

## Environmental reports of ICT companies

Most ICT companies provide environmental reports. Here are some of them:

- Apple :  
[https://www.apple.com/environment/pdf/Apple\\_Environmental\\_Progress\\_Report\\_2021.pdf](https://www.apple.com/environment/pdf/Apple_Environmental_Progress_Report_2021.pdf)
- Google : <https://www.gstatic.com/gumdrop/sustainability/google-2021-environmental-report.pdf>
- Facebook :  
[https://sustainability.fb.com/wp-content/uploads/2021/06/2020\\_FB\\_Sustainability-Report-3.pdf](https://sustainability.fb.com/wp-content/uploads/2021/06/2020_FB_Sustainability-Report-3.pdf)
- Microsoft : <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RWyG1q>

We will compare these reports to try to understand the differences in their strategies.

### Carbon footprint

1. Can you find the companies' carbon footprint for 2020 (or another year if 2020 is not available)? How does it relate to the estimations for ICT footprint in the following paper:  
[https://www-cell-com.ins2i.bib.cnrs.fr/patterns/pdf/S2666-3899\(21\)00188-4.pdf](https://www-cell-com.ins2i.bib.cnrs.fr/patterns/pdf/S2666-3899(21)00188-4.pdf)
2. What are the GHG emissions for scope 1? For scope 2?
3. Can you find the annual electricity consumption?
4. What percentage of the electricity consumed comes from renewable energies? What carbon intensity is considered for these sources?
5. What are the GHG emissions for scope 3?
6. What sources of emissions are included in scope 3?
7. If you have historical data, what are the evolutions of the GHG emissions for each scope? and of the energy consumption?
8. If the energy consumption has dropped, why is that?
9. What are the companies' commitments in terms of « carbon neutrality » or net zero emissions (or other claims)? What does it mean? What is the timeline? Which scopes and sources are included in this target? What do they plan to do with their incompressible emissions?
10. What evolution of their electricity consumption for example do they plan for this timeline?
11. What are their requirements towards their suppliers?
12. Concerning the business travel associated emissions (scope 3), do they plan to reduce the travels and/or their impacts?

### Water

1. Is the water consumption given? How has it evolved in the past few years?
2. What are the companies' targets in terms of water consumption?

## Resources

1. For what materials do the companies use recycled content?
2. What are the shares of recycled content?
3. Where do these materials fit in terms of supply risk and economic importance in the critical raw materials list from the EU? (<https://rmis.jrc.ec.europa.eu/?page=crm-list-2020-e294f6>)  
In what other domains are they used? What is their recycling rate? (see figure 4 of the following document : [https://publications.jrc.ec.europa.eu/repository/bitstream/JRC116131/aaa\\_20190506-d3-jrc-science-for-policy-recovery\\_of\\_rm\\_from\\_mining\\_waste\\_and\\_landfills\\_4\\_07\\_19\\_online\\_final.pdf](https://publications.jrc.ec.europa.eu/repository/bitstream/JRC116131/aaa_20190506-d3-jrc-science-for-policy-recovery_of_rm_from_mining_waste_and_landfills_4_07_19_online_final.pdf))

## E-waste

1. What amount of e-waste did each company generate?
2. What is their policy for limiting e-waste?
3. What does their e-waste become?

## Users, cities and rest of the world

1. What are the companies major projects for cities?
2. What are the companies major plans for reducing the impacts from using their products or services?
3. What do you consider are their other major projects?