

ispo '10
hall B1 ice domes



› **PULSEAR, listen to your heart on your iPhone**

The first mobile phone heart rate monitor without additional probe or chest belt.

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› **Breakthrough**

ODLO has developed a new racesuit system for biathletes and cross-country skiers for more performance through active thermal regulation.

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› **Comfort living**

Full embedded communication solutions for ski and bike helmets or an integrated camera? These are just some of Textsys GmbH's new products.

page 3



› **Smart Navigation**

With Data4vision and the Navi2move, o-synce presents their latest developments in the field of navigation and visualization.

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More performance with the new racesuit system

visit ODLO: hall B3 booth 202

ODLO has launched a new Racesuit System for biathletes and cross-country skiers. The system comprises a two-part warm-up outfit and a racesuit in 3D rotary knitting technology.

The warm-up outfit has newly developed heating elements where the main groups of muscles are situated at the back and the thighs. Through conductive and elasticised Novonic® yarns which have a silver core, temperatures of 39°C to 42°C can be reached in the heating zones with low use of electrical energy provided by batteries. Because of this, the externally warmed muscles retain their optimal performance temperature even in extremely cold conditions. ODLO has attuned the warm-up combination and the racesuit to each other as a system. The warm-up suit with the Novonic® heating system can be compared with the heating covers used for Formula One tyres, guaranteeing an optimal temperature at the start.

Read more on page 3

LOW ENERGY – HIGH IMPACT
NEW IDEAS FOR SPORTS, FITNESS & HEALTHCARE?

BLUETOOTH INNOVATION WORLD CUP 2010

1 June - 31 August 2010

Find more information at:
www.bluetooth.com/innovation

WT news flash

› **The World's First Power Heated Wetsuit**

The idea was clear: developing the first heatable wetsuit and combine innovation and technology with the knowledge of the leader in wetsuit technology. Rip Curl made this idea a reality. The new and unique wetsuit – H-Bomb – uses two Lithium-ion 7.4 volt batteries which are carried in internal pockets on the lower back. With a total weight of 240g, you are still flexible in your moves and can enjoy the comfort of being warm everywhere on your body. If you think batteries and water usually cause distrust: don't worry this great challenge has been solved and the electronics and batteries have a certified water resistance. Tested by World Champion Mick Fanning, this is an innovation for reality. www.ripcurl.com/hbomb

› **Skies with Integrated Solar Panels**

Q-mo solar is the first brand manufacturer of solar panels for the integration into standalone devices and small systems. In cooperation with Fischer Ski, they have now developed the first skies with integrated solar panels. Charging your mobile phone or iPod while having lunch at the ski hut – this is no problem anymore. Developed with highly efficient and high-quality solar cells this product makes life easier. Got curious? So come and see the prototype at the WT booth in hall B1. www.qmosolar.de

csem technologies for innovation
wearable technologies – anytime, anywhere

see you at ispo '10
wearable technologies show '10, hall B1 ice domes

www.csem.ch info@csem.ch



AiQ-SmartMan™ – get total solutions with smart clothes of AiQ.

Style Your Smart Clothes Your Own Way ...

... and combine heating, lighting, solar panels or biosensors!

AiQ is the Smart Clothing business unit of TexRay Industrial Co., Ltd., a public listed global fabric and apparel company based in Taiwan with subsidiaries across North America, Asia and Africa. AiQ has long envisioned the convergence of technology and fashion and believes that when bringing technologies to clothing, they bring functions and fun into fashion. Thereby people can feel more comfortable in everyday life.

Smart Clothing's philosophy is "Smart Inside Out", which means AiQ is integrating technologies seamlessly into their SmartMan product lines and their customers will be able to enjoy and present them in a fashionable way.

There are numerous innovative ways to design Smart Clothing, and AiQ is the total solution partner for Smart Clothing products. The innovative designs have successfully integrated Functions and Fun into Fashion by utilizing pending patents. Some of the Smart Clothing product lines include:

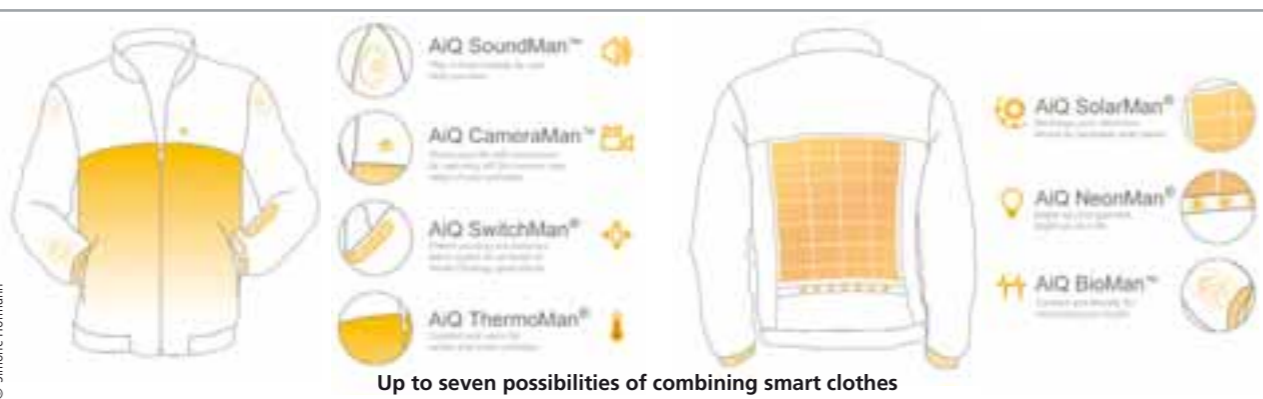
- ▶ ThermoMan which keeps people warm in winter and enhances water activities
- ▶ NeonMan which lights up your life style and enhances your safety
- ▶ SoundMan which turns your garment into a boom box without the bulky box

- ▶ MusicMan, using AiQ SwitchMan fabric, comfortably allows for the seamless integration of music in your garments
- ▶ CameraMan does not just help to record people and share their activities with family and friends, it also is available in HD quality

However, AiQ does not only stand for fun and lifestyle, it can also be of great help in the field of health. BioMan uses the comfortable seamless fabric biosensor to help people monitor sports activities and health. And with SolarMan you go sustainable using flexible solar panels to make garments produce power. Furthermore, ShieldMan helps to protect against EM radiation and, hardly visible at all, up to seven functions can be integrated in one piece of garment.

At the Wearable Technologies Show, AiQ will be showing "SmartMan 6.1" which is a Smart Clothing demonstration platform with seven designs in one garment.

Visit us at C2-406 12-2
www.aiq.com.tw
www.texray.com



The World on Your Wrist

Wearable Technology: GPS for Sports and Outdoors

by Benedikt Braun

A few years back, you were the king of the road if you had a Sat-Nav in your car. Today, street navigation devices are standard and GPS-applications are increasingly finding their way into sports, outdoor activities, or even golf! And there is no end in sight yet...

The Global Positioning System – originated from the US-military – was quickly used in civil aviation and commercial shipping. Miniaturisation in electronics enabled the US-brand Garmin to introduce the first handheld devices at the end of the Eighties.

Since then, the technology as well as the devices have become affordable and unbelievably powerful. Garmin's current top of the line handheld, the Oregon 550, is a high-performance microcomputer that excites with high user-friendliness featuring a real touch-screen operation. It displays both vector and raster maps, accepts microSD cards, has a huge memory, a three-axis compass, a barometric altimeter, and

even comes with a 3.2 megapixel digital camera, which allows geotagging (linking photos with the position).

An even more impressive device in terms of miniaturisation is Garmin's Forerunner 310XT. This multi-sport GPS-watch is worn on the wrist. Despite its small size, it operates up to 20 hours and delivers all functions that a runner, cyclist, cross-country skier, or fitness lover might want. It

comes with all typical heart rate features, is waterproof to a depth of 50 metres, adds a 'never-overheard' vibration alarm to the acoustic alarm, and combines all this with standard GPS information. To make the device as versatile as possible, it receives and transfers data using the innovative ANT+™ digital wireless technology, communicating with exercise, weight, or fitness machines, displaying power metering on bicycles, or, of course, allowing detailed online analysis on your PC or Mac.

Garmin's latest innovations are two GPS units for golfers. Approach G3 and G5 come with the data of several thousand golf courses all over Europe and represent a completely new type of GPS. And it will definitely not remain the last application of GPS technology.

Visit Garmin at B4.302!
www.garmin.com



Forerunner 310XT – a small and waterproof GPS-watch

PULSEAR – Pulse Rate Monitor Integrated into a Headphone

Easily monitoring your heartrate while listening to your music

Today, commercially available heart-rate monitors for sports applications are based on a bipolar electrode technology integrated into a chest belt, whereby the captured signals are sent wirelessly to a watch.

CSEM – www.csem.ch
ESA – www.esa.int



This method is popular because of its robustness against motion artifacts: however, the required chest probe is rather uncomfortable. CSEM's patented PULSEAR device fills a gap left by existing heart rate monitors and combines the application domains of sports and entertainment.

PULSEAR is a heart-rate and activity measurement system that is integrated into an earphone or headphone. The system is based on the optical measurement of subcutaneous blood flow, coupled with an accurate measurement of the motion performed by a set of accelerometers. Thanks to the Swiss Center for Electronics and Microtechnology's (CSEM) expertise in signal processing for biomedical applications, PULSEAR does not require any additional probe or chest belt.

Under contract by the European Space Agency, CSEM designed and developed an iPhone application for its PULSEAR headphones and will present this at ispo 10 as the first mobile phone

heart-rate monitor without additional probe or chest belt. The PULSEAR technology complements existing consumer electronics products, and its product roadmap integrates features such as activity classification and pulse oximetry (SpO2) detection.

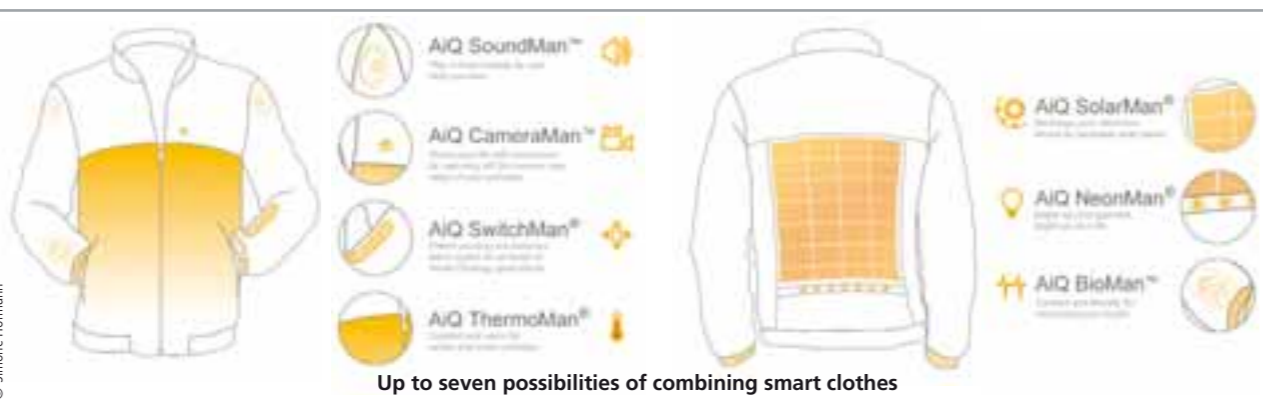
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www.garmin.com



Forerunner 310XT – a small and waterproof GPS-watch



High-tech helmet with headset inlay and jacket with integrated video camera



© Simone Hornum

3G Wearable Solution – Ready for the Next Century

New ways of communication with solutions from Texsys GmbH

Assistant living solutions round the world was the mission when Texsys was founded three years ago. The centre of competence was built in the heart of Europe's Silicon Valley called Silicon Saxony. In this surrounding Texsys found a lot of technical partners with helpful technology solutions and innovative backbone in Europe.

Within the last view years Texsys came up with several innovations from heating inlays with powerful devices to body sensing network and to the first full integrated communication glove. But innovations don't stop, they are rather the enabler for further apps.

What's new?

In our recent product solutions we launched three apps: a full embedded communication solution for ski and bike helmets. They work either with the Bluetooth standard 1.2 headset and hands free mode (like the G-cell glove) or with the HiFi stereo BT 2.x music/headset/hands free module with programmable buttons and voice control. Both systems are available as a single device for own embedding work but also as a complete solution.

3G wearable eye™ is a mobile communication device with video broadband recording, storage, single shot or real time video observation via 3G networks. See what your friend is doing, watch how fast he jumps, invite

your friends to be with you and store your videos on YouTube.

Ways of integration

The 0.3 Mpx camera with remote control, infrared (IR) for low light function, 30fps, 8GB onboard media and several more functions completes the data base. The open platform system can be adopted in all jackets, vests and other clothes. Just connect your camera, place the microphone and IR light where you like, add your SIM card into the slot, turn on the camera and press the button for recording. Your mobile phone will contain the control centre for your device, so no additional control will be required.

All in all Texsys GmbH offers solutions for comfortable living with textiles and electronics. At the Wearable Technologies Show Texsys will present the video jacket as well as the communication helmet. Visit Texsys and find out more about these new technologies.
www.texsys.de

The New Racesuit System

Optimal thermal regulation of the muscles brings improved performance of up to one percent

The innovative racesuit comprises a two-part warm-up outfit and a racesuit in 3D rotary knitting technology and has been attuned to each other.

The racesuit itself has special thermal zones where the heating elements of the warm-up outfit are active, at the muscles of the thighs and the back. Those thermal zones consist of a special ribbed kind of knitwear in combination with highly functional, hollow fibres to keep the decisive groups of muscles warm. It is scientifically proven that optimal thermal regulation of the muscle brings improved performance of up to one percent.

To prevent from overheating, the ODLO racesuit has zones which can extract warmth in areas which are less sensitive to temperature. That is where ODLO applies a special silver yarn because at high body temperatures, silver quickly conducts warmth towards the outside.

To keep the core temperature at an optimal level, ODLO also makes use of the cooling effect of perspiration which evaporates on the skin. Special ventilation zones support that cooling process. In this racesuit, ODLO has integrated a sophisticated combination of insulation, warmth extraction, radiation, convection (conduct of warmth) and evaporation.

A further performance-enhancing element is a spoiler that is woven into the suit at the front of the shinbone. Provable advantages are achieved from speeds of 35 km/h. Silicone prints at the upper arms and the elbows to guarantee a non-slip effect and the silicone insert at the spine protects against impacts from the gun when the athlete is skiing.

Visit ODLO: hall B3, booth 202

www.odlo.com



WTnewsflash

The World's First Snow Goggles with Integrated Display

Together with Zeal Optics, Recon Instruments has developed an integrated Head Mounted Display (HMD) System with state-of-the-art sensors, optics and GPS technology. The transcend display provides performance-enhancing data, but only when you choose to view it.

The Recon-Zeal transcend also offers you real-time access to navigation, communication and other performance-based information. Furthermore, features like speed, altitude, temperature, time, GPS capabilities, wide vision permanent anti fog lens and compatible helmet designs are available. Data and statistics tracking software will be included to record personal bests and share your epic day with friends.

The retail price of the world's first GPS integrated goggle will start at around \$350 and will be available in the fall of 2010.

www.zealoptics.com/transcend

Run Yourself Better
miCoach guides you on the path to getting – and staying – fit. Whether you have the miCoach Gear or not, miCoach is a coaching experience designed to help you achieve your personal goals. It doesn't matter if you go for the miCoach PACER or miCoach ZERO, just develop your individual training plan and run yourself better.
www.adidas.com/micoach

Pimp Your Sports – WT Shop to be Launched at ispo '10

Looking for new technologies, new developments and new products? Go to www.wt-shopping.com!

The new online shop offers you a unique pool of wearable technologies for your personal choice. Here you can find visions that have already become reality.

So check out the shop and start wearing technologies!

What's it about?

The WTShop opens up new possibilities for upgrading your outfit in a simple and straightforward way. Here you can find the latest developments from the area of lifestyle, health and sports & outdoor on one single platform. So if Wearable Technology is

your attitude, the WTShop is your new favorite!

Get technologized!

In the lifestyle sector you will find products such as solar bags, mobile phone watches or even clothes with integrated functions. The health category will include solutions which help to control your fitness or success in sports activities such as integrated heart rate monitors in watches or small monitors to measure your movements continuously. Come and visit www.wt-shopping.com! Find out what's new in the WT community.

Smart Navigation with o-synce

New products like DATA4vision and NAVI2move are offering innovative ways of visualization and handling!



At ispo 10, o-synce will present the unique project DATA4vision! Mission impossible is now possible: a concept for the visualization of training data such as heart rate and running speed, directly in the visual field of the runner without bothering him at all. The classical sports watch is part of the past; DATA4vision is the future! Apart from DATA4vision, you will be able to see at ispo the BrandNew Award the Finalist NAVI2move. With only 45 gram, NAVI2move is one of the world's smallest and lightest smart navigation devices and sets new stan-

DATA4vision: intelligent data visualization by o-synce and NAVI2move, an extremely small and light navigation device

dards. The device is equipped with a unique three-button switch in four different designs and fits into any pocket.

www.o-synce.com



o-synce is creating stand alone products based on German engineering with the touch of Italian design. Pursuing the philosophy of simplicity o-synce develops products in a way to achieve a very easy handling and uncomplicated design.

WTnewsflash

> **GPS included in your HD action camera?**

Have you ever been to a great action trip by ski, bike or board and missed to record your trip? No chance to find this route again? That won't be a problem anymore with the new GPS HD action camera by gobandit. With these cameras being launched at ispo 10, you will realize that they not only include a GPS sensor, but that they are also **Bluetooth** enabled, have up to four GB on board, a remote control and much more. Just record your track, upload your video, edit the information which should appear in the video and share it with your friends via social networks, video communities or even by email.

www.gobandit.com

Bluetooth Innovation World Cup 2009

Successful start of the first *Bluetooth* Innovation World Cup

The *Bluetooth* Innovation World Cup, which was launched by Bluetooth SIG on ispo 09, was a great success. Four finalists have now been selected out of the over 250 participants.

With the *Bluetooth* Innovation World Cup, the Bluetooth SIG is looking for new innovative ideas for applications using *Bluetooth* low energy. The low energy wireless technology, which stands for extremely low power consumption, was adopted by the Bluetooth SIG in December 2009.

"The huge interest in the Innovation World Cup is indicative of the general interest we have seen in the recently announced *Bluetooth* low energy technology. It will open up new markets in many exiting areas such as health, sports & fitness and many others," said Michael Foley, Ph.D., executive director, Bluetooth SIG.

The four finalists managed to convince the expert panel with their well-elaborated, innovative ideas for marketable applications using *Bluetooth* low energy.

The Fit Companion developed by Edward Sazonov, Physical Activity Innovations, is a small, unobtrusive clip-on device which also can be integrated in shoes. It is not only providing feedback on training activities but also on normal daily activities like walking and performing chores. That helps individuals to lose weight and achieve more healthy levels of physical activity by using *Bluetooth* low energy to transmit the data.

With Flare Snowsport Patrick Coulbourne, Antware, developed a fitness monitoring solution specifically created for snow sports. It transmits data such as track, heart rate etc. to a USB port which is worn on the body.



low energy in a very simple way.

The Fertility Manager and Body Monitor developed by Michael Kohler, Edumotion, is an innovative device emphasizing the importance of *Bluetooth* for the broad range of future opportunities in telehealth. A small, coin cell based, digital thermometer can transmit temperature data via *Bluetooth* low energy to a mobile phone with a fertility management software.

The participants of the *Bluetooth* Innovation World Cup and the finalists in particular, have shown the abundance of opportunities with *Bluetooth* low energy. The Bluetooth SIG would like to thank the more than 250 participants for making the competition such a great success and the sponsoring companies Nokia, Freescale Semiconductor, Texas Instruments, Nordic Semiconductor, STMicroelectronics and Brunel, who have realized the potential for devices using *Bluetooth* in various sectors, for their contribution.

The database for the next round of the idea competition, the *Bluetooth* Innovation World Cup 2010, is going to be opened on June 1, 2010 and, considering the great success of the year 2009, even more innovative ideas are expected.

www.bluetooth.com/innovation

Impressum
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Perform better, protect nature

SympaTex®
If nature had a choice

ispo
Stand 489
Hall B5

The Sympatex membrane is 100% water- and windproof and provides optimal breathability. It's also completely recyclable, PTFE-free and bluesign®-certified. In addition, the membrane has also been awarded the Deko-TEX Standard 100. As a pioneer in the field of environmentally friendly membranes, Sympatex has won over many new partners.

Discover the collections by our top partners.

BILABONG, zimstern, volki, SWANY, eleven, HEAD, zioner, maloja, puva, elan, GEOFF, bleed

www.sympatex.com