



A circular approach to IT products

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About TCO Certified

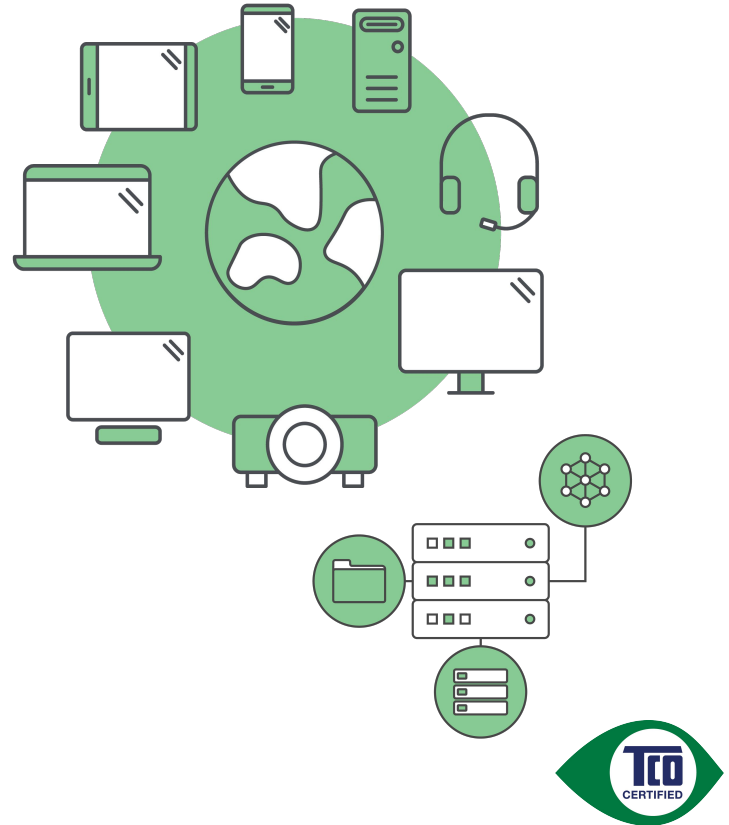
Since 1992

Global sustainability certification for IT products (11 product categories)

Covering environmental and supply chain social responsibility

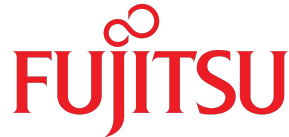
Independent verification is mandatory - products, factories, brand initiatives

Use like an ecolabel in IT procurement - identify more sustainable products, lower risk, avoid greenwash



Some statistics

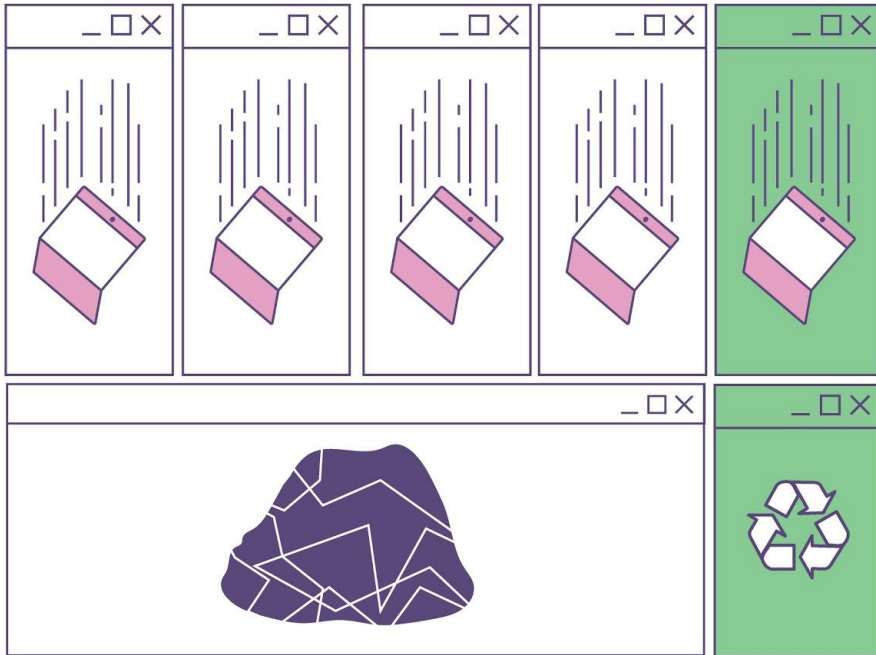
- During 2019 more than **100 million certified IT products** were manufactured,
- And more than **20,000 hours were spent** on independent verification of compliance.
- Today, around **3,500 certified product models** are listed in Product Finder from brands including



**Why do we need a circular approach
to IT products?**



More than 50 million tonnes of e-waste is generated annually



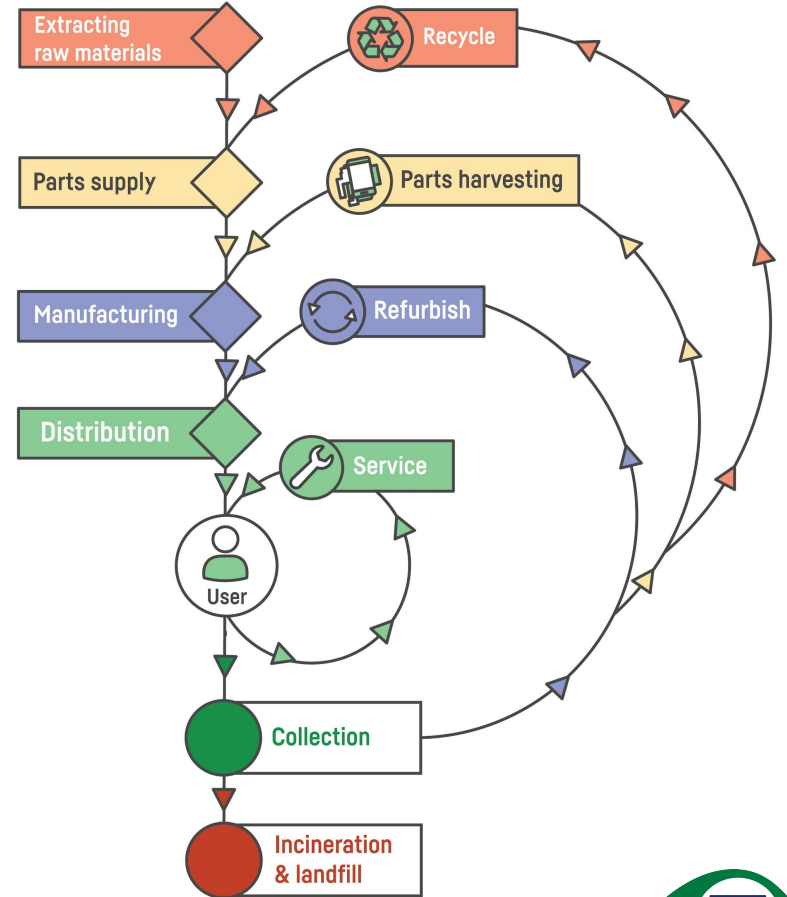
- Only 20 percent is safely recycled
- Hazardous substances
- Risks for human health and the planet
- Overuse of natural resources

A result of the Linear model

From linear to circular

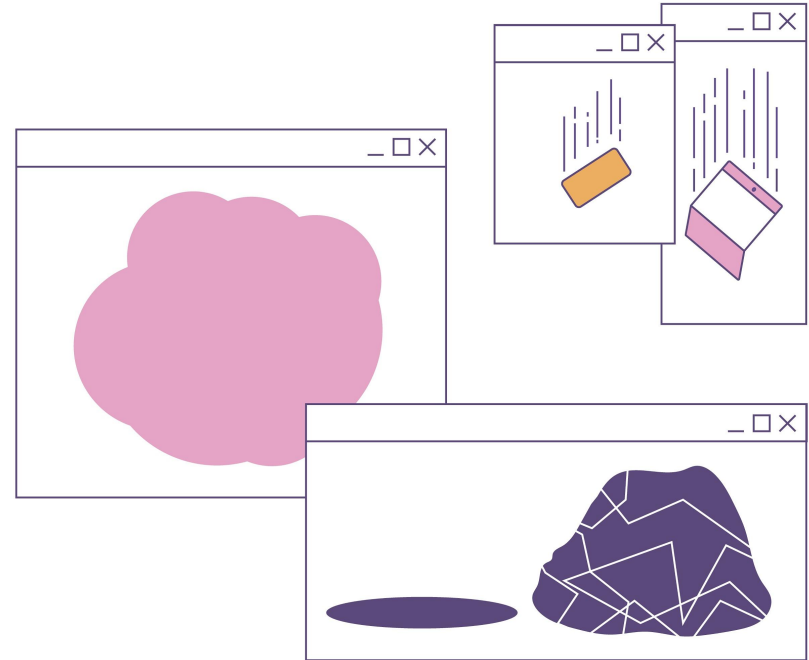
What it means for IT products

- **Linear economy**
 - Take, make, waste
- **Circular economy**
 - Eliminating waste all together
 - Retain value within the system
 - Maintain, reuse, refurbish, remanufacture, recycle



What's wrong with the linear approach to IT?

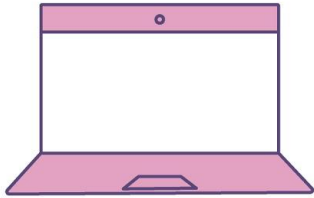
- **Climate**
 - emissions, waste, energy use
- **Natural resources**
 - limited natural resources
 - embedded value
- **E-waste**
 - illegal export
 - unsafe, informal handling
 - 50 million metric tonnes annually
 - world's fastest growing waste stream



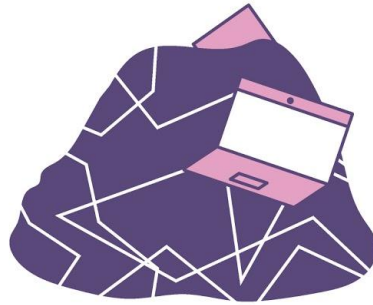
A Notebook study



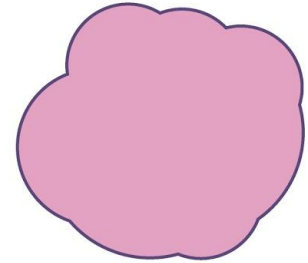
Notebooks and sustainability



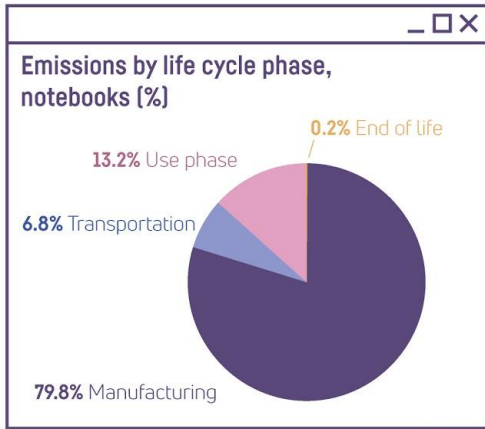
Annual sales:
170 million notebooks



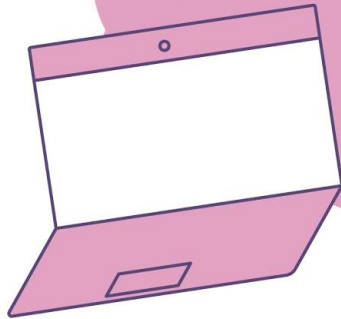
Often used 3-4 years



Greenhouse gas emissions
from manufacturing:
40 million tonnes



Extending product life cuts greenhouse gas emissions



28.9 percent reduction
when notebooks are used for
six years instead of four.

**Is buying a more energy efficient
Notebook more sustainable?**





Buying new doesn't compensate for emissions from manufacturing



Information
Energy used in
manufacturing equals
33-88 years of product use.

Buy



Information
Energy used in
manufacturing equals
17-44 years of product use.

Buy

**A practical thinking process that
helps you on circularity**



Smart IT management

Most effective /
highest value



1. Use longer - longer contracts, warranty and service agreements. Product sharing, surplus, re-deployment. Upgrade. Keep asking the hard questions! Replace battery, memory, hard drive



2. Refurbish - give devices a second life. Repair. Upgrade. Sell to second hand market. Sell for refurbishing. Buy refurbished.



3. Remanufacture - sell to remanufacturer. Buy remanufactured



4. Recycle - mfr takeback programs, accredited recyclers

Do this first

.. and if you can't,
do this

Then this

Then this

Least effective /
lowest value

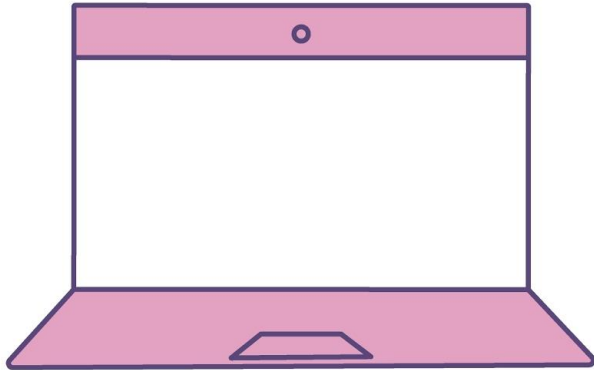


Summary / Where to start

- Re-think your IT contract, extending the manufacturer's responsibility.
- Use your product for one more year, the simple most effective solution.
(much easier than using a new product for 17+ years)
- Think repair & upgrade before recycle or buy.
- Consider re-purposed computers.
- If buying is the way to be, buying products with more circular designed.
(about 80% of the emissions is already a done deal)



Notebook design for a longer life



- ❑ **Durability**
 - Drop and temperature resistance (mobile devices)
 - Battery longevity
- ❑ **Repairability**
 - Replaceable components
- ❑ **Upgradability**
 - Standardized connectors
- ❑ **Battery Longevity / replaceability**
 - Guarantee of performance
 - Easy to replace by users
- ❑ **Safety**
 - Data sanitization software
- ❑ ...

The single most important thing you can do is to give IT products a longer life





33 hands-on tips for circular management of IT products

So now we've heard from some inspiring experts on the frontline of circularity and IT. What do they recommend? Here is a collection of their tips (and some of our own). It might seem like a lot – but keep in mind that sustainability takes time, and the main thing is to get started.

Leverage your purchasing power

1. Make your circularity intentions clear for your suppliers. IT brands know that the circular paradigm shift is coming and a push from clients will help them take the big steps needed.
2. Select a supplier with sustainability ambitions. Common priorities can help support your circular and sustainable IT management goals. Make use of pre-competitive dialogs and RFIs to gather information from suppliers.
3. Include circularity criteria in your procurement policies and specifications. Examples could include durability and reparability criteria that will allow you to keep products longer, and criteria for reduction or elimination of hazardous substances that make materials more recyclable.
4. Purchase products that have already been used. Focus on functionality and make use of the possibilities offered by professional refurbishing and remanufacturing businesses.
5. Don't overestimate the environmental and financial effects of changing to a more energy efficient device. In most cases, the potential savings are heavily overshadowed by negative impacts in the manufacturing phase.
6. Ask your supplier for an extensive warranty that covers service, repairs and battery replacements during your estimated use time.
7. Use your IT-products longer — it's the single most important thing you can do to save natural resources and cut greenhouse gas emissions.

Use your IT products longer

8. Think long-term when you purchase an IT product — buy a high-performance product that has enough capacity to meet your needs for several years.
9. Make sure that the products you buy are designed for a long life. They must be durable, upgradeable, and easy to repair.
10. Pay attention to battery life. Mobile IT products are often replaced because the battery has lost its capacity to hold a charge. To extend product life, make sure the battery is of high quality and can be replaced.
11. Extend battery life by keeping the product 20-80 percent charged as often as possible and avoid leaving it in hot spaces.
12. Remember to use the products in a circular manner — repair and upgrade your IT products when needed instead of disposing of them.
13. Work to gradually implement circular practices, such as take-back programs, in your own organization. Investigate the current situation thoroughly to identify how and where circular practices can be introduced.
14. A good start can be to interview people involved in IT purchasing and management.
15. Keep an eye out for old habits and policies that stand in the way for circular practices.
16. Be aware of the effects on employees. Engage them and make sure you have a mandate to change their routines.
17. Identify clear incentives — what are the benefits of going circular? It could be cuts in CO2 emissions, better operative results or lower costs for IT management.

18. Cooperation between functions is vital and will help you make faster progress. Invite decision makers and specialists from at least IT, procurement, sustainability, finance, facilitation for regular meetings.
19. Make sure you deactivate digital systems for data security. Failing to do so makes devices useless on the second-hand market.
20. Team up with other buyers to increase your purchasing power and influence.
21. If you want to implement circular procurement practices, communicate your goals and tactics with internal and external stakeholders throughout the IT product life cycle.
22. Don't be afraid to reach out for help. Join networks, learn from others, and share what you know.
23. Keep in mind that even the smallest contributions are valuable. It doesn't matter so much what the first step is as long as you take it.
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Thank you!

