# SUSTAINABLE IT BY EXAMPLE

A good way to familiarize yourself with a new concept is to find a real life example that illustrates the approach and shows that the benefits are easily within reach. The following 2 examples will allow you to overcome 2 issues that could increase the environmental footprint of a digital service.

## Example 1

Let's take 3 images from a website that look exactly the same. Be careful though, appearances are sometimes deceiving. The first one, in JPEG format has a size of 1.4 megabytes, the second in the same format weighs just 273 kilobytes and the last in AVIF format weighs 220 kilobytes. Your technical knowledge allows you to differentiate between these three images, unlike your users or sponsors.

Between these three images many bytes are superfluous, but how many?

These "obese" and useless bytes end up on servers, they are duplicated and saved as a security measure. They are then transmitted via the networks to all the user workstations. If we multiply this volume by the number of users, the figures quickly become maddening.

Even if the AVIF format is more compact, it requires recent versions of browsers and equipment. The use of the AVIF format perhaps encouraging the user to change their terminal which generates financial consequences and environmental impacts. Thus, the final balance sheet may turn out to be abhorrent from a sustainable IT point of view.

## Example 2

The framework offered by development workshops simplify our task of handling data structures. They allow us to create "business" objects that are easier to implement and use. It is easy to have a customer object which also contains all orders, customer care records, each of the order lines with the product ordered, and many other more or less visible and justified links. If we are not careful, we will retrieve the entire client object when it connects. Is this really necessary?

Later on, when the customer asks us for their order history, we will most certainly consult the customer object again to retrieve it because we will have forgotten that we already have it. A lot of void data will be transferred, it will be extracted from data structure engines, and will have to be stored on the user's computer. Is this reasonable from a technical point of view, a performance point of view and for security reasons?

You are in control of your decision making and you have all the cards in hand to implement sustainable digital design.