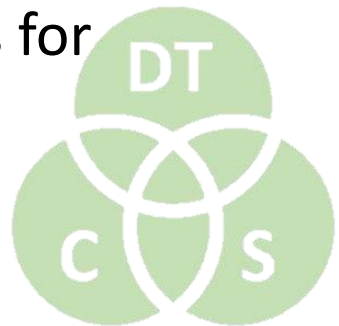


UNECE
UN/CEFACT

UNIC
CONCERIE ITALIANE



- Some great NGOs working in partnership with organisations to develop training, education and improvement for less advanced economies.
- Public / private partnerships to develop standards and systems that can be adopted globally
- Country and Regional Associations could better collaborate, pool wisdom, innovation and resources for the good of the industry.

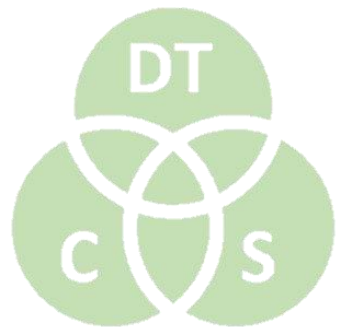




The Leather Impact Accelerator (LIA) uses benchmarks to address animal welfare and deforestation/conversion-free at the farm level, the social and environmental impacts of leather processing, and to set expectations for traceability. Brands can use LIA to support best practices in the leather value chain and make credible claims about their actions.

LIA is not a standard – it is a benchmarking program that recognizes and rewards best practices in the leather value chain. To this end, LIA uses benchmarks to set a minimum threshold for practices and give recognition to those who meet or exceed them.

Brands can use Impact Incentives to provide direct financial support to farmers that meet LIA benchmarks, and the Claims Framework provides guidance for all LIA participants to make credible claims.

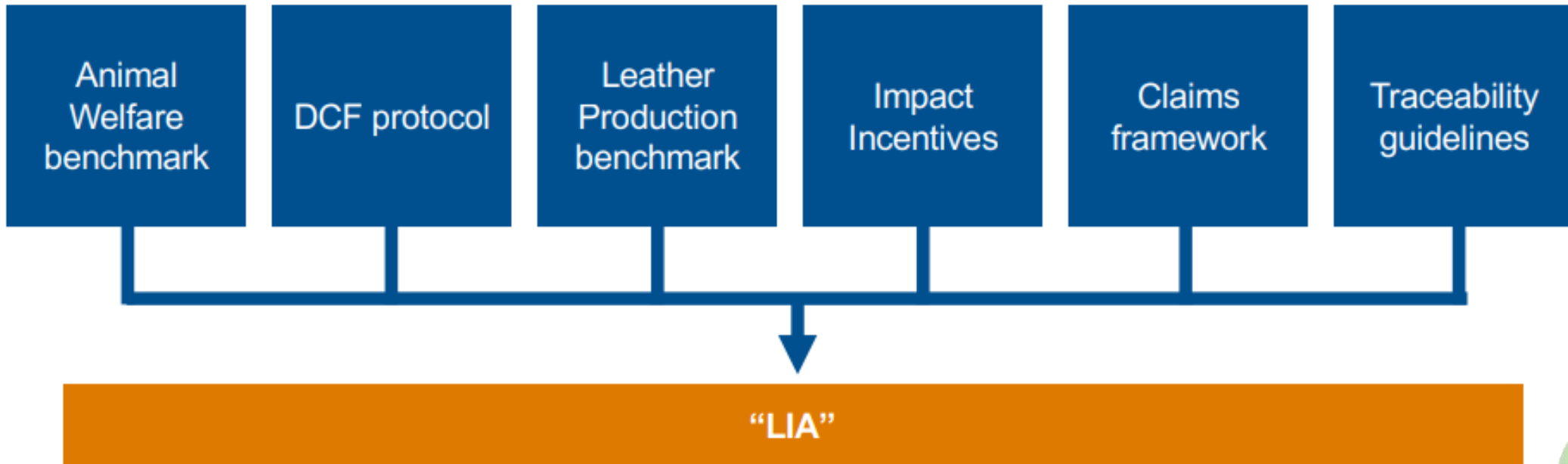


Other Solutions

Solutions for the Leather Value Chain



There are 6 components of Leather Impact Accelerator:

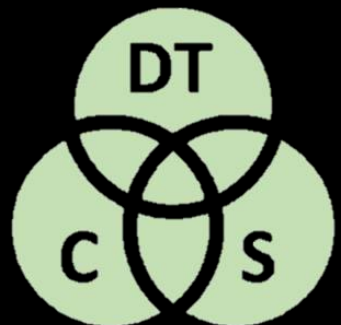


Thank You

Questions?

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Thank you!



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