

# Chemicals for Sustainable Leather Manufacture

53rd LERIG

**Prasanna Maduri**, Campus Manager, 29 January 2020

# Stahl at a glance (2018)



# Stahl Policy

Sustainability & Climate Change

Stahl has aligned itself to the Paris Climate Agreement the 17 Sustainable Development Goals established at the UN General Assembly in 2015



# The chemistry we create

Chemistry that triggers our senses while lowering the environmental impact.

## Leather Chemicals

- Wet-end
- Waterproofing
- Improvement
- Finishing
- Aftercare

## Shoe Finish & Aftercare

- New materials
- Shoe Finish
- Aftercare
- Cleaning
- Upgrading

## Performance Coatings

- Elastomer coatings
- Seat & trim
- Coated fabrics
- Powder coatings
- Flame retardants

## Polymers

- Bio-based portfolio
- Architectural polymers
- Printing and packaging
- Electronics & plastics
- Carbodiimide crosslinkers

# Anticipating to emerging trends

The world is changing. Ever since our foundation in 1930, we listen to the world around us and anticipate to emerging trends.

- Regulations
- Safety
- Durability
- Sustainability
- People's needs
- Consumer trends



# Our vision on Responsible Chemistry

## Low-impact chemicals

- We are committed to **phase out restricted substances** and replace and reduce solvents and substances.
- We help others to make **more sustainable materials**.

## Biotechnology

- We aim to **replace non-renewable resources**.
- We use **science and technology** to redesign our materials, processes and products.
- We **measure and assess** to evaluate the product impact.

## Circular economy

- We use **waste and by-products** for durable and sustainable new materials.
- We give **used materials a new life** with our aftercare products.
- We need a better understanding of the end-of-life of our products

We measure the impact with **Life Cycle Assessment (LCA)**



### Life Cycle Assessment



Climate Change



Abiotic Depletion



Land Use



Water  
Consumption



Eutrophication



Acidification



Toxicity



Photochemical  
Ozone Formation



Ozone Depletion

# LCA indicators



Climate Change



Abiotic Depletion



Land Use



Water  
Consumption



Eutrophication



Acidification



Toxicity



Photochemical  
Ozone Formation



Ozone Depletion



# One-stop-shop

- We are a **one-stop-shop** covering the entire value chain of everyday materials
- We work directly with **leading luxury brands and OEMs**
- We offer **global services** for our clients:
  - Stahl Campus®
  - Stahl Design Studio®
  - Brand services
  - Expert services
  - Centers of Excellence



# Centers of Excellence

- Leather Finish
- Shoes & Leather Goods
- Edge Dyes
- Performance Coatings
- Powder Coatings
- Leather Furniture Upholstery
- Apparel & Home Furnishing
- Automotive

# Stahl Campus®

- Promoting good practices and transparency
- Training all kinds of stakeholders

# Stahl Design Studio®

- Your go-to partners for the newest trends and latest technological possibilities



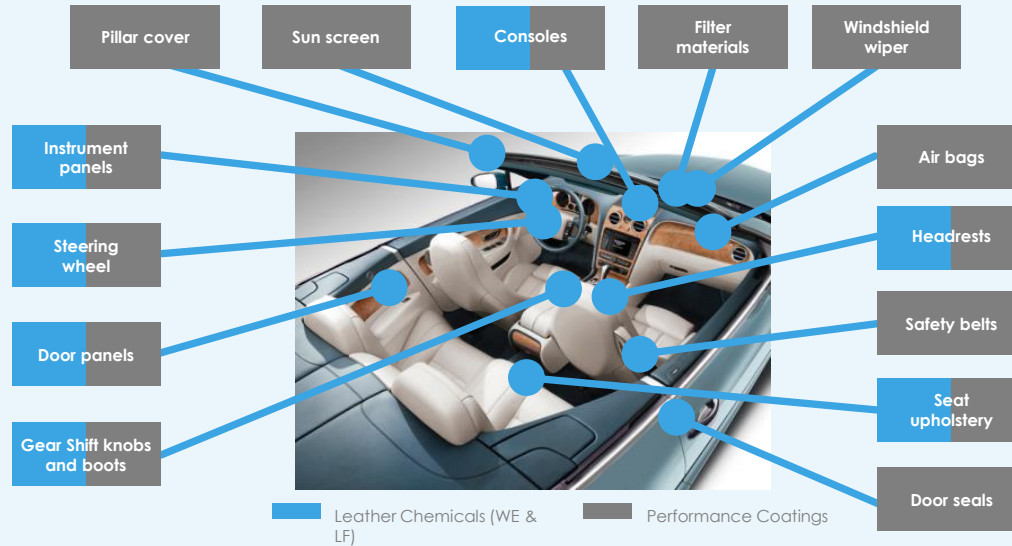
# Training & education

- Safety, Health & Environment (SHE) training
- Compliance e-training
- International Management Training Program
- Stahl Campus®



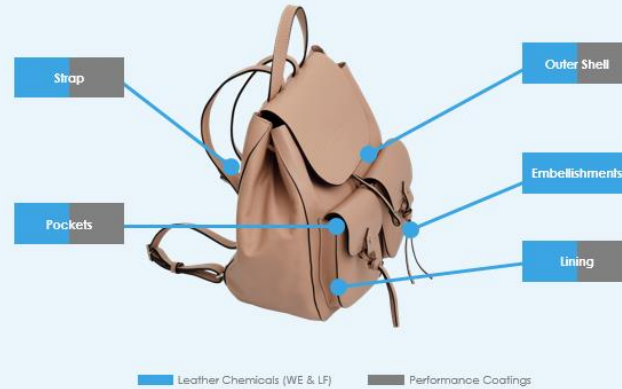
# Leather Chemicals & Performance Coatings

*A unique story of complimentary*



# Leather Chemicals & Performance Coatings

*A unique story of complimentary*



# Leather Process with Key Environmental Impact



## 1 Raw hides

- Source
- Salt usage



## 2 Beamhouse

- Water usage
- Substances
- Effluent quality



## 3 Tanning

- Salt usage
- Water usage
- Energy usage

Raw Material to Wet Blue



## 4 Retanning

- Substances
- Water usage



## 5 Finishing

- Substances
- Solvents
- Energy Usage

Dyeing & Finishing



# Stahl Sustainable Technology in Leather



## 1 Raw hides

- Localize
- Salt Free



## 2 Beamhouse

- **PROVIERA**
- **DRYFAST**
- 100% biodegradable
- ↓ Global Warming
- ↓ BOD/COD



## 3 Tanning

- **EASYWHITE**
- Chrome Free
- Less Water
- Salt Free
- Pickle-Free

### Raw Material to Wet Blue



## 4 Retanning

- **STAHLITE**
- Toxin Free
- Reduces COD
- ↑ Air Quality
- ↑ H<sub>2</sub>O Quality



## 5 Finishing

- **STAHL NEO**
- Solvent Free
- Toxin Free
- ↑ Air Quality
- ↑ H<sub>2</sub>O Quality

### Dyeing & Finishing

**If it can be imagined,  
it can be created**

---