



## A COMMON CHARGING INTERFACE FOR ALL

*The European Commission should further enable an industry-supported initiative to leverage USB Type-C's potential as a universal charging solution, to benefit consumers, spur innovation, and better the environment by:*

- ❖ Requiring USB Type-C™ as a standardized interface on the charger
- ❖ Encouraging detachable cables
- ❖ Preserving innovation on the device-side charging interface.

### USB Type-C's Strengths and Limitations

#### STRENGTHS

USB Type-C is more robust and supports much higher power (100W) than USB Micro-B (7.5W). USB Type-C provides a roadmap to significantly higher data speeds, can carry alternate protocols for HD video and audio, is flippable, reversible, safer, and a viable connector candidate for devices such as laptops and tablets (unlike USB Micro-B).



#### LIMITATIONS

However, USB Type-C is not suitable as a connector on every portable electronic device, such as wearables, personal care and other products that need to be water resistant, or any device that is too thin for the USB Type-C connector. USB Type-C follows on from the innovations previously developed by Apple in its proprietary Lightning connector used in iPhones and iPads—innovations that could not have been brought into the market if the device-side connector had been otherwise constrained without the availability of adaptors. USB Type-C is in products already on the market<sup>1</sup> and is expected to be even more widely deployed in 2017.

### Convenient for Consumers

With USB Type-C, a single detachable cable can provide power and transfer data. Consumers benefit from the convenience of being able to charge a broad array of portable electronic products with only a detachable cable and any USB Type-C charging source (i.e., AC adaptor / charging block, wall plate, laptop, etc.).

### Consumers Save Money

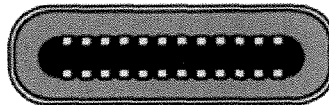
Consumers will benefit from lower costs associated with a USB Type-C common charging interface with detachable cables due to increased charger reusability (fewer chargers need be purchased), fewer replacement purchases due to failures, the lower cost of replacing only a cable or only a charger relative to the cost of replacing the entire cable-charger system, and any increased rate of decoupling. These savings would outweigh any perception that chargers with tethered cables cost less to make than chargers with detachable cables.

<sup>1</sup> Harmonising Chargers for Mobile Telephones, Charles River Associates at 12 October 2015 ("Charles River Study").



## Better for the Environment

USB Type-C's broad applicability across product categories makes it an attractive universal charging interface. Greater charger interoperability means more reusability, fewer chargers and reduced CO2 emissions. A common USB Type-C charging interface significantly reduces e-waste due to fewer failures and the ability to reuse charging blocks.<sup>2,3</sup> Detachable cables would additionally eliminate the attachment point where most failures occur when captive cables are tethered to charging blocks. If half of all 2013 mobile phone sales in Europe had been unbundled from chargers, then approximately 128,000 metric tonnes of CO2e would have been saved—equal to removing approximately 77,000 cars from the road for a year! Since cables emit significantly less greenhouse gas than mobile phone charging blocks—due to their lighter weight— their impact is comparably small from an environmental perspective.<sup>4</sup>



## Innovation In the Digital Single Market Is Key

With USB Type-C on the charging source side of a detachable cable, the device-side of the charging interface should remain open for innovation. Innovation freedom on device-side charging interface enables products to become thinner than the minimum thickness needed to implement a specified connector. It also enables products and chargers to become lighter, smaller, more power efficient (and therefore less resource consuming), more water resistant, and higher performing. The cost to consumers of inhibiting innovation by imposing device-side standardisation has been conservatively estimated at €500m to €2bn — far greater than the potential incremental environmental benefit.<sup>5</sup> Miniaturisation and ever-slimmer devices contribute to resource efficiency more than forcing a harmonized interface at the device-side.

## The Draft MoU Version 27.5.2016 Should be Approved

Mobile phone manufacturers have collaborated through Digital Europe to propose a new Memorandum of Understanding. Its acceptance would extend the 2009 MoU's promotion of charger harmonisation in the EU, increased re-use of chargers and consumer convenience.<sup>6</sup> It commits signatories to continue to enable smartphones to "interwork" with "common chargers" as required by the Radio Equipment Directive<sup>7</sup> while leveraging the ability of USB Type-C to be the "common charging interface for mobile and other portable electronic devices"<sup>8</sup> **at the power source**. It represents a sound compromise amongst industry's varied interests by allowing chargers and smartphones compliant with the first MoU, ongoing innovation, and appropriate flexibility (i.e., no required in-box adaptors or detachable cables).<sup>9</sup> The new MoU should be approved.

<sup>2</sup> ITU and GeSI (2012): An Energy-Aware Survey on ICT Device Power Supplies, [http://www.itu.int/dms\\_pub/itu-t/oth/0B/11/T0B110000163301PDFE.pdf](http://www.itu.int/dms_pub/itu-t/oth/0B/11/T0B110000163301PDFE.pdf), at 28 (faults located solely in the cable caused 90% of reported external power supply failures).

<sup>3</sup> Study on the Impact of the MOU on Harmonisation of Chargers for Mobile Telephones and to Assess Possible Future Options, RPA at vi, August 2014 ("RPA Study") (decoupling of charging blocks from products is the primary driver of positive environmental impact).

<sup>4</sup> Charles River Study at x-xi.

<sup>5</sup> Charles River Study at 59.

<sup>6</sup> RPA Study.

<sup>7</sup> Directive 2014/53/EU at Recital 12 and Article 3(3)(a).

<sup>8</sup> Communication of 30 July 2014, COM(2014) 500 final, paragraph 3.2.17.

<sup>9</sup> RPA Study at 62 ("[A]ny negative impacts on innovation are likely to have been limited. This is because the MoU provides manufacturers with the flexibility of different methods of compliance").