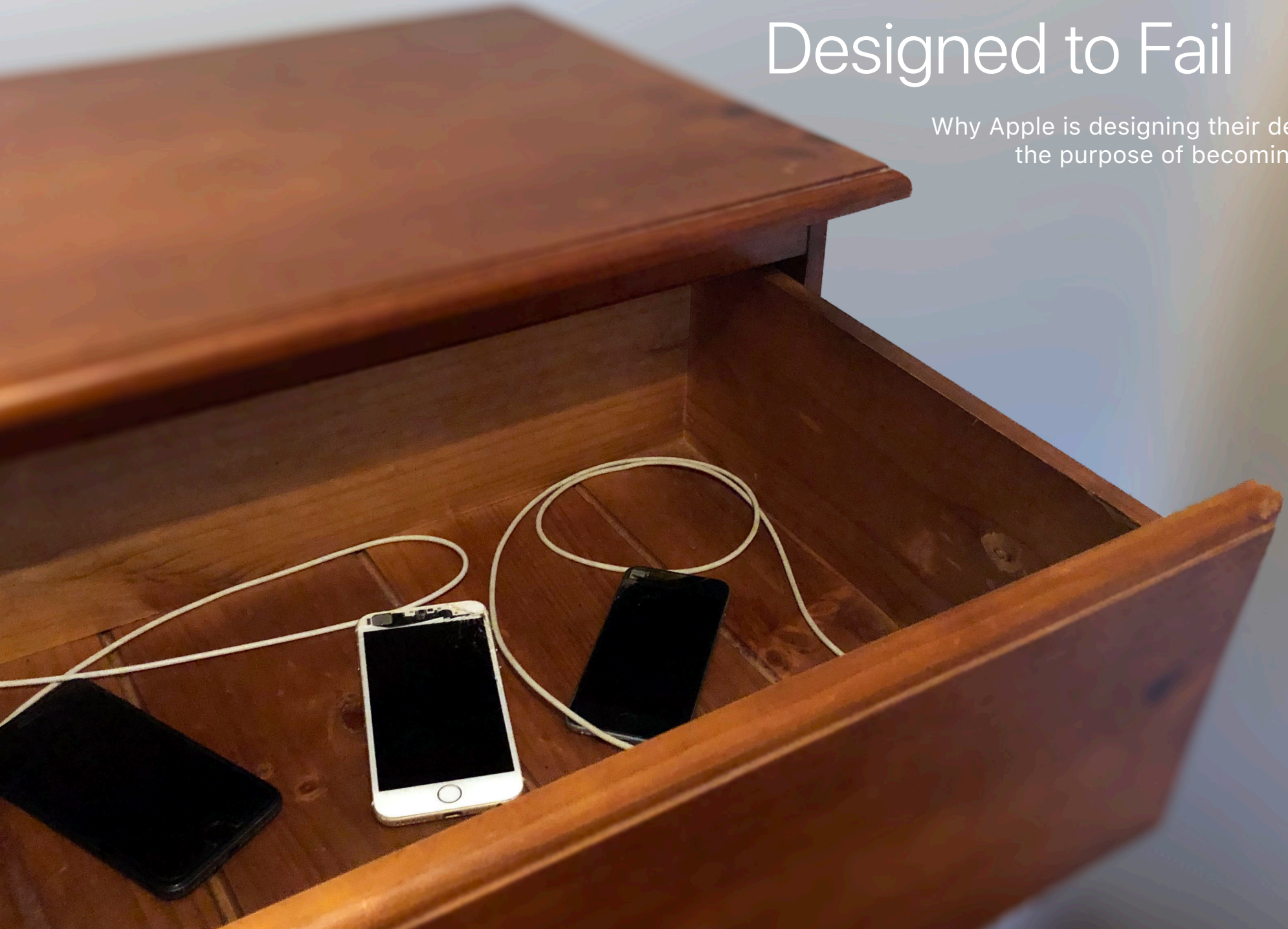


Maxwell Rooney

Designed to Fail

Why Apple is designing their devices with
the purpose of becoming obsolete



Designed to Fail

Maxwell Rooney

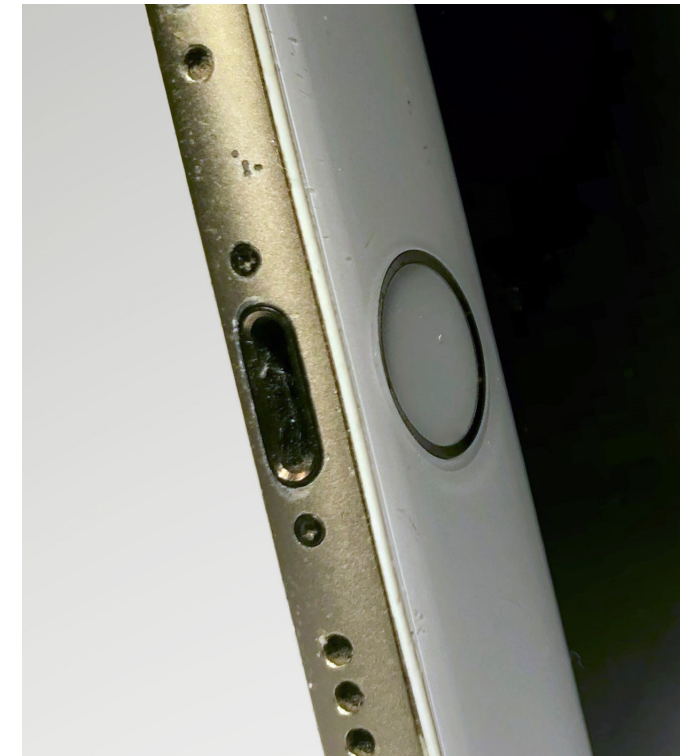
Planned obsolescence is the practice of deliberately designing products with short lifespans in order to facilitate future sales. This practice is most prevalent within the technology industry especially with smartphones as newer generations of smartphones are currently being pumped out almost yearly now. Apple's devices are no exception as seen progressively more prominently with their newer generations of iPhones.

Apple has come under fire multiple times before for planned obsolescence with numerous lawsuits having been filed against them. In 2017 Apple faced fines imposed by the Italian Competition Authority for unfair commercial practices in reference to Apple's intentional slowing down of devices with degraded batteries in what was apparently an attempt to prevent further problems with the devices. Apple has learnt to adapt their obsolescence practices with the biggest example of this within their products being the increasingly difficult process that must be

undertaken to repair their devices without the help of a trained Apple employee. A recent example of this is within the iPhone 11 where users attempting to replace the batteries on the device themselves would be faced with a warning message which appears on the battery health indicator in the settings menu, an attempt by Apple to deter future attempts at self-repairs.

Apple's biggest innovation in obsolescence however is their increasing use of their so called "pentalobe security screws" which are tamper-resistant screws designed to further prevent owners of Apple products from repairing their devices themselves. This screw is synonymous with Apple and made its very first appearance in the 2009 MacBook Pro in an effort to stop owners from replacing the batteries within their devices themselves. What makes this seemingly simple screw so tedious to remove is that it requires a very specific screwdriver and although this screwdriver isn't impossible to find it is still quite the inconvenience for

owners of apple products who wish to repair their own devices. Ever since the iPhone 4 these screws have been present at the very bottom of iPhones, one on either side of the charging port supposedly there to hold the phone together.



The idea behind these consistent efforts from Apple to make repairing their devices more difficult for consumers is to ensure that Apple themselves are the ones profiting from these repairs. Often times repairing Apple devices may be tedious as well as quite pricey even to the point where it's sometimes much more convenient to just downright purchase a newer device. Just a simple google search shows that the price of screen replacements for an iPhone 6 are upwards of \$130 where the device itself can be purchased for around the same price. This strategy has been shown to be reliable as seen in a survey published by the European Commission which showed that 38% of the people surveyed replaced their device because it broke, while 30% had replaced their device because it was no longer performing as well.

Apple's use of planned obsolescence isn't just harmful to consumers but also poses threat to the environment. Although small in size Apple's iPhones impact on the

environment is quite large as many of the raw materials required to manufacture them aren't easily recycled and any of Apple's recent efforts to reduce their impact on the environment are thwarted by their products intentionally short life cycle which encourages replacement over repair. A single iPhone 11 Pro is said to produce up to up to 110kg of CO₂e, a majority of which could be accounted for within the gathering of raw materials as well as the manufacturing stages of the iPhone's creation. This means it could be said that a longer lifespan for their products which would coincide with a lower output would reduce their impact on the environment.

These practices of planned obsolescence are particularly unethical and unsustainable but Apple's huge success in the smartphone market is proof enough that these practices reliably work to get sales, or else Apple wouldn't make such an effort to incorporate obsolescence into the designs of their devices. I highly doubt Apple will forgo these

practices in favour of a more consumer and environmentally friendly approach as their history throughout the years shows otherwise.



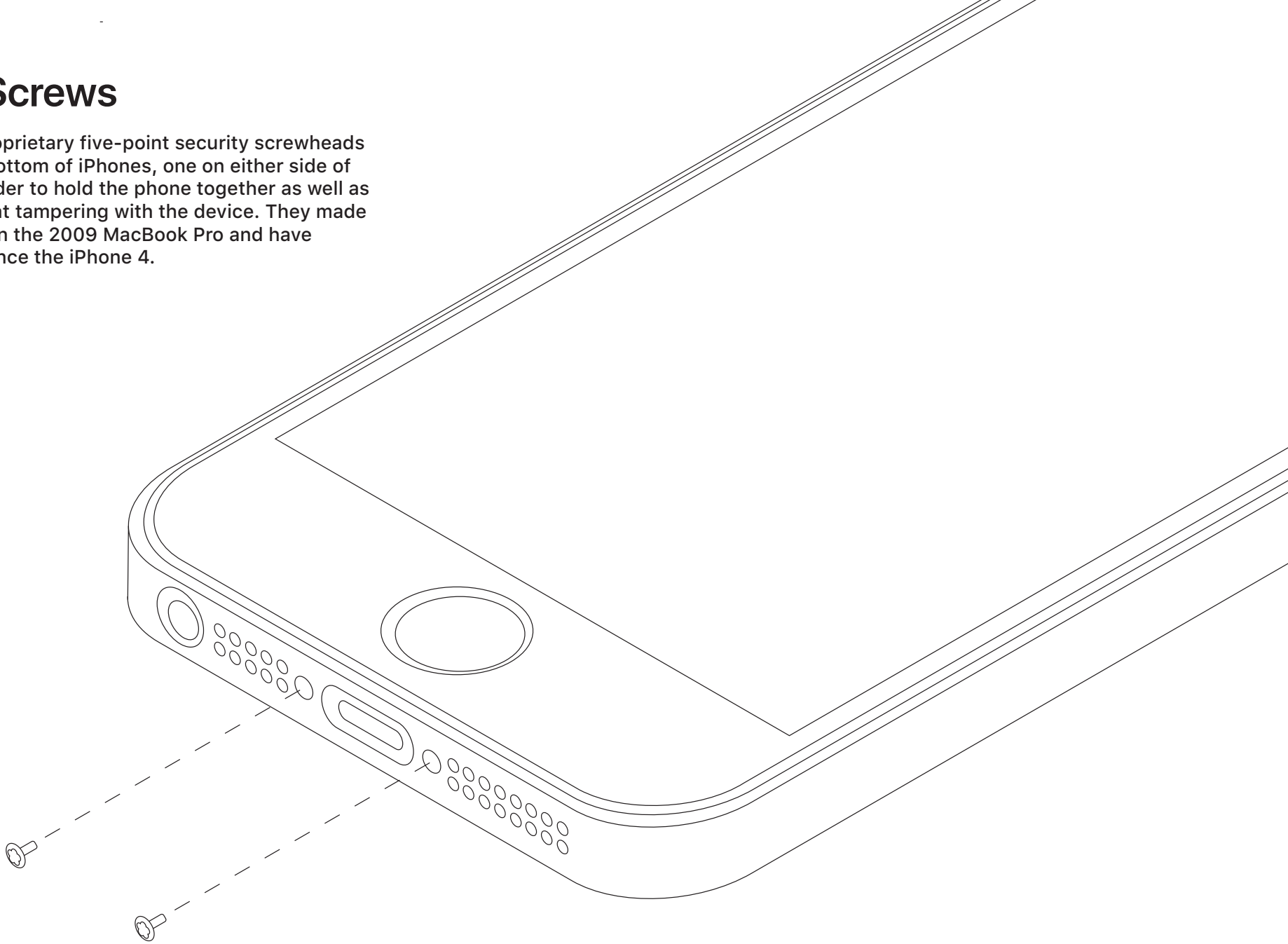
References:

Kahney, L. (2011). Is Apple Guilty of Planned Obsolescence?. Cult of Mac. <https://www.cultofmac.com/77814/is-apple-guilty-of-planned-obsolescence/>
Makov, T., & Fitzpatrick, C. (2019). Planned Obsolescence in Smartphones? Insights from Benchmark Testing. PLATE – Product lifetimes and the environment, 503-508. <https://doi.org/10.14279/depositonce-9253>

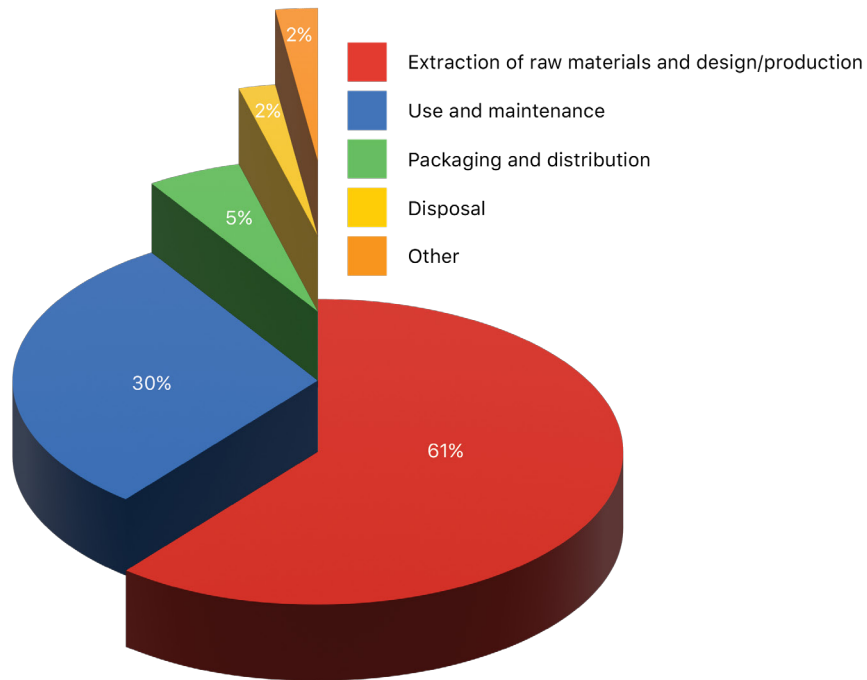
Bisschop, L., Hendlin, Y., & Jaspers, J. (2022). Designed to break: planned obsolescence as corporate environmental crime. *Crime Law Soc Change*, 78, 271–293. <https://doi.org/10.1007/s10611-022-10023-4>
Makov, T., & Fitzpatrick, C. (2021). Is reparability enough? big data insights into smartphone obsolescence and consumer interest in repair. *Journal of Cleaner Production*, 313. <https://doi.org/10.1016/j.jclepro.2021.127561>
Rodriguez, E., Carrasquillo, O., Lee, C., Lee, J., % Zhou, A. (2015). iGo Green: A Life Cycle Assessment of Apple's iPhone. *iConference 2015 Proceedings*. <https://hdl.handle.net/2142/73760>

Pentalobe Screws

Apple's own unique proprietary five-point security screwheads are positioned at the bottom of iPhones, one on either side of the charging port in order to hold the phone together as well as to deter any attempts at tampering with the device. They made their first appearance in the 2009 MacBook Pro and have appeared in iPhones since the iPhone 4.

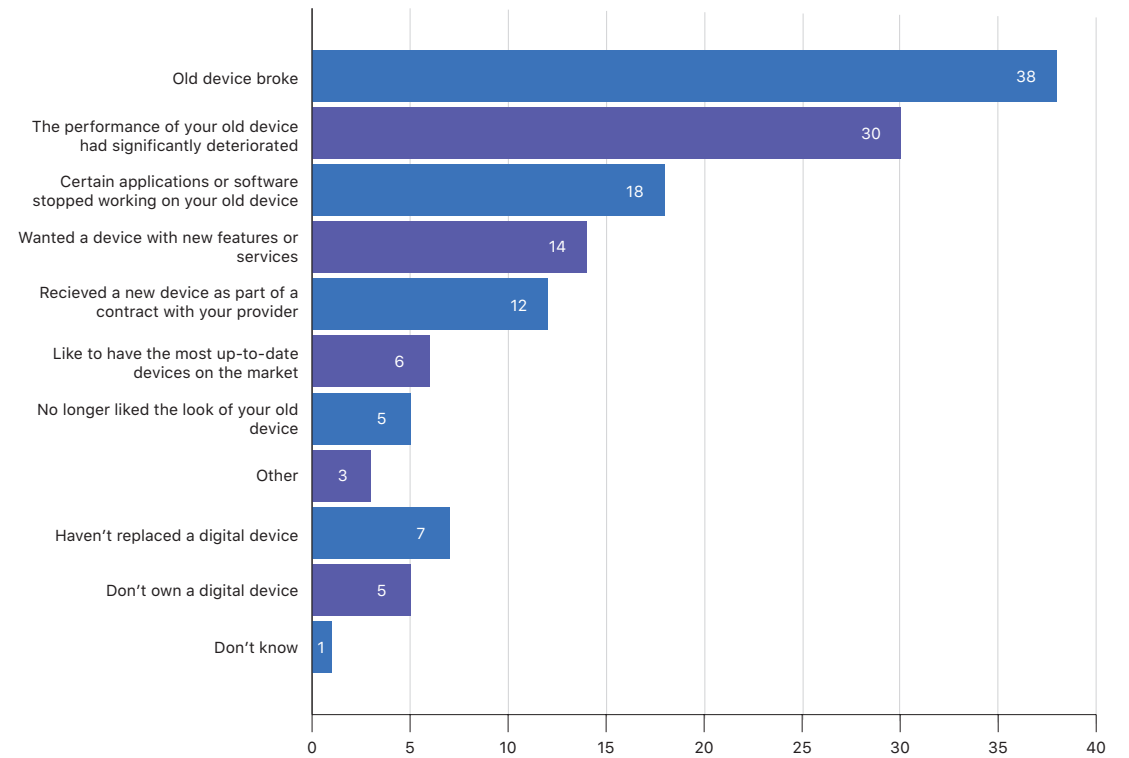


Greenhouse Gas Emissions in the Life Cycle of an iPhone



Source: iConference, 2015

Reasons for Purchasing a New Digital Device



Source: European Commission, 2019