Green machines

From smart homes to smart cities, adaptive technologies are an ever-increasing part of our lives. The communications networks controlling these are largely invisible, and the devices often resemble their predecessors, from light-bulbs controlled by apps to industrial plants optimizing production processes – they mostly look like light-bulbs and the same old factories to the lay-person.

In a 2023 report, the International Energy Agency reported that while the number of internet users rose from about 2 billion to roughly 4.7 billion between 2010 and 2020, network traffic had a massive 25-fold increase. Much of this network traffic stems from devices most of us never interact with, think about, let alone know about.

One such system is run by the Norwegian data science company Intelecy. Harald Husum, a machine learning engineer with Intelecy explains:

* What we are doing is largely refining raw data that was already being logged, and try to draw value and efficiency from it.

While the global data center electricity consumption in 2022 was estimated at between 240-340TWh, the countries in the European Union produced just short of 280TWh the same year. While including the energy cost of personal devices and network communications, how can the IT industry claim to be green?

* In certain applications, we have documented reduction in waste of about 60%, and greenhouse gas emissions by 40%. and while our data processing requires a lot of energy, I have no doubt that responsible use can help combat climate change and contribute to ecological safey.

As Husum notes, most of the data they work with is already on their customers’ servers. This may be regulatory requirements or data previously used for manual controls. However, when highly efficient algorithms crunch numbers of that magnitude, there could be significant savings in both manpower and electricity.