

## THE FIVE - STAGE MODEL OF MYT®

- Maximum energy and resource recovery from household waste
- Efficient, reliable and low-emission system
- Sustainable and cost-effective



## WASTE ACCEPTANCE (STEP 1)

A first inspection selects major contaminants and valuable materials hidden in the waste products which are then recycled or disposed of. The inspected waste products are fed to the mechanical treatment system.

## MECHANICAL TREATMENT (STEP 2)

This automatically separates the waste products into individual components according to material and size differences. Fuels, minerals, metals and the few non-recyclable residues are selectively separated.



### EXHAUST AIR & WATER TREATMENT (BIOLOGICAL STAGE) (STEP 3)

The new and extensively tested **DAMP®** process - a defined aerobic mixing process - is used to selectively crush and homogenise the waste products. Circulating water ensures suitable and stable consistency. Presses dehydrate the solids for biological drying. The separated water is first used to generate biogas, high-grade fertiliser or treated service water. Selectively multiplied microorganisms ensure substantial and consistent biological activity, resulting in ideal stable process conditions even with seasonal temperature differences or fluctuations in the waste product composition and supply.

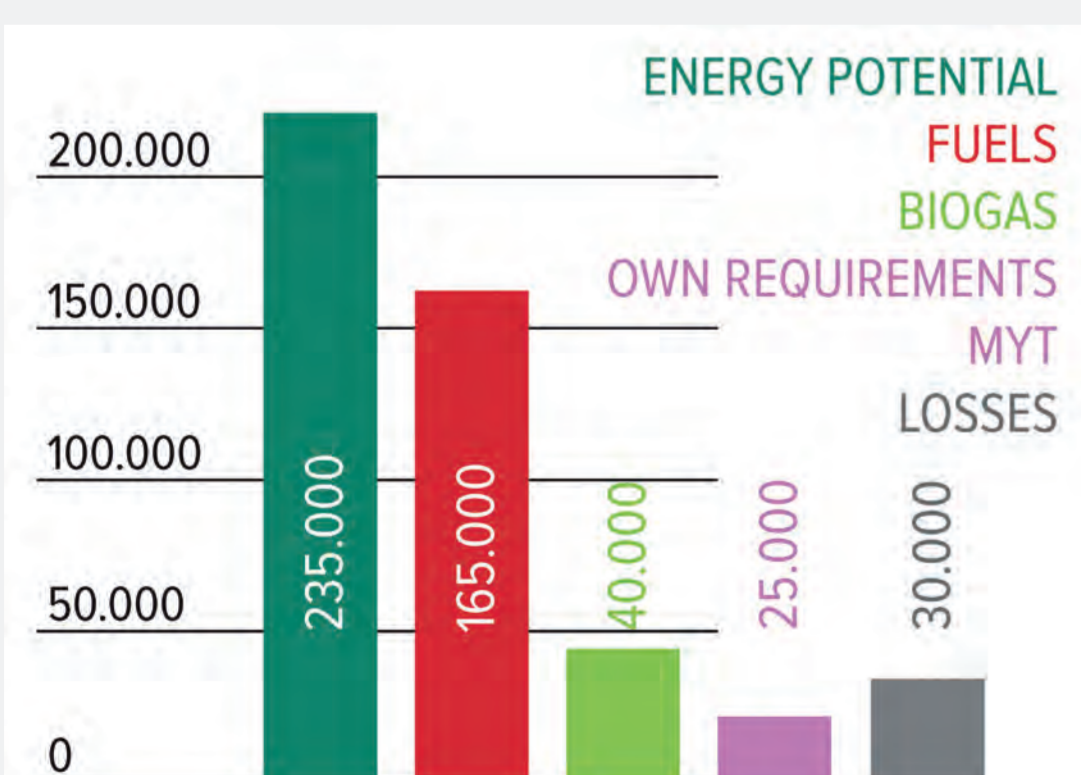
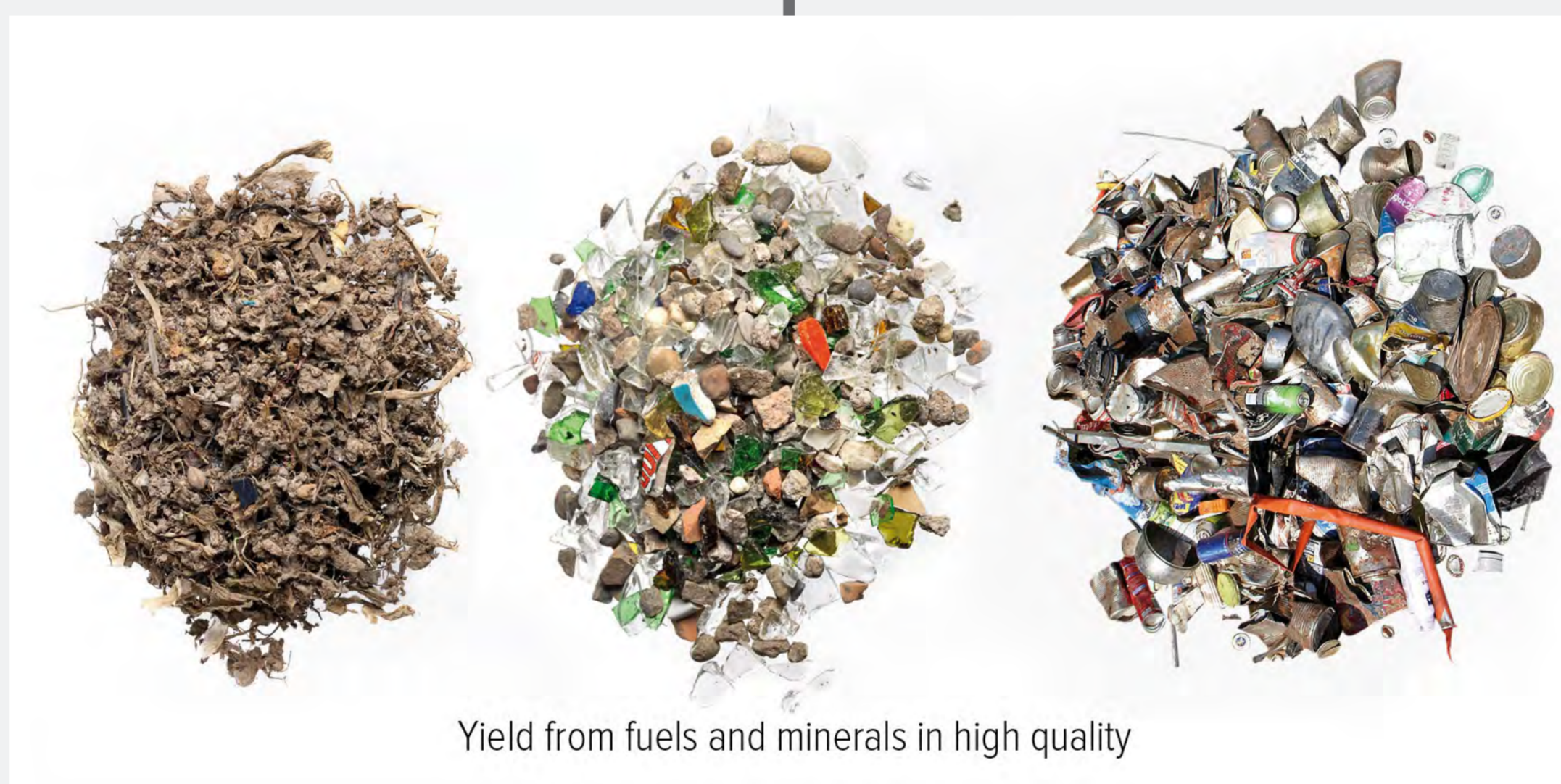
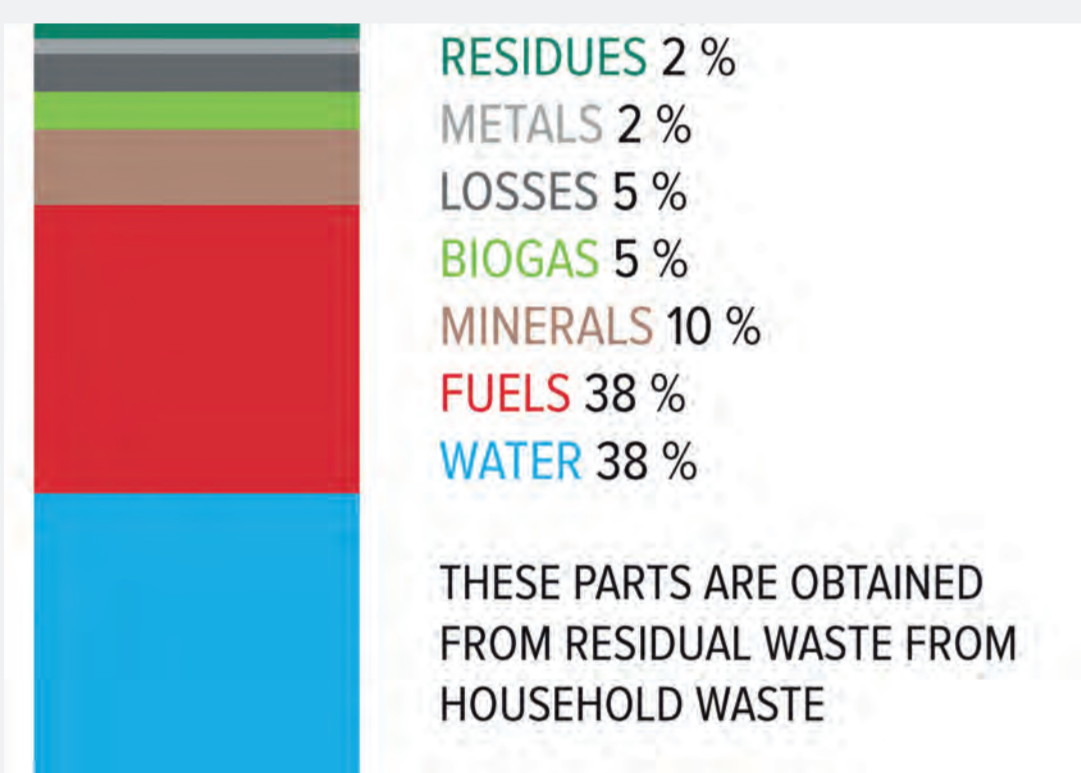
## BIOLOGICAL DRYING (STEP 4)

Air flows evenly through the waste products in tightly sealed concrete tunnels and supplies microorganisms with oxygen. The microorganisms feed on the organic components and produce heat energy. This heat energy evaporates the water contained in the solids. Result: a homogeneous, dry and free-flowing solid, which in this dry state can easily be broken down into its individual components. Energy sources, minerals and metals.



## MECHANICAL MATERIAL SEPARATION (STEP 5)

Sieving and sorting systems break down the dry, highly uniform, and free-flowing material into different grain-size categories. Adapted high-energy fuels and minerals are transported by selectively adjusted conveyor technology to the energy consumers. These replace fossil resources, protect the environment and supply industries, thermal power stations or cement plants with inexpensive energy. The minerals can be recycled or landfilled. The high quality prevents harmful environmental effects. The limit values of the strict German landfill ordinance are widely undercut.



## ENERGY BALANCE

Maximum Yield Technology (MYT®) is a proven innovative process for maximising energy and resource recovery from household waste. The MYT® process recovers 97 % of the recyclable materials: water, minerals, metals, fuels and biogas. The mechanical-biological waste treatment plant of the Kahlenberg association in Ortenaukreis processes around 120.000 tons of domestic waste products per year. These have an energy potential of around 235.000 MWh/year with approximately the following energy proportions, which can be referred to the graphic on the left hand side (these vary depending on the residual waste composition). The complete process operates with a self-sufficient power supply, i.e. all of the required energy is extracted from the generated biogas. The average energy consumption (electricity and heat) for a 4-person household in one home with average energy standards averages 19.000 kWh per year. Approximately 12.500 households can therefore be supplied with energy for a whole year with the energy potential of 120.000 tons of waste. 156.000 persons live in the administrative district of Emmendingen, which corresponds to 50.000 persons.

## CO<sub>2</sub>-SAVINGS POTENTIAL FROM FUELS AND BIOGAS

The use of around 120,000 tons of domestic waste products to replace fossil fuels (e.g. coal) saves 80,000 tons of environmentally damaging CO<sub>2</sub> per year.

