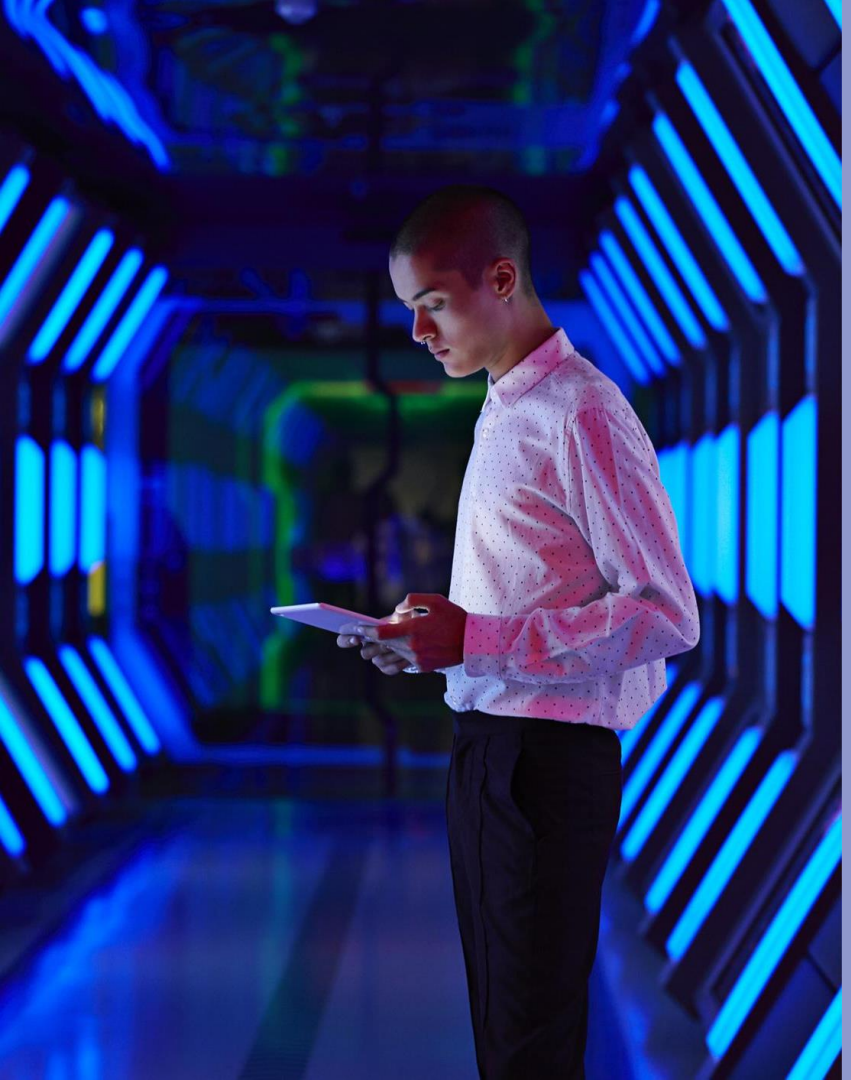


スウェーデン(TCO Certified)

IT product environmental and social responsibility with TCO Certified

スタート

重点分野

基準概要

認証を取得するには

購入者/調達担当者

ブランドオーナー

当社について & 問い合わせ

TCO Certifiedは、IT機器を対象とした世界有数の持続可能性を評価する認証制度です

TCO Certifiedは、25年以上にわたり世界中の購入者や調達担当者からIT機器の持続可能性に資する先進的な認証制度として高く評価されてきました。私たちの包括的な基準は、IT機器の「生産」から「廃棄」にわたるライフサイクル全体を通して、IT機器が有する社会的および環境的価値を高めるように設定されています。

TCO Certifiedは、ISO14024「環境ラベル及び環境宣言–タイプI環境ラベリング–原則及び手順」の要件を満たしており、世界エコラベリング・ネットワーク（GEN）のメンバーです。すべての検査・検証業務は、国際規格ISO17025の認定を受けた第三者機関によって行われます。

TCO Certified

- Global Sustainability Certification - IT products

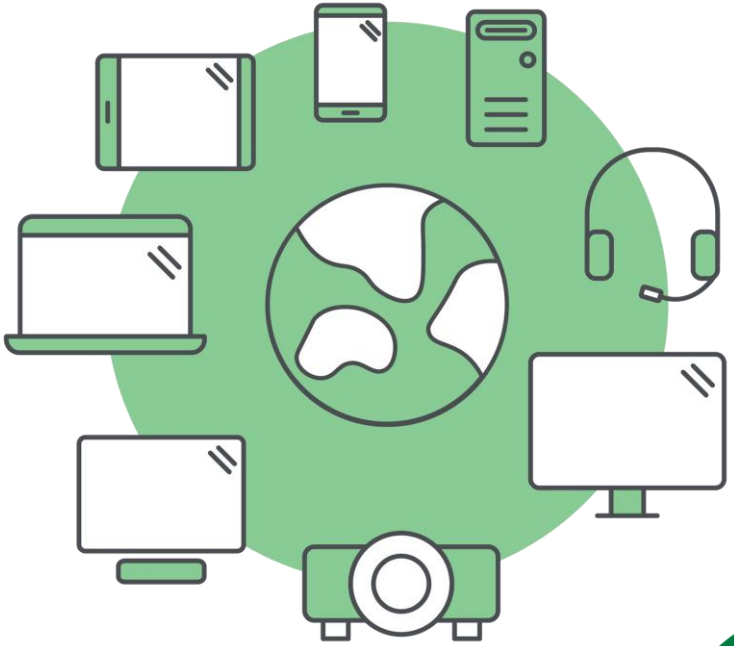
Since 1992

Environmental / supply chain social responsibility

Independent verification - ISO 14024
Product, supply chain, brand levels

8 product categories
3000+ certified models
22+ brands

New generation every 3 years
(Gen 8, 2018, Gen 9, 2021)



Designed to drive sustainability, and circularity

Science-based criteria and test methods

Open criteria development process - stakeholder input

Used by procurement to have direct impact on supply chain conditions

Independent - owned by non profit organization

Some of the brands who certify

Certification Process and Verification

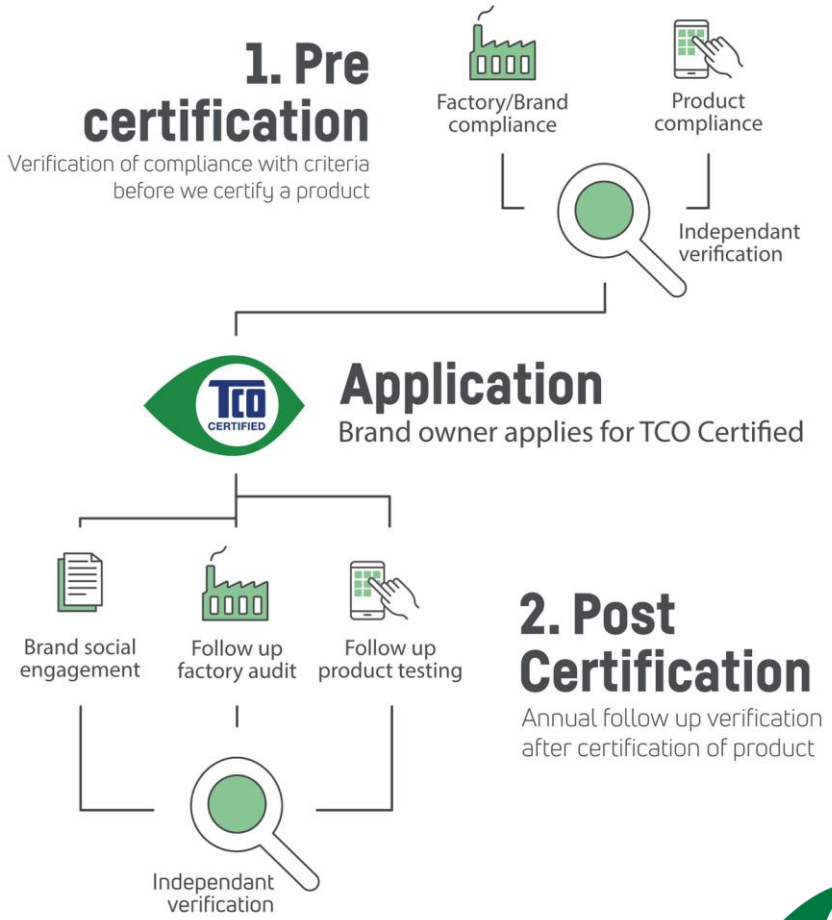
Pre- and post certification verification

To apply

- Test product model
- Factory social audits
- IT brand sustainability actions
- Environmental documentation

Independent, accredited verifiers and test facilities

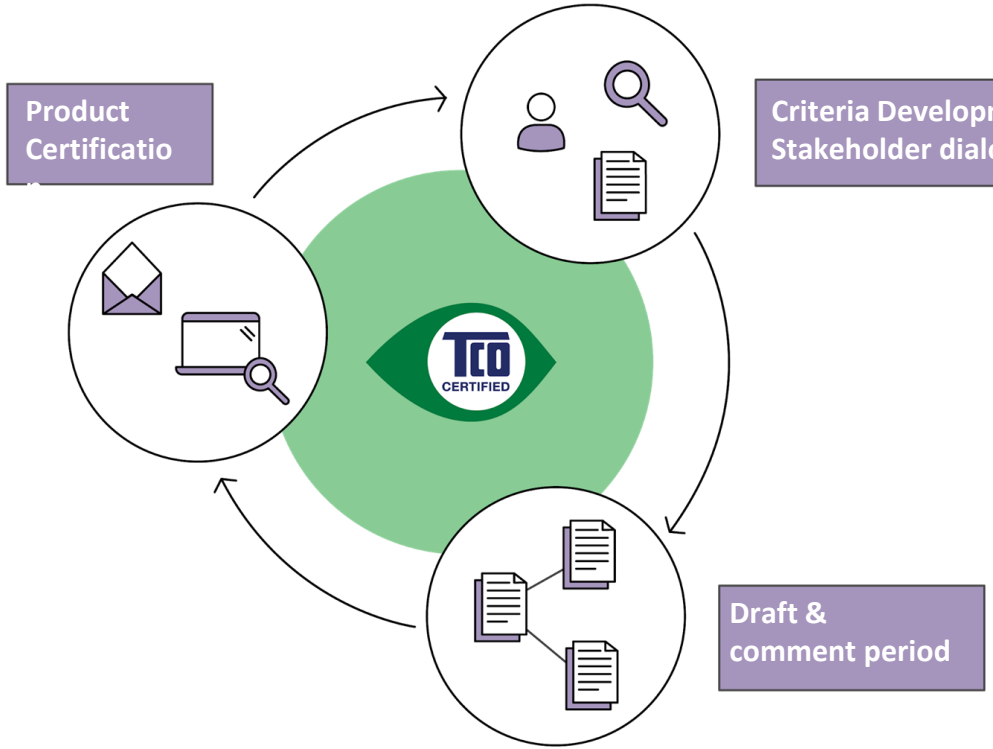
Application and certification fee



Some regulations covered

- ILO Core Conventions
- Energy Star
- OECD Due Diligence
- RoHS
- UN Rights of the child

Criteria development process



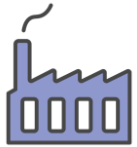
New generation every three years

TCO Certified, generation 8

Criteria focus areas

- Product lifetime extension - toward a more circular approach
- Conflict minerals - wider, global scope. Include cobalt
- Reduced usage of hazardous chemicals - shift to safer substitutions
- Socially responsible manufacturing - protecting workers in factories

Criteria - Broad, life cycle scope



Material sourcing & Manufacturing

- Socially responsible manufacturing
- Engagement in conflict minerals initiatives
- Reduced environmental impact in manufacturing
- Material content

Use & Reuse

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

Recovery & Recycling

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

Search certified models in our Product Finder

(https://tcocertified.com/product-finder/)

Material sourcing & Manufacturing

- Socially responsible manufacturing
- Engagement in conflict minerals initiatives
- Reduced environmental impact in manufacturing
- Material content

Supply chain responsibility / transparency

Supply chain responsibility - Code of Conduct (ILO, UN conventions, etc)

Supply chain transparency - Risk-based factory monitoring

Anti-corruption management system

Responsible sourcing of minerals globally - 3TG plus cobalt.

Process chemicals - Protecting manufacturing workers from exposure

TCO
CERTIFIED

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 practices	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

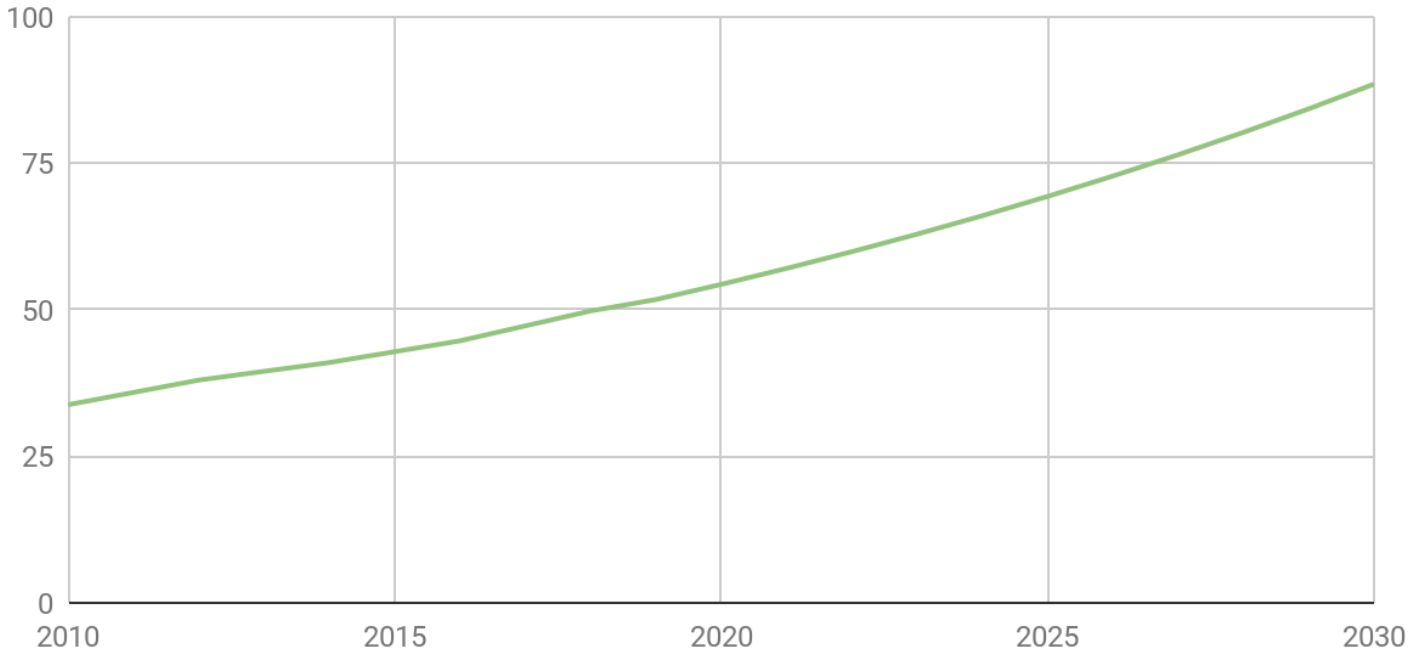
Non-conformities in factories	Initial Audit	Factory-led correction	Brand-led correction	TCO Development-led correction	TCO Development + Brand	Closure Audit
Employment contracts	MAJOR	MAJOR	MAJOR	CONFORMITY	CLOSED	CLOSED
Recruitment practices	MAJOR	MINOR	MINOR	CONFORMITY	CLOSED	CLOSED
Work environment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

Use & Reuse

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

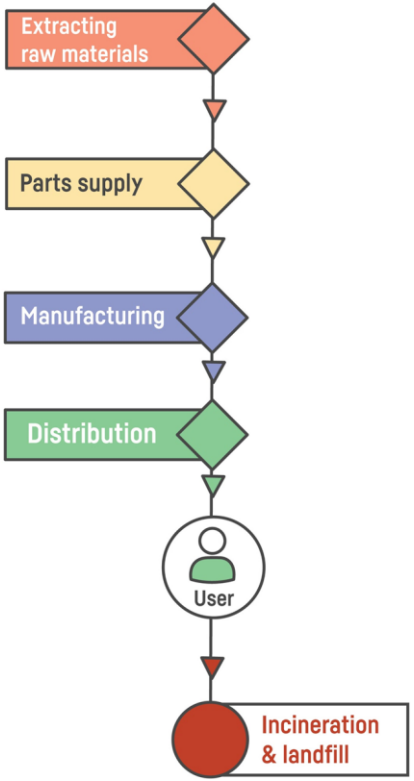
Circular Economy and TCO Certified

Worldwide E-waste generation (Million metric tonnes / year)



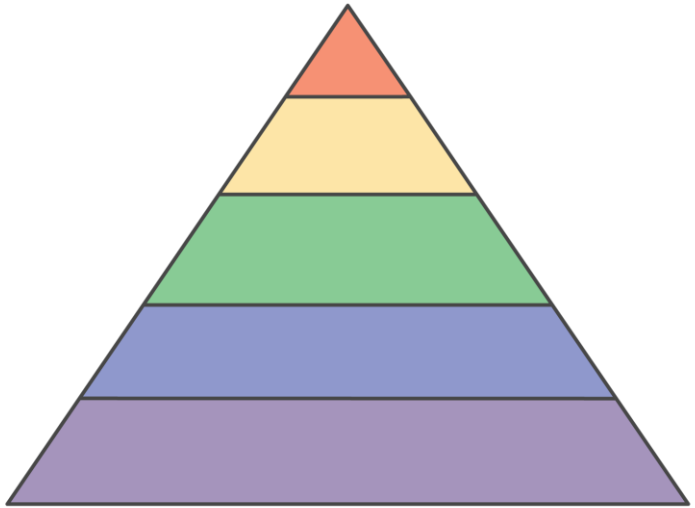
Source: UNU - The Global E-waste Monitor

Today’s linear approach



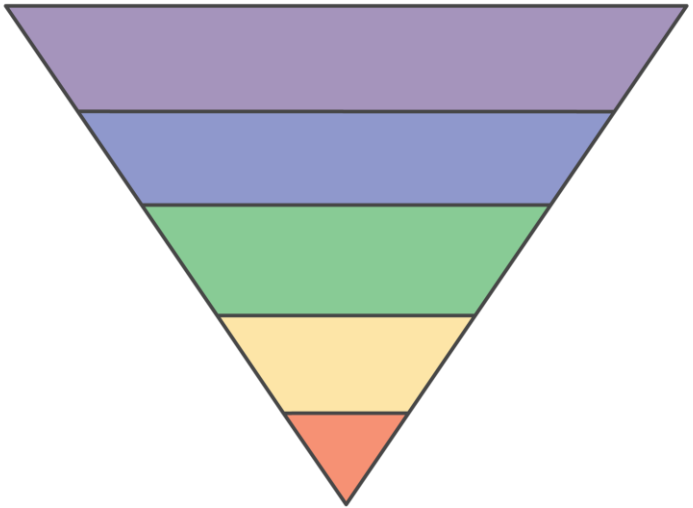
Today’s situation

- Maintain
- Reuse
- Refurbish
- Recycle
- Landfill

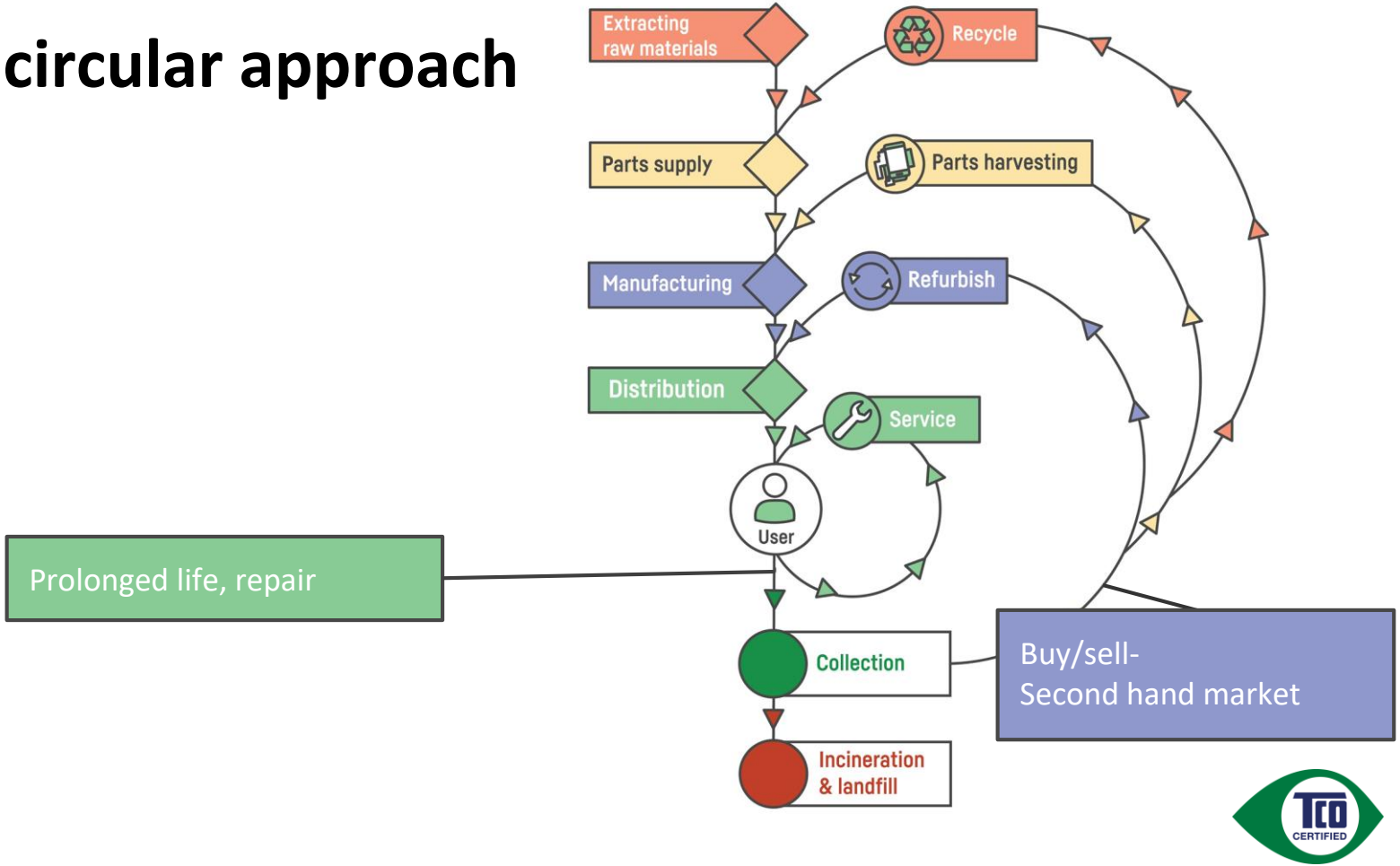


The result of circularity

- **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

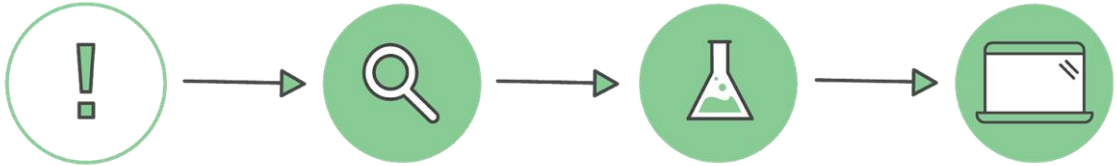
- Link to free sanitization software (NIST 800-88 Revision 1, “Clear”)

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

GPP / SPP Europe - Purchaser priorities

From Green to Sustainable. Social / supply chain responsibility

- Factory conditions
- Conflict minerals
- Ethics

Circularity - waste reduction, keeping materials in use

- Longer use
- Re-use,

Verification of conformity - the purchaser is responsible!

SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE AND JUSTICE
17 PARTNERSHIPS FOR THE GOALS
THE GLOBAL GOALS
For Sustainable Development

GPP Europe - regulations and frameworks

Until 2013 - Certifications / ecolabels not used in public procurement

2014 - EU Public procurement directives. Allows use of certifications / ecolabels.

TCO Certified - used by purchasers in line with the Directives

Public Procurement Principles - Europe

1. *Non discrimination* - open to all suppliers
2. *Equal treatment* - same conditions for all suppliers
3. *Proportionality* - criteria and conditions are connected to the object (product)
4. *Transparency* - open information about tender, purchase and results
5. *Mutual recognition* - reports / certificates valid in all EU states

The power of purchasing in sustainable IT

Set your procurement specifications

- Specify that you want TCO Certified products
- Your procurement specifications directly influence sustainability impact
- Purchaser requests for TCO Certified - #1 reason why brands certify products

Talk to your suppliers

- industry is listening to hear what you want. Tell them your sustainability priorities
- Tell your suppliers that sustainability is important

Plan for longer use, repair, re-use

-Extend contract life – for example “one more year”
-Include a service component to extend life?
- Can products be repaired? Shared? reused?

Sustainability Performance Indicators

Reduce e-waste

Weight of the product and power supply (kg)

% post-consumer recycled plastic

Reduce climate impact

Energy consumption in on, off and standby mode

Long battery life time

Minimum number of battery cycles

Durability

Drop test from 45 cm

Operates in extreme temperatures, -20 to +40 °C

Spreading the word

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