KOMPTECH

magazine 1/2017

INNOVATION
THE NEW MULTISTAR ONE

PRACTICE
BANANAS IN THE BLOOD

ANNIVERSARY
25 YEARS OF KOMPTECH

WE KNOW WHAT IT TAKES.

EDK / ZDK
Single- and double-axle tipping trailer

DDK
Tri-axle tipping trailer

TDK
Tandem-axle tipping trailer

DURUS
Dump tipper

GRAVIS
Heavy-duty dump tipper

FORTIS
Push-off trailer

NEW

MINIFEX / SUPERFEX
Manure spreader

ULTRAFEX
Manure spreader

MEGAFEX
Universal spreader

Flexibility, efficiency and reliability are very important in agriculture. Farmtech products fulfil these criteria and help farmers get the job done right.
We know what it takes: user-friendliness, consistent high build quality and long product life.

FARMTECH

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25 YEARS OF KOMPTECH

In 1992 Komptech developed the first compost turning machine. Since then the company has gone in just one direction: rapid growth. Today over 40 distributors the world over sell our dark green machines for waste and biomass processing. A look back over 25 years, during which Komptech has met its great social responsibility with a focus on two core values – constant innovation and perfect customer service.

Christian Oberwinkler (left) and Heinz Leitner, CEO of Komptech.

The first Topturn (1992)

Our entry into the shredding market (1997)

1992 was the year the Komptech brand was born. Even the reason behind it was innovative, for that was the year that the Austrian region of Styria became one of the first in Europe to introduce the separate collection of biodegradable waste. That meant there were new material flows to be treated. Working together with what was then just a regional disposal company, Saubermacher, the company developed its first Topturn compost turner.

1997 Things happened quickly after that. Komptech outgrew its contract manufacturing capacity in Slovenia, and in 1997 built a new production facility in Frohnleiten, Austria, today's headquarters. The product portfolio expanded with the addition of the Terminator and Crambo low-speed shredders, machines that are still in high demand today. At the same time, Komptech found its first sales partners in Spain and Japan, who to this day sell our products in these markets with great success.

1999 The product portfolio was extended step by step to make Komptech a full-liner for waste processing. We added trommel screening machines in 1999, star screens in 2003, and ballistic separators in 2006. At the same time, we built up our worldwide sales organization, adding further distributors from Australia to Norway and from Iran to Canada.

Drum screening technology is added (1999)

2007 We established a sales subsidiary in the US, and boosted our research and development capacity with the completion of the Komptech Research Center. We also set up the Komptech Academy as an education programme for customers, partners and employees.

2008 We expanded our portfolio for processing biomass as a renewable energy source with the development of the Chippo series chippers, in 2011 adding the Axtor high-speed universal wood chippers.

2013 the Komptech Group launched the green efficiency® innovation programme, for environment-friendly technologies and sustainability as a way of life.

The new Topturn X4500 (2017)

2014 M-L-Holdings took over the sales organization in the USA, which is henceforth known as Komptech Americas LLC.

2015 The Hirtenberger Group became the majority shareholder of Komptech.

2017 The Komptech Group has some 4000 customers in 60 countries around the world. And the number is growing all the time. From Australia to Alaska, operators depend on the dark-green machines from Frohnleiten and Oelde.

2020 All Komptech Group machines meet green efficiency® criteria, and each is the most economical, highest performance, quietest and most environment-friendly machine in its class. Thus, Komptech has fully lived up to its "Technology for a better environment" motto. These innovations have also made Komptech the world market leader.

green efficiency

Crambo direct

Hurrifex

Multistar

Cribus

Axtor

Terminator direct

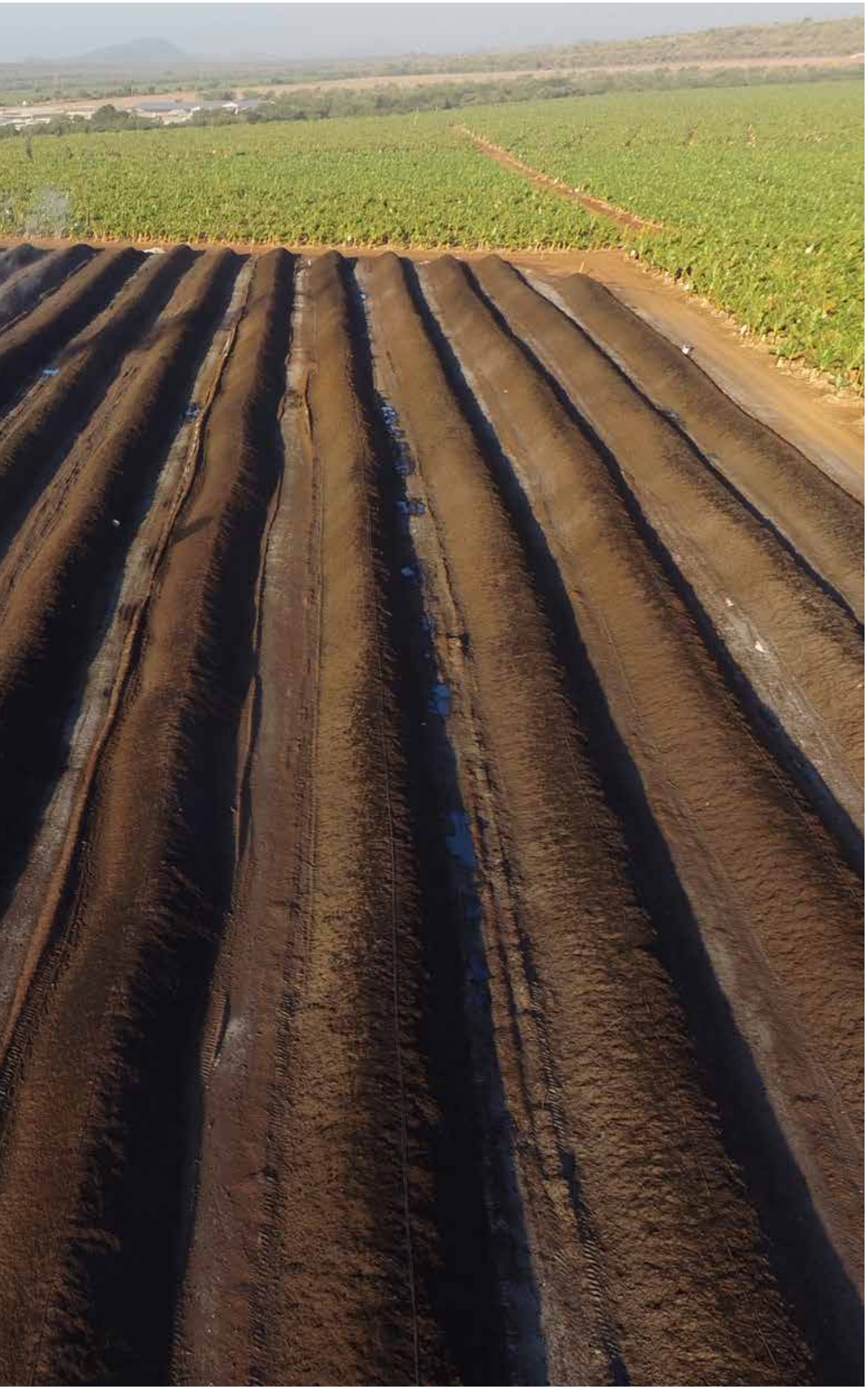
"THERE IS NO ANTIDOTE TO PERMANENT INNOVATION."

Komptech founder Josef Heissenberger

(1955 - 2014)

BANANAS IN THE BLOOD

Umbhaba Bananas in the province Mpumalanga is one of South Africa's largest banana producers. It fertilizes its 2000 hectare banana farm exclusively with its own compost - no artificial fertilizers are used.



In addition to the banana farm, Umbhaba's CEO Roy Plath, wife Cheryl and sons Dean and Shane also work their 7000 hectare ranch. The company has two locations, Hazyview/Kiepersol and Hectorspruit/Marlothi, both south of Kruger National Park. Roy Plath employs between 2000 and 3000 workers depending on the season.

A LARGE FLEET

The company has 30 trucks and does its own maintenance on them.
"The trucks have to drive 500 kilometres to Johannesburg. Crime is a problem, so we don't want any breakdowns on the road," Roy Plath says by way of explaining why all his vehicles get a thorough inspection before heading out. The company's workshops also maintain the tractors, spreaders and earthmovers. The company even makes its own push floors, importing just the chassis. "For our machine park we use only quality products like JCB, CAT, Kuhn and New Holland," adds Roy.

Umbhaba makes its own compost at two large sites.

Umbhaba CEO Roy Plath (right) and Komptech Sales Manager Markus Maierhofer are in agreement.

The Topturn X55 has already done over 1500 operating hours.

BANANA GROWING MADE EASY

Son Shane runs the facility in Hectorspruit and Dean the one up north in Kiepersol. Both have "bananas in the blood," having grown up on a banana farm. They also have a thorough technical knowledge of the entire machine park. "We naturally grow organically, without artificial fertilizers," says Roy. Banana trees grow 14 to 16 months before bearing fruit. The branches are lopped off during harvesting, and new ones grow back. The fruiting period is twelve years; then the trees are fertilized for three years.

OWN COMPOST

"We use only our own compost for the fertilizing stage," says Roy. To get the compost, every day plant matter is collected from some part of his 7000 hectare ranch and shredded to about 60 mm grain by a high-shredder. "We then mix this structure material with purchased cow manure and our banana waste," he explains. "After eight to ten weeks, we spread the compost on the plantations unscreened."

NEW POSSIBILITIES

Roy Plath ran into the Topturn X55 in an internet search, and immediately decided that it was the right machine for his purposes. "Ours has done 1500 operating hours, and we're completely satisfied with the performance. What we still need is a capable compost screener. We're looking into whether drum or star screen technology is right for us," notes Roy, adding, "A low-speed shredder could also give us better structure material and quicker, better composting." So there are some opportunities here for Komptech machines to show what they can do!

The biodegradables bin was introduced in Germany in 1983, and remains a symbol of a functioning waste cycle.

SEPARATION IS WORTH IT

With the source-separated collection and separate processing of biodegradable waste, Germany has taken a big step towards sustainable waste treatment. Over 50 percent of all household waste is biodegradable, so clean, source-separated collection is of tremendous importance for effective reclamation.

Germany implemented the EU Waste Framework Directive in national law with the Recycling Law (Kreislaufwirtschaftsgesetz). Passed in 2012, the law requires waste producers and public-sector disposal authorities to collect biodegradable waste separately as of 1 January 2015. This applies to garden, park, landscaping, food and kitchen waste. Households are provided with a biodegradables waste bin ("green bin") for collection separately from residual waste and plastic ("yellow bin"). Organic and green waste, as it is increasingly called, can be reused very effectively without difficulty. The most important uses are energy generation and compost.

The greatest climate protection potential is reached when energy-rich biodegradables like kitchen waste are first fermented into gas, and then the liquid and solid residues used for fertilizer and compost. For source-separated green cuttings and landscaping waste other, more direct recycling processes make more sense.

50 PERCENT OF HOUSEHOLD WASTE IS BIODEGRADABLES

Over 50 percent of all household waste is biodegradable, so it's no wonder that the greatest potential return is in this category. Numbers back it up: Currently around 10 million tonnes of biodegradables are collected each year in Germany, meaning reclamation of 121 kg per person per year. Serious projections see this rising to 130 or even 200 kg per capita in just a few years. This could put the collection and reclamation total in Germany at 20 to 30 million

tonnes per year. But as with everything, this too is a work in progress. Despite the law, there are still areas that have managed to get around introducing the biodegradables bins, resulting in organic and high-energy kitchen disappearing with the rest of the trash.

Another, and growing, problem is the fact that many households don't take separation anything like as seriously as they should. As a result, things end up in the biodegradables bin that have no business being there, like plastic packaging, bottles, cardboard, metal and much more.

This makes it hard to get quality compost, since for use as agricultural fertilizer it has to be free of contraries. Heavily contaminated biodegradable waste is difficult to process, so much so that it can become prohibitively expensive.

CLEAN RAW MATERIALS - CLEAN PRODUCTS

Germany has a long tradition of separate collection. The first industrial-scale composting plant went into operation in Bad Kreuznach in 1957, and the green bin was introduced in 1983. Still, environmental or waste education is needed, ideally starting in kindergarten or primary school. A functioning, sustainable waste cycle can only bring the desired results when all involved realize that what they are throwing out is not "garbage" but raw materials that will be used for new products.

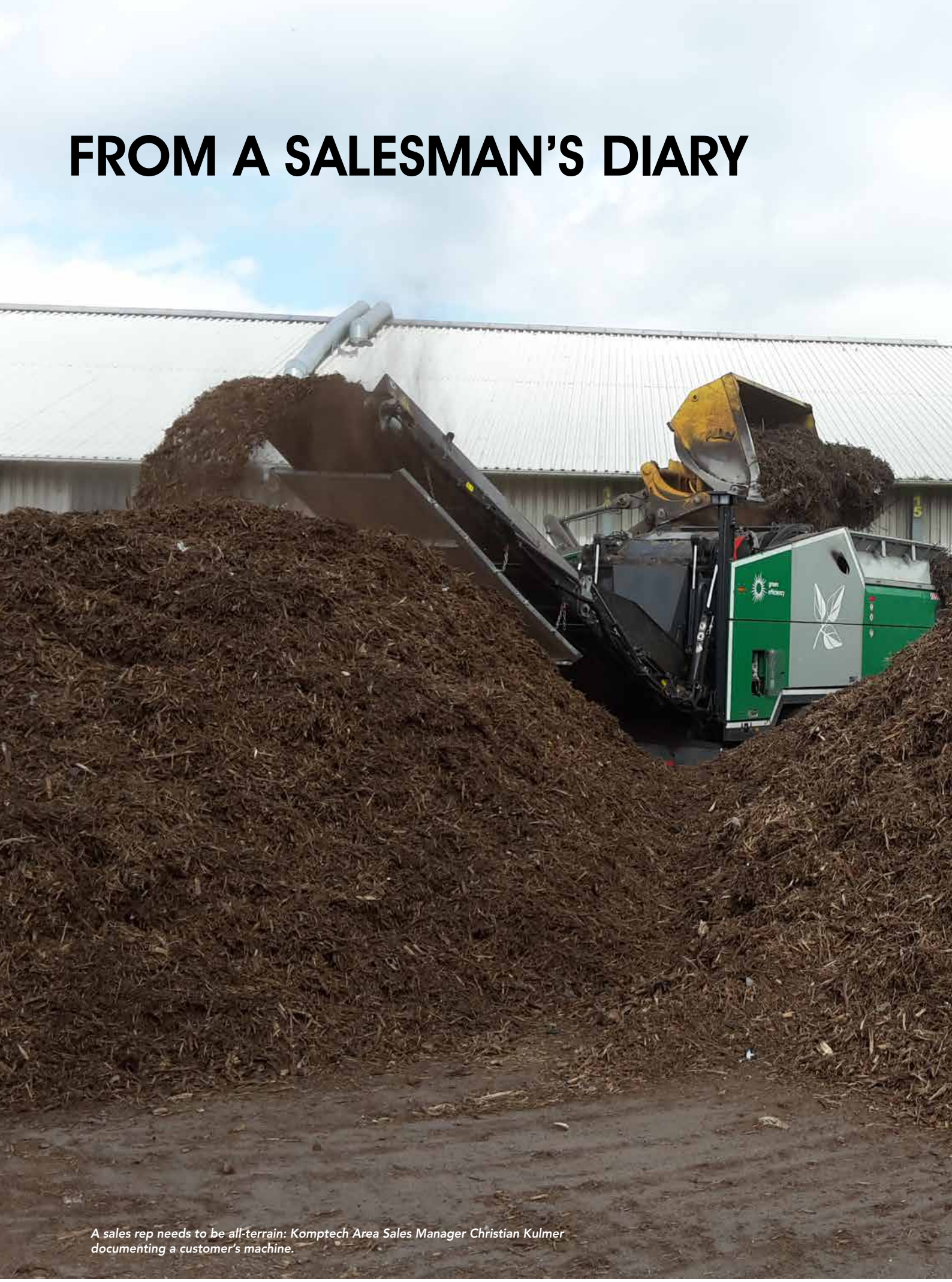
Material and energy reclamation need not preclude each other; in fact, they can complement each other. This has been demonstrated many times at many locations where this is a matter of course. Naturally, the right technology plays a determining role in processing the raw material, in this case biodegradable and green waste. The input materials are varied, and so are the products made with them. Komptech offers a wide range of specialized machines that very effectively support the separation and optimum reclamation of materials from waste.

All green cuttings are not created equal, and quality demands have risen steadily, for biomass as for everything else. This in turn requires the right machinery.

Compost is a very old idea and there are many traditions around it, but with the right equipment it can be made much simpler and more targeted.

Contraries are a big problem in compost. With the Hurrifex heavy objects like stones as well as light materials like plastics can be removed in a single pass.

FROM A SALESMAN'S DIARY



A sales rep needs to be all-terrain: Komptech Area Sales Manager Christian Kulmer documenting a customer's machine.

Sales representatives spend a lot of time on the road. They don't always have it easy. But they always have a lot to talk about. Like Komptech Area Sales Manager Christian Kulmer on his customer tour in Denmark and Norway.

The temperature is just over 20°C as we leave the small but tidy airport in Billund, Denmark one early September midday. "We" is Jürgen Hassler, Technical Director at the Shredding and Composting Competence Center at Komptech in Frohnleiten, Christoph Guster, Low-Speed Shredding Product Range Director, and myself. It's warmer and sunnier than normal for this time of year in Denmark. We are looking ahead to long, but interesting, days.
The goal of our mission is to visit as many customers in one week as we can, look at their systems, and talk to them about their experience with our machines.

So there is a plan and preparations have been made. Our local partners have provided exemplary help with planning and are looking forward to our visit. Scandinavians appreciate it very much when people take an interest in their issues and listen to them. Up north, where the winter arrives sooner than back home, where in December there are only a few short hours of daylight, and where temperatures of -10°C are routine, customers face a special set of challenges.

Komptech technicians note everything down carefully.

We go from the airport directly to the first customer. A long-time Chippo user, he tells us how much he likes our chipper. "The Chippo is better than the comparable machine from the German competitor," says Nicolai. Words like that make you feel good inside. A great start to the tour. But will it go on like that? Over the course of a day and half we visit another four customers and find that yes, they really are very happy with our machines.
But then that shouldn't be a huge surprise since most users in Denmark are repeat customers, meaning that they learned to trust the dark green Komptech machines years ago. Naturally every operator has their own ideas about what could be improved on their machine. And that's as it should be. Jürgen Hassler and Christoph Guster take lots of notes. Here there's a place that's hard to clean and freezes in the winter. Over here is a panel that needs to be thicker or bigger. A tank filler neck that won't take 100 litres per minute - and naturally when it's bitter cold outside nobody wants to leave the heated cabin of the front loader for very long, certainly not to wait for the shredder fuel tank to slowly, slowly fill.

Encouraged by the positive feedback, we continue on to Norway. First stop: Drammen near Oslo. Mountains of waste wood. I don't think any of us has ever seen that much waste wood in one place before. A Crambo shredder and Multistar L3 star screen have been working for years to cope with all the wood. All are in agreement that this customer needs the newly developed Multistar One overlength return. We set up a demo at the earliest possible date. Still impressed by the piles of used wood, we press on. Two more customers await.

We meet Kurt Lunde. Small, bearded, chain-smoking, he's worked with the Crambo for 15 years and should really have a title story in our magazine just for that. He talks about throughput numbers that surprise even us optimists. And naturally he knows exactly what teeth to put on the drum to get the best results.

Technical issues are always discussed at the machine in question.

He's a true Komptech fan. His blood might actually run green. We think briefly about checking to see, but then decide against it. We still have a ways to go today.

Two stops later we've found that Danes and Norwegians are very similar, at least when it comes to Komptech. We hear the same wishes, comments and ideas, and the Norwegians seem just as happy with our machines as the Danes were. We also find out that in Norway you're really better off paying at the parking meter. Otherwise you'll find yourself paying a stiff fine of 790 kroner, or about 100 euros. Pockets lightened by that amount, we make our way to the last customer.

We meet Frode Midtstol, long a loyal Terminator user who bears a startling resemblance to actor Terence Hill. But unlike Terence Hill, who played "Nobody" in the wild west, Frode Midtstol is definitely a "somebody" who uses his Terminator to shred all the trash no one else will take. From railroad ties to entire boats, he shreds anything that will fit into his Terminator's feed. When he mentions that next year he'll in all likelihood be looking to purchase a new machine, a smile comes to my salesman's face.

We're on the way to the airport in Kristiansand, from where we'll fly via Oslo and Frankfurt back to Graz. We've visited nine customers and seen more than 15 machines at work, driving some 1500 km to do it. The days were long and we're tired, but happy, because of all the positive impressions and information we've gathered. Christoph Guster and Jürgen Hassler are sitting at their laptops already thinking about how best to implement the suggestions for improvement. Me, I'm just enjoying a cup of coffee, happy that it's their job, not mine. All I have to do is just sell it.

The symbolic handover of the keys by Komptech Sales Manager Rudolf Maier to Michael Kilian and Mirko Schröter.

AN EFFICIENT ENDURANCE RUNNER

Top performance isn't always everything - endurance and efficiency are also needed for screening difficult materials. And that's why BSR Bodensanierung Recycling GmbH chose a new Cribus 3800. It's actually BSR's second Cribus, which makes the story even more interesting.

Impressive: As a tractor-trailer, the Cribus 3800 is very simple to move.

Thomas Klinger of Komptech explains some details very thoroughly at the handover.

The countryside around Neuhof on the Zenn river in south-central Germany is idyllically rural. Hills, fields, pastures and large broadleaf forests adorn the Frankenhöhe Natural Park, which stretches northeast of Rothenburg ob der Tauber in Bavaria. Yet access is good - you're in Nuremberg or Würzburg in just 30 minutes.

A FORMER DUMP SITE

"Am Schellenberg" is the name of BSR Bodensanierung Recycling GmbH's recycling site in Ingolstadt near Neuhof. "It's a former slag dump that never was," says Michael Kilian, operations director at Schellenberg. He thinks it's the ideal location. "The site was approved to take slag from a waste incineration plant. But they never ended up dumping anything, so now we can use the site for our processing work."

Kilian knows what he's talking about. He has worked at BSR since substituting for someone on holiday in 2000, and with his colleague Mirko Schröter, who has worked at the company for five years, he handles a task that is not always simple - processing street sweepings.

THE MANY FACES OF STREET SWEEPINGS

Sweepings, road grit, road clearing waste - street sweepings come in many guises and many forms. There is no single kind of street sweeping. Naturally, street sweepings come from sweeping streets. In the spring they contain a high amount of grit, in summer there is a high proportion of contraries and foreign objects, and in the autumn there is naturally a lot of leaves. Year round, 60 to 80 percent of the mass is sand, grit or stones, followed by organics, and things such as dog faeces, packaging waste, cigarette butts and paper handkerchiefs. Contamination from vehicles must not be underestimated, including oil and wear material from road surfaces, tyres and brakes, not mention de-icing salt in the winter. "It's difficult," says Kilian, "and what people often forget is that the material can be very wet at certain times of the year, which naturally makes the specific weight increase dramatically."

THE RIGHT TECHNOLOGY

The facility at Schellenberg is approved for processing street sweepings with high leaf content, which helps explain why it takes in material from as far away as the State of Hessia. Obviously, processing waste under these conditions is no easy matter, and that's why Kilian and Schröter feel that with Komptech technology they've found the right way to go. "With all the contraries and contaminants, the processing system can't be overly complex. At the same time we want to reclaim as much as possible and dump as little as possible. Despite the strict regulations around inspection of the material, we want to deliver a homogeneous product that can be readily reused by landfills. To do so, we rely on Komptech screening technology and on our Cribus."

CRIBUS NO. 2

Michael Kilian and Mirko Schröter took delivery of a new Cribus 3800 tractor-trailer model. It's an impressive piece of equipment. "The semi-trailer version keeps us under the 18 metre length limit for road transport, so we're always on the safe side and don't need an extra transportation permit." And that's just one of the things they like about the new machine. Its predecessor is

The Cribus can handle even very heavy wet street sweepings.

on the other side of the yard, and is also a Cribus 3800. "It was the perfect replacement," notes Kilian; "The 3800 E worked out great for us, including with heavy street sweepings. But now it has about 4000 hours behind it. Komptech made us a very good buy-back offer, while also making upgrades to the new machine based on our experiences with the old Cribus."

LOW ENERGY COSTS

The technical highlights of the Cribus 3800 speak for themselves. The ample 2.2 m drum diameter, the 5.5 m effective screening length and the wide spacing between drum and sidewalls ensure trouble-free screening. Together with the robust frame construction, this means that the machine doesn't knuckle under even with very heavy material. The friction wheel drum drive, antislip regulation and excellent maintenance access are also important points. And finally there's the electric drive, which can run either directly from grid power or from a diesel generator, and gives up to 75 percent lower energy costs.

Kilian naturally has practical matters uppermost in mind. "We screen street sweepings twice. When the material first arrives we run it at 15 millimetres to get out the minerals and send the overlengths to composting. After six to eight weeks we screen the compost at 10 millimetres. We also run it through a Stonefex, which is naturally indispensable to get out the rest of the rocks. It works great."

VERY VERSATILE

Many details on the new Cribus 3800 were tailored precisely to BSR's requirements in screening street sweepings. Michael Kilian and Mirko Schröter are confident that their new Cribus is "unbeatable." "Sometimes we also get wood chippings on outside jobs - that's hard for some to handle, but it's child's play for us." You can tell that this is a team that sticks together through thick and thin - and that the Cribus 3800 is a full member of that team.

Founded in 1994, BSR Bodensanierung Recycling GmbH works in the reclamation and disposal of municipal, commercial and industrial waste.
It provides services in Germany and the EU countries. At its Ingolstadt headquarters and its other locations, as well as through shares in other companies, it handles around a million tonnes of waste each year.
The company has been a certified specialist disposal company since 1998, and also bears the "Construction Materials Recycling Bavaria" quality seal.

www.bsr-recycling.de

Michael Kilian and Mirko Schröter are happy with their company and with the new Cribus.

MULTISTAR ONE

NEW

Mobile overlength return

Seven reasons you´ll love the new Multistar One.

The new Multistar One screen makes waste wood and biomass processing highly efficient. An upstream Crambo or Terminator handles the shredding. The new One then separates out a defined useful fraction while returning overlengths to the shredder.

01 **Flexible energy supply**

The current for the electric motors can come either directly from the grid or from a combination of an additional hydraulic pump on the shredder and hydraulic generator on the Multistar One.

02 **Proven layout**

The One has the proven structure and high-quality components of the Multistar series, with a tough box frame, flexible screening stars and Cleanstar cleaning system, screen deck drive by electric motors with frequency converter speed control, and much more.

03 **Hook lift platform for mobility**

Built on a hook lift module, the machine has small dimensions and the requisite mobility for service providers or multi-site use.

07 Sure material return

The screen overflow falls through a chute to the return conveyor. The conveyor swivels through 220° for high setup flexibility. With a cone height up to 4 metres, material return to any Komptech shredder is problem-free.

06 High screening performance

A 6 m^2 screen deck provides efficient, precise separation. Depending on the application and setup, throughput can be up to 200 cubic metres per hour.

05 A different kind of cladding

Along with two maintenance doors, tough truck-grade tarp material protects components from dirt while saving weight and affording easy access.

04 Controlled transfer

The shredder discharge conveyor feeds material to the 2.5 cubic metre capacity feed hopper of the One. There, a drag chain conveyor ensures controlled material transfer to the screen deck.

GROWTH = HIGHER PRODUCTIVITY + LONGER USE

For a landscape supply company in Michigan, the Multistar L3 is simply the right machine at the right time.

The Multistar L3 is a central piece of equipment at Hammond Farms, where it significantly lengthens the working season.

Hammond Farms Landscape Supply is a landscaping materials supplier based in Michigan. Managing partner Cliff Walkington saw a video of the Multistar L3 screener while attending a conference for mulch producers. Intrigued, he followed up with Komptech Americas about it. One thing led to another, and one November day a Multistar L3 was at Hammond Farms for an on-site demo. The Komptech team suggested running a wet compost pile through the machine. The demo sold Walkington on the L3. "We weren't even considering screening the wet compost, but the Komptech people said they could process it, and they did," Walkington says. "The L3 lets us extend our seasons and our processing window."

EXTENDING THE SEASON

Hammond Farms puts its Multistar L3 to use every day in the spring and four out of five days during the rest of its nine-month season. The company sees a spike in sales during spring and fall, Walkington says, so it's vital to fill all customer orders at those times. The Multistar L3 helps Hammond Farms do that, because it can work through more of the year and thus achieve two to three times the production in both compost and mulch products.

EFFICIENCY NUTS

"We're efficiency nuts," Walkington says. "It all comes down to efficiency." Depending on the feed material, his Multistar L3 produces between 150 and 300 cubic yards per hour. Another aspect that Walkington appreciates is the fact that particle size can be controlled by varying the rotation speed of the star shafts. This can be done quickly and easily with the press of a button on the control panel, rather than physically changing screens as with other types of screen plants. "The fact that we can adjust for size with the press of a button rather than stop and make mechanical changes means we can move quicker and get more done," he says. "In a seasonal business, it's absolutely crucial to make the most of each day. The L3 has allowed us to increase our production and our customer base by having material ready when the spring and fall markets hit." The Multistar L3 utilizes hybrid

ABOUT HAMMOND FARMS

Farmer Lee Hammond opened his first landscape materials supply store in 1982 in Dimondale near Lansing, Michigan. "Composting is a part of our core business," says Cliff Walkington, a managing partner who started with Hammond Farms shortly after college. He is confident Hammond Farms' compost business will continue to grow. "People are pushing for zero waste when it comes to food, and anything that can be diverted and used for compost will be used," he says. Hammond Farms makes an estimated 9,000 deliveries of bulk materials each year. The company also works with a number of municipalities, processing yard waste, handling compost, grinding up debris from storms and more.

www.hammondfarms.com

technology. Power can come either from grid electric power or from an optional built-in diesel generator. According to Walkington, the use of grid power reduces energy consumption by up to 75 percent compared with diesel-hydraulic power.

HELPING TO GROW

Walkington says that the company can go straight to a jobsite with its Multistar L3 and screen dirt there that can be shipped to customers. Since Hammond Farms has three locations within 15 miles of each other, the Multistar L3's portability, as well as its efficient use of fuel, is a winning factor. "It has increased our efficiency and allowed us to offer a better level of service, which has helped us to grow," Walkington says. In addition, contaminants are a top composting issue for Hammond Farms. The Multistar L3 offers a solution, notes Walkington. "It lifts flyaway and plastic and gets it out," he says. "While it doesn't get out 100 percent of trash, it has helped us save time and labour."

THE RIGHT EQUIPMENT MAKES THE DIFFERENCE

The Multistar L3 is now established as one the company's key pieces of equipment. "Aside from the very low operating costs, we're able to process multiple products with one machine," Walkington says, adding "There's an intangible value to having your operators working on other things rather than feeding a screening plant constantly. Adding Komptech to our product line has been the single best equipment purchase we've made to date."

Having seen the difference one Komptech machine makes, Hammond Farms has decided to purchase another, a Topturn X63 compost turner which will be delivered in December. The company is also taking a close look at the Komptech Crambo shredder.

GENERATIONS IN HARMONY

At the Windbolz company, a Komptech Topturn turns the compost and a Farmtech Megafex spreads it. What's remarkable is that there are 20 years between the new generation Megafex and the first generation Topturn. There are also two generations in the company management. Sonja Wildbolz manages the customers, and her son Dominik manages the machines.

Sonja and Dominik Wildbolz run a broad-based service company. The Topturn and Megafex are important parts of the operation.

The Mur valley in Austria has always been farming country. Surrounded by mountains, the plains alongside the Mur river offer good conditions for growing wheat and maize. "We're right in the middle," says Sonja Wildbolz, and means it geographically as well as professionally. The company offers a wide range of agricultural services, from soil preparation, sowing and fertilizing to entire silage chains for grass and corn. "Demand peaks are common in agriculture, and I need to be able to rely on my team," says Sonja, who directs up to ten people when the workload is heavy. A major part is also played by the machines, which become more capable year by year.

TREND TOWARDS LARGE MACHINES

"It used to be we would contract to do a job during a certain week. Now we agree on the exact time of day we'll be there. Everything has to be done quickly. Time is short. That means bigger, more expensive machines that let us finish jobs faster." Sonja is talking about a general trend, that has its good sides for contract service providers. Dominik Wildbolz adds, "Today, successful farmers are the ones who specialize and do what they're best at. They contract everything else out with service providers. For us, it makes sense to spend the money on bigger machines, since we can use them to capacity." The Megafex 2200 is an example. Half the year they use it as a transport trailer, and the other half as a spreader.

TWO JOBS FOR THE MEGAFEX

"Now that it's autumn we'll convert the Megadex from trailer to spreader. Then in the spring, when manure spreading is over, we'll put the load flap back in," explains Dominik. "Switching from load flap to spreader unit takes less than an hour, and then the Megafex is ready to spread compost, manure or calcium." He appreciates the flexibility as well as the good spread pattern the Megafex gives. As a trailer, they use it to move large volumes of silage as substrate for a nearby biogas plant. "We grow 150 hectares of silage maize, much of which goes to make renewable energy," he says of his dual role in food and energy production.

As a trailer, the Megafex has 22 cubic meters of usable volume. The biogas plant is in the background.

NEW IDEAS

"We're not committed to any one manufacturer," says Sonja. "We buy the machine that best meets our requirements." The Megafex is part of an illustrious line-up of major German agricultural machine brands. Only the load flap was not quite what Dominik had in mind, so together with co-workers he designed a new flap with integrated feed roller for more even unloading, and had it built in the company's own, well-equipped workshop. They maintain all their machines there, and work on high-powered "special vehicles" when time allows. "My Megafex is unique," says Dominik, "but maybe at Farmtech they're thinking about something similar."

A spread width up to 25 meters and a very even pattern – the Megafex is an excellent spreader.

EXPERIENCED COMPOSTER

The company has another line of business for fertilizing its own acreage as well as customers' fields – its own composting operation using tested sewage sludge and chopped green cuttings. Sonja Wildbolz is proud of the high quality they turn out, as confirmed by steady demand. "Our compost is grade A. It is constantly tested and free of contaminants. Our average rotting time is eleven weeks, then we post-rot until use. We screen some of it for sale to private individuals, but most of it goes to agriculture." The company provides full service – customers tell

them which fields need fertilizing, and Wildbolz takes care of how much compost to spread, when to spread it, and properly working it into the ground.

RETIREMENT WILL HAVE TO WAIT

A not insignificant part in the compost quality is played by regular turning, and the company's turner seems to be unaffected by the hand of time. At an age when many a machine would be rusting away at a junkyard or cannibalized for parts, the 1995 vintage Topturn 3000 is still hard at work. "Some days the electrics get fussy," says Domonik, "but the engine and the turning equipment are completely functional. Luckily we have a colleague here who's the right age for the Topturn and knows how to treat it properly. If we ever need a replacement I'm not sure what we'll do - today's turners are just too big for our volumes. But luckily there are service providers!

When the work is done it's time for a chat around the coffee maker. All are agreed – there is more competition and the business is faster-paced now. But with an understanding of nature, fertile soil and a fair amount of business savvy, Sonja and Dominik Wildbolz can look to the future with confidence.

The windrows are turned regularly. The average rotting time is eleven weeks.

Still turning a good figure after over 20 years – the Topturn 3000 from 1995

UNEXPECTED BENEFITS

On the other side of the world, a New Zealand composter finds Komptech a dependable partner.

New Zealand's BioRich company has taken on an important new employee - a Nemus 2700.

BioRich in New Zealand was established in 2004 to provide compost for organic crop production. The company employs 9 people at two sites, and also operates a farm business at one of the sites. BioRich currently produces 40,000 cubic meters of compost, and has enjoyed success in the region by providing a waste solution to area slaughterhouses, pack houses, wineries, food companies and wool scours.

An important part of the operation is the sourcing of carbon feedstock material such as bark, which comes from up to 250 km away. This impacts pricing and availability, and adds some uncertainty. The supply of carbon feedstock must also be matched to the company's overall capacity and commitments, and to ensure this, screening needs to be efficient.

BioRich Operations Manager Nigel Halpin saw his first Komptech screen, a Mustang, on a visit to another company. When the time came to purchase their own screen, BioRich looked at all the options and did their homework, viewing machines in operation with similar feedstock in New Zealand and abroad. Nigel spoke to operators and was eventually convinced that the Komptech Nemus was what he needed, and that Komptech's local service fit the bill – despite the fact that Komptech and BioRich are almost exactly at opposite sides of the world from each other.

The Nemus has now been in use for four months and recently had its 500 hours servicing. BioRich has been impressed with the local support and backup. As Nigel put it, "delivery came just at the right time to meet our winter screening obligations, and we couldn't afford any downtime. Komptech NZ did a complete commissioning program for us and have since been available whenever needed. The Nemus' ease of use, output and reliability allowed us to meet our demanding winter screening requirements and really paved the way for future opportunities. To date we've processed 40,000 cubic meters of top quality product, more than double our previous abilities. It eliminated the need to hire contractors."

PLEASANTLY SURPRISED

According to Nigel, one thing that really surprised BioRich was the quality of the product from the Nemus, which is much more consistent than with other screens.

They are also impressed by the ease of switching between the 15 mm and 20 mm drums they use. As Nigel puts it, "the ease with which we can service the machine and open it up to clean and change drums has really been a game changer – this translates to more time screening, which allows us to sell more product!" Another very welcome surprise was the Nemus' ability to screen wet material and in all weather, likewise a major production-boosting factor.

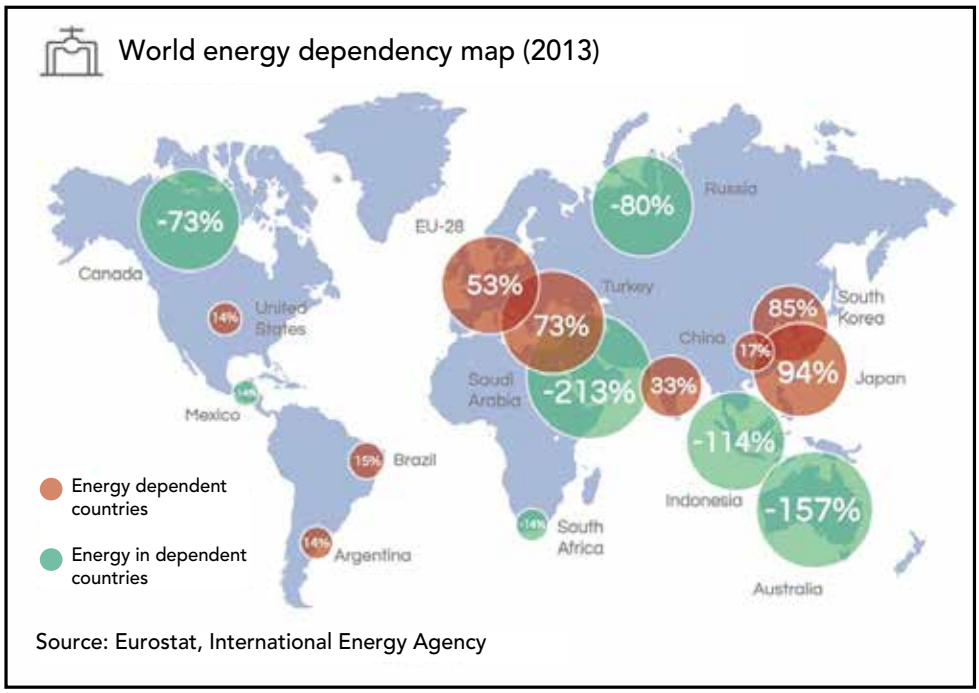
EASY TO WORK WITH

Ease of servicing and daily maintenance is a further benefit, according to Nigel: "The ability to lower the side wall and extend the drum really impressed the operator. The ease and speed means we can keep on top of daily maintenance and cleaning, which translates to a better, more consistent end product. The resulting increase in production, from both ease of use and less downtime, has allowed us to expand our screening options and explore new products and mixes."

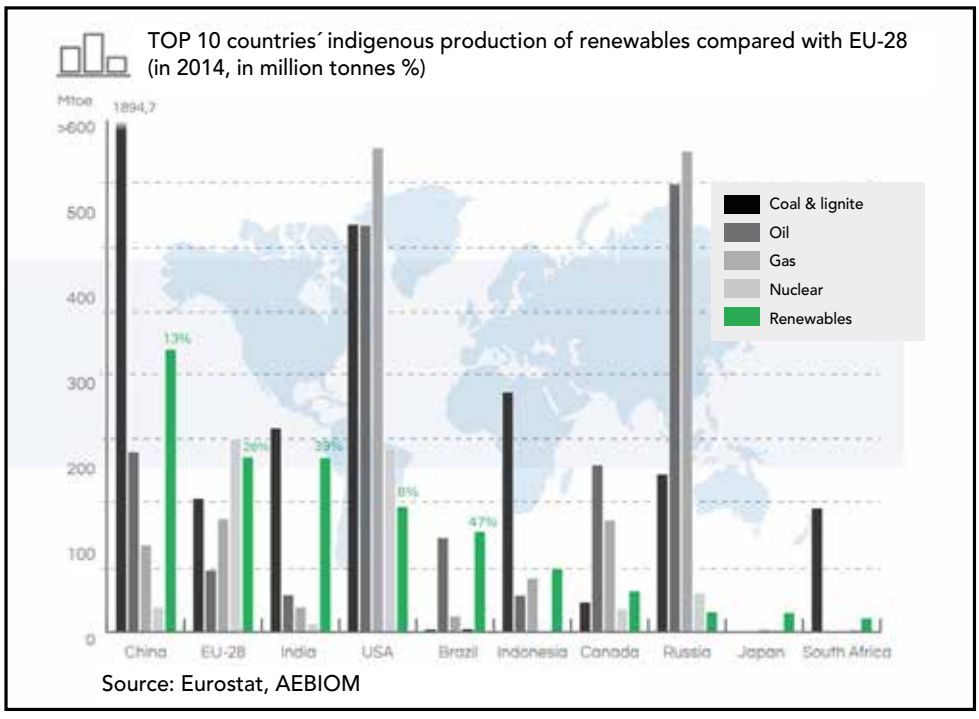
BioRich continues to grow its business and is starting to look at the purchase of a compost turner. No names have been mentioned yet but we at Komptech naturally hope that a Topturn will be in the mix!

THE ENERGY SYSTEM OF THE EUROPEAN UNION

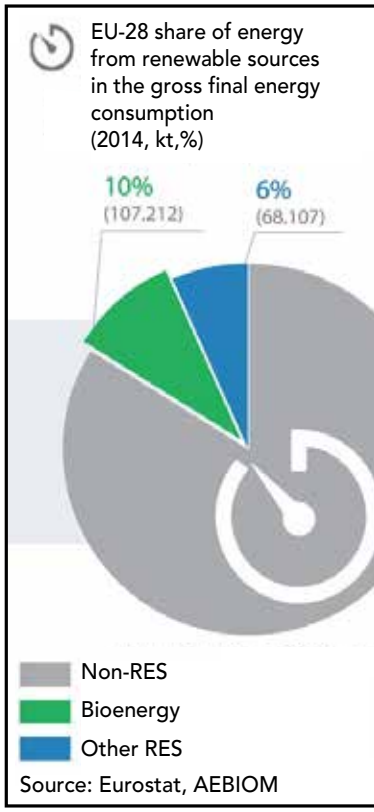
Every year the European Biomass Association publishes its statistical report about bioenergy. Here are this year´s key findings.

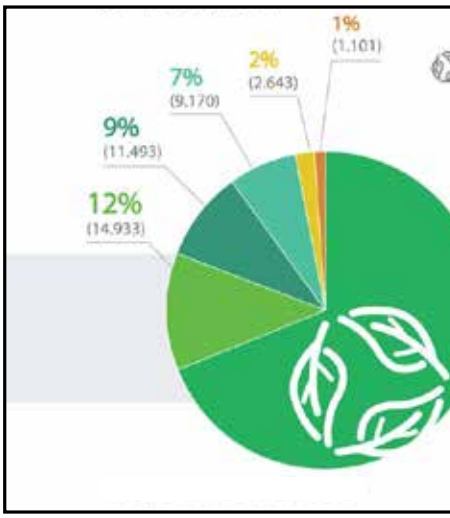


The EU-28 ranks among the regions with the highest energy dependency with countries such as Japan, South Korea and Turkey. 99.4% of net imports of energy in Europe in 2013 were fossil fuels. This dependency weakens the EU´s geopolitical influence.

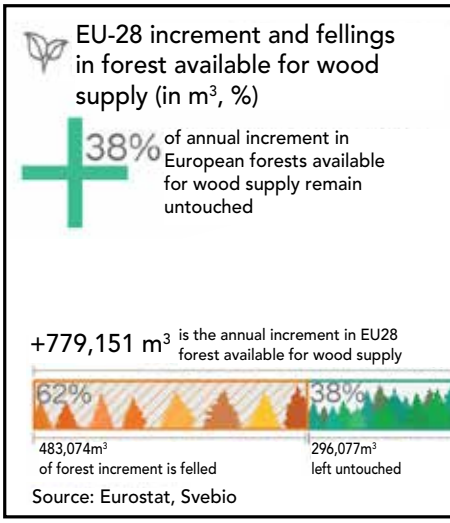


The indigenous production of fuel in the EU underlines the picture of high energy dependency.

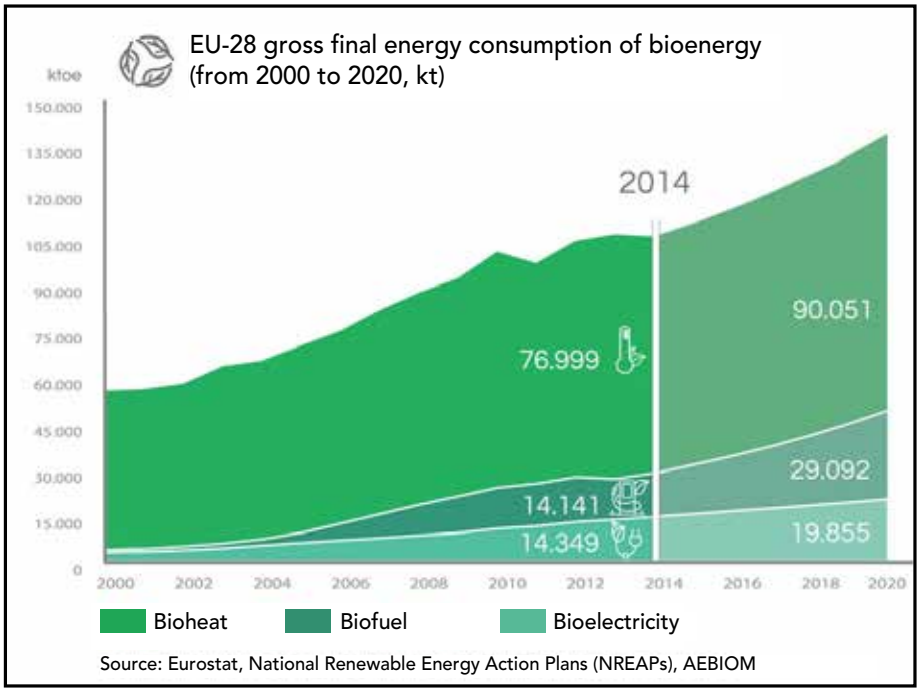




According to the member states´ projections, by 2020 almost 140,000 kt are expected to be consumed yearly, which would imply a growth of 32% over 2014.

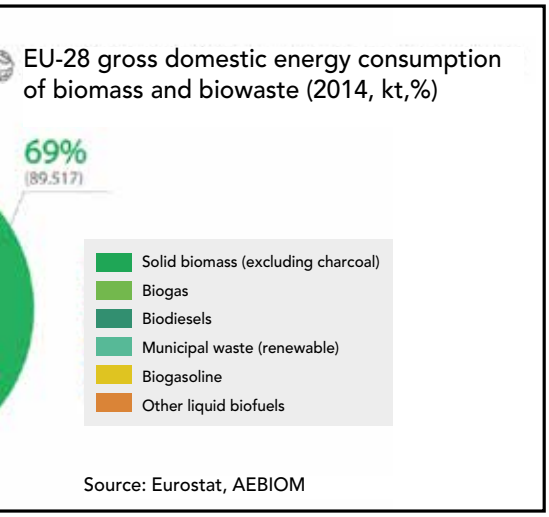


In 2014, renewable energies accounted for almost 16% of total EU energy consumption. In 2007 the EU launched its ambitious target to use 20% renewables by 2020, which means an increase of 9.5% in 13 years. The new target of 27% renewables in 2030, which means an increase of 7% over a decade, seems less ambitious. In 2014 bioenergy accounted for 61% of all renewable energy consumed in the EU, which is 10% of the gross final consumption.

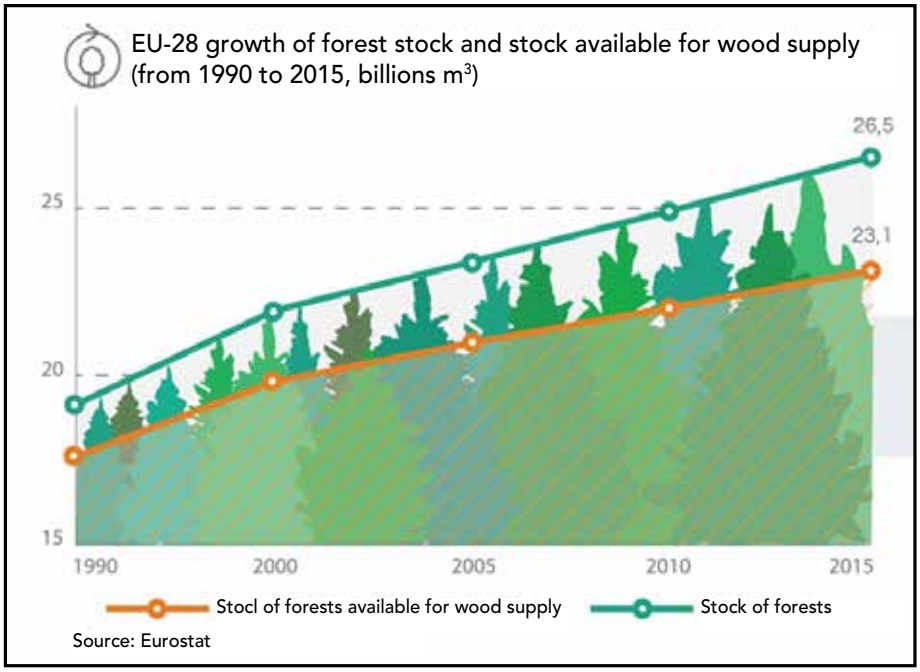


Source: Eurostat, National Renewable Energy Action Plans (NREAPs), AEBIOM

Bioenery covers a wide range of raw materials and conversion technologies. In general more than two thirds of biomass consumed in Europe consists of solid biomass. Biogas and biofuels represent 12% and 13% of gross inland energy consumption of biomass and biowaste. Renewable municipal waste used for energy purposes reached 7% in 2014.

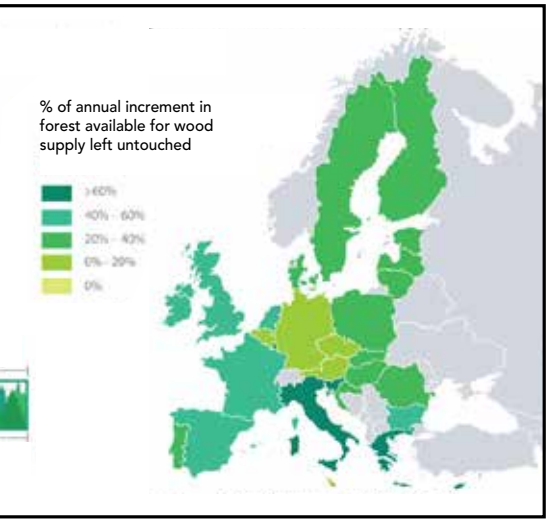


Source: Eurostat, AEBIOM



Source: Eurostat

Contrary to common belief, EU-28 forests have been continuosly expanding over the past decades. This growth has two main causes, forest areas and growth in standing volumes. EU-28 forest areas increase by 322,800 hectares each year.



On average about 62% of the annual forest increment in Europe is actually felled, meaning 38% remains in forests. This situation varies from one country to another. Forest area increase is greatest in the Mediterranian region in Italy, France, Greece and Slovenia, where at least 40% of the annual increment remains untouched.

Source: AEBIOM Statistical Report 2016

A NEW DIRECTION IN SWITZERLAND

Declining margins in the used wood business require a rethink of the most efficient processing methods. Low-speed preshredding followed by star screening is high on the list. Holz- und Stockrecycling AG in Otelfingen is testing the advantages of the combination of Crambo and new Multistar One with overlength return.

Old hand, new technology: Andreas Suter, Director of the Holz- und Stockrecycling company, has been in the business for over 20 years. The Multistar One will be available starting in early 2017.

Each day, the facility makes 100 tonnes of fuel from waste wood.

Andreas Suter is keeping a close eye on the shredded waste wood coming out on the Multistar One's discharge conveyor. "The quality is good. There are almost no fines. Let's see how we do on throughput." Here in Otelfingen near Zürich a new machine combination has been in test operation for a few days. It consists of a Crambo direct 5200 and a Multistar One. The goal of the testing is to get data on profitability and to investigate the influence that the material quality has on combustion processes at the nearby cogeneration plant.

ON-SITE FUEL USE

In this case "nearby" is an understatement, since the waste wood processing facility and the cogeneration plant are at one and the same site. There is no need for trucks. A conveyor belt suffices to move the fuel from storage to the intermediate bunker. Andreas Suter, Director of Holz- und Stockrecycling AG, is partly responsible for this favourable situation. "We started as a waste wood disposal company in 1993, with a chipper. We've been at this location since 1996, and for a while sent all the wood to Italy." But at the turn of the century the idea of an own power plant began to take form. Instead of sending wood long distances by road, using it on site would be rather more environmentally sustainable.

AN IDEA BECOMES REALITY

With a good dose of pioneer spirit and daring, in 2002 the company opened the Otelfingen power plant.
Suter recalls: "Back then nobody had much experience with burning waste wood. So to be on the safe side, the authorities applied the strict regulations for waste incineration to us."
The company invested double-digit millions in the generation of renewable energy. But as business conditions shifted it became ever more difficult to operate profitably, and so in 2008 the company took an international energy group on board, which has since become the majority owner.
"In 2011 the entire system was overhauled and a district heating network was built for the surrounding industrial zone. Now the plant operates in the black, but for us as private individuals the investment would not have been possible," notes Suter, who now concentrates entirely on supplying the fuel.

Andreas Suter inspects the fill level of the intermediate bunker. Fuel goes from here to the burner.

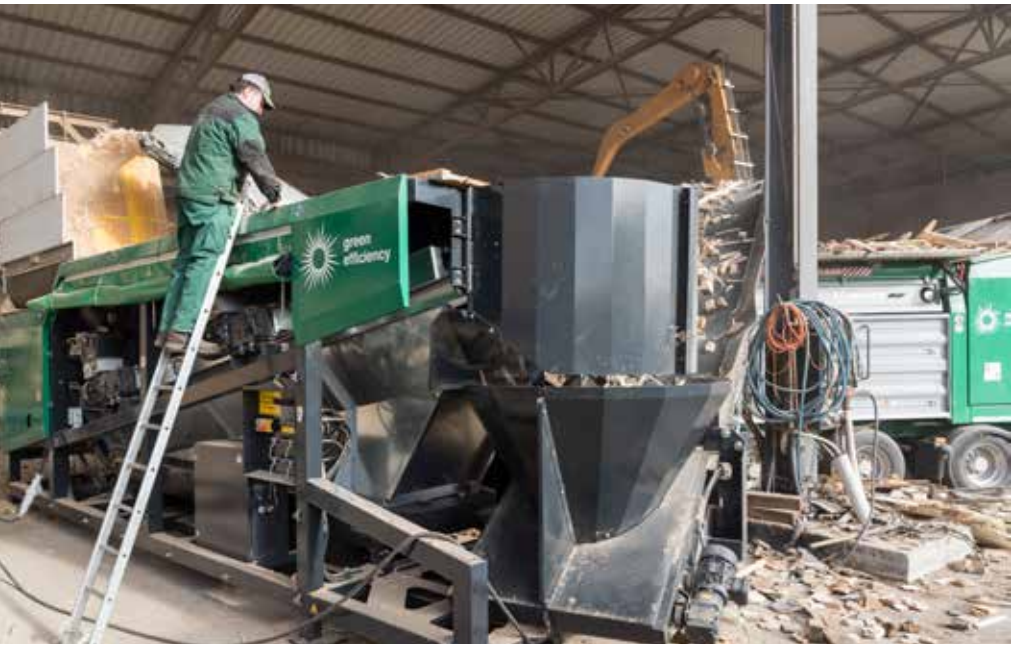
100 TONNES A DAY

The cogeneration plant uses 100 tonnes of fuel a day to make 18 million kWh of electricity and 8 million kWh of heat.
At 35,000 tonnes per year, the plant takes 90 percent of the fuel produced at the site, with the rest going to other regional power producers. The facility processes waste wood grades AI for untreated wood to AIII for coated and painted particle board.

It all needs to be transformed into a homogeneous fuel. The job is handled by an electric Crambo 5000 pre-shredder and a diesel high-speed shredder.

ROOM FOR IMPROVEMENT

"It's a capable combination" says Suter, "but there is room for improvement. The high-speed shredder has high operating costs due to contraries, and the process outputs fines that have a negative effect on the combustion process." Both were reason enough to connect with Getag, Komptech's Swiss sales partner, and discuss a change in the process. It was clear that the Crambo would continue as the pre-shredder.
The company has used these tough wood shredders for years, and will soon take delivery of their fourth Crambo.
"We replace machines after about 6000 hours.



The new Multistar One is under careful observation by test technicians to work the last bugs out of the machine.

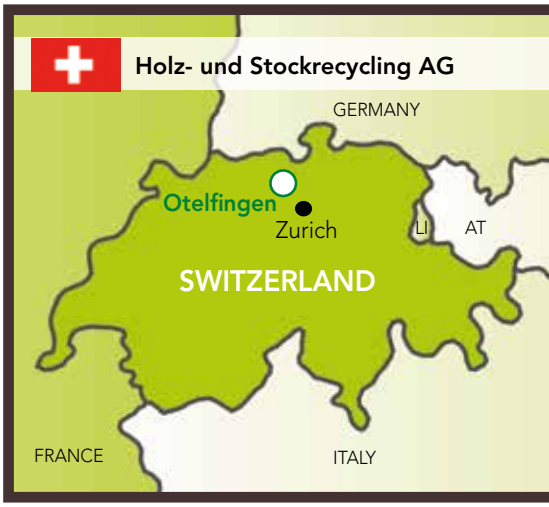
A look at the cogeneration plant, with the burner and fuel conveyor in the centre.

Because of Komptech's good buy-back terms, we can get a new machine with the latest improvements relatively cheaply," says Suter.
"This new one will also save energy, since we're switching from a hydraulic model to a Crambo direct with mechanical drive."

PLUS POINTS OF THE NEW TECHNOLOGY

In future a screen will take over the role of the high-speed shredder. Currently testing is underway on a combination of a Crambo and a star screen with integrated return of overlengths to the shredder, to see if it can replace the energy- and wear-intensive chipping step. Results are promising. Instead of a several hundred kW shredder with its dust and noise, the almost silent screener draws not even 20 kilowatts. And there is another benefit. Andreas Suter estimates that it reduces fines by 30 to 40 percent. Testing over several days is necessary to determine what effect the changed fuel will have on combustion in the cogeneration plant. After two days of operation Suter is optimistic. "Measurements of the exhaust show a clear downward trend, especially the carbon monoxide. Nitrogen oxides have also fallen. We're still waiting for the lab results for the ash and exhaust filter samples, but we're optimistic about them too."

Suter is sure that, while the new combination might give a little less throughput, the higher product quality and lower operating costs will more than make up for it. The Multistar One test machine may have a few teething problems, and certainly for his location Suter needs a stationary version instead of the mobile machine he tested, but one thing is clear – this is a configuration with a future.



ECO BY THE NUMBERS

At Reko in Raalte NL, managing energy costs has been a major focus for a long time now. It shows in the way they work and how they choose machinery – by the numbers. And the numbers show clear advantages for the Cribus 3800 drum screen.

In a huge demolition and asbestos remediation project, Reko is breaking down 329 apartments and preparing the ground for modern low-rise buildings.

Vincent Reinders: "If you review the energy consumption numbers, you realize that you have a lot to gain, financially as well as environmentally."

Reko is an all-round company operating in earthmoving, road construction, soil remediation, transport, demolition, asbestos remediation, sand mining, mobile screening and debris screening, and disposal of debris, building and demolition material, commercial waste and green waste. For all these activities Reko needs equipment, and that equipment naturally needs to be profitable and economical. Unsurprisingly, Komptech machines are prominent in the company's machine park.

"THE GREEN EFFICIENCY APPROACH IS A REAL BENEFIT" (Vincent Reinders)

EFFICIENT AND GREEN

At Reko, environmental consciousness is part of responsible management. Therefore, they recently replaced one of their seven Komptech Mustang screens with the newest Cribus 3800. It's economical in diesel electrical operation, and can also be run all-electric. The whole concept of the drum screen contributes to its economy, according to Account Manager Harald Wildenbeest:

"The undersize fraction is discharged immediately under the drum, which means that the drum has less material to turn. That means less energy consumption and more screen capacity. Of course, this is very much in line with Komptech's green efficiency policy."

"ECO IS USUALLY POWERFUL ENOUGH" (Vincent Reinders)

ECO POWER WORKS

With the larger and longer drum of the Cribus, Reko was counting on 20% higher profit. This has been confirmed 100% on a high-volume job in Enschede, where Reko is breaking down 329 apartments while complying with asbestos laws, and preparing the area for constructing modern low-rise buildings. "Whether screening earth and debris or breaking down these apartments, we always use the machines in an environmental way in eco-mode. Most of the time that's powerful enough", said Vincent Reinders. "All the drivers and operators get eco-training to increase their environmental consciousness and trust me, it works."

Reko came up with its own clever method of protecting control panels and tank filler against vandalism and theft.

Komptech Account Manager Harald Wildenbeest discusses how best to use the Cribus 3800 with the technician and the operator.

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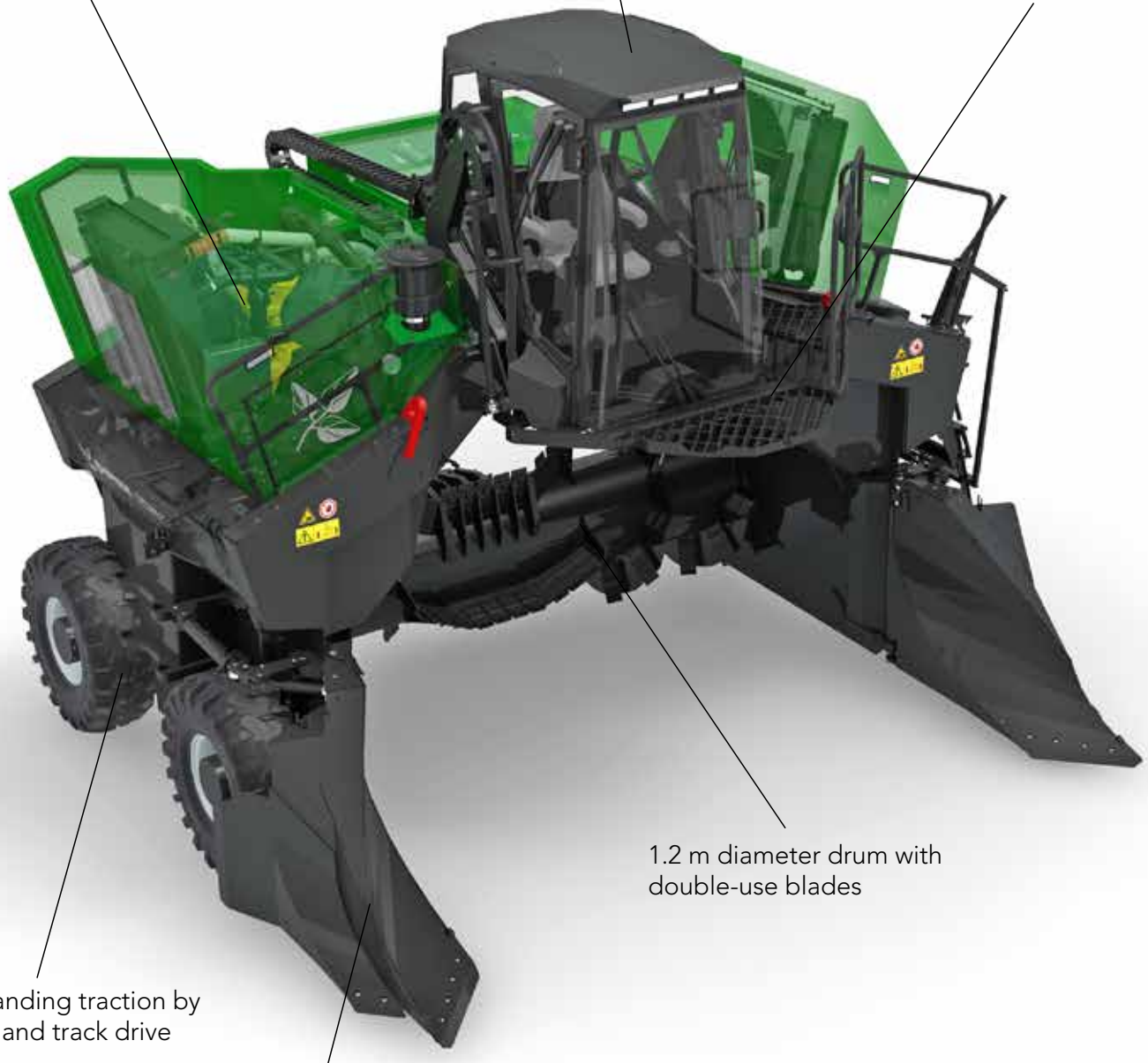

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