Written evidence submitted by Samsung Electronics UK

Introduction

This document sets out Samsung Electronics UK's response to the Environmental Audit Committee's Inquiry on Waste Electronics and the Circular Economy. Samsung welcomed the invitation to appear before the Environmental Audit Committee on 16th July. We wanted to take use this opportunity to reiterate some of the specific points raised during the session.

About Samsung

Samsung Electronics is a global information technology leader which prides itself on delivering world class products through operational excellence and innovation. It specialises in the production of a range of consumer and industry electronics, including domestic appliances, digital media devices, semiconductors, memory, and integrated systems. Samsung has 287,439 employees operating at over 200 subsidiaries around the world, and it is responsible for manufacturing approximately 90% if its products in-house at one of its 37 global production facilities. We are a major R&D investor and a pioneer in the development of transformative technologies such as Artificial Intelligence, the Internet of Things and 5G.

Since our Environment Declaration in 1992, we have implemented environmental management plans and began publically reporting on performance in 2000. In 2008 we published our first sustainability report. Samsung's 2020 Sustainability Report identifies climate action and the circular economy as priority issues, and sets out actions to tackle these issues. The report also demonstrates Samsung's active support for the United Nations 2030 Agenda for Sustainable Development. We will continue to drive action to align with the Sustainable Development Goals most relevant to our business through Samsung's spirit of challenge and culture of innovation.

Samsung has been based in the UK for over thirty years. We regard the UK as one of the most important and dynamic tech economies in the world, owing in large part to the fact that UK consumers are keen early adopters of new and innovative technology; two thirds of British households own a Samsung product and a third have multiple Samsung products. As well as our British business, our design centre, R&D functions, product testing and European Headquarters are all based here.

Executive Summary

In this submission, Samsung will encourage the following actions to be considered.

- **An effective system for waste electronics** – Recycling remains an essential element of the circular economy. All products will become waste at some stage. The UK WEEE system has been operating since 2007; however, it continues to face criticism from many actors, and more needs to be done to deliver an effective producer-led system of compliance.

- **A better understanding of circular business models** – Much of the debate on the circular economy remains subjective. There are strong and dynamic markets for used electronics

but the extent of this activity is poorly understood. More needs to be done to map current market behaviours, and to ensure that a robust evidence base exists to support future policy strategy.

- **Increase awareness of product durability and repair networks** – Electronic products are often lasting longer than expected. Durability is an important factor for consumers purchasing electronic products, and significant effort is undertaken by manufacturers, such as Samsung, to ensure rigorous performance standards are met as well as providing an extensive and accessible repair network for consumers. Once again more needs to be done to understand current market conditions before further policy is advised.

- **Maintain close alignment with European Union** - The European Union has an established and successful policy framework for delivering a circular economy, a model which is the standard for other regional and national policy developments. As a global business Samsung is keen for the UK to continue to align with EU product policies and standards. However, we also see new opportunities for the UK to seek a different approach to support some specific national objectives.

Effective Waste System

The National Target and Compliance Fee mechanism that was introduced in 2014 to replace the existing system of WEEE compliance in the UK. Whilst not the preferred option of producers (who advocated an allocation/matching system), was, nonetheless, seen as a positive step forward for WEEE compliance which would prevent high compliance costs for business. However, both the national target and the compliance fee are beginning to show signs of stress and the forthcoming review of the WEEE Regulations provides a significant opportunity to address issues within the UK WEEE system including a chance to reconsider the existing collection network and governance system.

The review of the WEEE Regulations also provides an opportunity to review current treatment standards in the UK. We are aware that there are different levels of innovation and technology used in the treatment of WEEE. We would welcome a review of the Government's BATRRT Guidance[1] which was published in 2006 and no longer reflects developing international standards of treatment.

Circular Business Models

The secondary market for used electronics is expanding. Studies conducted by Deloitte[2] indicated that the sales of used mobile phones had grown from $11bn in 2015 to $17bn in 2016 – a year-on-year increase of 55%. Research conducted by IDC[3] forecast that the used phone market will be worth

[1] See https://webarchive.nationalarchives.gov.uk/20130403043343/http://archive.defra.gov.uk/environment/waste/producer/electrical/documents/weee-batrrt-guidance.pdf

[2] See https://www2.deloitte.com/mk/en/pages/technology-media-and-telecommunications/articles/tmt-pred16-telecomm-used-smartphones-17-billion-market.html

$67bn by 2023. Much of the data centres on mobile devices, however, it is widely understood that consumer electronic products are being sold via online trading platforms, traded in stores or passed onto family and friends. More could be done to understand this market better, how consumers are engaging with it and what is influencing their behaviour.

Reusing, leasing and remanufacturing are popular circular business models and companies are exploring opportunities to develop service-based propositions. Moving to a service model can help manufacturers build new revenue streams without needing to sell goods in a conventional sense. These business model often work better for certain products aimed at specific consumer groups. For example, in the B2B sector, managed print solutions are an accessible and affordable service model. However, it has yet to prove an attractive proposition to consumers. Nonetheless, some circular models are proving popular with consumers. Samsung offers a trade in model to consumers wishing to purchase the newest mobile devices. Traded in products are refurbished to Samsung performance standards through our service repair network and enjoy a secondary life. Businesses are best placed to understand what circular models best apply to their business.

Product Durability

A study by the German Environment Protection Agency[4] found that there was a lack of evidence of producers slowing down products. It found that products were no longer used due to material and functional obsolescence, consumer desire for an upgrade and refraining from repair on the grounds of cost. A report by WRAP[5] highlighted that consumers found that products lasted longer than they had expected. Products surveyed at waste sites were found to be have lasted 35-95% longer than their expected life. The report further highlighted that the original equipment manufacturer (OEM) products lasted longer when compared to own-brand products.

Samsung recognises the importance of durability as a component of the circular economy. Consequently it is embedded within the circular economy principles[6] found in our 2020 Sustainability Report. Samsung products are designed with durability in mind and rigorously tested to measure strength, drop resistance, waterproof capacity as well as lifespan standards that satisfy international standards. We also carry out our own tests, including free-fall tests against numerous floor materials from different angles and various waterproof conditions tests.

A recent example of innovation at Samsung which will impact product durability was featured in the scientific journal, Nature, through innovation of Quantum Dot technology[7]. By changing the structure of Quantum Dots, efficiency was improved by 21.4% and lifetime of the QLED increased to a million hours.

Repair

[3] See https://www.idc.com/getdoc.jsp?containerId=prUS45865720
[4] See https://www.umweltbundesamt.de/en/publikationen/obsolescence-political-strategies-for-improved
[5] See https://www.wrap.org.uk/sites/files/wrap/Switched%20on%20to%20value%20-%20Powering%20business%20change_0.pdf
[6] See https://images.samsung.com/is/content/samsung/p5/uk/pdf/Sustainability_report_2020_en_new.pdf
[7] See https://news.samsung.com/global/samsung-fellows-study-on-the-potential-commercialization-of-qleds-published-in-leading-science-journal-nature

Samsung products are designed to be repaired. We strive to provide a consistent high-quality experience for all our customers no matter where they are in the world. In 2019 this was achieved through a global service channel, consisting of 15,866 service centres in 197 countries. Expert service centre managers and product technicians repair products to exacting standards following our Service Process Guide. We also operate training programs such as product user guides and the introduction of new product functions to our customers.

In the UK, we are continually developing and improving our repair service offering to customers. In 2020, our partnership with WeFix, - which provides a fleet of custom-built vehicles, offering a one-hour doorstep repair on mobile and tablet devices to 94% of UK postcodes - received the award for best service and repair at the Mobile News Awards. The service offers the same high standard of repair available through other Samsung accredited channels, but with the highest level of convenience possible.

Calls from some stakeholders to promote consumer access to repair should be carefully considered. Samsung supports the positon from Digital Europe which argues that consumers have a rightful expectation of a repair remedy of quality, safety and security. However, this does not mean that repairs can be carried out safely and successfully by consumers themselves, nor that they should in all cases have the right or ability to do so themselves. Digital Europe points out that repairs that jeopardise the quality or safety of a product not only endanger persons and property but may have legal liability and brand implications for manufacturers. It advocates that the existing 'Right to Repair' provision in the reformed Waste Framework Directive strikes a good balance to ensuring quality and consumer safety, security and privacy.

Proponents of 'Right to Repair' must also consider how replaced parts/components can be effectively recovered. Products which are small enough to go in the general waste bin (or stored by the householder) have to date seen meagre recovery rates. Furthermore, there is increasing evidence[8] that a considerable volume of small WEEE is remaining in the residual waste stream, where it is not recycled. One could logically assume that this issue, or worse, could be extended to consumer replaced electrical components/parts. In contrast components recovered from a Samsung authorized service centre can be returned to our parts warehouse for assessment and refurbished back to Samsung factory standards. It is also worth noting that the WEEE Regulations applies to products and not to components, as such no national recovery network exists to finance the recovery and treatment of electronic components.

EU Alignment

The European Green Deal provides an action plan to boost the efficient use of resources by moving to a circular economy, where economic growth is decoupled from resource use. The European Union has an established policy framework in place to deliver a circular economy and the UK should continue to align with these relevant policies. For example, The EU's Restriction of Hazardous Substances (RoHS) Directive, and the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation, provide multi-stakeholder, evidence based platforms to regulate the impact of chemicals on human health and the environment. The success of the ROHS has seen

[8] See https://www.sciencedirect.com/science/article/pii/S0956053X19300686

approximately 40 similar regulations introduced around the world, and REACH has been used as a blueprint for chemicals management regulation is other jurisdictions.

Other notable work by the EU, which is likely to influence international product design, includes the development of horizontal standards on material efficiency aspects. These include durability, reparability and recyclability. These standards provide the foundation for future regulatory discussions and product-specific assessment methods.

Efforts to support European policy on the circular economy does no restrict the UK from developing new policies to support a circular economy, indeed there are opportunities for the UK to take a different approach from aspects of existing European Policy. The EU Energy Labelling Regulation requires manufacturers to provide an energy label with every regulated product, utilising digital technology presents opportunities to better inform and incentivise consumers about the energy efficiency of products. Similarly, the targets outlined in the WEEE Directive are weight-based and have often been criticised as a crude tool to drive recycling. The UK possess the opportunity to develop new recycling targets which better reflect the ambition of a circular economy.

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