

EVIDENCE FROM NEW SURVEY OF EUROPEAN CONSUMERS' USE OF MOBILE DEVICES AND CHARGING CONNECTORS

Copenhagen Economics



We have asked European consumers who use mobile devices:



Smartphones



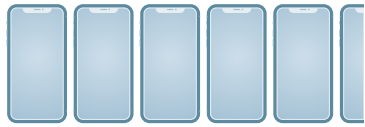
Tablets



Other small electronics

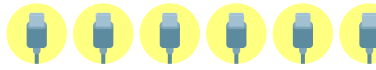
TODAY

EU consumers surveyed have **1.04 charging cables per device** (1.1 including cables not in use)^[1]



The average EU household has...

5.4 mobile devices

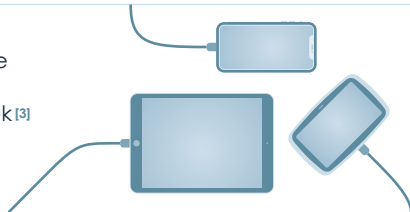


5.6 charging cables

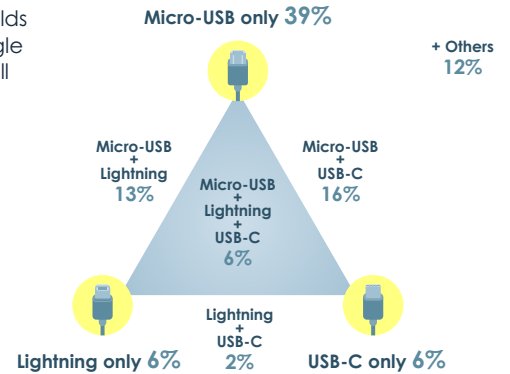


+ 0.4 charging cables not in regular use

Nearly **90%** of survey respondents charge multiple devices simultaneously at least some times per week^[3]



51% of EU households already have a single connector across all their cables^[2]



The realised consumer value (2012-2018) thanks to the **past introduction of innovative connectors**:^[4]

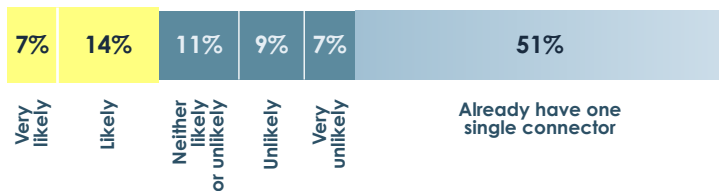
€14 billion



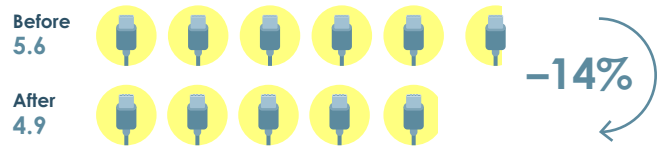
IF A SINGLE DEVICE-SIDE CONNECTOR IS MANDATED...

...CONSUMER DEMAND

Only **21%** of EU households said they would likely or very likely reduce their total number of cables in the case a single connector is introduced^[5]



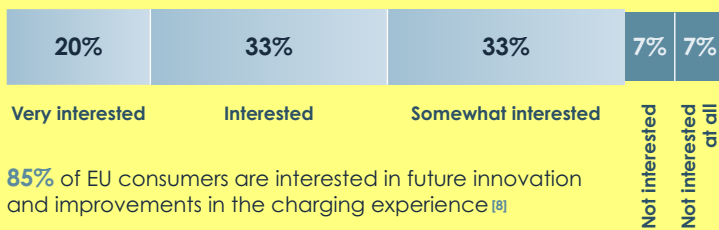
Across all EU households (both those currently with on single connector-type and those currently with one single connector-type), consumer demand for cables could at most fall by **14%**^[6]



...ENVIRONMENTAL EFFECT OF CONSUMER DEMAND

Therefore, the environmental benefits would be limited to **€13 million** (NPV over seven years), based on the CO₂ impact from cable production linked to the change in EU consumer demand^[7]

...INNOVATION IMPACT



85% of EU consumers are interested in future innovation and improvements in the charging experience^[8]

A regulatory mandated single existing connector type risks blocking or **delaying future connector innovation**

A delay in innovation would lead to an estimated loss of consumer value of **€1.5 billion** (NPV over seven years), while blocking innovation completely would lead to an impact nearly 10 times larger^[9]

...IN CONCLUSION

No significant consumer convenience evidence supporting mandating a single device-side connector

As a result, **environmental benefits** would be limited and several orders of magnitude smaller than the **innovation harm**

Innovation harm
-€1.5 billion



Environmental benefits
+€13 million

Innovation achieved so far
Future innovation at risk

Sources: [1] EU consumer survey [2] EU consumer survey [3] EU consumer survey [4] EU consumer survey; mobile market sales [5] EU consumer survey [6] EU consumer survey [7] EU consumer survey; Eurostat demo-graphic data; official price forecast for EU traded CO₂ [8] EU consumer survey [9] EU consumer survey; mobile market sales forecast

FOR FURTHER INFORMATION, SEE FULL STUDY "EU consumers' evidence shows innovation and environmental impacts with possible common charger regulation (2019)"