



Factory case study - social audit corrections led by manufacturer/brand

Non-conformities in factories	Initial Audit	Factory-led correction	Brand-led correction
Employment contracts	MAJOR	MAJOR	MAJOR
Recruitment practices	MAJOR	MINOR	MINOR
Work environment for young workers	MAJOR	MAJOR	MAJOR
Apprentice/intern/student worker employment practice	MAJOR	MAJOR	MAJOR
Working hours per week	PRIORITY	MAJOR	MAJOR
One (1) day off every seven (7) days	MAJOR	MINOR	MINOR
Procedures to record, manage working hours, including overtime	MAJOR	MAJOR	MAJOR
Disciplinary measures, including wage deductions	MAJOR	MAJOR	MINOR
Emergency exit access	MAJOR	MAJOR	MINOR
Emergency evacuation and response drills	MAJOR	MAJOR	MINOR
Availability of adequate medical treatment	MAJOR	MINOR	MINOR
Worker exposure to chemical, biological and physical agents	MAJOR	MAJOR	MAJOR
Dormitories meet international housing standards	MAJOR	MAJOR	CONFORMITY

Conclusion:

Compliance is lower when factories / manufacturers are expected to handle corrections themselves.

Follow up and consequences are essential.

Result in factories from brands using TCO Certified

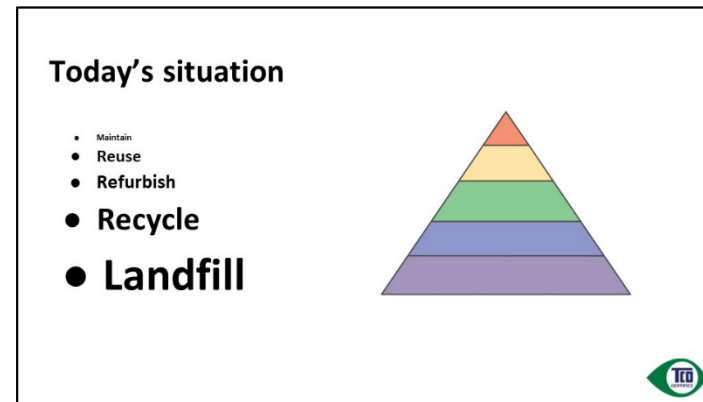
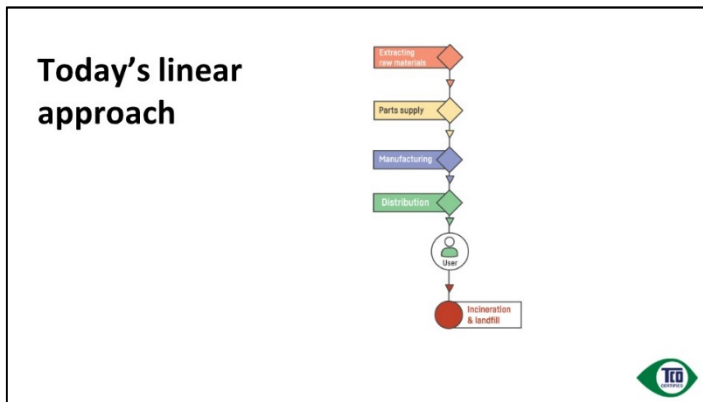
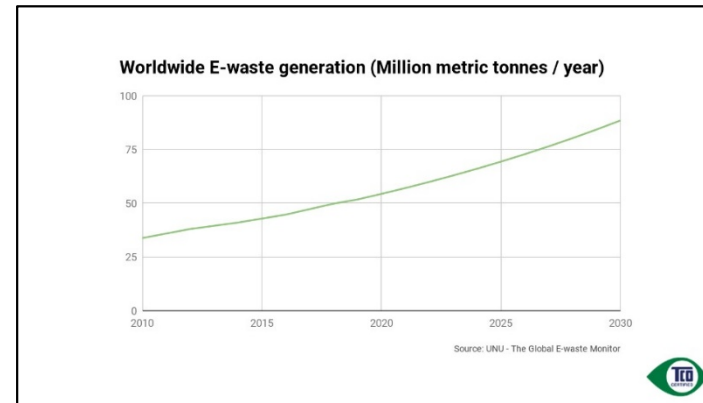
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TCO Development - led correction	TCO Development - Brand	Closure Audit
CONFORMITY	CLOSED	CLOSED
CONFORMITY	CLOSED	CLOSED
RISK	CLOSED	CLOSED
CONFORMITY	CLOSED	CLOSED
MAJOR	MINOR	MINOR
MAJOR	CLOSED	CLOSED
MAJOR	MINOR	MINOR
CONFORMITY	CLOSED	CLOSED
CONFORMITY	CLOSED	CLOSED
CONFORMITY	CLOSED	CLOSED
MINOR	CLOSED	CLOSED
CONFORMITY	MINOR	CLOSED
CONFORMITY	CLOSED	CLOSED

Use & Reuse

- User ergonomics
- Product lifetime extension
- User health & safety
- Energy efficient products and power supplies
- Product energy consumption



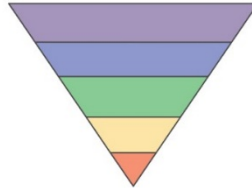


The result of circularity

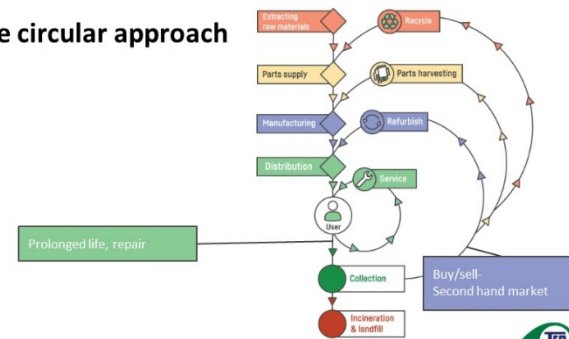
● Maintain

● Reuse

- Refurbish
- Recycle
- Landfill



A more circular approach



Product lifetime extension

Replaceable components

- Critical components available with instructions how to replace them.

Standardized connectors

- USB Type-C connector required for computers and phones

Product durability

- Durability testing according to US Military standard or IEC test methods.

Battery longevity, replaceability

- Minimum of 300 charging cycles (IEC 61960) and instructions on battery replacement

Secure data removal from products

- Link to free sanitization software (NIST 800-88 Revision 1, "Clear")



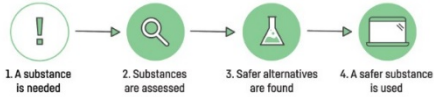
Recovery & Recycling

- Reduction of Hazardous substances
- Product take back
- Product and packaging designed for recycling
- Product weight



Hazardous substances approach in TCO Certified

Shift from ban to accepted substances



TCO Certified Accepted Substance List is public and safer alternatives are made available to all.



Impact

Making safer alternatives mainstream

TCO Certified Accepted Substance List, 2019

Flame retardants, plasticizers independently assessed as safer
Assessed using GreenScreen[®]

- 14 plasticizers (cables, product housings)
- 15 flame retardants

Initial criteria for declaring process chemicals used in manufacturing and ensuring worker safety



Impact report 2019

measures sustainability progress
among brand owners with IT
products certified according to
TCO Certified, 2015-2018

Available at tcocertified.com



GPP and
TCO Certified

