Roadmaps aim to inform citizens and stakeholders about the Commission’s work in order to allow them to provide feedback and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission’s understanding of the problem and possible solutions and to make available any relevant information that they may have.

**Title of the Initiative:** Communication on the Circular Electronics Initiative (CEI)

**Lead DG – Responsible Unit:** DG CONNECT - F1

**Likely Type of Initiative:** Communication

**Indicative Planning:** Q4 2021

**Additional Information:**
This Roadmap is provided for information purposes only and its content might change. It does not prejudge the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by the Roadmap, including its timing, are subject to change.

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### A. Context, Problem definition and Subsidiarity Check

**Context [max 10 lines]**

The Circular Electronics Initiative (“CEI”) was announced the Digital Strategy and in the Circular Economy Action Plan, a key building block of the European Green Deal. The CEI will set out the Commission’s plans to increase the sustainability and circularity of electronics through measures that promote better design, reparability (including a right to repair), reuse, take-back schemes, dismantling and recycling.

The European Parliament\(^1\) and the Council\(^2\) have expressed strong political interest and support for measures to increase the circularity and reparability of electronics. Extending the lifetime and reparability of electronic products will be essential to achieve the EU’s circular economy and climate change objectives, particularly as the number of electronic devices in Europe continues to increase, and to support Europeans who want their devices to last longer.

**Problem the initiative aims to tackle [max 25 lines]**

The life of electronic devices has progressively become shorter. Furthermore, the actual lifetime is both shorter than the designed and desired lifetime.\(^3\) This contributes to growing CO2 emissions through increased production to replace, collect, dismantle or recycle obsolete products. It also generates an ever-growing amount of electronic waste, which is currently the fastest growing waste stream in the EU.\(^4\) Europe now generates the most e-waste per capita worldwide (16.2kg per person yearly), less than half of which is recycled.

Increasing the lifetime of all smartphones in Europe by just one year could have an impact equivalent to removing one million cars from our roads. The lost raw material value, which is estimated at EUR 13 billion/ year in the EU,\(^5\) includes many rare earths and valuable elements present in ICT devices for which the EU depends almost entirely on imports. As confirmed by a recent Eurobarometer survey,\(^6\) 64% of Europeans would like to use their phone for at least 5 years and 75% think that manufacturers should be required to make it easier to repair digital devices or replace their individual parts. There is therefore considerable economic potential in growing the local EU aftermarket sector, in particular for independent or professional repairs and spare parts manufacturing, which could generate additional jobs and business in Europe, in particular at local and SME levels.

However, differing and possibly inconsistent national rules may impede the free movement of goods and services, drive up costs without clear benefits, and undermine consumer confidence across Member States. For example, in the case of guarantees and repair, different national regimes could lead to an increase in compliance costs, affecting both economic operations and consumers. This may in turn undermine policy objectives to steer the European economy towards sustainability and enhanced circularity across industries.

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\(^1\) European Parliament Resolution 'Towards a more sustainable single market for business and consumers' (25.11.2020, 2020/207(INI))

\(^2\) Council Conclusions on Making the Recovery Circular and Green, 17 December 2020; and Council Conclusions on the New Consumer Agenda, 29 February 2021.

\(^3\) European Commission's communication on Circular Economy: European Economic Potential. Final report. 2020

\(^4\) European Commission’s communication on Circular Economy: European Economic Potential. Final report. 2020

\(^5\) European Commission’s communication on Circular Economy: European Economic Potential. Final report. 2020

\(^6\) European Commission’s communication on Circular Economy: European Economic Potential. Final report. 2020

* Special Eurobarometer 503: Attitudes towards the impact of digitalisation on daily lives, 2019

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### Notes

1. European Parliament Resolution Towards a more sustainable single market for business and consumers (25.11.2020, 2020/207(INI))
6. Special Eurobarometer 503: Attitudes towards the impact of digitalisation on daily lives, 2019
production value chains and markets.
To ensure the integrity of the internal market, the Union should take measures to ensure that EU consumers' economic interests are protected and that their access to information and sustainable goods and services are promoted.

Basis for EU intervention [legal basis and subsidiarity check] [max 10 lines]
The initiative is in an area of shared competence with the Member States. It tackles cross-border and transnational issues,
[Articles 26(1) and 26(2) of the Treaty on the Functioning of the European Union (TFEU) provide that the Union should adopt measures to establish or ensure the functioning of the internal market.] Union action should also ensure that environmental protection requirements are integrated into the definition and implementation of the Union's policies, especially with a view to promoting sustainable development, as set out in Article 11 TFEU. [Further, the Commission shall in its proposals concerning inter alia environmental protection and consumer protection take as a base a high level of protection (Article 114 TFEU).]
The EU-wide challenges outlined above require a coordinated response by the EU. A Communication is an appropriate means to set out the legal measures envisaged by the Commission to achieve a higher level of circularity for electronics.

B. What does the initiative aim to achieve and how [max 25 lines]
The CEI will consist of a set of measures envisaged by the Commission to increase the sustainability and circularity of electronics.
The CEI's circular approach aims to,
• extend the lifetime of electronic devices (starting with mobile phones, tablets and laptops);
• reduce e-waste and minimise the environmental footprint of specific electronic devices;
• keep rare earths and valuable metals in the EU, in line with strategic autonomy goals;
• create economic opportunities and offer consumers more sustainable choices;
• ensure a harmonised approach across the single market in tackling a problem that is at least Europe-wide.
These goals could be achieved by measures spanning all phases of the lifecycle of electronics and affecting different levels of their value chains, such as by,
1. ensuring sustainability at the design stage with requirements on durability, repairability, dismantling, reuse and recycling;
2. supporting the maintenance and repair of devices by ensuring the availability of software updates, spare parts, and repair information/manuals;
3. promoting repair and reuse downstream with a legal right to repair for consumers;
4. promoting circular business models (e.g. product-as-a-service, sharing economy, independent repairers and spare parts manufacturers, take-back schemes); and
5. enabling better recycling and recovery of materials at the end stage of a product's lifecycle.

C. Better regulation
Consultation of citizens and stakeholders [max 10 lines]
Consultation on this roadmap will be open for 4 weeks. While each initiative set out in the Communication will be subject to its own better regulation procedures, feedback is sought on aspects such as how to best achieve, circularity for electronics (including the means to encourage repair, reuse, return and recyclability), balance between durability and repairability, a thriving repair industry in Europe and a right to repair.
Consultation will be open to everyone – European and non-European entities, private and public sector, academia, organisations, consumers etc.

Evidence base and data collection [max 10 lines]
Studies providing evidence for the Communication will include:
1. Ongoing EC study on the Circular Electronics Initiative Right to Repair (launched April 2021);
2. Ecodesign preparatory study on smartphones and tablets (Final Report, February 2021);
3. Studies contracted by the EESC, e.g. on the circular economy and consumer goods (2019);
4. Studies carried out by the EP's IMCO Committee, e.g. on promoting product longevity (2019);
5. EC study on options for EU-wide return schemes of mobile phones, tablets and other small EEE (2021).