

Keeping up with Chemical Regulations





Hohenstein Worldwide Support

We Help Make Footwear...



Meeting Consumer & Global Chemical Expectations Regulation

EU:

- Product recalls
- Chrome VI in leather shoes
- Lead in out-sole materials
- Phthalates in plastics, glues & coatings

USA:

- California Proposition 65
- Chrome VI in leather
- Phthalates
- Chemicals of High Concern to Children (CHCC)
- PFAS / Fluorine



Common Chemical Failures

Chemical Parameter	Material	Common Failed Component
Banned azo dyes	Textile	Collar lining, sock lining, strap
Disperse dyes	Textile	Collar lining
Chlorinated phenols	Textile	Lining, sock lining, collar binding/lining
Lead / Cadmium	Foam	Interlining
Short-chain chlorinated paraffins	PU	Interlining
Polyaromatic hydrocarbons	PU	Outsole
Phthalates	Plastic	Shoelace end tube, foam interlining, soles
Dimethyl-formanide	PU	Typical PU materials
Chrome VI	Leather	Leather sock lining

**Restricted
Substances
Lists are more
than 30 years
old.**

The background of the slide is a dark blue gradient. On the right side, there is a large, light blue circle that is partially cut off by the edge of the frame. To the right of this circle is a vertical, light blue rectangular bar, also partially cut off. The text is positioned on the left side of the slide, in a bold, white, sans-serif font.

Chemical Management Programs should:

Ensure quality aligns with
stakeholder expectations

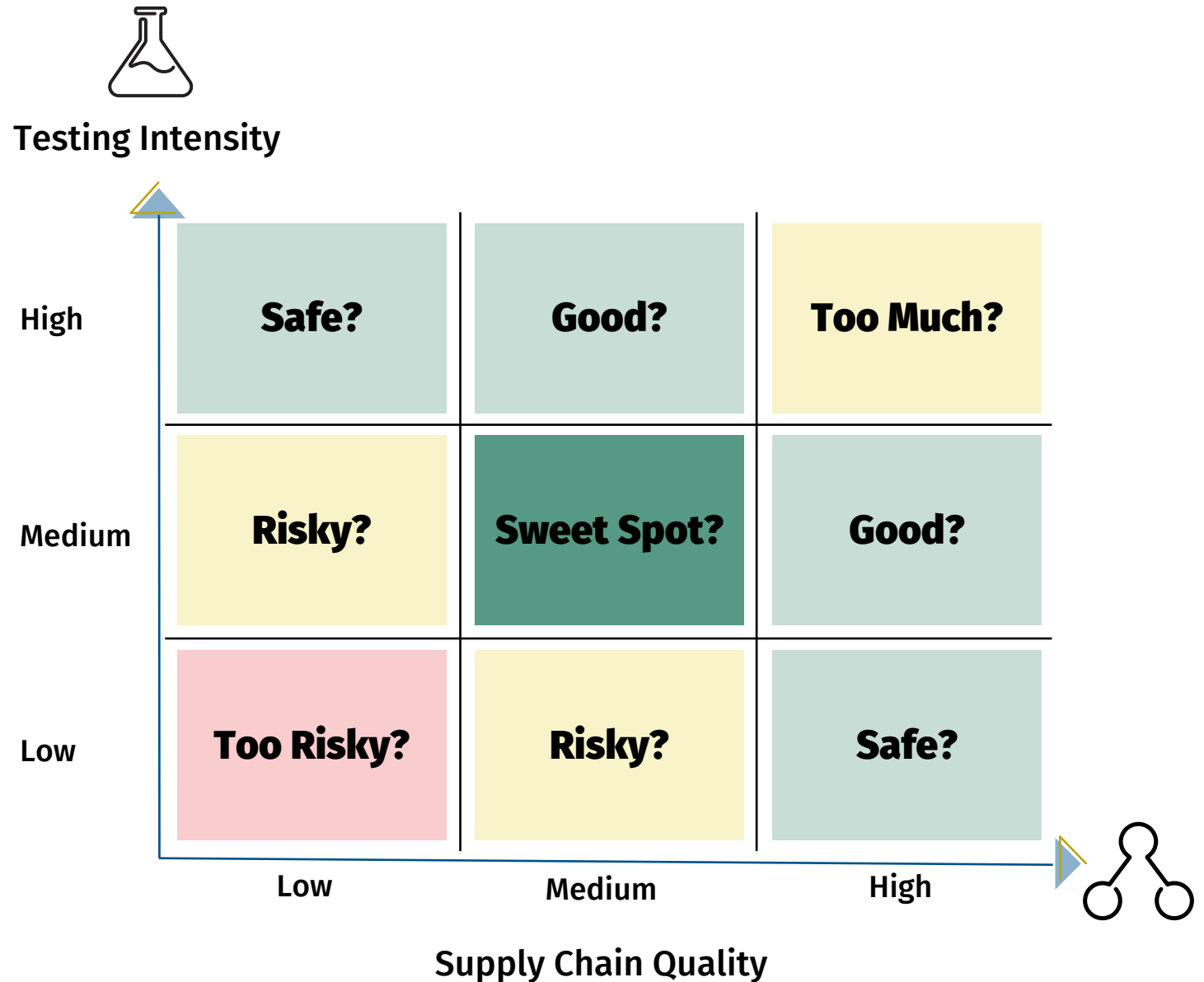


Fulfill legal
requirements

Fit budget
AND appetite for risk

Add value to the consumer

Testing Intensity X Supplier Quality



One size does not fit all
products or suppliers

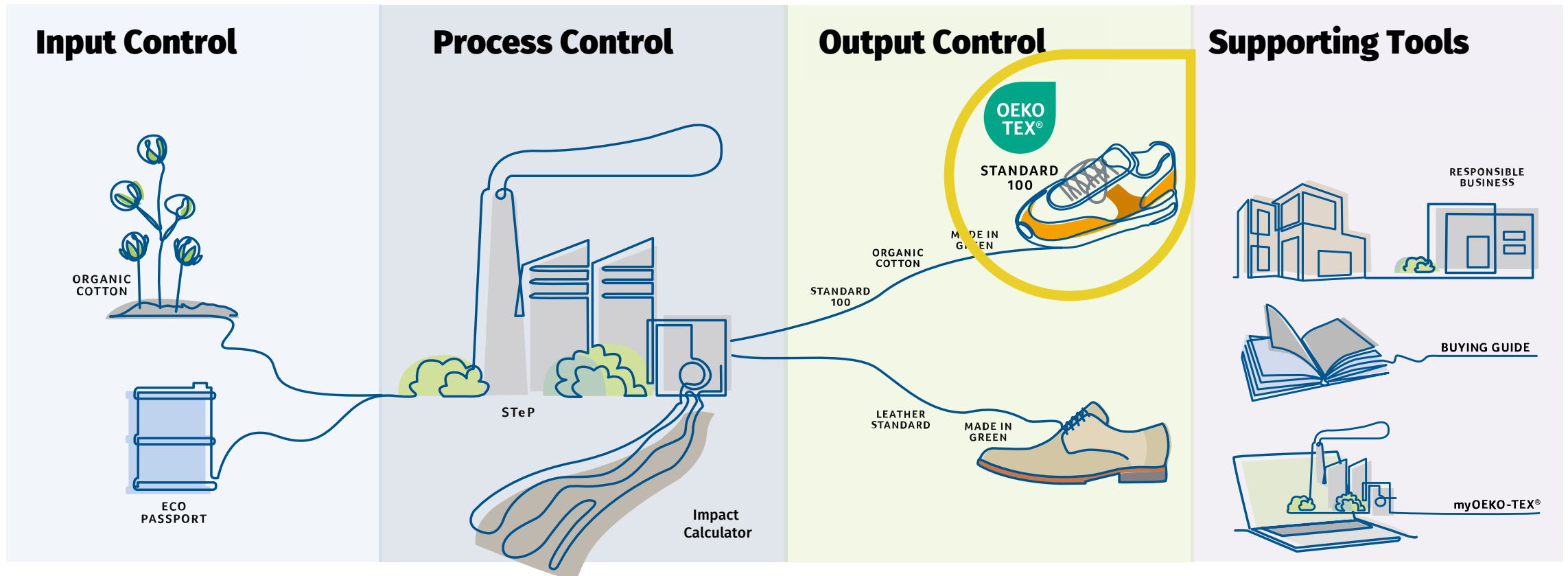
Choose testing plan based on specific
product needs & supplier quality

Leverage independent certifications for
more efficient testing budget

Take a Strategic Approach to Testing

OEKO-TEX® STANDARD 100

Product Control & Consumer Safety



Why does footwear need **STANDARD 100?**

- Support existing RSL
- Keep up with changing laws
- Speed up development
- Reduce testing costs



OEKO-TEX® Test Criteria

List of >1000 Harmful Substances

Substances that may be harmful to health

- polycyclic aromatic hydrocarbons (PAH)
- certain alkylphenols & alkylphenolethoxylates
- allergy-inducing dispersion dyes
- pesticides
- chlorinated benzenes & toluenes
- volatile components
- chlorinated phenols

Legally banned & controlled substances

- certain azo colorants
- carcinogenic dyes
- pentachlorophenol
- formaldehyde
- phthalates
- PFAS
- heavy metals
- banned flame retardants
- tin-organic compounds

Biologically active & flame-retardant substances

only ACP accepted for OEKO-TEX® STANDARD 100 can apply

OEKO-TEX®

Product Classes

Based on purpose & skin contact

I

**Articles for
babies &
toddlers
through age 3**



II

**Articles of all
kinds in
close contact
with the skin**



III

**Articles of all
kinds without
close skin
contact**



IV

**Furnishing
fabrics for
decorative
purposes**



Annexes

OEKO-TEX® STANDARD 100

Annex 4/5

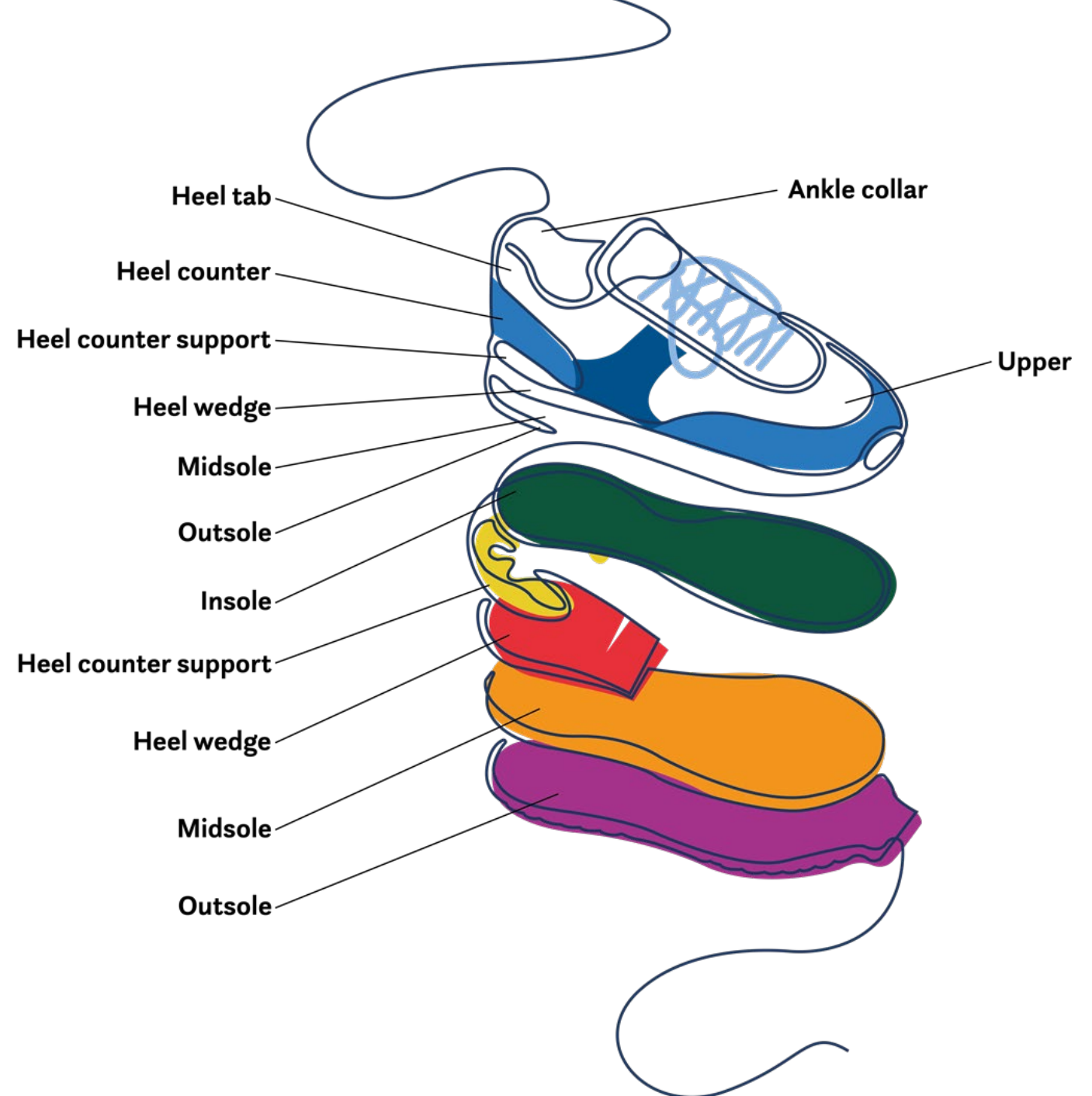
- Limit values set with goal to protect human health
- Reliable, advised & sensible
- Most common choice

Annex 6/7

- Adds chemicals used in production that may affect the environment
- Expanded criteria catalogue developed especially for companies focused on the DETOX campaign

Why does footwear need OEKO-TEX®?

Multiple components
– all with the potential
to fail regulatory limits



How can shoes be certified?

Aren't they hard to take apart?

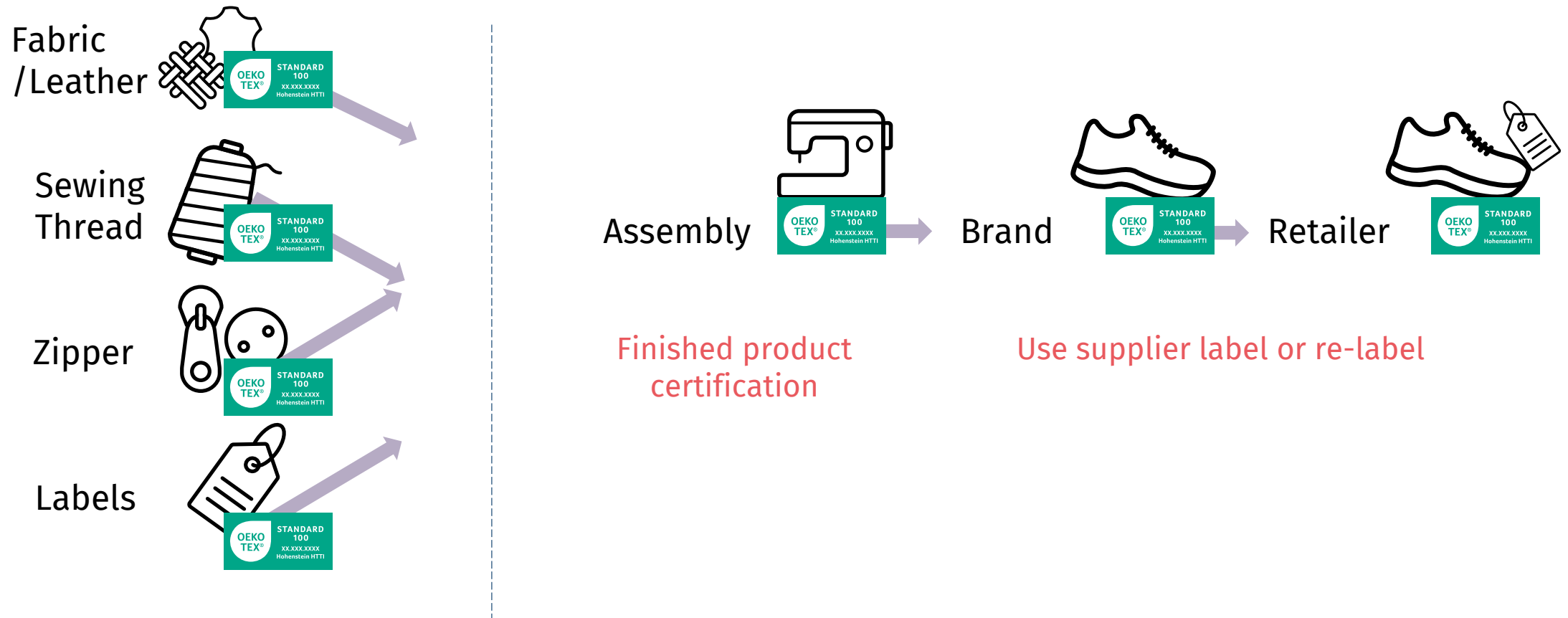
Yes, so they can take a beating!

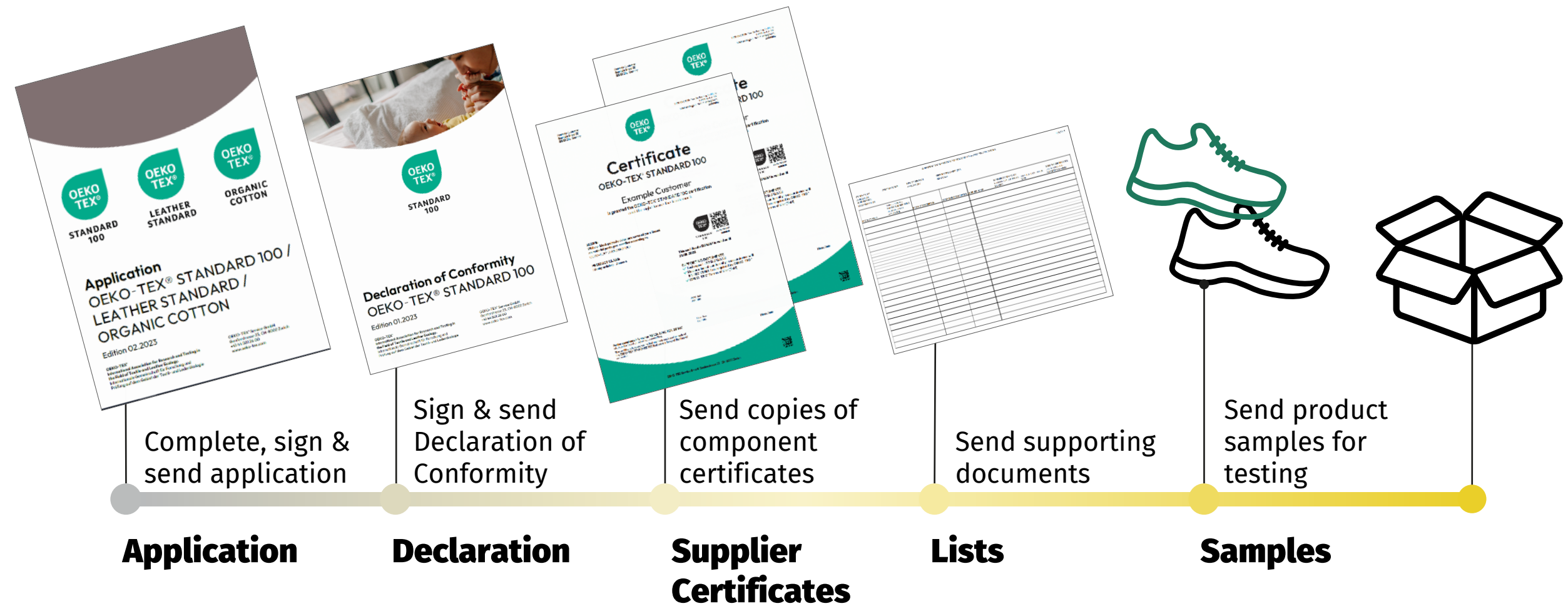
- It's all about the components
- If components are certified, they are compliant BEFORE you make the product



Traceability & Cost Sharing

OEKO-TEX® Modular System





Application Process - OEKO-TEX® STANDARD 100

OEKO-TEX® LEATHER + STANDARD 100

Certification of leather articles



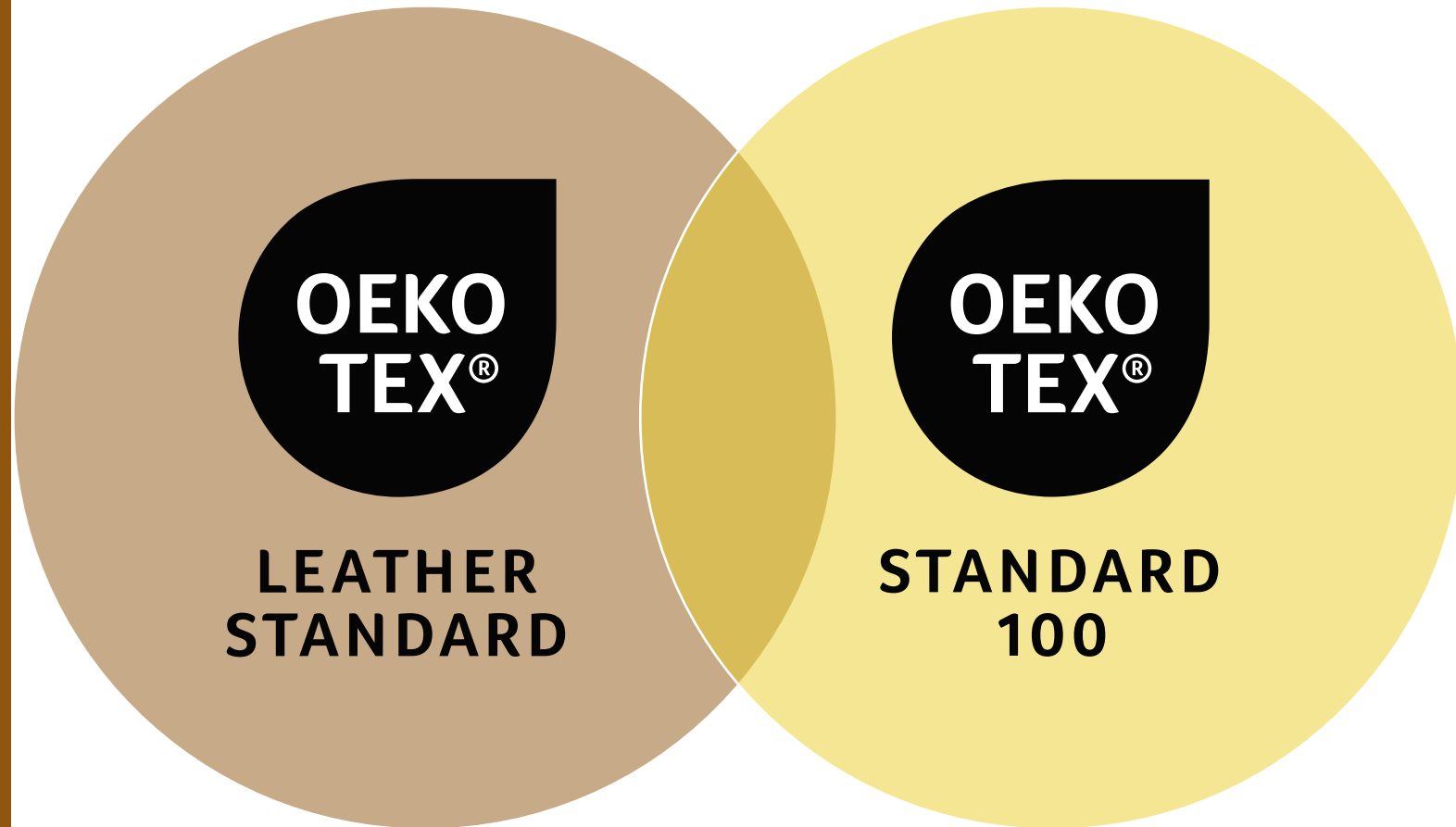
Certification of footwear including leather components



Why do we need **LEATHER STANDARD?**

Big differences in:

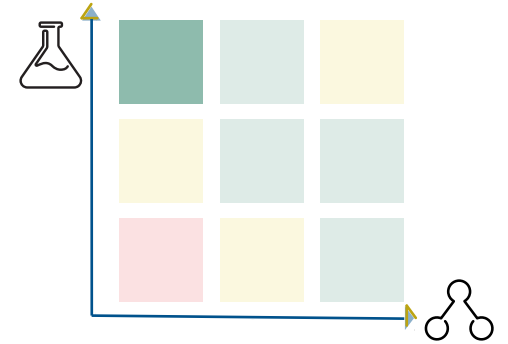
- Finishing & processing
- Chemicals
- Lab tests & limit values



**How much is
enough?**



Reputation Protection



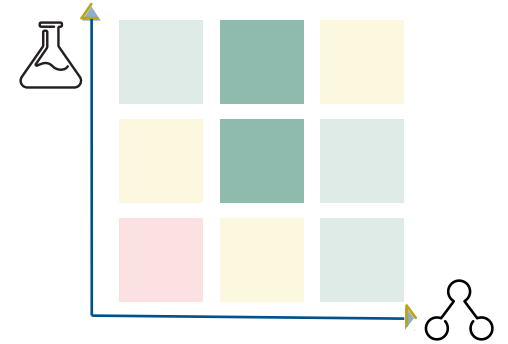
Certification

3rd party verification
as basic requirement to
on-board a supplier

RSL Testing

High volume testing,
focusing on RSL
for basic quality assurance

Efficient Quality Assurance



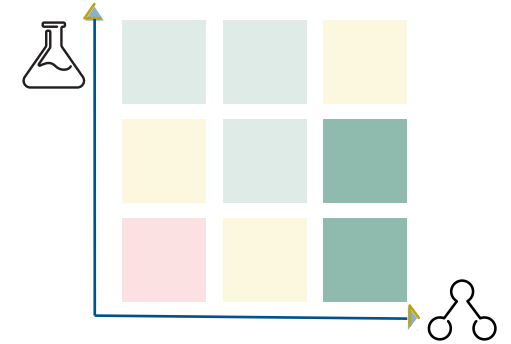
Certification

3rd party verification
to improve
overall coverage

RSL Testing

Quality assurance
with spot testing

Checks for Trusted Suppliers



Certification

Leveraging
existing certificates
in supply chain

RSL Testing

Reduced testing cost
with smart testing
e.g. on high risk products



Questions?

Thank you

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