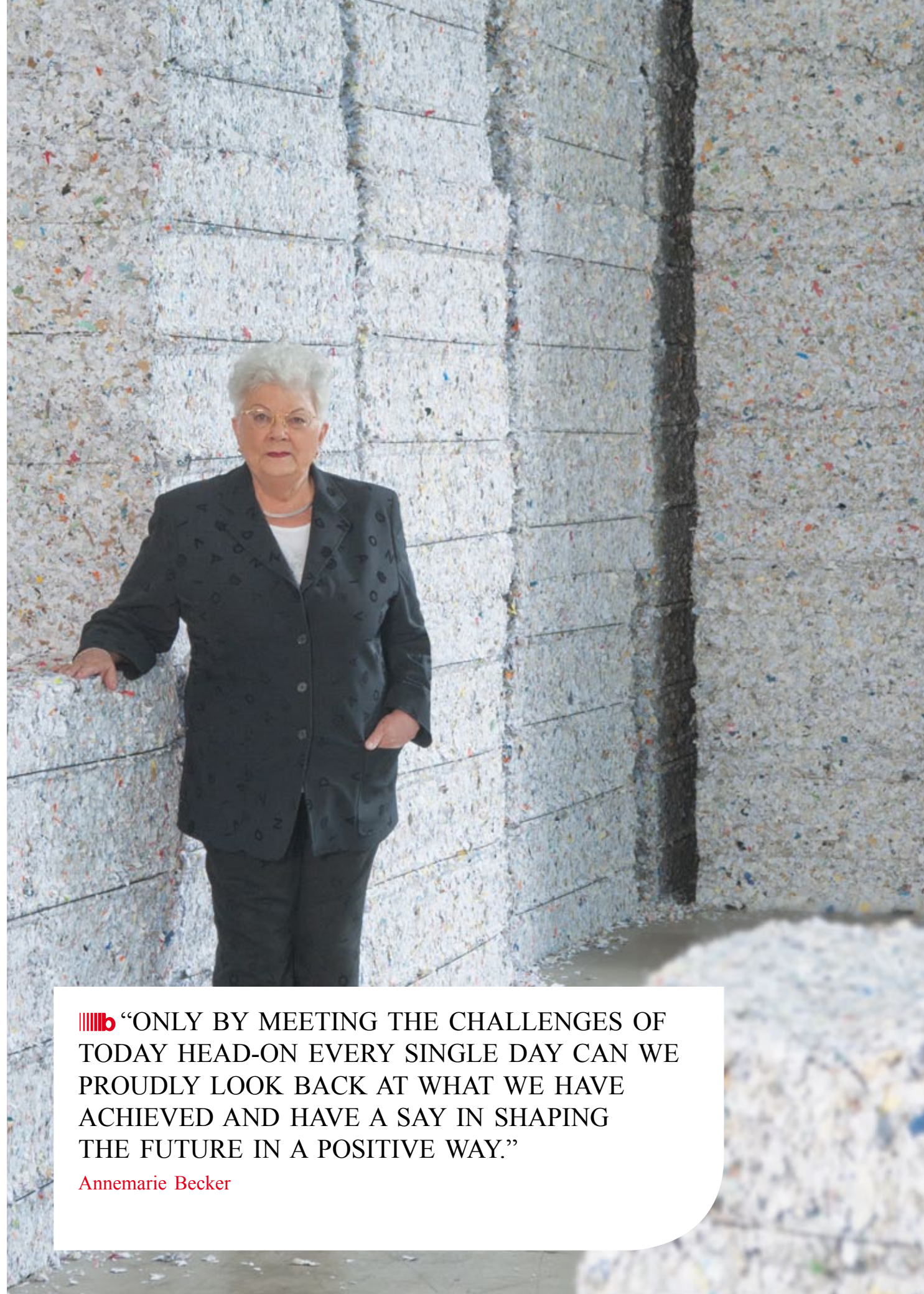


RESOURCEful

On the right path since 1898





|||||b “ONLY BY MEETING THE CHALLENGES OF TODAY HEAD-ON EVERY SINGLE DAY CAN WE PROUDLY LOOK BACK AT WHAT WE HAVE ACHIEVED AND HAVE A SAY IN SHAPING THE FUTURE IN A POSITIVE WAY.”

Annemarie Becker

You have come to the right place

Jakob Becker is, without a doubt, one of the pioneers in waste management. When Kaiserslautern, the city of Barbarossa, introduced the “removal of household refuse” in 1898, Becker was one of the first waste collectors. Today, our group is active all over Europe. This multifunctional recycling company has about 2,000 employees and is thus one of the largest and most successful waste disposal companies in Germany. But **Jakob Becker** has remained a family-owned business rich in tradition. Hand in hand, the third, fourth, and fifth generations are working together and are managing 39 companies at 60 locations under the umbrella of the **Jakob Becker** group.

Hardly any industry has changed so much in the past few decades as the waste management industry. Unlike in the past, when large amounts of the daily waste ended up in landfills or in the furnaces of waste incinerators, today nearly all kinds of waste can be recycled or converted into energy.

Nowadays, waste disposal has only very little to do with emptying kerbside rubbish bins. The focus of responsible recycling today is on reuse, on energy generation, and on environmental protection. These are the challenges that keep motivating a traditional family-owned business like Becker every day to find innovative solutions and to offer these to our customers from business and industry, municipalities, and private households.

In the dynamic market of waste treatment, the **Jakob Becker** group is dedicated to taking an active part in designing the change. There is a reason why innovative, often unique and patented processes are used at **Jakob Becker**. The market is becoming ever more complex, but Becker does not wait for solutions; instead, we actively contribute to developing such solutions, as we have always done in the past almost 120 years.

Understanding that the future means opportunities has always been the motto of our group. Trust in our own strength and pride in what we have achieved come together to create a company philosophy that generates new, innovative ideas every day. Ideas that affect all of us.



WELCOME



It all started with a bell

||||b “If the operators of the refuse vehicles do not find the refuse container next to a house, they shall give a second signal by ringing the bell; if the container is not brought out after one minute has passed, they shall continue on and the house owner concerned shall not be able to claim that the refuse was not collected.”

Taken from the contract between the city of Kaiserslautern and the company Horneff & Becker dated 24 March 1898

Those were different times. The automobile had just been invented recently, the last German emperor had just ascended to the throne when a new era was ushered in in Kaiserslautern. Following the installation of a central water supply system and a sewer system, in 1898 the city introduced the collection of household refuse and mandatory street cleaning. Among the men of the hour were the two refuse collectors and economists **Jakob Becker** and Ludwig Horneff. After weeks of negotiations with the city of Kaiserslautern, their company, which went by the name Horneff & Becker, received the contract to remove the waste and sewage in the Eastern part of the city. The company was born.

Household waste was removed via carts with a shutter-type lid opening at the back, drawn by two horses, while carts drawn by a pair of oxen took care of removing faeces. But even before World War I, automobiles were already used, too. These had a dual function as fire engines and latrine vehicles.

Later on, the two brothers-in-law were awarded the honorary title of a Royal Bavarian Economic Counsellor by the Palatinate county government “in recognition of their tireless work in special missions of the city administration”. Becker’s twin sons Jakob and Willi soon became their successors.



The waste collectors as experts

||||b “Without any doubt, the year 1972 was a milestone in the history of waste disposal and in the company history of Jakob Becker. This was the year when the Waste Disposal Act entered into force.”

Until that time, the municipalities and the cities constituting districts in their own right had been responsible for waste disposal; now, the responsibility for “dust-free household waste disposal” was transferred to the counties and the cities constituting districts in their own right. Small, often chaotic rubbish tips had to be closed. Landfill sites were created, including, in 1976, the one in the Kapiteltal, only a few kilometres from the company headquarters.

Following the definition of waste disposal in the form of a new national law in 1972, the Waste Management Act entered into force in 1986. In the future, recycling was to have priority over disposal. However, it was only in 1991, when the Packaging Ordinance was introduced with the “Green Dot” and the “Yellow Bag” scheme, that the citizens got an idea of what the government considers waste separation and reuse: From now on, those who produced or sold goods would be principally responsible themselves for the avoidance, recycling, and disposal of the resulting waste. The Recycling Management Acts of 1996 and 2012 first prescribed a three-step, later a five-step waste management hierarchy (avoidance, reuse, recycling, other utilization, disposal).

Particularly in recent decades, more and more laws and ordinances, guidelines, and technical instructions have been passed on the topics of environmental protection and waste disposal – innovation and technical competence came into demand, especially on the part of waste management companies. Becker seized this opportunity and evolved from a regional service provider to a company that is active all over Europe.





|||||b “THE ORDINARY GIVES THE WORLD ITS EXISTENCE, THE EXTRAORDINARY ITS VALUE.”

Thomas Becker and his sister Barbara Steingaß (4th generation) with a quote from Oscar Wilde

Ideas of today – solutions of tomorrow

|||||b “Whenever waste can really not be avoided, responsible solutions are required. Recycling and conversion to energy to energy are the logical consequence of sustainable waste disposal. The Becker group helps its customers to always find a suitable solution in this endeavour.”

This is true for the numerous municipalities in Germany and in Europe, where Becker is active in the area of household, bulky, and industrial waste, but particularly for companies, whose requirements may differ widely.

Waste has existed ever since humanity has existed. However, in former times the amounts were not the same, nor were problems with hazardous materials known. Even in Stone Age settlements, huge waste heaps have been found, consisting of bones, shards, ashes, and organic materials, which were set on fire from time to time. Depending on the state and the municipality, today we have different-coloured

recycling containers and bags as well as classical rubbish bins and containers of various sizes.

In the spirit of sustainability and increasing environmental awareness, the EU has long since given us a kind of waste hierarchy and has prohibited substances that are hazardous to the environment. Accordingly, waste should be avoided as much as possible. However, the question also arises as to which products can be reused. Recycling and conversion to energy are only applied if waste can really not be avoided. For a modern waste disposal company such as Becker, collecting the waste is therefore only the first step in most cases.





When waste is turned into something new

||||b “Our industry is in constant flux; technical and environmental standards are continually being re-defined. This is particularly true for the recovery of secondary raw materials through various recycling processes. The **Jakob Becker** group has not only faced up to the numerous challenges, but actively helped to shape them.”

Guidelines are not simply implemented – Becker goes one step further and looks for creative solutions for the future. Nearly everything that companies and private households want to dispose of can be recycled in part or converted into energy.

Initially more of a fashionable term, recycling has long since become one of the pillars of responsible and sustainable waste management. By definition, this refers to any recycling process “through which wastes are treated to become products, materials, or substances either for their original purpose or for other purposes.” Defined waste streams or parts thereof are treated in order to recover recyclable secondary raw materials. They serve as source materials for new products. In the context of extractive industries, these are used a second time or repeatedly and thus contribute to preserving natural resources. Using various recycling processes, Becker returns used

packaging made from glass, plastics, aluminium, tinplate, and composite materials to production processes as secondary raw materials. In the area of renewable raw materials, this mainly applies to waste paper and waste wood.

By sorting waste paper, different paper qualities are obtained. Contaminants are extracted from the waste paper, and by sorting, the paper fraction is finished in accordance with the quality requirements of the paper industry. Paper recyclers buy different types of waste paper from Becker and thereby complete the paper life cycle.

The positive side effect: The result of the recovery of secondary raw materials from waste or from the slag of waste incinerators is that a major proportion of original raw materials is already being replaced by secondary raw materials today.



It all depends on the inner values

|||||b “Technological progress has long since revolutionised sorting technologies as well.”

Modern sorting processes do not only ensure a higher recycling rate, but also better quality of the recovered raw materials and, at the same time, lower recycling costs. Our state-of-the-art facilities operate fully automatically and no longer separate the waste only according to the categories plastics, metal, and cardboard composites: in the spectrum of the infrared light reflected by a piece of waste, optical sensors also recognise the type of plastic. Pressurised air valves then move the respective object into the correct container within fractions of a second.

The materials recovered in this manner are recycled directly. Used PET, for example, is turned into plastic palettes or textile fibres, automotive components or new packaging films are produced from polypropylene and polyethylene.

The contribution of plastics recycling to resource preservation can be measured: The recycling of plastic packaging materials is about twice as efficient today as conventional waste incineration.





Rubble and scrap

|||||b “At Jakob Becker, recycling has long since also affected other everyday products. Used electrical appliances, for example, no longer end up in landfills today, but are recycled for their materials.”

In addition to secondary raw materials such as all kinds of metals, plastics are abundant. The situation is similar in cable recycling. Our cable shredders separate copper cables from their sheathing and get rid of foreign metals and impurities. The resulting end products are plastic granulates and pure copper granulates.

What used to be called scrap in a rather derogatory way can also be recycled today and is being viewed from a totally different angle. In an ultramodern facility, various types of scrap are sorted, purified, processed, and made available in a way that is suitable for further processing in a steel plant. Different scrappers and efficient burners ensure advanced resource processing. With the help of scrap shears, even larger scrap masses can be prepared for further processing without any problem.

We are also continually evolving our recycling methods for rubble, which is separated into two groups: concrete rubble and mixed rubble. After the extraction of contaminants (metals and other wrongly sorted materials), the material is broken and classified. The concrete fraction is turned into recycled gravel, the mixed fraction into filling material. Excavated soil consisting of soil and stones is sifted to separate the stones for rubble recycling.

The remaining suitable soil is processed together with compost to make topsoil, which is then sold to businesses as well as to private gardeners.





|||||b “NO MATTER WHAT DECISIONS ARE MADE IN THE FUTURE – THEY WILL ALWAYS BE AN EXPRESSION OF OUR DEEP SENSE OF RESPONSIBILITY FOR BOTH OUR TRADITION AND OUR FUTURE.”

Grandchildren Felix Steingaß, Philipp Becker, Max and Peter Steingaß (5th generation)

One contact partner – one thousand solutions

|||||b “The Jakob Becker group offers a multitude of services; however, it does happen that standard solutions do not always achieve the desired effect. Therefore, individual solutions and integrated waste management concepts are often required.”

Not only the technology keeps evolving, but so do the companies of our group. The Jakob Becker group is already occupying the markets of the future today. The goal is formulated clearly: Becker wants to offer its partners from industry integrated and sustainable solutions.

At Becker, recall does not have much to do with phone calls. “Recalling” at recall Becker GmbH & Co. KG rather refers to important documents or business files. This data, which is usually very sensitive, requires responsible disposal. This is why the highest security standards are enforced at recall Becker. No secret: In the end, confidential

documents from large and small companies are turned into paper tissues or toilet paper.

Becker is not only devoted to the recycling of all types of waste. For many decades, we have also been offering important services. Cleaning municipal and industrial sewer systems with combined high pressure sewer and suction trucks is one of the core service areas of Becker. For drain cleaning, Becker offers a 24/7 emergency service. We clean waste water and rain water pipes, pump stations, septic tanks, mud traps, steel pipes, garden ponds, etc.



BECKER SERVICE

Hazardous wastes as a challenge

|||||b “Extraordinary disposal facilities are operated by the Becker group: on the one hand, chemical-physical treatment plants for oil-water-solids separation, i.e., particularly also for processing the contents of oil and fuel separators; on the other hand, interim storage facilities for hazardous waste.”

On a solid legal basis, we offer the possibility to accept almost all types of waste. Corresponding positive lists allow comprehensive treatment possibilities, with the so-called treatment in preparation for incineration being of central importance. A stationary shredder therefore constitutes the core of the facility. During routine operation, containers (which, depending on the contents, may even be completely filled) with sides measuring up to one metre in length can be shredded.

In the market town of Arnoldstein in Carinthia, Austria, Jakob Becker is recycling hazardous waste from industry and business in its thermal facilities. The energy generated in this process is used directly on-site in the form of electrical energy, steam, or hot water.



From biogas to water engineering

|||||b “Becker has always been open for new market ideas involving disposal and recycling. Biogas plants and even special vessels have therefore also been part of our portfolio for some time.”

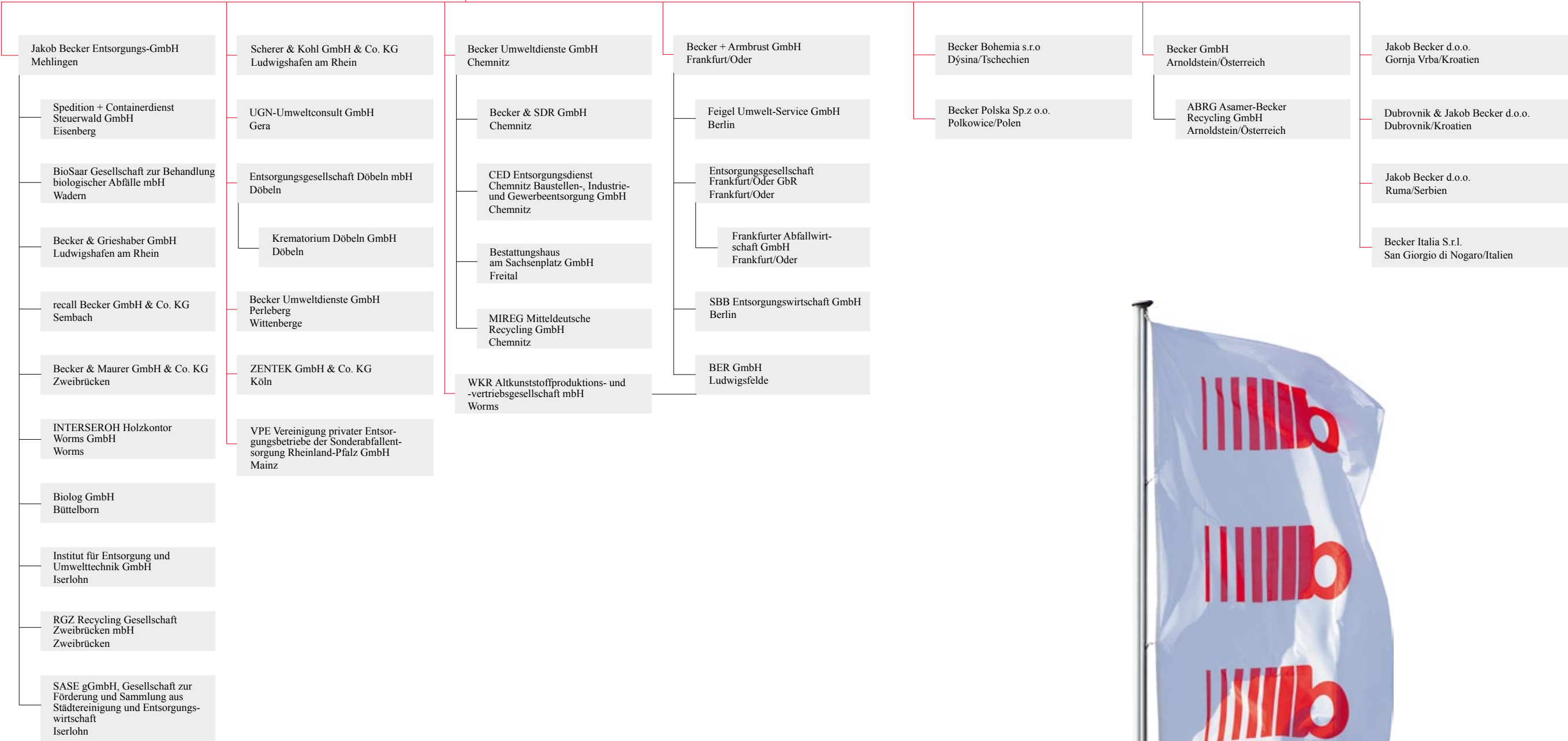
What to do with the leftover food from canteens, with food from discounters that has exceeded its recommended shelf life, or with the waste generated during food production? Feeding food scraps to pigs has been prohibited since 2002 already. Becker conditions and homogenises the food waste, removes all contaminants, ferments the substrate in its own biogas plants to generate electricity and heat, and uses the fermentation residues as fertiliser.

Hardly anyone would expect that our group's equipment pool also includes pontoon cranes, hopper barges, lighters, work pontoons, and push boats. These do not only allow the performance of water engineering works in rivers and harbours, but also enable us to transport bulk and solid bulk goods on the rivers Rhine, Main, and Neckar.



The Becker Group with its 39 companies at 60 locations

Jakob Becker GmbH & Co. KG
Mehlingen





Did you already know ...

... that the **Jakob Becker** group does not only operate 800 lorries and its own garages, but also four special vessels on the Rhine river?

... that the contents of the “Yellow Bags” are separated by Becker into a total of 14 waste fractions?

... that the rubble from demolished buildings is recycled into valuable gravel?

... that valuable copper is extracted from old electrical devices?

... that paper tissues and toilet paper are produced from secret documents?

... that energy is generated from food waste by treating it in a biogas plant?

... that Becker takes care of the complete waste disposal following rock concerts, football matches, or other major events?

... that a jumper made from recycled polyester consists of up to 38 PET bottles?

Waste Disposal/Recycling

Regardless of whether you are a large business, a small company, a public-law entity, or a private household: We are your partner when it comes to disposing of and recycling your waste.

- Document destruction
- Waste wood
- Used tyres
- Rubble
- Construction site waste
- Data carriers for destruction
- Electrical and electronic scrap
- Films
- Mixed waste for recycling
- Glass: hollow glass, flat glass, old windows, etc.
- Green waste
- Customer-specific production waste
- Plastics
- Metals and scrap metal
- Paper, cardboard, boxes
- Hazardous waste
- Food waste and greases
- Styrofoam
- Strappings
- Packaged and non-packaged food
- Packaging

Container Service

Our container service provides you with the right receptacle for any type of waste.

Loaded containers

- 1.1 - 8 m³

Front-end loaded containers

- 2.5 – 8 m³

Skips (also as BK2 version)

- 5 – 12 m³

Bulk-tipping containers (also as BK2 version)

- 10 – 40 m³

Compactors

- 8 – 20 m³

Document destruction containers for old documents and data carriers

- 70 – 650 l

Food waste containers for food waste and used cooking grease

- 120 – 240 l

Hazardous waste containers for solid and liquid materials

- 450 – 1000 l

Containers for waste batteries

- 620 l

Containers for fluorescent tubes

- 1700 – 2100 mm

Oleocont containers for oil-contaminated equipment

- 240 l

Wastewater Engineering

Jakob Becker is your specialist for all wastewater technologies.

Drain Cleaning

- 24/7 emergency service

Sewer Cleaning

- Municipal and industrial areas
- optionally also with so-called water recovery vehicles

Sewer Inspection

- Camera systems with digital recording technology
- Leak testing of sewers, chambers, septic tanks, and household connections

Suction Work, Transports

- Emptying and cleaning of septic tanks

Chemical Pits, Containment Basins

- Transports of hazardous materials

Separator Service

- Emptying and cleaning of oil, fuel and grease separators
- Maintenance and general inspection of separator facilities

Supplementary Services

- Disposal of all liquid wastes
- Mobile pumps, buffer tanks and sealing systems for water containment

Chemical-Physical Treatment Plants

Sales

Recycling products made from waste plastics

Recycling material made from rubble or concrete with quality check

Topsoil

Compost

Services

We provide a range of services to round off our portfolio.

Waste Management

- Business
- Industry

Hazardous Waste and Hazardous Materials Management Hazardous Waste Collection Clearance

- Hazardous materials warehouses
- Laboratories

Restoration/Rehabilitation

- Contaminated soils
- Rubble

Demolition Work

- Provision of containers
- Rubble processing
- Rubble recycling

Building Cleaning / Caretaking Service

- Garden maintenance
- Maintenance work

Clear-out Service

- Clearing out your stuff
- Hauling the refuse

Sweeper Service

- Street cleaning
- Car park cleaning

Winter Service

- Snow removal

File Storage

Accident Service

- Accident clean-up
- Oil spill removal

Rubbish Collection for Private Households

- Residual waste/bio waste collection
- Waste paper/waste glass collection
- Collection of lightweight packaging (Yellow Bags)
- Collection of bulky waste

Container Change Service

- Rubbish containers 60 – 1100 l



|||||b “WASTE DISPOSAL SOLUTIONS ARE INSEPARABLE FROM OUR UNDERSTANDING OF THE ENVIRONMENT AND THE FUTURE OF OUR CHILDREN AND GRANDCHILDREN. WE ARE WELL AWARE OF THIS RESPONSIBILITY.”

Great-granddaughter Leah Steingaß (6th generation)

Incentive and obligation at the same time

|||||b “Few industries are evolving as fast as ours. It is therefore of crucial importance for us to continually set new standards. Our employees’ know-how and flexibility play the most important role in this.”

High environmental standards and technical innovations have completely redefined the area of waste disposal in recent decades. And the development continues at a fast pace. Becker sees the future as an opportunity and is continually creating new ideas, some of which end up becoming industry standards. The almost 2,000 employees from a great variety of different professions are very well interconnected at our 60 locations and are thus able to develop and offer new multi-service concepts.

Training, further education, and the continuing qualification of our employees are not only demanded by constantly new guidelines, but have

always been the response of Becker to the dynamics of the market. Becker lives up to its role as a responsible family-owned business as well as that of an employer, often acting as a pioneer on the market.

The proud company history is an incentive and an obligation at the same time. The Becker team relies on this strength. This is the only way to generate new innovative ideas every day and to develop customised and efficient concepts for customers with a wide range of different requirements.

Concepts that are committed to the future.



Four generations in one picture

You want to know more about us?

If you have any questions, please contact the Holding of the **Jakob Becker** group.

Your contact to Becker

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More information

and the partner that has the solution for you in your vicinity can be found on the Internet at www.jakob-becker.de.



Unternehmensgruppe Jakob Becker



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Print | ID: 53203-1404-1011