

# Analysis report of the environmental challenges and sustainable improvements for iPhone 6

## Introduction

In this report I will discuss the Life cycle assessment of the Apple iPhone 6, and try to find out what Apple can do to improve the sustainability of the of the iPhone 6. Apple have created a sophisticated phone that thousands of people wants to buy, but what exactly is it that makes this phone so exclusive? Our group wanted to base our assignment on the iPhone 6 by Apple and try to discover which features that makes it so special. Apple iPhone 6 is like any other smartphone today, it has a well-made design that is appealing to many people all around the world. It also has a powerful hardware that is even more astonishing compared to its successor the iPhone 5. All though the iPhone 6 is really expensive many people claim that its popularity is because it has become a status. The operating system IOS 8 is also user-friendly and makes the iPhone easy to use for everyone.

## Life Cycle Assessment

The life cycle of the phone starts with its manufacturing at a production plant, where raw materials and components enters the factory. All of the specific parts need to be sorted out, and assembled to fit the requirements of the phone. When the phone is fully assembled it will be going through a hand full of tests to ensure the top quality of the phone. Later on it will be packaged and sent out to retailers which in turn will sell the iPhone to a customer. The phone is used throughout its useful life time for work, business and also pleasure. Phones consumes power that comes either from renewable energy or it might come from fossil fuel which is a less environmentally friendly form of energy. Yet the iPhone might need to be repaired if something happened to it. After years of being trustworthy to its owner, eventually the phone cannot be repaired any further and it breaks down for the last time. The phone is then shipped to a recycling plant where it will be disassembled into its main components which in turn could for instance could be used to make another smartphone. [1], [2]

## What can we do to improve the sustainability for the iPhone 6

There are many things you could do to improve the iPhone 6, one of them might be that you could have the opportunity to change the battery on your phone. But this might have the lack of the durability of the phone when it got a new removable part that can make you switch out the battery very easily. This can damage the battery more easily and cause a short circuit with the phone and the battery. The screen on the iPhone is not very famous being made out of durable glass, which means that the screen often needs to be replaced in many iPhones if it is not handled with care. I believe that the reason for this might be that Apple is so fixated with the design on its devices that they just wants it to look as good as possible but forget to think about the strength of the screen. In conclusion I think that if Apple focused a bit more on making the screen more durable than making it look incredibly luxury they could have made a difference with the recycling of the iPhones screen.

## Apple's battle plan for a better environment

Recycling is a big part of Apple's battle plan when it comes to environment and sustainability. They offer a recycling plan for all of your Apple devices so that they can be recycled-in the best way as possible.[7] Batteries are one of the main parts of the iPhone that have a major impact on the environment due to the chemical compounds found in them. This is why Apple tries to reduce the amount of chemical liquid in their batteries. [3] They test their batteries and tries to maximize the life time of the battery too, so

the need for producing more batteries decrease. However Apple also tries to minimize the use of metal in their products to make the devices as thin and light as possible. [4] During the production of the electronics there's used large amounts of water. Apple are therefore willing to try to reduce the pollution of water and the water consumption. That is why Apple started the "Clean Water Program" that is focusing on the reuse of water and to reduce the pollution. [6] They have got cooling systems on their data centers that reuses the water up to 35 times, and this reduces the water consumption up to as much as 20%. To maintain these large data centers it requires major amounts of energy, but Apple have made an impact to change the energy used on data centers. However it should be noted that Apple's data centers uses up to 100% renewable energy such as wind, solar and hydropower. [5]

## **Conclusion**

In this report the life cycle assessment have been presented of the iPhone 6. I've found out how the process goes for manufacturing the phone, and as well recycling it. I see that Apple want to do as much recycling as possible when it comes to its products.

## **References**

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