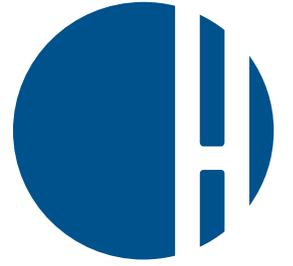


Footwear Development



HOHENSTEIN



Hohenstein

75+ Years of Experience with Interactions



We Help Make Footwear...

More sustainable

- GMO cotton testing
- Biodegradability
- Microfibers
- OEKO-TEX®

Comfortable

- Quantitative comfort
- Breathability
- Moisture management
- Heating & cooling analysis
- Skin sensorial properties

Function

- Protection against wind & rain
- Abrasion resistance & strength
- Reduced noise, enhanced visibility

Better

- Comparative testing
- Digitized materials
- Supply chain communications
- Quality labels
- Marketing claim support

Fresh

- Odor management
- Microbe protection
- Ease of care

Safer

- Chemical testing
- Flammability testing



Development & Verification

Independent
documentation
& quality control

Objective
user-focused
assessments

International
compliance

3rd party
claim
verification

Product & process
improvement

Labels &
certifications

Expert
reports



Improvement Support

↗ Goal refinement & technical
performance descriptions

↗ Comparative testing

↗ Defined material requirements
& production details

↗ Supply chain communications

↗ Marketing claim support

Better, Safer Products

Based on:

- Law/guidelines
- Harmonized standards
- Specifications

Chemical & Textile Tests



Harmful Substances

(CPSIA, REACH, LFGB,
OEKO-TEX®, RSLs, etc.)



Material Quality

(color fastness, color & whiteness,
pilling, tearing, waterproofness,
fading, fiber fineness, etc.)



Claims

(flammability, washability,
antimicrobial properties, protection, etc.)



Fiber Composition

determination for
Textile Labelling Act



Quality Inspection

via independent
on-site checks

Function

- Protection from wind/rain/heat/cold/soil
- Cut/abrasion resistance
- Noise reduction
- Overall garment strength
- Visibility
- UV STANDARD 801



Quantitative Comfort

Testing materials & systems

- Breathability
- Moisture management
- Water vapor resistance
- Heat isolation/insulation
- Heating/cooling
- Skin sensorial properties



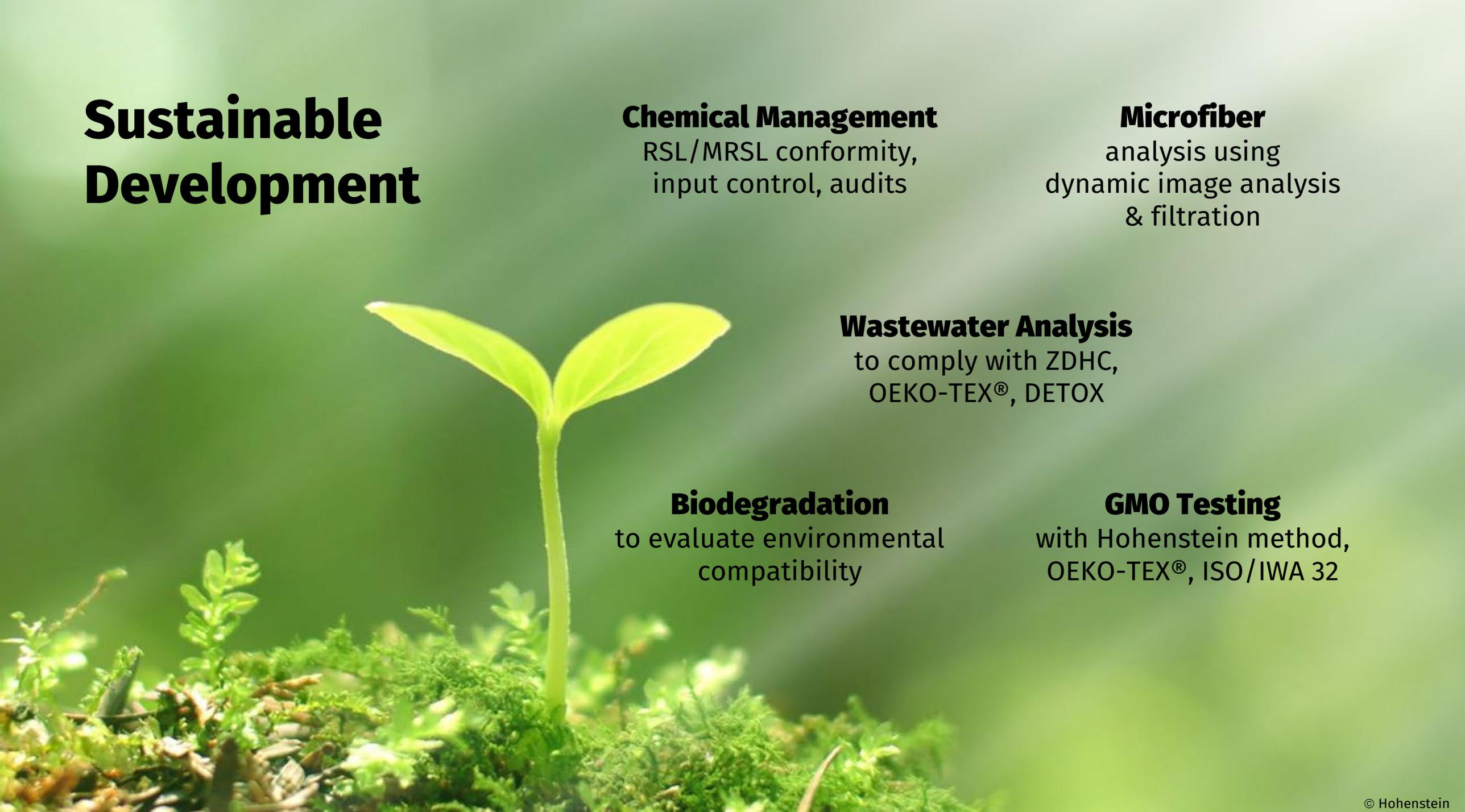
Freshness

Evaluation of effectiveness, safety, environmental impact

- Odor binding & elimination
- Antimicrobials & odor reduction
- Washability
- Scented textile technology



Sustainable Development



Chemical Management

RSL/MRSL conformity,
input control, audits

Microfiber

analysis using
dynamic image analysis
& filtration

Wastewater Analysis

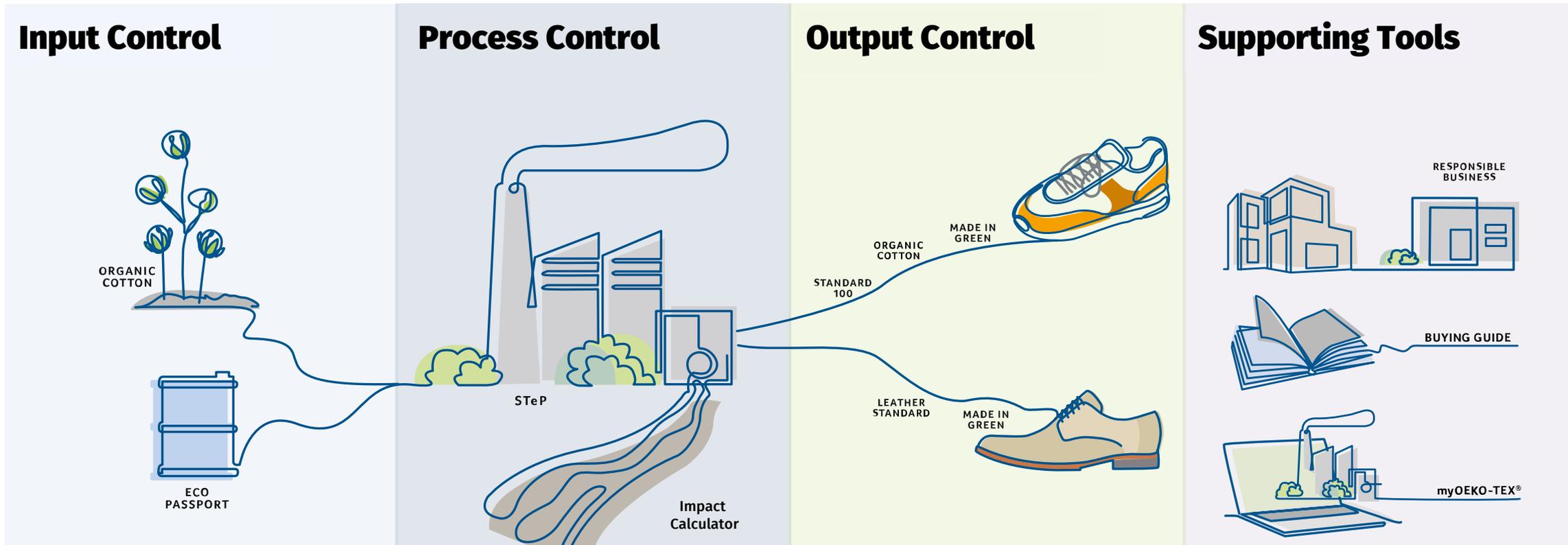
to comply with ZDHC,
OEKO-TEX[®], DETOX

Biodegradation

to evaluate environmental
compatibility

GMO Testing

with Hohenstein method,
OEKO-TEX[®], ISO/IWA 32



OEKO-TEX®

Modular Tools for Sustainability & Product Safety

Hohenstein Quality Labels

- Based on scientifically proven & real-life requirements
- Independent proof backed by Hohenstein's international reputation
- Trusted shortcut to high quality
- Labels are valid for 1 year



The Hohenstein Academy

- Free registration
- Access to topic overviews from experts who have done the research
- Development of customized training courses





Hohenstein Worldwide Support



Hohenstein.US/Footwear