

## Computer recycling - it's quantity that counts!

**IT recycling is no longer an emerging market. The gigantic computers of yesteryear that were crammed with precious metals have all been re-used. Today's hardware has become smaller and smaller and there is nothing left to handle. IT recycler's have become brokers and now deal with used hardware that mostly goes to the Far East.**

Udo Geitel is the plant manager of Computer Recycling Geitel PLC. He founded the company in 1996. Skeleton containers full of printed circuit boards, which have been removed from worn-out computers, are located in his company building in Mainhardt, Germany. But it only after Udo Geitel has collected a considerable number of tons of the p.c.b.'s (*printed circuit boards*) assembled with gold, palladium, silver and copper, from which the precious metals are extracted and traded at the Fine Metal Exchange, that the process becomes worthwhile.

*By Andrea Rößner*



**Spirit of radical change:** the recycling of mainframe computers is a thing of the past.

The business of recycling is complex. Geitel disposes of PCs, monitors/displays and other hardware in return of money. But in many cases he also acquires usable equipment and re-sells it. "The lower the power of the used PCs the farther they go to the East." This may be the Ukraine, Czechya or Romania. Geitel adds: "After all, re-utilisation of the worn-out hardware comes before exploitation." In the processing industry such re-sellers are called "brokers". In his company Geitel calls it "re-marketing". Over the past few years the entire IT recycling industry has been going through a period of change. Due to the pressure of costs the manufacturers of new PCs are equipping them with less valuable components.

As a result, the separation and recycling process is becoming less and less economical. The trade for used equipment abroad has become the focus of attention. As with the extraction of metals from the printed circuit boards, such re-selling is only worthwhile if it involves large quantities. In 2000, Geitel had sold approximately 12,000 systems abroad.

One of Geitel's larger commissions is the re-marketing of 14,000 monitors for the Treasury Board. These monitors are sourced from 82 Inland Revenue offices and re-supplied to the market through Geitel. The market for such bulk orders is fiercely competitive. Although Geitel's disposal company ranks among the smaller ones, his specialising makes waste disposal much easier. Quite a few of his competitors also accept electric "rubbish" such as old hairdryers or toasters. This is what is being referred to when mention is made of "brown stuff". More often, this type of electrical item goes into a big crusher and ends up on a waste disposal site due to the minor value substances contained with and the tremendous cost of dismantling. Certification by the TÜV or Dekra (both German Technical Control Associations) as a specialist waste disposal company is a must in the recycling industry. To possess the certificate even Geitel is tested every other year to check whether the company is handling everything professionally. In addition to the printed circuit boards, plastics, metals, cables and batteries are obtained during the dismantling of computers. Geitel must ensure that the disposal of each of these materials is carried out properly. Batteries, which may be obtained from the emergency power supply, are stored in approved plastic cases and supplied for lead smelting. Capacitors from p.c.b.'s are supplied for permanent underground storage. Plastics are hermetically recycled. Cables are also recycled. Computer Recycling Geitel GmbH & Co KG is active nationwide - and Udo Geitel is often away visiting his customers. Although his commissions are exclusively from companies, Udo Geitel is also interested in dealing with the private owners of PCs, but the key factor of large quantities coupled with low prices in the recycling market would seem to preclude this possibility.

Udo Geitel founded his company in 1996 after working in the recycling industry for two years. It was actually too late to take advantage of the earnings possibilities from the materials of the gigantic computers (main frames), as most of these appliances had already disappeared from the market. But despite the radical changes and re-alignments that have taken place throughout the entire recycling industry, Geitel still enjoys working in the industry and is as committed today as he has always been.

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