

# CASE STORY

## Recycling

## Hess Muldenservice AG Reiden, Switzerland

**Urs and Marietta Vogel, owner/operators of the Hess Muldenservice AG in Reiden, are working hard to provide an efficient disposal centre. To achieve this, they are working in collaboration with Hunkeler Systeme AG. The engineering company provides the disposal technology and integrates the individual components into a digital network.**

It is always hectic at the Hess Muldenservice AG disposal- and recycling centre. Local inhabitants, businesses and industries located in the commune of Reiden as well as near-by villages dispose of their household, office, factory and a garden waste here. Glass, metal, electronic scrap, synthetic materials, paper or cardboard can be disposed of at no cost. Other secondary raw materials, wood or compostable waste as well as rubbish, are liable for payment and the customer is billed according to material and weight.

Hess Muldenservice AG has elegantly solved the problems involved in weighing and invoicing for payment-liable secondary raw materials. Full rubbish bags and green rubbish are automatically weighed, and the producer (customer) is billed according to what he/she brings to the centre. To do this, the company has invested in a container with an integrated weighing scale, a platform scale for vehicles and in a digitally networked system. Hunkeler Systeme AG planned and constructed the entire system, including the necessary software controls. And this is what happens: the customers register at the appropriate disposal station with their customer card. A control mechanism permits access and the customer can deposit their green waste, rubbish or recycling material in the contain-

er. The digital controls at the disposal station transmit the type and weight of the deposited material to a server. The system then transfers the information to the customer's databank and the customer's account is accordingly debited.

The key to the system is a personal customer card. Customers pay a fee to Hess Muldenservice AG in order to obtain a customer card. Functioning like a pre-paid credit card, the card is then loaded with a sum of money. The credit on the card is saved in a databank on a central server. If the customer loses the card, the credit is not lost, but the lost card is blocked. The customer pays a fee to receive a new card and the credit from the old card is transferred to the new one.

Urs Vogel and his wife Marietta have been own-



Urs and Marietta Vogel have been owner-operators of the Hess Muldenservice AG since 1 January 2017.

ers of the Hess Muldenservice AG since 1 January 2017. They purchased the business from the founders, Peter and Irene Hess. 'We are working on providing an efficient disposal- and recycling centre', says Urs Vogel. His aim is to make all possible procedures at the centre automatic. The customer card is an important step on the path to this objective and is already accepted and used by customers today.

Hess Muldenservice AG has not yet integrated every disposal station into the digital network. Wood and other special waste are, at the moment, still being weighed on a platform scale. The scale functions autonomously and is operated via a terminal. A software program calculates the due amount according to weight and a pre-programmed tariff and prints out a receipt. The customer pays cash. Debiting via the customer card is not yet possible. However, Urs Vogel knows that he can add other components to the Hunkeler Sys-

teme AG digital network at a later date. 'In due course, we will also integrate the platform scale into the workflow' he notes.

The Hess Muldenservice AG also uses technology from Hunkeler Systeme AG where customers can deposit their recycling material at no cost. Foam material waste such as EPS, better known by its brand name styrofoam, is shredded and compacted in a system called 'The Tiger'. The volume of the material is reduced by a factor of 40. Compaction is so efficient that the material cannot re-expand. 'Less volume means lower transport costs, the investment in the EPS-compactor was quickly paid off', says Urs Vogel. PET-bottles are disposed of in a similarly efficient manner. In a PET-Compactor, the bottles are slit open by a double-roll cutting/slitting system. The air can easily escape the bottles in the press. The result: compact bales of a comparatively high density.



The customer card is an important component for efficient activity at the disposal centre.