let's make

The UTV AG magazine

Compost!

Turning biowaste into valuable compost
Interview with Ron Westmoreland (Everett): pp 4–5

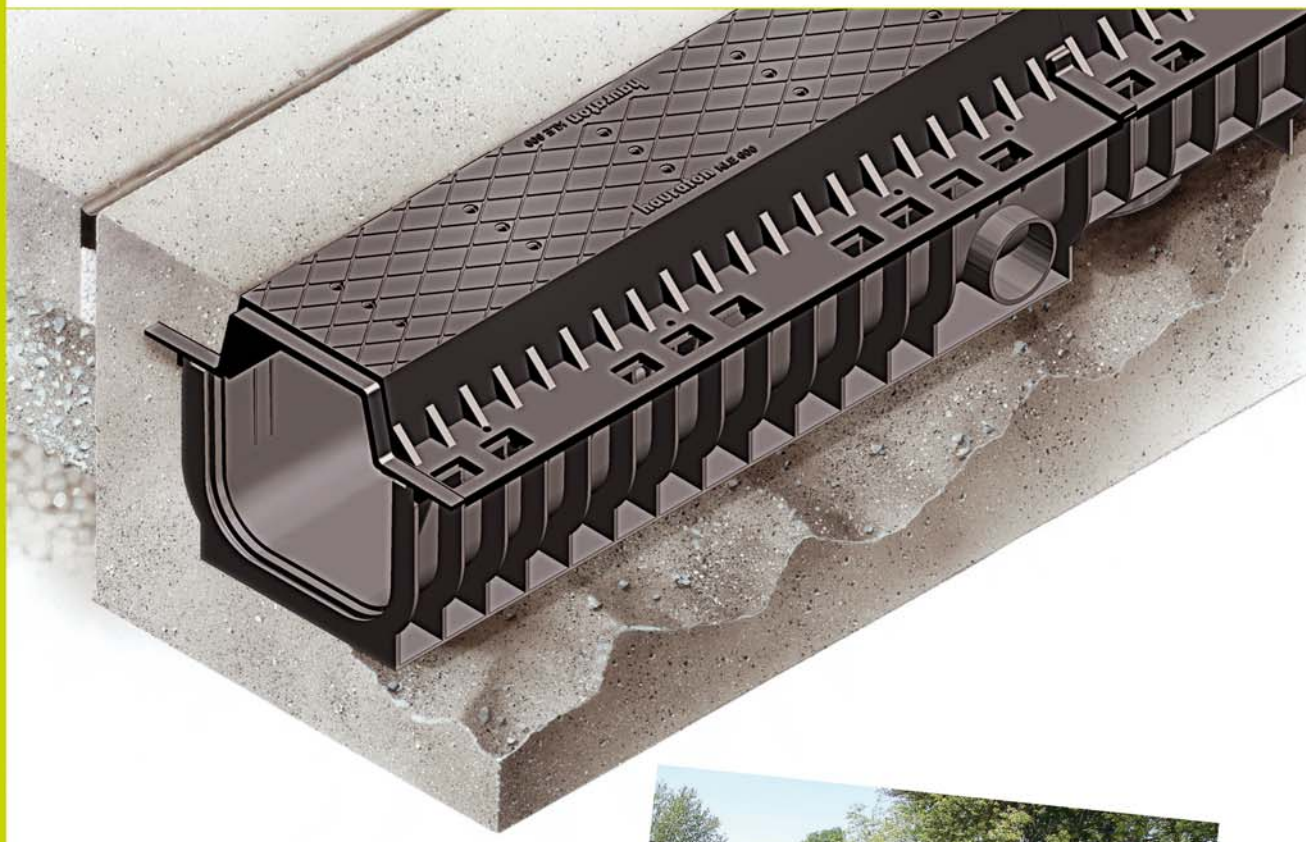
Innovations
Equipment for more efficient composting: pp 6–9

Training and science
Team training and recycling residual waste at UTV: pp 10–13

Win a trip to the Oktoberfest! p 17

AEROFIX®-Channels

for controlled aeration in composting plants



In short

- channels made of HD-PE are easy to handle
- high resistant to corrosive materials
- high resistant ductile iron cover 0,75 m length
- shorten the rotting up to 10-12 weeks
- simple mounting of the matched system on the side
- prevents offensive smell
- to refit in existing plant anytime

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Improved service

Makeover for UTV's website

Log on to:

http://www.kompostanlagen.de

and check out our updated website. As well as new articles and photos, it also contains more detailed maps on how to reach Vogel Kompost's various sites – and webcam links, so you can see what's happening there!

UTV's homepage has been given a new PDF download centre where you can obtain software manuals and more details on UTV's range of products. To receive your password and login, please contact UTV's CEO Thomas Schlien.

By the way, don't forget to take part in our competition on p 17 – and you could win yourself a trip to the Oktoberfest in Munich!

"As we make compost ourselves, our intention is to share our expertise along with the technology we've developed and use."

Thomas Schlien and Franz Vogel

UTV AG: In response to its enormous growth in business, UTV has been a public limited company (AG) since 2003.

CONTENTS

A concept catches on

Turning biowaste into valuable compost

A successful team: the personnel operating the composting plant in Everett (left to right: Vern Rath, Rodney Spangler, Kristine Kyle, Sloane St. John, Diana Thompson, Ron Westmoreland, Eugene Caldreon, Randy Monroe)

When it comes to separating their waste, the Germans are world champions. Yet the USA's catching up fast: garden and biological waste are now being kept apart from other refuse there and stored separately so that it can be turned into compost. Ron Westmoreland, a facility manager who has been working for Cedar Grove Composting since 1986, spoke to UTV's CEO Thomas Schlien about the new composting plant built in Everett using equipment supplied by UTV.

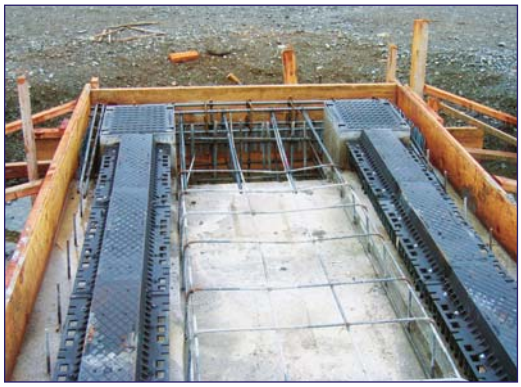
Interview

Why did you decide to build a composting plant of this type?
R. Westmoreland: Environmental awareness in the USA is constantly on the increase. As a result, waste separation is catching on, especially the collection of organic waste. The amount of waste suitable for composting is growing all the time, but the existing capacities can't keep up with the demand for compost production. The Gore Cover System enables different input materials to be processed into top-quality compost.

Does this mean you can kill two birds with one stone?
R. Westmoreland: Exactly.
The construction of the plant began in February 2004, it went into operation on 11 October 2004, and was finally completed on 3 May 2005. How big was the site used?
R. Westmoreland: 28 acres – that's 11.33 hectares.
And how big were the Gore compost covers used?
R. Westmoreland: 33,600 square metres.
How much waste can the site handle?
R. Westmoreland: 180,000 tonnes: 70% garden waste and 30% biowaste.
Does the composting plant emit any unpleasant odours?
R. Westmoreland: No, it doesn't. Moreover, the plant's simple to use and extremely flexible.
As far as handling is concerned, are you satisfied with the training your employees received?
R. Westmoreland: The staff training took place in three phases. Before construction began, the personnel attended a training course at UTV's site in Baden-Baden. The second training session was combined with the plant's start-up, while the third was held a few weeks later once everybody had acquired some experience and there were a few questions that needed to be answered.
Were you satisfied with the services provided by UTV?
R. Westmoreland: Apart from providing excellent training for my staff, UTV's services regarding all aspects of the composting process and composting technology are superb. Moreover, all our dealings with UTV have been very smooth, and not even the ten-hour flight time separating us is an obstacle.
Are you planning to hold an open day to involve the general public more?
R. Westmoreland: Yes – we'll shortly be hosting an open day, at which we'll be inviting the public to officially inspect the site. Interest in the composting plant was very high as soon as construction began. This was reflected in the large number of guided tours of the plant organized for various groups, ranging from parties of housewives to science students from the University of Washington.
Finally, what's your personal opinion of the Everett plant, which is equipped with UTV composting systems?
R. Westmoreland: The plant harbours truly enormous possibilities regarding the range of possible input materials coupled with calculable technology. Both aspects make for the reduced consumption of natural resources and cut environmental pollution.

Thank you very much for taking the time out to talk to "let's make Compost"!

Project manager and interviewee: Ron Westmoreland



The aeration system is installed – with guidance from UTV

Electrician Bill Peterson installed 9 miles of cable ducts and used an astonishing 36 miles of cables!

Site manager Jeff Toles (Bayley Construction) used 9,000t of asphalt & 11,000m³ of concrete

Innovations

UTV's products for efficient composting are subject to constant development

Power Winding Monster (PWM 13)

NEW: PWM 13 mobile cover winding machine for triangular clamps

The PWM 13 in action

The newly developed PWM 13 (which in operation measures 13.5m wide, 4m long and 5m tall) built by Gerhard Götz GmbH enables one operative to completely encase and cover up a compost clamp single-handedly, as well as to lift up and replace the cover at any point. The speed of the winding roller is infinitely adjustable from 0 to 25 rpm.

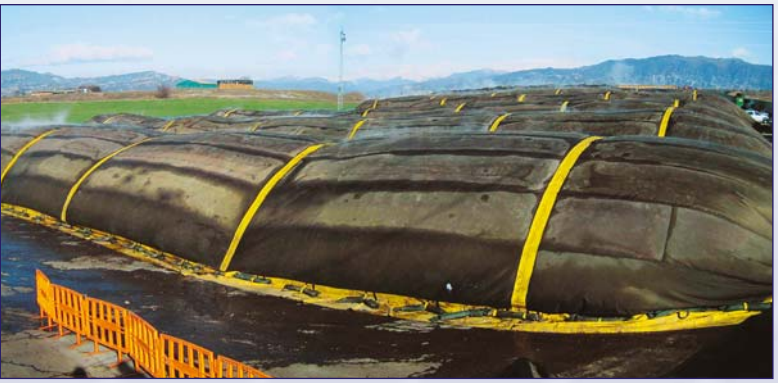
One key advantage of the PWM 13 is that the cover can be tightly placed over triangular clamps up to 3.8m tall and 8m wide. This ensures low sensitivity to wind, which is vital in windy areas. And despite its size, the PWM 13 houses enormous innovation.

Maximum mobility is ensured by five different types of steering – for each wheel is controlled by a swing angle meter and computer. Using a special program, the Power Winding Monster can for instance be rotated about its own axis in a circle. The travelling speed is infinitely adjustable from 0 to 3¾ mph (6km/h) via a hydrostat.

Good lighting on both the machine and composting clamps means the PWM 13 can also be used for night-time operations. The winding roller is automatically released in response to heavy winds or excessive tension leading to overloading; manual release is possible, too. Cover winding machines can also be supplied as stationary and even remote-controlled units.

The PWM 13 – already being used in Canada too

GORE™ cover for the treatment of sewage sludge



Composting facility in Fervosa, Spain

GORE™ covers are also a key element in the treatment of sewage sludge. They contain a specially developed microporous membrane made of expanded PTFE (polytetrafluoroethylene) which reduces odours by up to 97%. Moreover, with a pore size of about 0,2µ, GORE™ covers have been shown to stop more than 99% of spores and germs, protecting staff and local residents. Reference treatment plants include:

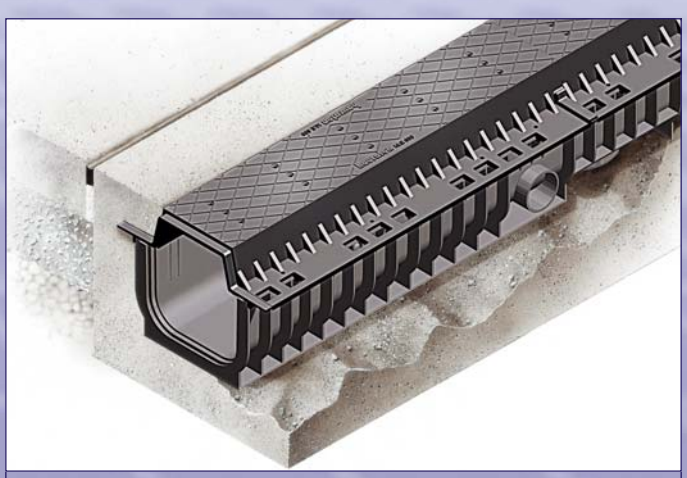
- Edmonton, Canada: 16 clamps, 40,000t processed annually (opened in 2002)
- Fervosa, Spain: 8 clamps, 25,000t processed annually (opened in 2004)

In late 2005, the Greater Moncton Sewerage Commission in Canada will also put this proven technology into operation at its new plant. Preliminary trials focusing on the quality of the compost produced under the tough conditions of the Canadian winter were passed with flying colours, and the first eight clamps for treating 20,000 tonnes of sewage sludge are now nearing completion.

AEROFIX-Super-aeration channels

Channel base now made of HDPE

AEROFIX-Super-channels 200 provide controlled and variable aeration to shorten rotting times from several months to between 10–12 weeks, while at the same time draining seepage water. These stationary systems use high-quality cast iron covers designed to EN 1433 for max. loads of 600 kN. The technical superclass is a plastic channel base. Made of HDPE, it is highly resistant to aggressive agents and has an extremely long service life. The light-weight channels are easy to install and efficient to lay. Because of the but joints the sealing work is very easy. The cast iron covers come in lengths of 0.75 m which again makes them easier to handle and seal at butt joints. Their top hat cross section facilitates surface coating. The channels are easy to rinse for cleaning. Oxygen probes and computer control combine to keep the oxygen content at the same level during intensive rotting. Existing plants



AEROFIX-Super-channels 200 for aerating and draining composting material no longer need heavyweight concrete.

can be easily retrofitted with AEROFIX-Super-channels 200. The system has been patented and can be seen at work in a number of plants.
For more details turn to:
Hauraton GmbH & Co KG,
phone: +49 (0) 7222 9580,
Email: marketing@hauraton.com

Stationary clamp aeration

Energy-saving and ecofriendly

Outdoor aeration

In stationary clamp aeration systems, oxygen is supplied to microorganisms in the composting material. Air pressures and volumes are adjusted to match any clamp size.

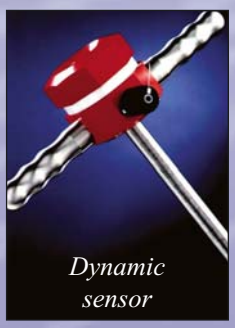
The components have been optimized for maximum efficiency and reliability.

An outdoor version uses a stainless steel shaft and Teflon bearing to minimize maintenance and wear.

Another advantage is the low energy consumption, making for reduced pollution.

Innovative compost probes for industrial composting

Oxygen and temperature measuring system by J. Dittrich Elektronic

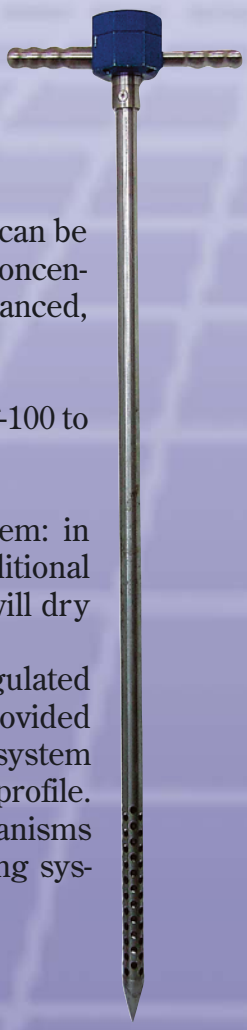


Dynamic sensor

The biological processes which are set in motion during composting can be controlled and accelerated if the temperature, moisture and oxygen concentration in the clamp are regulated. J. Dittrich Elektronic provides two advanced, proven insertion sensors:

the MF420-O-M to measure the oxygen concentration, and the MF420-5T-100 to measure temperature distribution in the clamp.

Operators of industrial composting plants in particular have a problem: in order to prevent biowaste from decomposing anaerobically, the clamps need to have additional aeration. However, the aeration fans consume energy, and a flow of air that's too strong will dry out the composting material, slowing down decomposition.
Using the MF420-O-M oxygen measuring system allows the necessary aeration to be regulated in order to minimize energy consumption while still ensuring that sufficient oxygen is provided for complete, rapid anaerobic decomposition. The MF420-5T-100 temperature measuring system gauges the temperature at five different points to determine the compost's temperature profile. The operator can just check whether the optimum ambient temperature for the microorganisms has been reached and whether the hygienization of the compost is likely. Both measuring systems are easy to use and maintain, and have been licensed for the American market.



Kompmaster V2.6.4

The Kompmaster PC software has now been completely internationalized in time for the release of Version 2.6.4. The main improvements are the introduction of additional display settings and new data analysis tools:

- The display of the reference temperature mark can be switched on and off.
- During print-out, the depth for the reference temperature set is always calculated, irrespective of what temperature was set when the data were saved.
- The temperature can be changed from Celsius to Fahrenheit with just a single mouse click.

Net-Kompmaster enables a composting plant to be controlled using a network, ideally a WLAN (wireless local area network). As well as monitoring the system while on the move, this also allows local aeration control and plant management. In other words, even when you're out and about you can still have complete control over your plant.

Net-Kompmaster V2.6.4

Other versions are available for remote control. For this purpose, the next version of the Kompmaster software will be divided into a server component and a client component.
Meanwhile, Tele-Kompmaster has been developed for areas not yet served by broadband. It features the same functions as Net-Kompmaster but is linked up using a modem.

Team training at UTV:

Amazing, isn't it?

Peter Brown adjusts the oxygen sensor, fellow Canadian Marc Hebert makes sure it's stable, while Barry Pascoe from Australia concentrates on the sensor's interior. Meanwhile Thomas Schlien keeps an eye on the compost data on the beamer and explains what's happening. All part of the tricontinental cooperation typical of team training at UTV.

Americans, Belgians, Colombians: UTV's new conference room in Baden-Baden seems to be hosting people from all over the world. And that's no wonder – for interest in UTV's composting technology is truly global. "It goes without saying that we provide extensive training in the equipment we supply," says CEO Thomas Schlien. "After all, we want our customers – most of whom live a long way away – to be able to get to grips with UTV technology without any hiccups." To make sure things run smoothly right from the word go, training is divided into three phases. Phase 1 takes place in Germany and enables participants to gain first-hand experience of UTV equipment. Phase 2 is delivered in the customer's home country and is combined with the start-up of their UTV equipment. Phase 3 follows a few weeks later and is designed to answer questions from the operating personnel which have cropped up during the first period of usage.

Peter Brown and Marc Hebert from the Greater Moncton Sewerage Commission as well as Barry Pascoe from Camden Soil Mix have reached the end of the Phase 1 of team training lasting a week. On arriving at Munich Airport, they were met by qualified engineer Katja Christof, who works in technical support at Gore Cover System. Ms Christof looked after the training group alongside Thomas Schlien, adding not just her expertise but also her feminine charm to an otherwise solely male group.

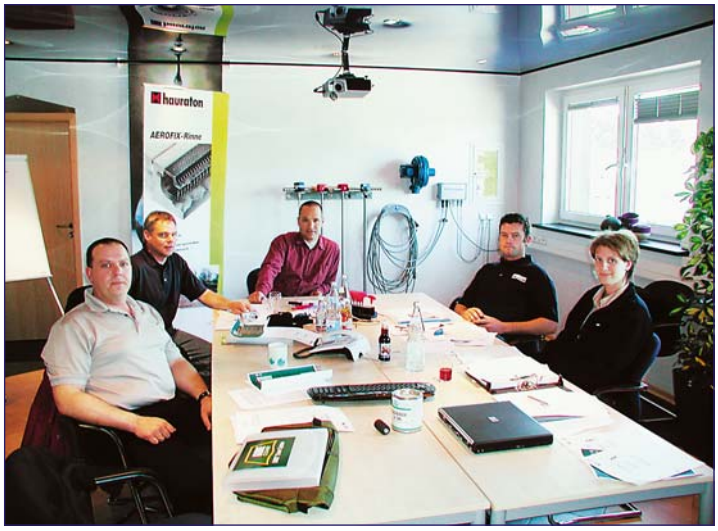
"After their long flight, we started off with some local 'acclimatization': a tankard of beer each and a portion of Leberkäs or meat loaf,

Easier than they supposed: 'learning by doing' in teamwork

a local delicacy!" grins Katja Christof. It was then time to visit Gore in Munich. "We explained how our quality assurance system works, and then showed the trainees the products and how they're operated," explains Katja Christof. The next stop was Baden-Baden. After a tour of UTV, Peter, Marc and Barry were given detailed information about the equipment used and the procedures involved. Afterwards, they visited two more companies: Hauraton in Rastatt, responsible for the AEROFIX aeration channels, and Gerhard Götz in Bühl, where the latest development of the PWM 13 can currently be seen. After a theoretical examination of the various stages of the composting process, it was time for the three participants to have a go: winding, measuring, checking, repairing and replacing elements until they'd all arrived at an individual solution for their own facility.

"It's first-class training," declared Peter, Marc and Barry in unison. This was the first time that any of them had been to Europe, and apart from the educational side they were also impressed by everything else they saw. Fortunately, their busy schedule still allowed time for sightseeing in and around Baden-Baden, and they also had an opportunity to try some of the regional specialities. Dinner at the elegant Hotel Heiligenstein in Neuweier has become a regular feature of all UTV's training courses. And as well as local wine and asparagus nurtured on compost, the visitors also acquired a taste for Tarte Flambée from across the border in France. "Although the asparagus was fine, the Tarte Flambée with onions and bacon was absolutely delicious," laughs Barry Pascoe.

"I'm surprised at how simple some of the things turned out to be which had seemed so complicated at first," says Marc Hebert. And when Peter Brown was asked to say what he thought of the training course at UTV, it took him a while to answer – for it surpassed all his expectations: "Amazing, isn't it?"
All too quickly, it was time for all three to start the long journey home. As well as their souvenirs, their luggage also contained a UTV certificate. But they'll certainly be returning to Germany at some stage – that's for sure.



International brainstorming in UTV's new conference room

For a better environment:

UTV's residual waste breakdown project

in conjunction with pioneering measuring technology company J. Dittrich Elektronic GmbH & Co. KG

One thing's certain: where there's life, there's waste. Using it ecologically and economically is more important than ever before. After all, everyone knows we need to conserve our resources in order to protect nature and the environment. The research project "Controlled rotting to boost organic decomposition" shows landfill operators new, efficient ways to reduce their residual waste and how it can be composted for reuse.

The first step is always the hardest – and plenty of groundwork had to be done when the project started in spring 2002. But once the general approach to processing residual waste had been mapped out, including the technology to be used and the site requirements, preliminary laboratory trials began – and the results were soon very promising.

"In the laboratory experiments, we tested how the materials involved reacted to various acids and bases," explains Ralf Zweig from the research group, an expert in sensor systems working for J. Dittrich Elektronic. The materials used outside had to be chemically resistant more or less permanently. UTV was in charge of designing the aeration systems and drainage channels, its own drainage channels making inexpensive underfloor aeration systems. Specialists from both companies monitored the clamps during the trials, the data being captured and logged automatically.

"The sensors used displayed the results we were anticipating," emphasizes Ralf Zweig. The positive expectations were fulfilled during the decomposition of the very first test clamp and were ultimately confirmed in the main

Engineer Ralf Zweig analyses the laboratory findings

trials: disinfection and hygienization were easily achieved when the instructions were followed. The other key factors are the mechanical pre-treatment of the residual waste, covering up the clamp, and ensuring controlled aeration. During the concluding soil analysis, there was no sign of any leachate problems.

This clearly showed that the secondary treatment of residual waste can be improved by rotting. Plastic and organic substances can then be effectively separated by another screening stage, resulting in three fractions: plastic that can be used as a substitute fuel in the cement industry, compost with a high proportion of plastics whose poor quality makes it unsuitable for agriculture but is good enough for the recultivation of disused landfills, and scrap, which can be separately disposed of. In a nutshell, the goal of reducing the amount of refuse to be landfilled is achieved. Says Ralf Zweig: "Our research project hence resulted in a cheaper, simpler, and above all greener method of preparing the separation of residual waste."

The aim of the project was to cut down the mountains of waste

Turning satisfied customers into friends of the company

News roundup

At UTV, customer satisfaction is more important than anything else. In actual fact, we're keen to go even further than that. We do all we can to nurture customer contact – and not just regarding UTV products. Our ultimate goal is to be able to call our customers friends.

Global interest

A delegation of specialists recently arrived from Colombia in order to find out more about UTV technology. Fortunately, their enthusiasm wasn't dented by the 14-hour flight

Seafood city

The Canadian city of Moncton is known for its outstanding seafood. Anyone going there and not trying the local lobster only has themselves to blame. And it's equally delicious whether served up in a five-star restaurant – or on the premises of a sewage plant!

Winners enjoy the Oktoberfest

UTV competition winner Jim Lapp loved the breathtaking attractions at the Oktoberfest in Munich – and we don't just mean the big wheels and brass bands! Just like the rest of our customers, we made sure Lapp Senior and Lapp Junior were at the centre of attention!

A well-earned drink

The Oktoberfest is said to be the world's biggest festival. It certainly has the world's biggest beer consumption: well over a million gallons every year! Of course, the UTV team wouldn't want to miss out, and once their work was over, off they went to join in the fun. Cheers

Umweltgruppe Vogel turns 33

What better reason to celebrate than reaching the ripe old age of 33?! We were delighted that so many of our clients were able to join us – after all, our commercial progress over the past few years is all down to them! The party was held at Altes E-Werk, a disused power plant in Baden-Baden.
Instead of bringing presents, the 160 guests were asked to make a donation to good causes in the region. The celebrations went on until the early hours of the morning, making for an unforgettable anniversary!

(Left to right: Thomas Schlien, Jo Duyvejonck from Belgian company imog and family, and Franz Vogel)

Niagara Falls

Look carefully, and you'll see that the three gentlemen aren't the only stars of this photo. While taking a break from their installation work, Reinhold Werner, Michael Durban (UTV's project officer) and Manfred Trapp (Götz) decided to visit the Niagara Falls. The rainbow was thrown in for free.

Background photo: the Niagara Falls

Place your bets ...

What's the betting that at the Iffezheim spring race meeting all eyes were not just on the horses but also on the lush green racecourse fertilized with UTV compost?

Biotherm: construction begins

At the initiative of Franz Vogel, a cogeneration plant fired by 225,000 cubic metres of biomass from trees, bushes and shrubs annually is being built. It will slash the volume of greenhouse gas CO_2 released into the atmosphere.

Baden-Baden hosts Vanessa Mae

In February, world-renowned classical-pop crossover star Vanessa Mae played live at Festspielhaus Baden-Baden. Seats had been reserved for Franz Vogel along with his wife Hanni, David Clark and Paul McBright (Cleanaway) as well as Thomas Schlien, who all witnessed a magical performance by this stunning violinist.

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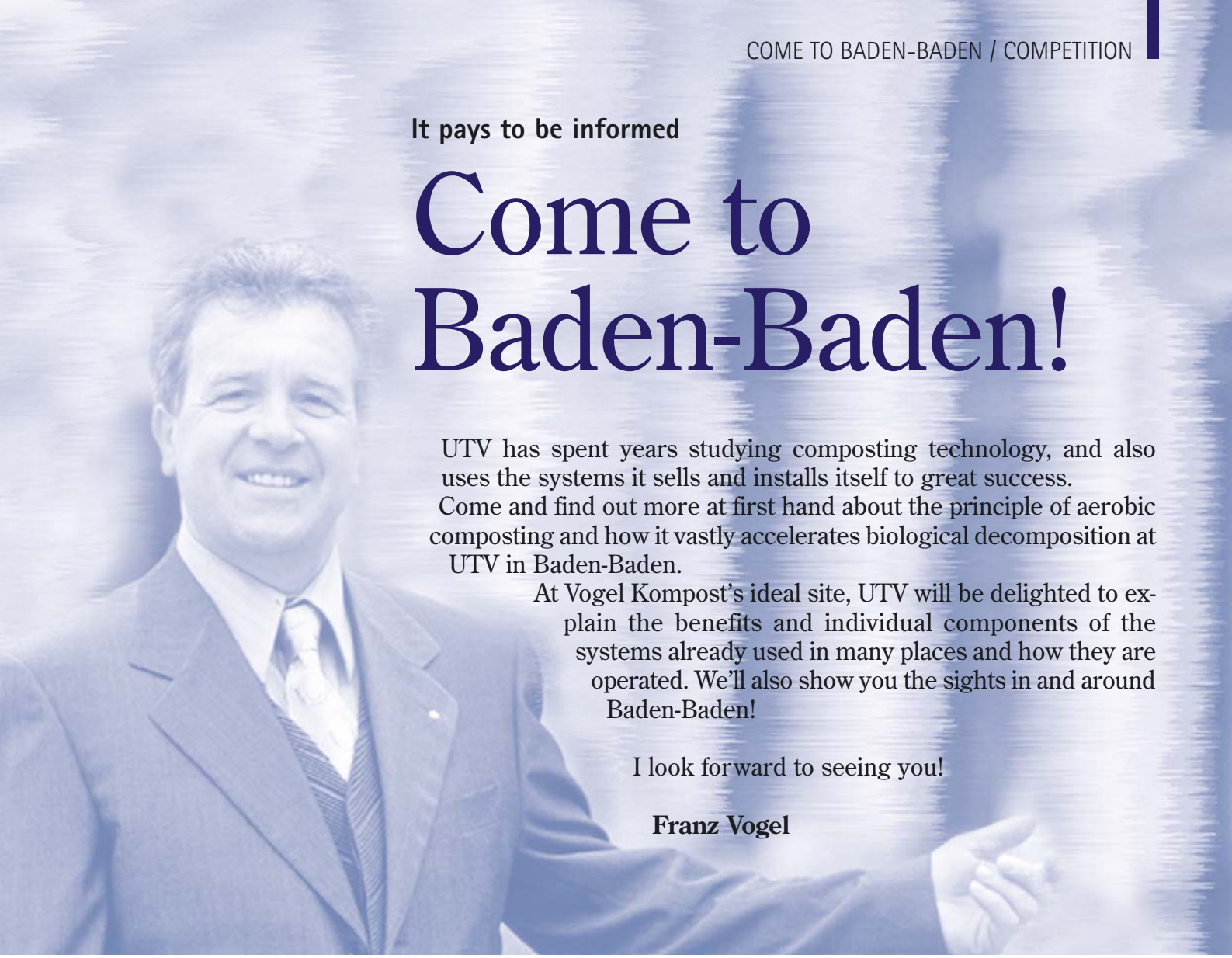

It pays to be informed

Come to Baden-Baden!

UTV has spent years studying composting technology, and also uses the systems it sells and installs itself to great success.
Come and find out more at first hand about the principle of aerobic composting and how it vastly accelerates biological decomposition at UTV in Baden-Baden.
At Vogel Kompost's ideal site, UTV will be delighted to explain the benefits and individual components of the systems already used in many places and how they are operated. We'll also show you the sights in and around Baden-Baden!

I look forward to seeing you!

Franz Vogel

UTV COMPETITION

Once again, the annual Oktoberfest beer festival in Munich will be celebrated for a fortnight this autumn. Every year, this ultimate collection of beer tents attracts more than six million people, all keen to sample the unique atmosphere.
And this is your chance to join them! Win a two-day visit to the festival with a partner of your choice, including travel, accommodation and expenses.

Just answer the following question:
Who do you need to contact in order to obtain a password and login for the newly installed PDF download centre at the UTV website?

Send the answer by email to:
gewinnspiel@kompostanlagen.de

let's make Compost!

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UTV AG

UTV's success story

The history of UTV began when Franz Vogel and his team of experts were awarded their first contract by Gore: a residual waste stabilization project. This entailed upgrading the facilities of Vogel Kompost in Baden-Baden. The word quickly spread about the new, highly effective composting method on which the 'Baden-Baden model' was based, and enquiries for composting plants started coming in from all over the world.
As a result, UTV AG was founded in 1996. So far, the company has erected over 40 plants across the globe. Future projects in the drive to optimize worldwide compost production include setting up several foreign agencies so that clients can turn to authoritative local partners.

Quality takes priority

There's no waste in nature. Taking as our motto "Quality takes priority", we've perfected the most natural and oldest method of recycling in the world and adapted it to the present day. We convert biological waste and compostable waste. It's simple, fast, and doesn't harm the environment!

We vouch for this personally:

Franz Vogel
Director

Thomas Schlien
Director

Wolfgang Bross
Head of Financial Management/
Controlling

Michael Durban
Logistics Manager

Hubert Bross
Chairman of the
Supervisory Board

Christian Grimm
Supervisory Board,
Project Management

Andreas Rhode
Supervisory Board

Stefan Wilkens
Warehouse Manager

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