



Outlast Inside

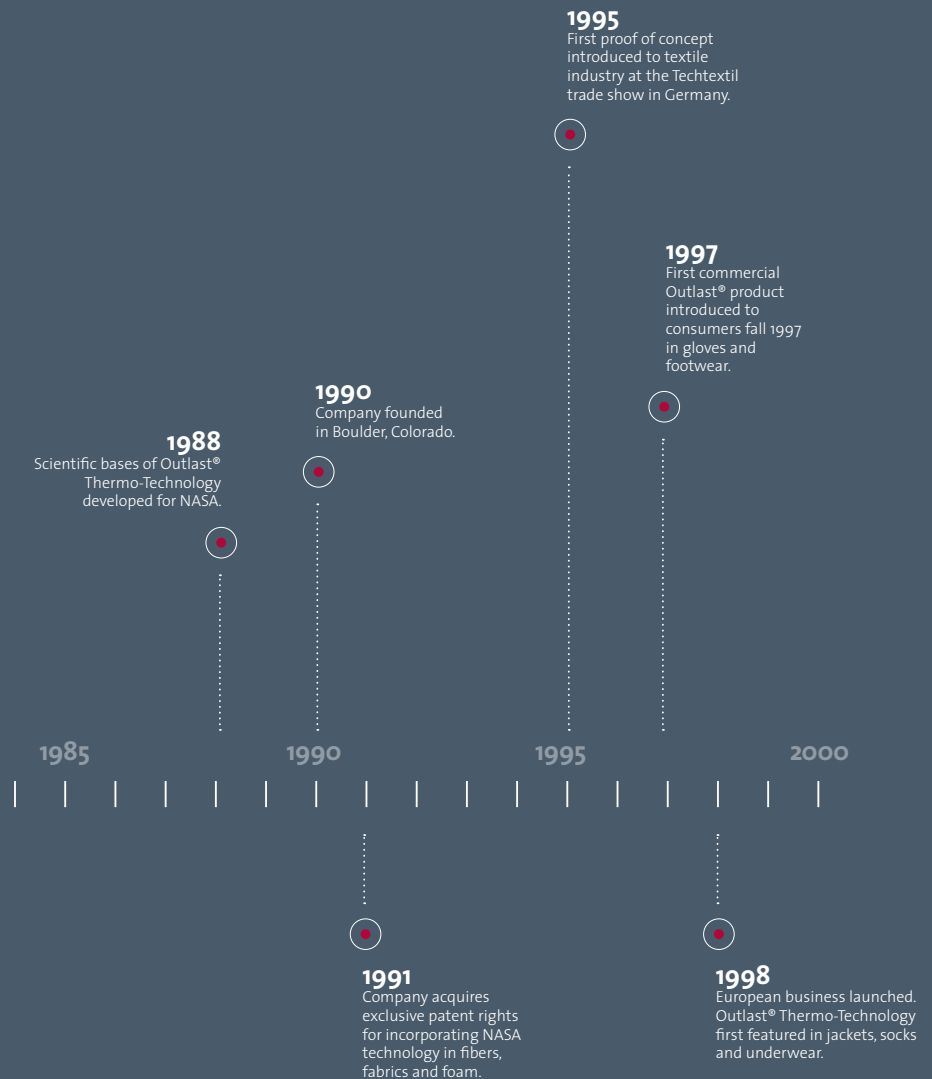
# ABOUT OUTLAST

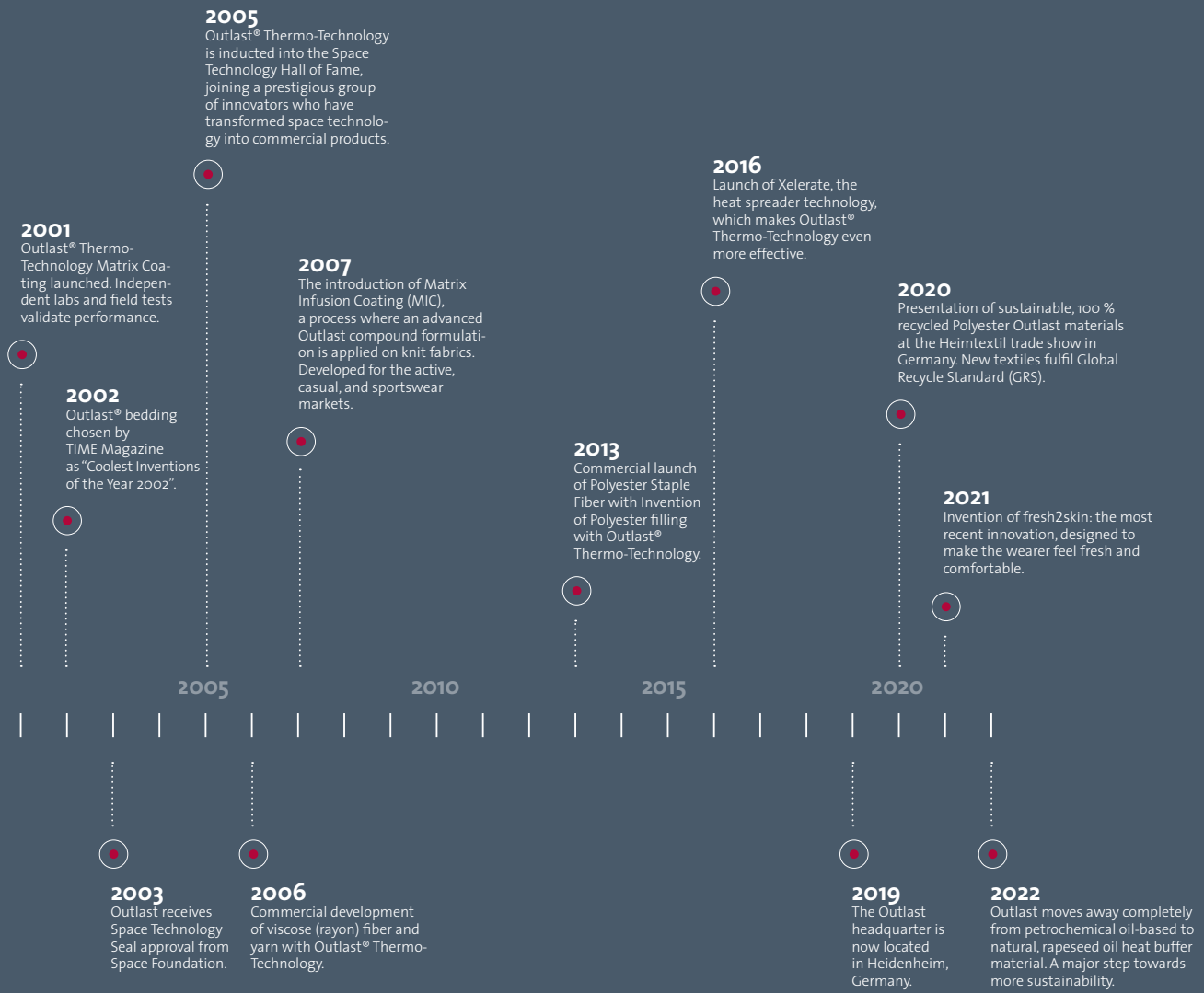
## Feeling just right

Outlast Technologies GmbH has been the global market leader for thermo-regulating textiles for over 25 years.

And there is a reason for this: Materials with Outlast® Thermo-Technology are able to absorb, store and release energy, resulting in a consistent balanced body climate, significantly increasing subjective wellbeing and personal performance.

By the way: Outlast® Thermo-Technology is originally developed for NASA to protect astronauts from extreme temperature fluctuations in space.





# UP TO 48 % LESS SWEATING THANKS TO OUTLAST®\*

The Outlast materials can absorb and store body warmth, forming a natural heat buffer, minimizing or even avoiding overheating and sweating. Contrary to conventional wicking technologies, which only transport sweat away from the skin, Outlast proactively prevents the built-up of sweat.

Independent studies show a sweat reduction of up to 48 %\*. And the highlight: When body temperature drops because of reduced physical activity, the stored warmth is released again to the body, ensuring a wonderfully balanced skin climate.

\* Tests for various final applications such as clothing, shoes, and helmets conducted by C. Russ – INSIDE CLIMATE, an independent test laboratory in Munich (THG AreaView – SleepView). Details on request.

# FEEL THE OUTLAST® DIFFERENCE: THE BENEFITS

## **Better sleep**

A balanced temperature guarantees deeper and better quality sleep

## **In shoes**

Less blisters and odor, resulting from reduced sweating inside the shoe

## **For athletes**

Less energy use and an excellent fluid balance thanks to reduced sweating

## **“feel-good clothing”**

More comfort for all kinds of apparel

## **Health and safety**

Better concentration and higher performance in all product areas of occupational health and safety

## **“Next to skin”**

Improved functionality in all “next to skin” products (underwear, shirts, orthopedics, many other)

## **In leisure**

By wearing functional clothing equipped with Outlast®, the risk of a cold is significantly reduced when hiking, gardening, or during any other leisure activity





# SUSTAINABLE AND BEAUTIFUL

Our style Glenwood does not only have a classy look and great thermoregulation properties, it also consists of 100 % recycled polyester and fulfils the Global Recycle Standard (GRS).



# LYOCELL: SUSTAINABLE AND FUNCTIONAL

Outlast relies on the resource-saving carrier material lyocell for its article Bayfield. It requires less water than cotton, during production, it also consists of up to 80 % renewable raw materials.

The microencapsulated wax – the basis of Outlast® Thermo-Technology – is renewable. It consists of rapeseed oil and thus protects finite resources and the environment.







# DEVELOPED FOR SPACE – PROVEN ON EARTH

The Outlast® Thermo-Technology was originally developed for NASA to protect astronauts from extreme temperature fluctuations in space. Depending on exposure to sunlight, astronauts have to deal with temperature fluctuations of several hundred degrees Celsius.

Fortunately, these temperature fluctuations do not exist on earth.

Nevertheless, a constantly balanced skin temperature offers wellbeing and increases productivity.





With a differential scanning calorimetry (DSC) device, the heat absorption capacity of each textile can be determined.

Conventional textiles cannot absorb or store energy.

# HOW OUTLAST® THERMO-TECHNOLOGY WORKS

Excess body heat is absorbed by the Outlast® thermo material. In this process, the micro-encapsulated natural wax liquefies.

Based on physical law, this energy absorbency will continue for as long as skin temperature and Outlast natural wax temperature are not in balance. Once balanced out, the transfer of energy stops until the skin temperature drops again. The stored energy is then released back to the body during which process the wax solidifies.

## Micro-capsules

The key element in this ongoing process of melting (absorbing energy) and crystallizing (releasing energy)

are the micro-capsules. To ensure improved sustainability, Outlast uses micro-encapsulated natural rapeseed oil.

Micro-capsules are used in a wide variety of products: chewing gum is filled with micro-capsules, when chewing, the capsule is destroyed, releasing the flavor. Or with carbon copy paper: the backside of the carbon paper is coated with micro-capsules containing ink, when pressing with a pen, the ink is released.

Contrary to these applications, Outlast micro-capsules are stable and indestructible to withstand textile and wash processing. Outlast micro-capsules are microscopic of size (approx. 3 million per cm<sup>2</sup>).



Our customers bring out the best in us.  
We love to be challenged on product,  
innovation and service.



**INTERVIEW  
WITH  
MARTIN BENTZ,  
CEO OUTLAST TECHNOLOGIES GMBH**

**Ol: Martin, you have been running Outlast very successfully for over 20 years. What's your formula for success?**

MB: (laughs) I think our success is primarily due to our products. They make people's lives more comfortable and enjoyable. People like that and buy our products.

At the same time, we have an excellent, innovative development team, offering customers tailor-made solutions.

**Ol: At a time when the demands on structured processes and efficiency are increasing, can you offer customer-specific solutions?**

MB: I don't think this is a contradiction: the better company structures and processes, the easier we can respond to customer requests. We attach great importance to providing customers with personal and professional advice. Our customers and consumers deserve the best possible performance from our products.

At the same time, we thoroughly test every product before it is launched to check whether it meets our performance and quality requirements. This is how we create reliability – for manufacturers and end consumers alike.

**Ol: Do your customers appreciate this commitment?**

MB: Yes, I think so. We usually have long-term relationships with our customers. Reliability in terms of quality and functionality, but also in terms of consistent high-level service is an important point.

I think our customers are also convinced that we can react quickly and easily to trends and new product needs through our own development team.

**Ol: And how does Outlast deal with the increased importance of sustainable textiles?**

MB: For many years, we have focused on reducing our ecological footprint. We work on resource-saving manufacturing processes, in line with strict social and environmental legislation. The largest part of our bedding products are produced in Germany, in compliance with the latest industrial standards.

We are very conscious in our materials choice. Green is not an idle word in our company. We use rapeseed oil-based natural wax instead of petrochemical oil based paraffins. We also offer textiles made from recycled PET bottles or more natural raw materials.

Outlast Thermo-technology products are resource-saving. Through minimizing or even eliminating sweat, we reduce the need for frequent washing. This is good for the environment but also saves energy and cost. As a company, we want to make a meaningful contribution for a more sustainable future.

# MARKETING SUPPORT

Informative and effective communication is essential to make the most of the Outlast® benefits. Our partner program for licensees is intended to help you develop strong marketing messages relating to the function of proactive temperature and moisture management.

Whether hangtags and labels or joint media campaigns, as our Outlast partner, you benefit from comprehensive marketing support.

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# PEOPLE BEHIND OUTLAST

My job is very varied,  
requires initiative and  
responsibility, but also a  
lot of communication  
and teamwork.

I like that!

Ute | Sales Support



I've been with  
the company since the  
company was founded.  
And yes, I still love it!

Corinne | Team Leader  
Sales Support



Teamwork at Outlast is  
something very special.  
All pull together and  
everyone helps everyone.

Katharina | Sales Support



Outlast combines  
innovation, reliability  
and continuity.

Ingo | Senior Business  
Development  
Manager Europe



At Outlast I can work  
flexibly and I have the  
opportunity to continue  
my education and  
develop personally.

Heike | Head of Finance &  
Accounting



We cannot solve the global  
climate crisis easily, but we  
definitely offer solutions  
to guarantee your body's  
climate comfort!

Volker | Director Research &  
Development





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[www.outlast.com](http://www.outlast.com)