
A Circular Electronics Initiative for Europe

OUTLINE
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1. Introduction
The introduction will set out the EU’s vision for circular electronics:
(a) less e-waste,
(b) better and more sustainable choices for consumers,
(c) stronger repair and reuse aftermarkets,
(d) the development of new business models, and
(e) more opportunity for innovation.

2. Problems and opportunities
This section will look at the specific environmental problems related to electronics supply chains, namely e-waste, lifecycle emissions, sourcing of raw materials and lost raw materials. It will also include:
- evidence on the public’s preference for a higher level of reparability and durability (e.g., from the Eurobarometer and ongoing studies), which is in contrast with consumption patterns and the high replacement and low recyclability rates of these devices, and
- an overview of measures that are being taken by Member States to tackle e-waste and ensure that devices last longer.

An EU level response would bring considerable added value as it would provide a European response to a global problem, while also mitigating the risk of fragmentation due to Member States acting alone.

3. Actions for more circularity
Under the framework of the European Green Deal and the Circular Economy Action Plan, the Circular Electronics Initiative is one several key initiatives that the Commission is adopting to improve the sustainability of products. Others include the Sustainable Products Initiative, Green Claims, and the Initiative on Empowering Consumers for the Green Transition. This section will present the overarching approach of the Commission and explain how these instruments fit together.

4. A lifecycle approach to electronics and ICT
4.1. Design: Making sustainable design the norm for portable ICT devices
The measures under this section focus on the supply-side (or upstream) stages of electronics value chains. Upstream measures are principally rooted in Ecodesign to guarantee the sustainable design of devices. This will be accompanied by a review of the framework for restrictions of hazardous substances in electronics to improve the recycling process, as well as measures for the introduction of a common charging solution. A revised voluntary agreement for imaging equipment is being evaluated, and will be approved or replaced by a new implementing measure under Ecodesign.

The Commission will:
- Improve the design of devices to promote material and energy efficiency, reparability
4.2. Reparability
This section will make the case that improving device reparability through better design and manufacturing is not sufficient. These measures need to be complemented on the demand side, by introducing new rules to influence the way consumers use and discard devices.

There are clear signs that consumers understand the issue of device sustainability and circularity and are calling for manufacturers to make it easier to repair their devices or replace individual parts. Demand side measures therefore will focus on improving access to, and possibilities for, the repair of devices, particularly by setting out the path for a right to repair. This is accompanied by better access to necessary information so that consumers can make sustainable choices, including repair information at the point of sale through the Empowering Consumers for the Green Transition initiative, and improved access to reliable information in the supply chain through Digital Product Passports. The introduction of reparability scoring may further stimulate consumer preference for more repairable products.

The Commission will:
- Propose a Right to Repair to allow consumers to seek repair in cases of damage arising after the delivery of goods and for reasons that do not stem from non-conformity with the sales contract (Instrument TBD - 2022).
- Ensure better access to product sustainability data for citizens and businesses that remanufacture, repair and recycle devices, through a Digital Product Passport (Part of the Sustainable Products Initiative – Q4 2021).
- Ensure better access to information on repair manuals, spare parts and software updates (Empowering Consumers for the Green Transition – Q4 2021).
- Propose a system of reparability scoring for smartphones and tablets (new Ecodesign and Energy Labelling measures – 2022).

4.3. Reuse and recycling
The last stage in the product lifecycle concerns how devices are handled when consumers no longer use them. Most outdated devices are currently either thrown away or kept idle in homes, with collection rates as low as 15% for waste mobile phones in Europe. This section will present the challenges to ensuring that devices that can still be reused are removed by consumers, and, where they cannot, that they are either prepared for reuse or appropriately recycled. It will then present the Commission’s intentions to empower/support consumers to return and recycle devices, as well as new ideas to improve the recycling process itself (for example, reverse product lanes to disentangle electronics into components, using robots and AI to reduce exposure to toxic elements, as well as better separate high-value materials, etc.).

1 Special Eurobarometer 503: ‘Attitudes towards the impact of digitalisation on daily lives, 2019: 64% of Europeans indicate that they would like to use their phone for at least 5 years. 79% of Europeans think that manufacturers should be required to make it easier to repair digital devices or replace their individual parts.'
4.1. Hazardous Substances in EEE

[The Commission will:
- Take measures to improve collection rates of small used and waste electronic devices for subsequent re-use, refurbishment or preparation for reuse and recycling (by 202X).
- [Improve the efficiency and effectiveness of e-waste management (WEEE review by 2023)].
- Review rules on the Restriction of Hazardous Substances in Electrical and Electronic Equipment (by 2022)]

5. Links with other initiatives

Tentative sub-sections — to be completed by the relevant DGs, including any other initiatives that are relevant and not included below

5.1. Standards [F3 to give input]
5.2. Green public procurement criteria
5.2.1. Computers, monitors, tablets and smartphones
5.2.2. Data centres and services
5.2.3. Imaging equipment, consumables and print services
5.3. Sustainable Products Initiative (as continuation and reinforcement of Ecodesign)
5.4. Green Claims Initiative (the by GCI colleagues)
5.5. EU Ecolabel (the by Ecolabel colleagues)

6. Conclusions