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SAMSUNG

# Samsung

Samsung currently occupies a critical position of influence over whether our devices are designed and built for the planet. Samsung is both the world's largest manufacturer of smartphones and is also one of the largest manufacturers of memory, displays, and the integrated circuits that serve as the engines for our electronic devices, making the company a critical supplier to many of the other companies in this year's Guide, including Apple. Unfortunately, in neither Samsung's product lines nor the operation of its factories did we find much evidence that reducing Samsung's environmental impact has been made a priority by the company's leadership. Samsung has not kept pace with the efforts of Apple to reduce its greenhouse gas footprint and transition its factories to renewable sources of energy, and has seen its emissions rapidly climb as a result.

## Renewable Energy & Climate Change

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**TRANSPARENCY.** While Samsung continues to report its own greenhouse gas emissions and energy footprint at a fairly standard level of detail, contrary to the trend across other major brands, its reporting of GHG emissions from its supply chain significantly degraded in its most recent sustainability report. Samsung's supply chain emissions went from nearly double its own Scope 2 emissions in 2014 to "NA" (Not Applicable) in 2016.<sup>1</sup> Samsung still fails to publish its list of suppliers. Samsung does publish basic product level carbon footprint assessment of a selection of its product types,<sup>2</sup> but does not publish them as regularly as Apple, HP, and Huawei have done.

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**COMMITMENT.** Samsung has established an intensity-based GHG target of reducing just its own emissions by 70% by 2020, measured as carbon per unit of revenue (2008 baseline). It is unclear whether this will result in absolute emission reduction terms if achieved, with Samsung estimating an absolute reduction of only 3% total over a twelve-year window.<sup>3</sup> At present, Samsung Scope 1 & 2 emissions are rapidly climbing at the rate of 10 to 15% per year on an absolute basis, and still accelerating.<sup>4</sup> Samsung has promised to announce a mid-term reduction target for the 2030 timeframe in the coming year. Samsung must move away from the use of renewable energy certificates (RECs) and set a clear renewable energy goal for its own operations as well as its supply chain to take action on climate change.

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**PERFORMANCE.** While Samsung is able to highlight a range of efforts to reduce its GHG emissions, they have been insufficient to curb Samsung's rapidly rising emissions. On both an intensity basis as utilized by Samsung to track toward its 2020 goal as well as an absolute emissions measurement, Samsung's own scope emissions are rapidly increasing. Using Samsung-reported Scope 1 & 2 emissions for 2016, absolute emissions have increased 24% just since 2014, and were estimated to increase another 15% by the end of 2017. While Samsung reports a near doubling of renewable electricity consumption in 2016 to 182 GWh, this jump comes from an extremely low basis, and would account for only 1% of its total electricity use.<sup>5</sup>

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**ADVOCACY.** No evidence found of positive or negative advocacy

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## Sustainable Design & Resource Reduction

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**TRANSPARENCY.** Samsung tracks and reports its use of recycled plastics since 2014 for monitors, printers, refrigerators, and ear-phone cases; however, this plastic does not seem to be used in consumer electronics.<sup>6</sup> The company publishes material composition data for some products; however, it is not possible to see from this data how much secondary materials are used.<sup>7</sup> Samsung does report details on its take-back efforts from 2009. Samsung reports to be working with the Conflict Free Smelter Initiative, but unlike other major companies, Samsung does not publish its list of smelters for 3TG.<sup>8</sup>

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**COMMITMENT.** Samsung lacks specific goals related to reduction of resource consumption either via extending product lifespans or using increasing amounts of recycled inputs. The company does have one goal relating to take-back: to collect 3.8 million tons of equipment by 2020, starting in 2009; however, there are no details to specify these electronics be used in circular production schemes.<sup>9</sup>

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**PERFORMANCE: CIRCULAR PRODUCTION.** In 2016, Samsung used 30,849 tons of recycled plastic across its product lines (including home appliances), or roughly 5% of total plastic used. Unfortunately, this number is down from last year's total: 34,322, or 6.3%.<sup>10</sup> Samsung offers take-back services in 60 countries, beyond where legally required, and Samsung has a policy for its recycling partners to not export electronic waste to developing countries.<sup>11</sup> Despite Samsung's promotion of the circular economy in its sustainability report, the company's design decisions, including the use of excessive adhesive in smartphones, make the process of supporting the circular economy, through repair and recycling, more challenging.<sup>12</sup> This was especially clear after Samsung's recall of the overheating Galaxy Note7 devices. Had the batteries in those handsets been easy to access and replace, Samsung could have potentially avoided the recall of millions of devices worldwide and distributed replacement batteries. In response to Greenpeace pressure, Samsung refurbished and sold 400,000, or roughly 10%, of recalled Note7 devices in South Korea. The company has stated it will recycle the other metals in the devices.<sup>13</sup>

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**PERFORMANCE: PRODUCT LIFE EXTENSION.** Repairability of recent smartphones (the S8, S7, and S7 edge) and tablets (the Tab3) score unsatisfactorily (3s and 4s out of 10). The Notebook Series 9 15-inch laptop is a welcome exception, scoring 9/10, and demonstrating that Samsung can design for repairability when it comes to laptops. The company should apply similar principles to smartphones and tablets. Samsung's recent phones tend to rely on a great deal of adhesive, making repairs difficult and time-consuming. On the plus side, the S8, S7, and S7 edge all have an SD card slot, meaning device memory can be increased without buying a whole new device. Samsung does not make spare parts or repair manuals publicly available, but the company does sell refurbished products in some markets including the US.<sup>14</sup>

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**ADVOCACY.** Samsung's membership to ITI, which lobbies against Right to Repair legislation in the US, gives Samsung a poor advocacy grade for this impact area.

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## Hazardous Chemical Elimination: Products & Supply Chain

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**TRANSPARENCY.** Samsung publishes its PRSL which includes threshold details,<sup>15</sup> but the company does not publish its MRSL. Samsung publishes the aggregate findings of its supply chain code of conduct audits annually,<sup>16</sup> however, the company does not provide a list of its suppliers.

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# Hazardous Chemical Elimination... (continued)

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**COMMITMENT.** Despite past failures to meet its BFR phaseout timelines, Samsung has now eliminated the use of BFRs in new mobile phones (and accessories) and notebooks (and power cord and adapters), since January 2012. Samsung has eliminated PVC from the same products; however, power cords and adapters for notebooks are excluded.<sup>17</sup> Samsung should publicly commit to phase out PVC from all parts and product lines. Samsung reports it has a target to ban the use of benzene and n-hexane in the manufacturing process of suppliers, though it is unclear if these have also been banned in Samsung's own plants, and there is no timeline.<sup>18</sup>

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**PERFORMANCE.** Samsung reports progress on its efforts to eliminate the following substances from certain product lines: antimony and some phthalates phased out of mobiles (including accessories) and notebooks (excluding chargers and adapters) since 2013, beryllium compounds phased out of all products since 2013.<sup>19</sup> Following the incident in which six workers incurred vision damage from working with methanol as a cutting solution over 12-hour shifts,<sup>20</sup> Samsung investigated the use of methanol at all supplier facilities. Samsung reports to have developed eco-friendly coolants as a substitute for ethanol in order to create a safe workplace. However, it is unclear whether Samsung officially prohibited the use of methanol throughout suppliers.<sup>21</sup>

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**ADVOCACY.** Unlike SK Hynix<sup>22</sup> or LG Display<sup>23</sup>, who publicly announced support for comprehensive compensation for workers with occupational diseases following the recommendation of an external committee, Samsung moved forward with a compensation plan that did not follow the committee's recommendation and did not cover certain reproductive system diseases, reduced the latency period of certain cancers, excluded victims who retired before January 1, 1996, and restricted supply chain workers' compensation only to resident partner company whom have been regularly assigned to the specific tasks by Samsung.<sup>24</sup> Samsung continues to claim "trade secrets" regarding the chemicals handled in Samsung semiconductor and LCD factories by numerous workers who later contracted occupational illnesses. (There are now 22 workers who've officially received occupational diagnosis, 11 of whom are deceased.<sup>25</sup>)

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## ENDNOTES

- 1 Samsung 2017 Sustainability Report, [http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/download/2017/Samsung\\_Electronics\\_Sustainability\\_Report\\_2017.pdf](http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/download/2017/Samsung_Electronics_Sustainability_Report_2017.pdf), p. 38.
- 2 <http://images.samsung.com/is/content/samsung/p5/sg/aboutsamsung/2017/aboutsamsung-sg-life-cycle-assessment-en.pdf>, [http://www.samsung.com/us/aboutsamsung/sustainability/environment/eco\\_products/download/2017%20Life-Cycle-Assessment-for-Mobile-Phones.pdf](http://www.samsung.com/us/aboutsamsung/sustainability/environment/eco_products/download/2017%20Life-Cycle-Assessment-for-Mobile-Phones.pdf)
- 3 Samsung 2016 CDP Submission
- 4 Samsung 2017 Sustainability Report, p. 70.
- 5 Samsung 2017 Sustainability Report, p. 38.
- 6 Samsung 2017 Sustainability Report, p. 37.
- 7 <http://images.samsung.com/is/content/samsung/p5/sg/aboutsamsung/2017/aboutsamsung-sg-life-cycle-assessment-en.pdf>
- 8 Samsung 2017 Sustainability Report, p. 83.
- 9 Samsung 2017 Sustainability Report, p. 64.
- 10 Samsung 2017 Sustainability Report, p. 37.
- 11 [http://www.samsung.com/us/aboutsamsung/sustainability/environment/responsible-recycling/assets/pdfs/samsung\\_policy.pdf](http://www.samsung.com/us/aboutsamsung/sustainability/environment/responsible-recycling/assets/pdfs/samsung_policy.pdf)
- 12 Samsung 2017 Sustainability Report, p. 47.
- 13 <https://news.samsung.com/kr/%EC%82%BC%EC%84%B1%EC%A0%84%EC%9E%90-%EA%B0%A4%EB%9F%AD%EC%8B%9C-%EB%85%B8%ED%8A%B87-%EC%B9%9C%ED%99%98%EA%B2%BD-%EC%B2%98%EB%A6%AC-%EC%9C%84%ED%95%9C-%EC%9E%90%EC%9B%90-%EC%9E%AC%EC%83%9D%C2%B7?CID=AFL-hq-mul-0813-11000279>
- 14 <https://www.samsung.com/us/explore/certified-pre-owned-phones/>
- 15 [http://www.samsung.com/common/aboutsamsung/download/companyreports/SEC%20Standard\(0QA-2049\)%20Rev18\\_EN.pdf](http://www.samsung.com/common/aboutsamsung/download/companyreports/SEC%20Standard(0QA-2049)%20Rev18_EN.pdf)
- 16 Samsung 2017 Sustainability Report, p. 81.
- 17 [http://www.samsung.com/common/aboutsamsung/download/companyreports/SEC%20Standard\(0QA-2049\)%20Rev18\\_EN.pdf](http://www.samsung.com/common/aboutsamsung/download/companyreports/SEC%20Standard(0QA-2049)%20Rev18_EN.pdf)
- 18 Samsung 2017 Sustainability Report, p. 27.
- 19 [http://www.samsung.com/common/aboutsamsung/download/companyreports/SEC%20Standard\(0QA-2049\)%20Rev18\\_EN.pdf](http://www.samsung.com/common/aboutsamsung/download/companyreports/SEC%20Standard(0QA-2049)%20Rev18_EN.pdf)
- 20 [http://english.hani.co.kr/arti/english\\_edition/e\\_national/733344.html](http://english.hani.co.kr/arti/english_edition/e_national/733344.html)
- 21 "Follow-up study on the acute methanol poisoning victims in cell phone manufacturing subcontractors with recommendations for improvement." The original report was prepared and published in December 2016 by Solidarity for Workers' Health, a NGO that advocates for workers' health and safety and the prevention of occupational injuries and diseases commissioned by Korean Industrial Hygiene Association. (<http://laborhealth.or.kr/43375>)
- 22 [http://english.hani.co.kr/arti/english\\_edition/e\\_national/719202.html](http://english.hani.co.kr/arti/english_edition/e_national/719202.html)
- 23 <http://www.hani.co.kr/arti/economy/marketing/796502.html>
- 24 <https://news.samsung.com/kr/?p=247659>, <http://cafe.daum.net/samsunglabor/MHzN/373>
- 25 Among 263 Samsung Electronics occupational disease victims, 95 are deceased. (2017.10.05.) <http://cafe.daum.net/samsunglabor/MHzN/422>