

ReUse-Computer e.V. [Johannes Dietrich, Gerhard Kast, Dr. Thomas Nittka]

The establishment of the RXP platform (Resource Exchange Platform, www.trxp.eu) improved the business opportunities of our organization, especially by identifying customers in the Berlin region. As RXP includes other industries than ICT, the variety of materials and products that are traded by RXP increased, thus our resource base for future production and activity of ReUse-Computer is strengthened. Further, a spin-out is actually in the planning phase.

Another advantage is that through ZeroWIN (Towards Zero Waste in Industrial Networks), new partner AfB gGmbH (social & green IT) joined the association, increasing the amount of ReUse-Computer trading by 250.000 appliances per year, that is clearly a gain for us. Further, our organization benefits from three new collection points in Berlin (AfB gGmbH district Tempelhof-Schöneberg, Ula-Shop district Charlottenburg-Wilmersdorf and Leila-Shop district Pankow-Prenzlauer Berg-Weißensee), where used ICT products can be disposed for further processing by ReUse-Computer.

The regional policy has been informed by a press conferences about the advantages of reusing ICT equipment, that took place in 2011.

Our organization was included in education activities. We promoted the disseminating of research results at university seminars (Institute of Technology Berlin, every semester, approx. 30 engineer student attendees per event), school workshops (Pupil's Days of Technology, 2011: approx. 10 attendees) and exhibition workshops (e.g. Open Night of Sciences, 2012: approx. 3,000 visitors)".

We also stimulated professional and public discourse by several conferences (e.g. "Research Congress On Waste and Resources" of German association of Waste Management, 2012: approx. 60 attendees and "BETTERuse - dialogues, 2012, approx. 15 attendees)."

Through participation of ReUse-Computer e.V. reuse-friendly technical standards have been promoted (see guideline VDI 2343)."

A bachelor-thesis was initiated on research about how a university in Germany treats used ICT-devices. This thesis will be finished end of September. We expect to gain interesting information that will help us to make public institutions becoming more interested in using the RXP for saving and possibly even earning money – not mentioning the environmental benefits!

Used computers are a great benefit for the environment. Compared to the production and transport of one new desktop PC, re-use saves about 766 litres of fresh water, 330 kWh_{el} of primary energy use and 166 kg CO_{2-eq.} emissions per unit. (UNEP 2009; Jönbrink et al. 2007). Figure 1 shows the energetical impact during the lifetime of re-use for two common laptop models compared to recycling. There are 2 laptop models, the Lenovo Thinkpad T60 produced in 2006 compared with the Lenovo Thinkpad T420 built in 2011. Although the Lenovo T420 uses less energy, ecologically it makes more sense to go on using a laptop from

6 to 8 years. The credit of energy for recycling is very low compared to the needed manufacturing energy. A material recycling is the usual baseline scenario for the end of product life of computers. Therefore, from the ecological point of view, it makes sense to avoid new production.

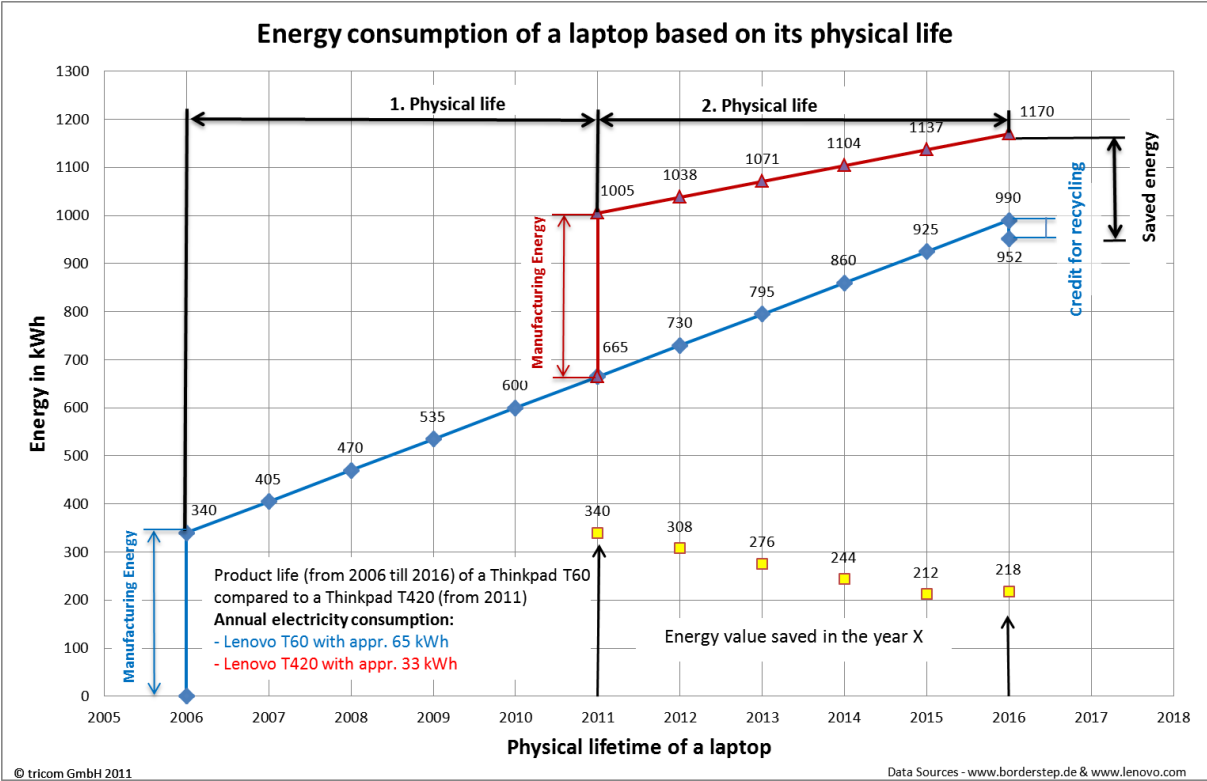


Figure 1: Energy Consumption of a laptop based on its physical life¹

¹ Figure is provided by tricom GmbH by using data from the MaResS-Study (Behrendt et al. 2010)