

# share

B. Braun corporate social responsibility magazine

Issue 2011



## Long-haul research

Initial successes of regenerative medicine are already benefiting patients.

## Bouncing back to life

Teaching children and young people healthy living with basketball and cookery classes.

## Knowledge = growth + prosperity

The United Nations regards education as a human right that benefits both the state and every individual.

## The secrets of the dormouse

B. Braun honors regional commitment to nature with the Aesculap Environment Prize.



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### Dear Readers,

For more than 170 years B. Braun has embodied a combination of sustainable business activity and clearly formulated entrepreneurial values. Our corporate identity as a 'citizen of society' obliges us to take on responsibility and to also think of future generations. I am grateful that – together with my colleagues on the Board – I have a chance to continue promoting these values in line with the policy of the owner family.

We hope the magazine *share* will give you an impression of what we mean by community engagement. We will inform you about key social issues and the contribution our staff are making to social life at more than fifty locations worldwide. Wherever we are a member of a society, we want to give something back. In addition, we support practical regional projects wherever we can, playing our part in the development of the infrastructure. We try to open up prospects for



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children and adolescents who are disadvantaged socially, economically or health-wise. The United Nations has declared it one of its key Millennium Goals to ensure that, by 2015, children everywhere will be able to complete a full course of primary education. In line with our philosophy of 'Sharing Expertise', we too are focusing on the subject of education in this issue of *share*. We are proud that our company – and above all our staff with their voluntary

engagement – are helping to get closer to this important goal. But read for yourself. I wish you pleasant reading.

Yours faithfully,

Dr. Heinz-Walter Grosse





Germany

Regenerative medicine does not promise quick results. Nevertheless, companies like Tetec AG have been persistently working on improving therapeutic methods. This marathon is beginning to pay off for the patients.

# Long-haul

There were high hopes when the general public first heard about 'regenerative medicine' about 15 years ago. Initial research successes had physicians dreaming of 'spare-part surgery' – which so far has remained an unfulfilled hope, however. Even so, the idea has lost none of its attraction: although using the body's self-healing mechanisms remains one of the most important goals in medicine, expectations of what regenerative therapies can achieve have become more realistic. This is because the subject is very complex and in some cases requires decades of basic research, so that often only small steps are possible. This sometimes makes the successes seem unspectacular, but then appearances can be deceptive.

**Poor prognosis.** If you want proof, just ask someone like Sascha Burkhardt. Regenerative medicine has given him a new life or – more strictly speaking – given him back his old life. The Bavarian marathon champion is not an ex-athlete, and he owes this fact to tissue engineering, a technology for cultivating body cells and tissue. After his fall in 2006, the medical prognosis was unequivocal: damage to the cartilage would make Sascha Burkhardt's knee useless within five years; competitive sport was out of the question. Yet today the 37-year-old is again working on beating his dream time of 2 hours, 19 minutes for the marathon distance. To achieve it he runs 160 kilometers a week. People like Dörte Keimer, Peter Angele and Hans-Jörg Bühring give their best to help make such dreams come true. →

## Regenerative medicine

The aim of regenerative medicine is to use the body's own healing processes to treat diseases. It involves, for example, replacing or repairing body cells that are no longer functioning properly. Destroyed tissue or damaged organs can already be repaired today – using the body's own cells cultivated in the laboratory.

Physicians hope to be able to heal diseases like Parkinson's or diabetes in the future using various regenerative-medicine techniques. Another long-term objective of the research is to grow entire organs.

Currently, regenerative therapies are being used in the treatment of leukemia and in tissue engineering – cultivating tissue and cell structures.

After the cells isolated from tissue samples are propagated in a nutrient solution under specific conditions, they are transferred to a type of sponge. This is then implanted into the damaged knee joint.

**37°C and a lot of patience.** The atmosphere in the Tetc laboratory in Reutlingen is one of concentrated silence. Every movement that laboratory director Dörte Keimer makes is perfect, highly efficient and looks as though it has been practiced a hundred times. Her forearms disappear inside a class-A isolator workbox, in which she prepares small pieces of cartilage with a scalpel under sterile conditions. "The pieces were taken from a patient yesterday, from a part of the knee not subject to stress," Dörte Keimer explains. The punched-out tissue samples are four millimeters in diameter; only a small part of the tissue is of interest to the laboratory director: "Out of the four layers of cartilage we can only use the middle two," she says. "After a night in enzyme solution, the cells that we can use for proliferation are isolated from the tissue samples; that's about five percent of

the sample material." This amount of cartilage cells is sufficient as starting material for repairing cartilage defects later. Until then, the isolated cells must proliferate for three weeks in a nutrient solution – in the incubator at 37 degrees Celsius and an ambient carbon dioxide concentration of five percent. "These conditions have been shown to be ideal," says Dörte Keimer, who has been working at Tetc since 2002. "In the incubator the cells multiply by a factor of hundred and are then trans-




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**"We rely on close cooperation between medicine and research to develop new technologies."**

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Dr. Christoph Gaissmaier, managing director, Tetc AG

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ferred to a type of sponge." This then goes back to the hospital, where the patient returns to the operating table three weeks after the original sample was taken.

**Small steps.** Around the table stand specialists like Prof. Peter Angele from *sportropaedicum*, University Hospital Regensburg. The renowned sports-medicine specialist has been working on regenerative joint therapy for years and also treated marathon runner Burkhardt. "Regenerative

medicine is a tremendous opportunity, especially for active patients," says Angele. He performs about 40 such cartilage-cell transplants every year and confirms that – one year on – the quality and resilience of the new cartilage layer is "almost indistinguishable from healthy cartilage." Peter Angele is well aware how important this prospect is for the mostly young patients. "My patients are 31 years old on average, and at that age an artificial knee joint would cause enormous restrictions." So the hopes placed in the operation, in which the 'cell sponge' from Reutlingen is implanted, are correspondingly high. The small scars caused by the removal of the cartilage are still visible when the operation begins. It's a comparatively simple job for an experienced knee surgeon: "Unstable cartilage fragments are first removed with small

tools from the cartilage defect to give the latter a stable edge. Subsequently, the sponge with cultivated cartilage cells is fitted into the defect and fixed using fine sutures." But it's afterwards that the patients have the biggest challenge to overcome: "The first few months with crutches were not easy," recalls Sascha Burkhardt, "but after that it steadily got better. The rehab began four months later; I was soon able to run for 50 minutes again, which was an amazing feeling after such a long time!"

**Challenges for tomorrow.** It's therapeutic successes like these that motivate Dörte Keimer and her team at Tetec. "It would be wonderful if we could automate individual steps in cell cultivation, because this would enable us to help more patients," the lab director says. At present about a thousand cartilage-cell cultures leave her laboratory every year, making the company Europe's market leader. Moreover, tissue engineering is a field with potential, not only for knee joints. Many of the more than 200,000 operations performed on intervertebral discs every year could one day also be avoided in this way. "Cartilage cells from intervertebral



Thanks to the possibilities of regenerative medicine, marathon champion Sascha Burkhardt can today compete again after his serious fall.



discs can now be propagated. Our research department is currently working on getting these cell cultures to grow in a gel which can then be injected between the vertebrae without surgery," says Dörte Keimer. A clinical trial on this is to be launched in mid-2011, and Tetec's CEO, Dr. Karl-Christoph Gaissmaier, is optimistic that this product "will be in use in two to three years time."

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**"We want to automate processes so that we can treat more patients."**

Dörte Keimer, laboratory director, Tetec AG

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One disadvantage with intervertebral disc cartilage, however, is that there are often few regions in the patient's body where the corresponding cell material can be removed without causing harm. Tetec and other research institutions are therefore looking for alternatives.

**Sustainable research.** Dr. Hans-Jörg Bühring's specialty is isolating and characterizing stem cells, the 'all-rounders' of the human organism that can develop into many different types of cell. For 27 years now he has been engaged in research at the University of Tübingen, looking for ways to make use of the enormous potential of these cells. He explains: "We want to find out, for example, the conditions under which stem cells divide or develop into a certain cell type." Depending on the ambient environment,

stem cells can develop into skin, bone or cartilage cells, Bühring says. This diversity explains why the therapeutic use of stem cells has to be preceded by a prolonged period of basic research. The best-studied ones are hematopoietic (blood-forming) stem cells, which have been used for decades to treat certain forms of acute leukemia. However, it will take several more years before we see the first stem-cell-based successes in the treatment of intervertebral discs. "We're currently working with Tetec on isolating stem cells

from donor bone marrow that are suitable for cartilage formation," says Bühring. Because that isn't possible using conventional methods, he is developing 'monoclonal antibodies'; the aim is that only the desired stem cells stick to the surfaces of these cells. Although the development of such antibodies is very complex and requires many years of experience, the commitment is worthwhile in view of the subsequent benefit for patients. This opinion will be shared by Peter Angele and Dörte Keimer. And, of course, by Sascha Burkhardt. He finished third in his first marathon in 2010 after the operation. His time: two hours, 33 minutes. ■

International

# High-tech for more quality

Normal pressure hydrocephalus is a disease that often has serious effects. It is estimated that tens of thousands of people are affected in Germany alone. However, the disease is much too rarely diagnosed correctly. This is tragic, because a small implant could enormously improve the quality of life of these patients.



People are rarely surprised when an elderly person's gait becomes uncertain. Even physicians often only see this as a typical manifestation of old age and fail to recognize a widespread disease: normal pressure hydrocephalus (NPH). The basic problem here is fluctuating pressure inside the skull. It occurs almost exclusively among seniors. "The few studies on the subject estimate that about 1.5 percent of people over the age of 65 suffer from NPH," says Dr. Michael Fritsch, Head of the Neurosurgery Clinic in Neubrandenburg. "This means that, mathematically, more than 200,000 people of retirement age in Germany have the condition, yet no more than one in ten are properly diagnosed and treated."

This is tragic for two reasons. On the one hand, the number of people affected is likely to grow considerably as a result of demographic developments. On the other, if patients were diagnosed in good time they could be given treatment that would considerably improve their quality of life. This is because the symptoms in the cerebral ventricles are only the first signs of NPH; later symptoms include incontinence and dementia, but by then the prospects of treatment have already declined.

**The researchers' motivation is to improve people's quality of life in old age.** In this form of hydrocephalus, the best therapy is to implant a shunt – i.e. a valve system that drains off excess cerebrospinal fluid (CSF). This often delays the onset of the disease for several years, which means an enormous gain for people in the typical age group between 65 and 75.

The principle behind these implants is not new. Shunts have been implanted since the 1950s to treat 'water on the brain'. An extremely thin pipe is laid from the inner CSF ventricles through the top of the skull down to the abdominal cavity, where the draining CSF is reabsorbed and excreted by means of metabolism. A pressure-sensitive valve regulates the drainage and thus the pressure inside the skull. The 120-200 milliliters of CSF in an adult's skull act as a 'cushion' for the brain. However, because 500 to 700 milliliters are usually produced every day, continuous drainage through the cerebral ventricles is necessary. "This is exactly what doesn't function properly in patients with normal pressure hydrocephalus," says neurosurgeon Fritsch. The therapy has not been without its problems: 20 to 50 percent of the patients complained



# of life in old age



Implanting a shunt takes about an hour and is done under a general anesthetic. The surgeon has to make three small incisions: one on the skull under the hairline, one behind the ear, and the third on the abdomen. The shunt valve and, where appropriate, the gravity unit are implanted behind the ear, where they can be felt under the skin. This enables the attending physician to make all necessary adjustments from outside.

of post-operative symptoms such as headaches or dizziness; in extreme cases there were cerebral hemorrhages. This was caused by the changing pressures in the body in different postures. In certain situations, this can lead to negative pressure, so that the ventricles are literally sucked empty. This complication is the reason why specialists at Miethke GmbH & Co KG, a subsidiary of Aesculap AG, have developed a new generation of shunts.

**As variable as life itself.** "With our development we have satisfactorily resolved the problem of over-drainage for the first time," says Peter Ecker, senior product manager at Aesculap in Tuttlingen. In other words, there is always enough CSF left in the skull to protect the brain. "With our partner Miethke GmbH we equipped a shunt valve with a newly developed gravity unit which varies the valve's opening pressure depending on whether the patient is sitting, lying down or standing. Over-drainage is no longer possible with this system." This shunt system has been on the market under the name proGAV since 2004, but the developers at Miethke and B. Braun are continuing to work on improving it. The result is called proSA, and it has certainly convinced the

experienced neurosurgeon Fritsch: "It enables me to subsequently adjust the gravitational unit from the outside." This is useful, he goes on, because the pressures in the body can change with the patient's living circumstances or physical condition. The shunt settings then often have to be readjusted to ensure the patient's well-being, although feeling comfortable is only a passing concern here: "It enables us to avoid operations which are usually associated with an increased risk, given the age of our patients."

The new shunt system is still at the clinical trial stage; about 200 patients have been fitted with it to date. But although this launch is imminent, the Tuttlingen-based team already have new plans. "We are working on a system in which a pressure sensor is implanted with the shunt," reveals Peter Ecker. This enables the physician to easily measure the patient's intracranial pressure using telemetric methods and to optimize the valve setting in line with the patient's needs. "This could be ready as early as next year," says Ecker. Yet he is thinking even further into the future – of a 'smart' shunt that adjusts to changing brain pressure automatically. ■



Kenya/  
Germany

# Delivering know

Kenya has two faces. Tourists experience spectacular game safaris, spend the night in luxury lodges and sunbathe on beautiful beaches. At the same time almost 60 percent of Kenyans live below the poverty line. Fewer than half of people in rural areas have access to clean water. Everyday life is determined by preventable diseases for lack of knowledge and because the nearest physician is too far away. The state health system is helpless in the face of this development.

Their names are Kanza, Salma, Asya and Carol. Together with six other girlfriends they form a tightly knit clique. Perfectly ordinary teenagers in other words. Their home is Kilifi, a Kenyan town with 31,000 inhabitants on the Indian Ocean. After listening to their stories, the English journalist Sarah Forde strikingly described – in her book *Playing by Their Rules* – the dreams and daily lives of these young people for whom many things are 'normal' that would seem unthinkable in Europe or North America: for example that six of the nine friends have already lost one parent and three have lost a sibling; or that hardly any of them know the name of the disease their relatives died of. Only Carol knows a little more: that her mother died of AIDS. Her father sent her away after her mother's death, she says.

Such stories are very common in Kenya. They reveal where the most pressing problems lie. Grave shortcomings in

practice: "The problems begin as soon as a child is born. Only a quarter of the poorer women have medical supervision when they give birth, which is why Kenya has one of the highest maternal mortality rates in the world." Although some health services – including childbirth – are legally free-of-charge, "a fee is then charged for medical appliances or for drugs, and hardly anyone can afford to pay. This is partly because many health institutions are so poorly equipped that they are dependent on this money. But often this is just one aspect of the widespread corruption." Furthermore, says Hornetz, health workers are often poorly qualified, and this enormously reduces the quality of care. As a result, the problems in healthcare that begin at birth continue throughout many Kenyans' entire lives. Yet it could be much better, because, by African standards, the Kenyan economy is not in bad shape; modern hospitals on a par with European standards also exist. However, the unemployment rate of 40 percent reflects the fact that by no means all Kenyans benefit. And the same applies to the public health service: for years it has failed to keep pace with the country's rapid demographic development. Kenya's population has tripled to nearly 40 million over the past 30 years, so that most people have little access to adequate medical care.

**Long distances, short schooling.** These structural problems are compounded by long distances and a low level of education. "There are marked differences in medical care between rural and urban regions," says the Kenyan GIZ physician Patricia Odero. This means that, with almost 80 percent of people living in the countryside, only a third of the population have any medical institution within four kilometers. Ms. Odero also complains that people lack knowledge about health and their own bodies. Family planning is un-

known, especially in the provinces; the same applies to sexual assault and protection against sexually transmitted diseases. According to the national average, seven percent of adults are HIV-positive; diseases like hepatitis, malaria and tuberculosis are widespread, as are diseases encouraged by poor hygiene or malnutrition.

**Know-how for hospitals and day-to-day life.** Against this background it becomes clear why improving healthcare and educating the population are of key importance in the GIZ's development work. And the scale of the task requires many partners with a long-term commitment. "In this regard, B. Braun, of course, has the right attitude," says Kerstin Heimel, referring to the family firm's tradition of thinking long-term in order to make sustainable results possible. After all, "short-term thinking would be counterproductive here," Heimel says. She is a sales manager at B. Braun who is also responsible for Kenya and knows the difficulties on the ground. "When I suggested that the company might engage in some form of development cooperation, I quickly found a lot of sympathetic ears," she recalls. The idea led to the 'B. Braun for Africa' project, which was →

# ledge

healthcare services and poor education are two of them. The German Society for International Cooperation (GIZ) has set itself the task of changing this. The GIZ is supported by B. Braun, which is engaged in Kenya with the 'B. Braun for Africa' project.

**Left behind.** In 2006 the World Health Organization calculated that there were just 14 hospital beds and one physician for every 10,000 Kenyans. Klaus J. Hornetz, who coordinates the GIZ's healthcare projects, knows what this means in



The initiative of B. Braun and the GIZ partly depends on the willingness of the population to address such issues as hygiene and sexuality, and on the commitment of individuals to communicate these themes.



launched jointly with the GIZ as a public private partnership. B. Braun pays 51 percent of the 400,000 euros project costs, reflecting the extent of its participation. The aim of the joint venture is to strengthen the public health service, e.g. by improving the training of medical personnel. To this purpose B. Braun and the GIZ are drafting a training program for state nurses and preparing seminars for hospital managers; together with the health ministry they are establishing better quality standards for medical equipment in public hospitals.

**Knowledge for the future.** "We want to establish our approach at two state teaching hospitals," Kerstin Heimel explains. "The nurses would then pass on their knowledge all over the country." Focal points of future training will be hospital hygiene and preventing infection. Subjects taught will include the proper use of needles, to help reduce the transmission of such infectious diseases as hepatitis and AIDS in the clinical setting. The plans will be coordinated with the responsible ministries on the ground. "I was really astonished at how realistically the healthcare situation is seen within the Kenyan government," says B. Braun's health expert. "They are very receptive and grateful for the support from Germany." In addition to the plans for improved training, 'B. Braun for Africa' accompanies a range of different educa-

tional and preventive-health projects, e.g. teaching children in schools about their own bodies. The latter project aims to reduce the number of teenage pregnancies. Many also become victims of sexual assault and aren't aware that they have rights and could enlist help. A health program has therefore been launched at two schools in different Kenyan provinces to familiarize the school children with the importance of hygiene, clean water and

equality in sexual self-determination. According to Patricia Odero the biggest challenge is that people want to see rapid results: "It's difficult to persuade families and their children to change their behavior unless better hygiene clearly has some immediately visible impact," says the physician. A lot of patience, staying power and reliable partners are therefore important. ■

## Kenya in figures

Source: Daily Nation, 31 August 2010, The World Factbook, Central Intelligence Agency, July 2011

**Capital:** Nairobi

**Population:** 40,046,566 (2011)

**Population growth rate:** 2.46 percent (2011)

**Urbanization:** 41 percent urban population (2010)

**GDP growth:** 5 percent (2010)

2.6 percent (2009), 1.6 percent (2008)

**Unemployment rate:** 40 percent (2008)

**Average life expectancy:** 59

(42 percent of the population are under 15)

**Infant mortality:** 52 per 1,000 births

**HIV/AIDS prevalence rate:** 6.3 percent (2009),

11th position by global international comparison-

**Number of people who are HIV-positive or have AIDS:**

1.5 million (2009),

5th position by global international comparison

Czech Republic



# Laughter is the best medicine

In the Czech Republic, B. Braun's 'A Smile for Life' initiative sends clowns to hospital beds – to help children (and grown ups) to get better faster.

Jana can't stop giggling. The clown has just drawn a matchstick man with wild hair and big goggle eyes on her plaster cast – and he looks so funny! For a moment the eight-year-old girl has forgotten how much her broken arm hurts and itches. And that is one of the most important objectives of a project called 'A Smile for Life' which B. Braun Medical and B. Braun Avitum have been running in the Czech Republic with great commitment since 2009. "The basic idea is simple," says Dr. Martin Kuncek, Managing Director of B. Braun Avitum. "You're never in great spirits in the sterile, often unfamiliar atmosphere of a hospital. And that doesn't exactly promote the healing process." The best medicine is, of course, to somehow cheer the patients up. So children get an unexpected visit from a clown – an idea originated by the American Gary Edwards in 1976 which has since spread all over the world. In the Czech Republic an organization called the 'Health Clowns' sends its red-nosed members out to cheer up the young patients – with the support of B. Braun. 'A Smile for Life' has been able to brighten the faces of patients and improve communication between patients and healthcare personnel. Older and adult patients are given a 'bucket full of humor' – a gift package with funny DVDs, books and games.

**Laughter is a science.** Apart from all the therapeutic fun, 'A Smile for Life' also has a serious side to it, for example to

promote social discussion on humor medicine in the Czech Republic. It is a scientifically proven fact that one minute of laughter can do your entire organism as much good as 45 minutes of relaxation training – even though laughter is physically hard work! More than 80 muscles are used in the process, 15 in the face alone. And the air that escapes from your lungs when you burst out laughing can reach speeds as fast as an express train: over than a hundred kilometers an hour.

**Promoting smiles.** In addition to the company's 'solid contribution', B. Braun's employees work hard themselves to give more children something to smile about – persuading partners and private individuals to also donate to the initiative, e.g. by auctioning merchandising articles. "In the first year," says Dr. Martin Kuncek, "we managed to raise more than twice as much money for the program as we'd originally planned." From its inception in 2009, 'A Smile for Life' has been supported by contributions of over one million Czech crowns (more than 40,000 euros), thanks to the generosity of all donors and partners. "We all are confident that this figure will continue to grow" says Dr. Kuncek. This year, 'A Smile for Life' in the Czech Republic also began supporting the Paraple Center, which looks after paraplegics and recently published a travel guide for wheelchair users, among other activities. ■





UK/Germany

The affluent society in the industrialized world has almost completely conquered hunger, yet the struggle to find a healthy way to live smoking and lack of exercise that can Medical Ltd. in the UK supports the an initiative in schools to promote a sport in everyday life and less tobacco.

continues. Today it is primarily obesity, lead to serious diseases. B. Braun 'Bounce Back 2 Health' campaign, healthier lifestyle: for better food,

## Bouncing back to life

The British have a reputation for not losing their cool when confronted with the minor and major concerns of everyday life. Why worry about rain or crowded underground trains? Isn't that what umbrellas and MP3 players are there for? Yet their proverbial coolness does have its limits. One example was in 2007 when a new study set the alarm bells ringing: 250 physicians and nutritionists had come to the conclusion that about 60 percent of the men and half of the women in Britain would be seriously overweight by the middle of the 21st century. The then Health Secretary Alan Johnson went so far as to compare the data and their predicted consequences with the effects of climate change.

**Weighty risks.** Britain is not an isolated case. Obesity is becoming a serious problem almost everywhere in the Western world. According to the 2009 edition of an annual study by the Trust for America's Health and the Robert Wood Johnson Foundation, two thirds of adults and nearly a third of the children in the United States are already overweight – and the trend is rising. In Germany, too, every second person is too fat, according to the Federal Statistical Office's 2010 figures. The effects on people's health are serious: obesity is regarded as one of the main



The Sheffield Sharks as teachers of healthy living: more than a thousand children have learned from them that exercise and proper nutrition can be fun.

causes of cancer, diabetes, stroke and shorter life expectancy among those affected. The overall societal consequences are reflected in the costs to the health system: in the UK, for example, the cost of treating overweight people totaled £7 billion in 2002. Researchers expect this figure to rise to £45 billion (around 70 billion euros) by 2050.

Tobacco consumption is also regarded as one of the biggest threats to health worldwide. In Germany alone more than 300 people die from the effects of smoking – every day. In the Federal Republic it's seen as the most common preventable cause of death. Globally, about five million people die every year as a consequence of smoking. "To this we must add another 600,000 people who die from the effects of passive smoking – and a quarter of these are children," says the German Cancer Society in a statement issued on May 31 this year to mark World Non-Smoking Day.

**"The beauty of this project lies in its sustainability. The collaboration between B. Braun and local sports celebrities is therefore great news for school children throughout the region."**

Richard Caborn, former UK Sports Minister

However, people's motivation to live a healthy life is only partially founded on hard facts. At least as important is an intact social environment that sustainably promotes the right behavior: an environment in which it's normal to bite into an apple instead of a candy bar after lunch – and where cigarettes are not a status symbol. A strong community sets such examples and prevents false peer pressure – preferably at an early stage, i.e. in school. B. Braun is supporting this approach with a special project in the UK – helping schoolkids to switch to a healthier lifestyle.

**A project for the future.** It all started with an initiative launched by the Sheffield Sharks, a basketball team who play in the British Basketball League. In 2008 the club began a pilot project called Bounce Back 2 Health – a campaign to promote healthy eating and fitness at eleven primary schools in the south-east Sheffield region. "The pilot project was extremely successful and sent a strong message to more than 600 children," says Yuri Matischen, club chairman of the Sheffield Sharks. In the courses the students learn important things about nutrition and exercise, but also on obesity and smoking. The Sheffield Sharks players function as the kids' role models and mentors, but also as their teammates. The project has been extended in the meantime and now reaches over 1,000 children in more than 30 schools – in Sheffield, Barnsley and Rotherham.

The Sharks' main sponsor, B. Braun, supports the unique initiative. Civic engagement as an investment in the future – this motto is shared by B. Braun and the Sheffield Sharks. "That's why we're supporting this fantastic project as part of our 'B. Braun for Children' program," says Hans Hux, Group Chief Executive of B. Braun Medical UK. "Hundreds of children in the region are benefiting from it, encouraged to live a healthier life through sport and a healthy diet." →

## Normal weight, overweight, obesity Body mass index

The body mass index (BMI) is calculated as body weight (kg) divided by height squared (m<sup>2</sup>).

A person who is 1.60m tall and weighs 60 kg has a BMI of 23.4. The ideal BMI depends on your age – a slight increase with age is considered normal.

In 1995 and 1998 the World Health Organization (WHO) classified the average values for overweight and obesity as follows (BMI):

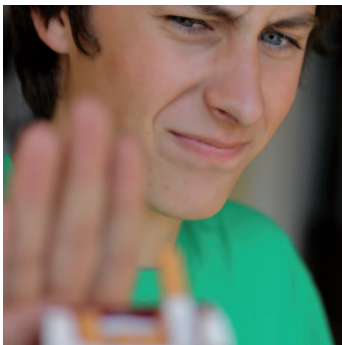
Normal weight:	18.5 – 24.9
Overweight:	25.0 – 29.9
Obesity grade I:	30.0 – 34.9
Obesity grade II:	35.0 – 39.9
Extreme obesity grade III:	over 40

**Three steps in the right direction.** Bounce Back 2 Health – the name combines movement with awareness, basketball with health. The program is made up of three stages; the students go through them following to a rota system:



**1.** The first stage covers fundamental aspects of nutrition. What impact do certain foods have on the body? How do they affect our energy balance and well-being? What makes us fat, what keeps us fit? Covering issues ranging from the most important food groups to the conse-

quences of overweight and obesity, the stage fosters an awareness of nutrients, vitamin groups, fruit and calorie traps.



**2.** Smoking is a particularly important issue for adolescents. Stage two therefore focuses on what smoking does to the body, the social environment, and not least to the amount of money in your pocket. It also shows that young people don't need cigarettes

in order to lead a self-confident life and to be recognized.



**3.** The third stage typifies what is special about the entire project: basketballs flying through the air, students chasing around, passing, dribbling and throwing. The Sheffield Sharks give the kids an impressive training session. In a relaxed atmosphere, the pro's demon-

strate the basics of basketball – beyond school grades and performance tables. Taking part is what counts. And the good feeling that you feel spreading all over your body afterwards. Fitness as an experience of real pleasure – and an important element of a fulfilled life.

## Research

Will there be soon more cancer deaths caused by obesity than by smoking in Germany?



The German Cancer Research Center in Heidelberg fears that obesity could soon become the number-one cause of cancer – overtaking smoking as the primary cause.

The reason is the ever-increasing number of overweight people. The forms of cancer caused mainly by obesity include esophageal cancer, colorectal cancer, breast cancer and renal cancer.

**“We’re delighted to have won B.Braun Medical as a partner for this exciting project.”**

Yuri Matischen, club chairman of the Sheffield Sharks

This engagement puts B.Braun and the Sheffield Sharks in good company worldwide. In many countries, celebrities get involved as ambassadors of a healthy diet – with considerable success. “I want every child to get a healthy school lunch and to learn something about nutrition. This is the key to solving society’s health problems,” says celebrity chef Jamie Oliver in an interview with the *Süddeutsche Zeitung* newspaper (December 24, 2010), explaining his campaign for more wholesome and healthy school lunches. “Britain has one of the highest rates of obesity in the world. Being famous helps me to draw attention to these issues. When I stood up and said: ‘People, we have a real problem here,’ everybody listened.” His ‘Feed Me Better’ campaign persuaded the British government to invest an additional £280 million in improving school meals.

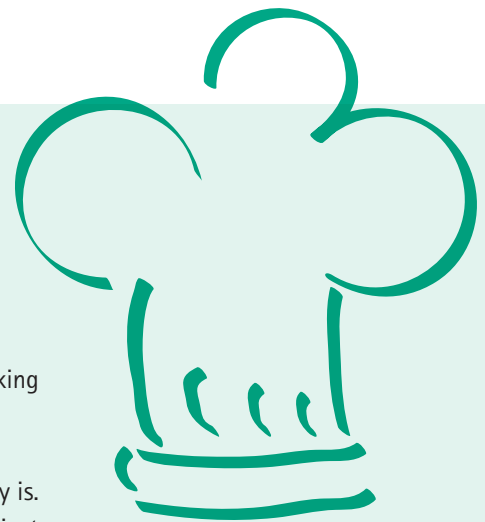


Germany

## Cooking in the family

A small but great project: in Melsungen, B. Braun supports parent-and-child cooking courses. The focus is on experiencing things together around the cooker.

Children and parents can learn how easy, cheap and healthy cooking in the family is. After the table has been set, they all sit together and enjoy the food they have just prepared. Cleaning up afterwards is also part of the plan, but that doesn't dampen the families' spirits.



**Learning for life.** Natural, healthy and tasty food is also Sarah Wiener's goal in Germany. She is a top chef who relies on fresh, top-quality ingredients, and she knows that a healthy lifestyle begins in childhood. "For decades I've been concerned with nutrition, cooking and foodstuffs, and I often have contact with children and young people," says Sarah Wiener. She sometimes has unpleasant experiences: "Children who can't prepare food for themselves; children who know nothing about healthy nutrition as the basis of a balanced lifestyle; children who live on crisps every day – and it's all happening on our doorstep." Her Sarah Wiener Foundation gives cookery and nutrition courses in schools and daycare centers. The boys and girls prepare their own meals, clean and fry up fresh ingredients that they have just bought at the market. Fish and fruit juice, mixed salad or even hamburgers: the menu includes a lot of variety, offering something special for all your senses. Food as a cultural and social experience – as a model for good nutrition into old age.

The positive examples show that engagement for a healthy lifestyle is not only necessary but also possible. Whether you're in Berlin or in Sheffield – investing in a health-conscious way of living is always an investment in the future. It needs people with personal initiative to make the first step – like the basketball players of the Sheffield Sharks – and strong partners who turn an idea into a sustainable development. In this way visions can become powerful messages that exert a long-term influence on society. ■



In her cooking courses Sarah Wiener shows children that a good, healthy diet can be simple and still tasty.

International

# A full table for all



In the USA it's the 'Food Bank', in Germany the 'Tafel', and in Spain the 'Fundació Banc dels Aliments' – and these are just three examples of a worldwide movement that collects perfectly fresh food which by law may no longer be sold – and gives it to the needy. In Hungary, the same initiative called 'Élelmiszer Bank' is supported by B. Braun employees, who invest a lot of personal effort into the project.

The young woman looks a little embarrassed, but the little boy holding her hand is all smiles. He watches curiously as rice, bread and potatoes – but also some chocolate and a few sweets – disappear into his mother's shopping bag. The food is free. The little family has come to an Élelmiszer Bank distribution center in Budapest. The nonprofit organization collects both fresh and non-perishable food from private donors, restaurants and supermarkets and distributes it via a network of more than 450 private and public centers

to people who cannot afford to buy food regularly. The assistance is unbureaucratic and represents a contribution toward preventing malnutrition. The idea of the 'Food Bank' comes from the USA. Founded by John van Hengel in 1967 in Phoenix, Arizona, St. Mary's Food Bank was the first in the line of the charity organizations. His idea of distributing 'excess' food to people in need has since been implemented worldwide. The success of the initiative is due to the commitment of private individuals and businesses.

**Help for patients.** In Hungary, the local B. Braun branch has taken on the task of supporting the Élelmiszer Bank: members of staff collected more than four tonnes of food during the last action in 2010 alone. Yet that was only one aspect of their efforts, emphasizes Maria Fazekas from the B. Braun headquarters in Budapest. The employees of B. Braun Medical and B. Braun Avitum also donate money to the Food Bank as part of the 'B. Braun for Children' program, and promote the work of the organization in their spare time, distributing flyers as well as information on collection centers and how to donate.

At the same time, the B. Braun staff also apply their professional experience. In the dialysis centers operated by B. Braun Avitum in Hungary, they often notice that a severe illness can place a big strain on the economic situation of patients and their families. "Here," says Maria Fazekas, "B. Braun can make a useful contribution in two ways." On the one hand, the staff can bring the Food Bank to the attention of patients in financial trouble; on the other, many Avitum employees are in close contact with self-help groups and kidney-disease patient associations. Maria Fazekas is convinced that their networks and organizational energy could also be used to promote the Food Bank. The first contacts have evidently been "very promising." One way or another, the commitment of the B. Braun employees continues. "After all," says Maria Fazekas, "the four tonnes of food are something to be proud of – and an incentive for the next food collection." ■

The B. Braun France Foundation promotes projects that make everyday life for hospital patients a little more human – and fulfill the dreams of ‘little princes’.



France

# Room for dreams

One euro for each vote – for a place to play and to dream. Like last year, the B. Braun France Foundation is organizing a traveling art exhibition in 2011 and inviting visitors to vote for one of the works on display. The Foundation will later transform these votes into money, which will be donated to a charity called ‘Association Petits Princes’ (Little Princes) which fulfils the wishes of very ill children. The theme of this year’s exhibition reflects the goals of the Foundation and the partner association: under the motto ‘Aire de Rêves’ (Room For Dreams), artists were asked to design a room that uses lots of color and imagination to help the little patients forget their daily routine in hospital. The dream-space models were created according

to a box format prescribed for all the artists. Twelve works are being shown in the coming months in a total of 21 hospitals, clinics and B. Braun locations. “5,000 visitors had already cast their votes for their favorite room after nine exhibitions. By the end of the traveling exhibition we will convert the number of votes into an equally large sum of money and donate at least 10,000 euros to the Little Princes,” says Fabienne Simon of B. Braun France. “In addition, the most popular room will actually be created in the medical facility where the most votes were cast.”

**Right to privacy.** The ‘Aire de Rêves’ traveling exhibition is just one example of the Foundation’s work. Fabienne Simon: “We know that the quality of life experienced by patients plays an important role in their recovery process and the success of therapies.” The Foundation therefore launched a Prize called ‘Soin et Bien-

traissance’ (Care and Concern) in December 2009. Doctors, nurses and other health-care workers were invited to submit innovative ideas on ways to improve the quality of life of patients. 66 project sketches were submitted and evaluated by an independent jury. On November 29, 2010, the prize, worth 25,000 euros to the winner, was awarded to the René Gauducheau Cancer Center (Centre Régional de Lutte contre le Cancer) for a concept aimed at giving critically ill patients more privacy during their hospitalization. “The prize will enable us to launch a project that will become a reference for palliative-care patients at the Center,” says Devi Courniloux, project manager and nurse at the Centre René Gauducheau. Fabienne Simon from B. Braun: “There are many good ideas focusing on patients and their needs, so we have already launched the next round of the competition.” ■



Every time the exhibition is opened at a new venue, artists and members of the public design a mural together – each on a different subject: e.g. a dream garden or a dream journey. This work of art then stays in the respective hospital and clinic. The aim is to make the establishments more colourful and make the patients’ stay more enjoyable.

International





# Knowledge = growth + prosperity

Education is a universal human right. It was declared as such in 1948 as part of the Human Rights Charter of the United Nations. Reading, writing and arithmetic are considered elementary basic skills needed to enable people to take part in life in modern societies at all. However, opportunities for education vary enormously. At its Millennium General Assembly the United Nations decided that this must change. The heads of state and government of 189 nations defined eight Millennium Development Goals to improve the lives of people in the 21st century. One of these is education: every child in the world should at least have access to free primary education by 2015. The other goals are to fight poverty, strengthen gender equality, improve maternal health, combat diseases like malaria and HIV/AIDS, and secure environmental sustainability and a global partnership for development. The project is ambitious, but still does not go far enough, since mankind's technological knowledge is growing faster than ever. Education is key to ensuring that this knowledge can also bring benefits. And it must continue for the whole of a person's life – from kindergarten to old age. ■



Economic studies have proven the close relationship between the education level and income: people with a better education are likely to earn a higher wage – the Organization for Economic Co-operation and Development (OECD) speaks of an 'education dividend'. This relationship has been shown to apply to all economies: a workforce with many well-qualified people increases overall productivity and, as a result, raises the general standard of living.

Education is an essential prerequisite for being able to make use of existing technological knowledge. This is shown in China: with the help of its hard-working engineers and technicians, the world's most populous country recently overtook Germany as 'export world champion'. For years now, production in China has no longer been dependent on branches of foreign companies; cars and high-speed trains are now also being built by Chinese companies.

However, in many developing countries investing more in the university education of their elites will initially not generate any benefit at all. Because of the economic structure, academics often fail to find a job and emigrate. The first item on the agenda here is general basic education. In its Millennium Declaration, the United Nations decided that this must be achieved for all by 2015. However, elementary structures often have to be created first before a start can be made – especially in the sub-Saharan countries. In Africa alone, 43 million children do not learn to read and write at primary-school age; the global figure is around 70 million. Peter Kramer, board member of UNICEF Germany, calculates that it would cost only 15 billion US dollars to enable them to go to school. This makes basic education for all the "cheapest Millennium target," he said in a speech in Berlin to mark World Education Day on September 8, 2010. It was time to honor the promise that was made at the United Nations General Assembly in 2000. The 'Schools for Africa' initiative alone, which Kramer co-founded, has built more than 700 new schools since its launch in 2004, enabling more than a million children to attend school.

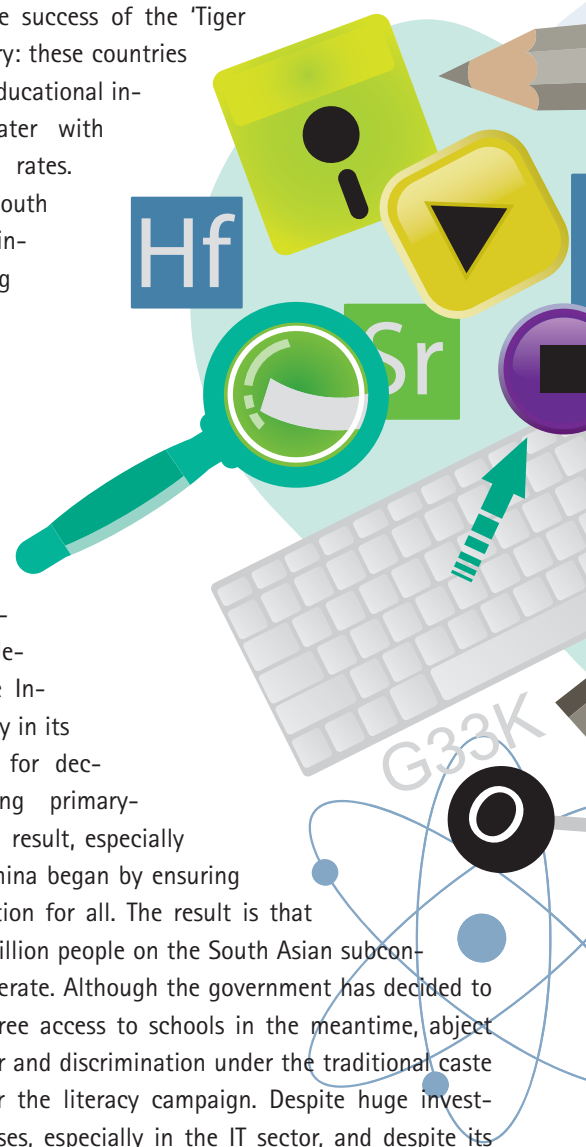
**Education for economic growth.** Yet it seems possible that the UN might even have set its target too low, according to a study published in Austria in 2008 by the Vienna Institute of Demography and the International Institute for System Analysis Laxenburg (IIASA). The researchers – led by Wolfgang Lutz, Jesus Crespo Cuaresma and Warren Sanderson – come to the conclusion that investment in elementary education pays off economically for developing countries. It can permanently increase economic growth by an average of two to about seven percent a year. And if the countries with high illiteracy rates were to invest not only in primary schools, but also in secondary schools, they could reach growth rates as high as twelve percent. For their study, the researchers retrospectively analyzed educational and economic data from 120 countries between 1970 and 2000 – also incorporating

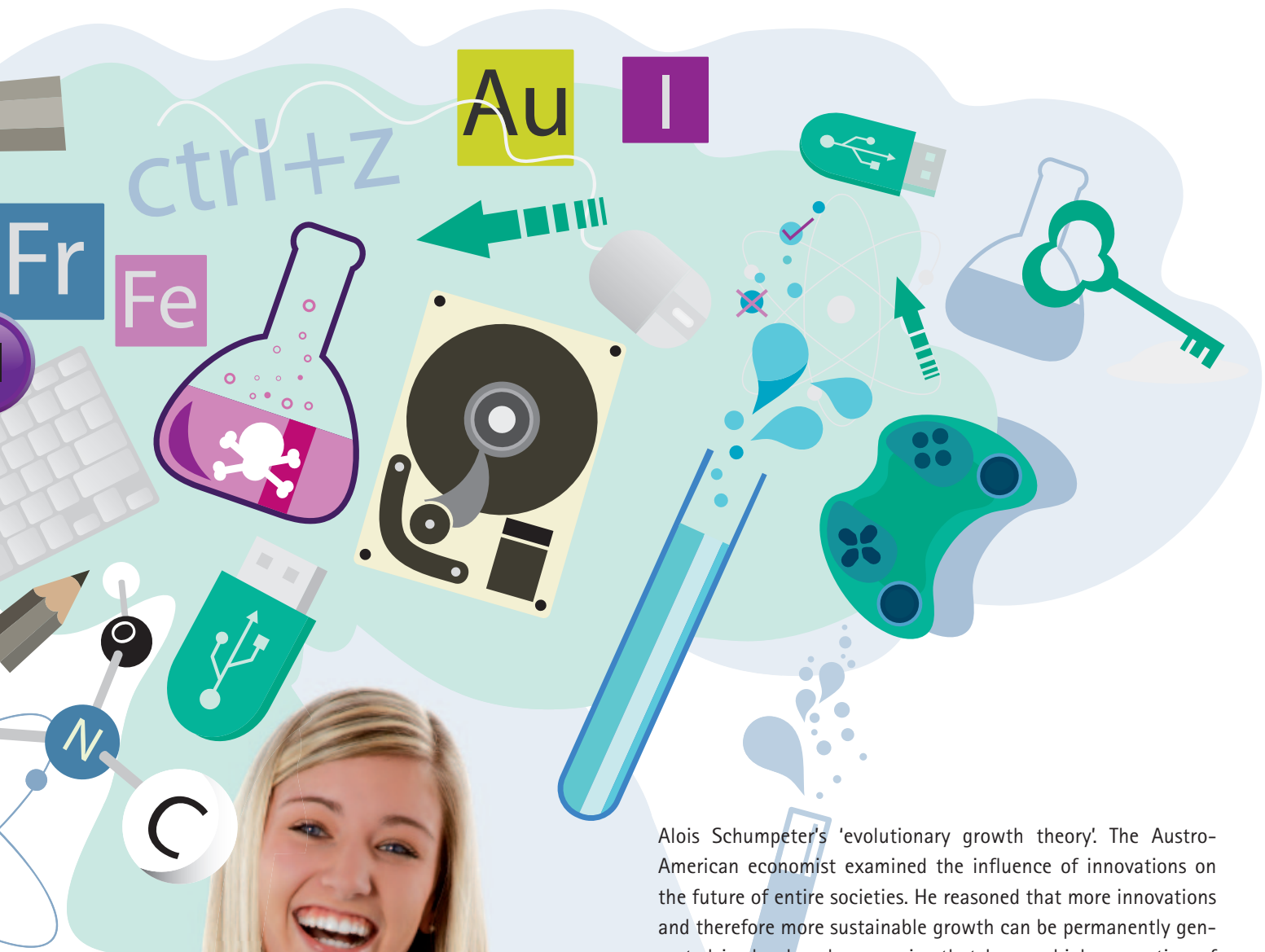
the age structures of the population for the first time. They say the success of the 'Tiger States' is exemplary: these countries scored first with educational investments and later with enormous growth rates.

In many respects South Korea, Taiwan, Singapore and Hong Kong have already caught up with developed nations.

A look at India and China shows that the figures from the past can definitely be transferred to current developments. While India invested heavily in its university system for decades – neglecting primary-school access as a result, especially in rural areas – China began by ensuring elementary education for all. The result is that several hundred million people on the South Asian subcontinent are still illiterate. Although the government has decided to give all children free access to schools in the meantime, abject poverty, child labor and discrimination under the traditional caste system all hamper the literacy campaign. Despite huge investments and successes, especially in the IT sector, and despite its faster-growing population, India is lagging behind China economically: China reported double-digit growth rates every year up until the 2008 crisis year, and it almost reached this figure again in 2010. Even so, India is catching up.

**Training for qualifications has a lasting effect.** Developed industrial nations face quite different challenges; here, it has long been normal for general education to continue long after primary school. Education has a special status in the 'knowledge society' that was proclaimed here decades ago. It is regarded as virtually the only renewable resource and makes a key contribution to value creation, replacing ores, coal and oil. Countries like Germany with a high proportion of skilled workers can organize their work differently. Ronald Schettkat, Professor of Economics at the University of Utrecht, has observed that flat hierarchies are relatively common and that this favors complex, flexible production processes. In his essay on Education and Economic Growth (published in the journal *Mitteilungen aus der Arbeitsmarkt- und Berufsforschung*, 2002), he also refers to Joseph





Alois Schumpeter's 'evolutionary growth theory'. The Austro-American economist examined the influence of innovations on the future of entire societies. He reasoned that more innovations and therefore more sustainable growth can be permanently generated in developed economies that have a high proportion of highly qualified people. It is not just that productivity continues to increase, completely new developments are also initiated. Such economies are therefore 'better' at increasing their wealth – they are on a different growth path.

Yet industrialized nations too would do well to ensure that people are able to make the most of their potential. A study conducted by the Munich-based Ifo Institute for Economic Research on behalf of the Bertelsmann Foundation has calculated the effects that an education reform would have on Germany. According to the OECD's Program for International Student Achievement (PISA), the reading and arithmetic skills of 20 percent of 15-year-old students in Germany is no higher than primary-school level. If these students were given suitable support, the additional economic growth thus generated would add up to a total of 69 billion euros up to 2030 – far more than the necessary expenditure on the education reform. Accordingly, investment in early-childhood education generates particularly high yields, especially if the policy succeeds in promoting children from socially disadvantaged families. →

The measure of development most commonly used in countries and regions is the gross domestic product, yet this does not necessarily reflect prosperity as it is perceived by people in reality. Economic and social scientists are looking for new, universal measures. The Human Development Index (HDI), for example, which was developed by the Pakistani economist Mahbub ul Haq, has been used as a prosperity indicator by the United Nations since 1990 and is published every year in the UN Development Report. The HDI includes factors like per-capita income, life expectancy and educational levels. The idea is that average life expectancy simultaneously reflects the state of healthcare, nutrition and hygiene in the country; and as the number of completed years of education and training increase, so do qualifications, income and consequently opportunities to actively participate in public life. In 2010, the HDI rankings were topped by Norway, followed by Australia and New Zealand. The USA, as the world's strongest economy, was in fourth place; Germany made it to tenth position.

**Education overcomes limits to growth.** It is evident that the ideas on growth and prosperity that have been developing since the 19th century in industrialized societies cannot be arbitrarily transferred into the 21st century and applied to all the countries of the world. The number of cars alone, and the energy needed for physical mobility, would exceed the planet's capacity many times over. When the Club of Rome's study *Limits to Growth* was published in 1972, this was the first time the general public was made aware of this discrepancy. Education can and must provide a way out of this dilemma: this was the conclusion drawn by a group of international authors around James W. Botkin in 1979 in their report to the Club of Rome entitled *No Limits to Learning*. However, their dramatic assessment was that only a completely new way of learning could save humankind from impending ruin.

Starting with children, everyone must learn to see problems from many angles and to develop solutions in cooperation with others. These thoughts led to the emergence of the Club of Rome schools network – one of many initiatives in the search for education methods that can be sustained in the long term.

**More than PISA.** A school system that is oriented purely toward current employment requirements could well be insufficient. The effect of knowledge can be felt on many levels; it also improves people's health, for example. Children of educated mothers suffer less frequently from malnutrition and have a significantly better chance of living until their fifth birthday. This effect is even noticeable in industrialized countries. Researchers at Harvard University under David Cutler have discovered that academics live more healthily and several years longer on average.

This raises the question as to whether it's enough to look to PISA. According to this comparison, in 2009 China performed best, followed by Singapore. Traditional 'nations of education' such as Germany and Austria find themselves in the middle of the table. The winner China, but also Japan and the Tiger States, rely on a teaching system that is based on discipline and focuses on performance. The methods have been described by Amy Chua, law professor from China at Yale University. Her book *Battle Hymn of the Tiger Mother* has triggered heated debates in Europe and the USA. Amy Chua is certain that drill and stubborn repetition would also work in European countries. However, comparative international studies have not yet produced any evidence that Asian education systems are superior on principle to European ones. Competition between the cultures and economic regions is in full swing. This much seems certain: the winner will have to be one that relies on cooperation and equal rights. ■





# Life and learning interwoven by the Net

Interview with John Seele Brown, thought leader of the digital age and author of "A New Culture of Learning".

**In less than 20 years computers and the internet have turned communication on its head. How is this digital revolution affecting education?**

The borderlines between such diverse activities such as learning, teaching, research, communication and play are disappearing. This is down to the new communication and information technologies, which the younger generations see not as tools but as a lifestyle. One example is the internet, which they can now access wherever and whenever they want and is part of every aspect of their daily lives. One consequence is that life and learning are more closely interwoven than ever before.

**What does this mean for schools and universities?**

Today's students expect an infrastructure they can simultaneously use not only for their school or academic needs, but also as a social activity. We therefore need a new framework that is able to bring these traditionally separate spheres together: an area where the virtual and the real, the formal and the informal, stationary and mobile, peer-to-peer based learning and expert mentoring are synergistically united.

**Are schools and universities today able to address these needs of learners?**

No. Today's generations of pupils and students communicate in ways that many teachers don't even understand. And these forms of expression and ways of interpreting and creating information are constantly

evolving further. The younger generations use interactive approaches by piecing together images, sounds and content in a complex manner. In the past we crafted mostly content, today we craft both content and context and can experiment with the ways in which context influences the meaning of content.

**What new ways of communicating knowledge might develop that do justice to the living environment of today's generation?**

We need a change in basic teaching materials and methods. Traditional lectures and manuscripts must make way for interactive media that can be electronically used everywhere. One vision is to offer content in web-based modules containing, for example, animations, voice, video clips and texts. Of course, all this has to be fitted together in an accurate, well-organized and pedagogically sound manner.

**Won't this turn education at universities into pure entertainment that leaves individuals alone and isolated in front of their PCs?**

Thanks to digital technologies – including the social networks – students can really immerse themselves into a community of learners. By its nature a community of learners is characterized by a high level of intensity and a high degree of interaction. This paves the way for students to not only make more direct and personal contacts on campus, but also to extend communication among students and study groups beyond the campus and even continue it after graduation. These new forms of teaching thus promote the social nature of learning

and constant productive inquiry, making them superior to the traditional methods of imparting knowledge. I also see an opportunity for 21st century university research in web-based, interactive cooperation, making it easier for scientists to focus more on the actual questions to be resolved rather than on the existing subjects. New methods and approaches to advancing our knowledge are emerging thanks to the new quality of cooperation, along with new powerful collaboration tools. ■

## John Seely Brown



was research director at Xerox Corporation and head of the Palo Alto Research Center (PARC), birthplace of countless innovations such as laser printers or laptops. As the director of PARC he shifted the focus of research more onto knowledge management and how organizations learn. Brown has dealt intensively with education in the digital age. He is a co-founder of an institute engaged in research into the process of learning and advises the Singapore government (among others) on educational issues.

International

# Education as an elixir of life

One thing is beyond doubt: people are always learning. They gain experience and gather ideas, intuitively developing their inner picture of the world. Such everyday knowledge is indispensable, but it does have its limits – especially given the rapid and profound changes taking place in nature, society and technology. The challenge today is the need to be constantly accessing new knowledge – throughout your life.

Technological developments such as communication and information technology, biotechnology and genetic engineering, vehicles construction and power engineering are influencing human coexistence in entire societies. Knowledge acquired in one's youth is no longer going to be enough to carry you through a working life of 30 or 40 years.

Practical experience alone is not enough to enable you to hold your own in everyday life. Education is in demand. In today's world it must convey more than basic cultural techniques and a

canon of generally accepted basic facts about nature and society. To this extent there is general agreement. Yet even ideas on what education actually *is* could hardly be more different: the spectrum ranges from the economically oriented demand for a 'targeted acquisition of knowledge, skills and abilities' to the neo-humanist concept of a personality maturing as it experiences the world, as the scholar

Wilhelm von Humboldt imagined his education reforms more than 200 years ago. Most people find themselves somewhere in-between this neo-humanist demand of Johann Wolfgang von Goethe – "Become yourself ..." – and the constraints and demands of daily life. Education has become an elementary 'medium' of life.

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**"The disadvantage of intelligence is that you are continuously forced to learn."**

George Bernard Shaw (1856 – 1950)  
Irish playwright, novelist and Nobel Prize laureate

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**A question of attitude toward life.** Education is more popular when learning means pleasure rather than coercion. The initial preparation for this takes place at an early stage, since every human child is born with a healthy portion of curiosity. Motivation and recognition, shared experiences with family and friends, these all help to keep awake the joy of wanting-to-know. This is the basic idea behind





B.Braun's Children and Youth Weeks in Melsungen. Every year the company invites thousands of young guests to the company site – from three-year-old kids to high-school graduates. For two weeks a highly varied program – conceived together with kindergartens and schools – takes the children and young people on a fascinating journey into the realm of science. They come from the region's schools and kindergartens, and on Saturday they bring their parents and siblings along too. "We want to awaken the children's curiosity about science and show them ways to self-realization," says Dr. Bernadette Tillmanns-Estdorf, Head of Corporate Communications at B.Braun. The company sees promoting education for all as part of its role as a 'citizen of society'. The project is entering its fourth round in 2011. 'Research needs Young Scientists' is the motto of the Children and Youth Weeks, and this is where their deeper meaning lies: to feed curiosity, and to maintain or reawaken children's desire to try things out, discover and understand. Not least, B.Braun also wants to reduce barriers between schools and businesses: "We want students to get the clearest possible picture of what awaits them in their later working lives," emphasizes Kay-Henric Engel, →

Under the motto 'Research Needs Young Scientists', B. Braun regularly invites children and young people to B. Braun's company site in Melsungen to experiment and try things out.



responsible for vocational training at B. Braun: "Where will their personal interests and strengths open doors? In which areas would it be worthwhile investing a little more time and effort?"

**Starting a better life.** At least ten years of schooling are the rule in Germany. In India, however, there are thousands of children in the slums of the major cities who have never seen a classroom from the inside. Brother Donald D'Souza aims to change this, at least for some. As director of the Sarva Seva Sangh (SSS) charity, he has initiated a pre-school project for children of gutter cleaners and garbage pickers, the poorest of the poor. "Over a hundred children are attending our balwadis in the meantime," says D'Souza. When he

arrived in Mumbai in 2008, having spent twelve years in Mexico and Nicaragua, SSS was offering street children a safe place for the night. An ineffective endeavor: "The children we looked after at night were lounging around the railway embankment again the next day. Things remained the same for them." D'Souza wanted to change something. Every day he walked the streets of the slums and talked with begging children. The vision gradually matured: if the children don't go to school, the school has to come to them. He sought and found some likeminded people – e.g. at B. Braun India. Teachers declared their willingness to teach the children every day and to use playful methods – like singing and dancing – to introduce them to the alphabet and a

basic knowledge of mathematics. A few dozen have already successfully switched to the regular school system. Education is showing them a way to escape their parents' world of extreme poverty.

#### **Finding a career in a roundabout way.**

Even with education, you sometimes need some additional help to get going. In Germany, for example, a growing proportion of school-leavers are finding it impossible to even start a career. They are regarded as 'untrainable', says Kay-Henric Engel: "They lack a basic knowledge of the German language and mathematics, often also social skills like reliability, responsibility, teamwork." The PerspectivePlus training initiative aims to give them a helping hand. Here the school-leavers get to know different areas of work in the participating companies; they can test their practical abilities and at the same time attend vocational school to improve their exam grades in important subjects.

Volunteer Günther Potyka from Melsungen offers these young people his help: "Most of them have no real idea of what to expect from work. They need practical support – and someone who will take them seriously, encourage and promote them." After 30 years working for B. Braun, Potyka, now retired, would like to pass on to the young people some of what he received himself. As a mentor Günther Potyka listens to the young people, shares his own experience with them, and gives them a tip or two among equals. Two years ago he took a young man almost literally off the streets who simply hadn't been able to get an apprenticeship,

## The Aesculap Academy supporting knowledge exchange

Knowledge helps the healing process, so it's important, of course, for healthcare professionals to regularly update their knowledge. Many also get personally involved to make sure that up-to-date knowledge is disseminated as widely as possible. The Aesculap Academy offers them a framework in which to do this.



**Dr. Felipe Gomez-Garcia**, specialist in hip surgery at Metropolitan Hospital in Mexico City, has regularly been giving courses at the Aesculap Academy Mexico since 1995.

"The Aesculap Academy offers me excellent opportunities to exchange information with my colleagues and to discuss topical issues and research findings. In the surgical field it's practical experience that's crucial. Because our courses are held in facilities that have a teaching operating theater, the participants can try out new operating procedures without risk under everyday surgical conditions."



**Lynda Gunn**, specialist nurse in neurosurgery at the Royal Hallamshire Hospital in Sheffield, was the first nurse to become a member of the Society of British Neurological Surgeons (SBNS) in 2007. She helped design an advanced training course for nurses at the Aesculap Academy.

"I needed a course for my specific situation: a well-sorted overview of current developments in all branches of neurosurgery with a focus on senior nurses and trainees. I happened to mention this in passing to Jemma Hible, B. Braun's local representative here. She mentioned the Aesculap Academy, and then things started to move; the first course of its kind was held here in Sheffield."

despite many applications. Potyka managed to organize an internship for him at B. Braun; the young man then switched seamlessly to PerspectivePlus, where he greatly improved his high-school exam results in the main subjects. Today he is in regular training at B. Braun and has learned that an objective can sometimes be reached in a roundabout way.

**Hungary emphasizes the practical side.** International competition and cross-border agreements are ringing in changes for traditional systems. Educational syllabuses and qualifications are becoming more comparable, which is opening up prospects across borders – for employees and businesses alike. With competitiveness in mind, Hungary is currently in the process

of reforming the country's vocational training system. The aim is to incorporate more practical experience into training courses, and advice from employers is explicitly welcome in the new curricula. The reform is already having an effect at the universities. For example, a company internship is now required before a degree is awarded. B. Braun Hungary is taking this opportunity to offer qualified internships to students of electrical engineering and computer science: "The students are very popular among the companies," says Sándor Dolgos, Head of Research & Development at B. Braun in Budapest: "They are seen as committed and enthusiastic, they're anxious – and quick – to learn." The cooperation agreement which the company has signed with the Foundation

of the Technical University in Budapest gives all sides security, because it specifically defines the training curriculum to ensure that the internships are officially recognized as part of the student's course. During their internship, which can last between one and six months, the students work on topical projects of the department. The success speaks for itself: the one student who did an internship in 2009 was followed a year later by 17; and the growth is continuing – as many as 25 places are planned for 2011. Dolgos appreciates this as a good opportunity to meet future colleagues. Since June 2010 a former intern has been working as an engineer in his team; two more will be starting in 2011, once they have finished their studies. ■

## Brazil

Brazil is an emerging industrial nation. International companies produce goods here that go all over the world. But most young residents in the community need to improve their competencies and skills if they are to benefit from the wealth. They lack a qualified vocational training. 'Arsenal do Bem' – loosely translated as 'Arsenal for the Good' – is a model project that promises relief.



**Model for Brazil.** The SENAI mobile training unit for technical mechanics stands on the B.Braun company premises. It has twelve places, limiting the number of participating students to 24. Teaching is split into two shifts: those who come in the morning go to school in the afternoon, and vice versa. The choice of location is intentional: the aim is for the project participants to get to know not only pneumatics and hydraulics, quality assurance and metrology techniques, but also role models for life. "Some B.Braun employees come to tell us about their careers," says Alexandre Melo dos Santos, one of the first year's participants. "I thought that was impressive."

# Well equipped for a better life

A special opportunity is being given to students at the Professor Dalila de Oliveira Costa state high school in the Arsenal district of the up-and-coming city of São Gonçalo, which numbered about 997,000 inhabitants in 2010: they can attend a basic technical training course during their final school year. In 2011 the project is already moving into the third round. In addition to the initiator B.Braun Brazil, the partners are the Guanabara Bay Institute (IBG), which aims to promote development in the region, and the National Service for Training in Industry (SENAI) in Brazil.

The demands made on the students are tough: from April to October they have

four hours of training every day in addition to their regular lessons. "The project gives the students the right to dream of a good career. This possibility, which B.Braun have brought to our part of town, makes our school something special," says teacher Marcos Exedito Paixão. Rising student numbers confirm this.

State schools in Brazil tend not to be exactly a 'launch pad' for a successful life. The school-leaving qualification is not usually advanced enough to enable students to start vocational training; and only very few pass the entrance examinations to the public universities. Parents who can afford it send their children to private schools.

The candidates for Arsenal do Bem undergo a rigorous selection process. Mathematics, technical understanding, logical thinking and social skills are required. The course syllabus deliberately goes beyond purely technical subjects and also includes health and environmental issues, ethics and human rights. "We want to expand their view of the world," says Laudimar Lacerda, Human Resources and Corporate Communications Executive Director at B.Braun Brazil, "so that they can take on responsibility for themselves and others."

The project has attracted a lot of attention around the community. Up to now, 48 students have graduated from the project, and 28 of them are taking part in the technical training courses at SENAI. Alexandre Melo dos Santos was recently hired as an employee at B.Braun, by the way. He wants to study mechanical engineering so that he can work with B.Braun as an engineer and then share his knowledge with his peers. ■



Haiti

# Hope for Haiti

January 12, 2010, was a decisive day in Haiti's history. Memories of the devastating earthquake on the Caribbean island are still very present today. Rainer Lang of *Diakonie Katastrophenhilfe* knows the country and its people, helped the relief effort in the first few weeks, and documented the reconstruction work. B. Braun staff supported this work.

**Mr. Lang, pictures of the earthquake in Haiti were quick to go round the world. Your emergency relief organization, *Diakonie Katastrophenhilfe*, was able to act immediately because it knows the country well.**

Rainer Lang: We have had an office in Port-au-Prince since 2005, because the country was already one of the world's poorest even before the earthquake. Our focus is to help people to help themselves. For example, we support people who want to set up vegetable gardens and keep small animals – not only to make families more self-sufficient, but also to enable them to earn additional money to send their children to school. So we are well networked in Haiti, what with these and other initiatives, especially in our core region in the south-east

around Jacmel and the Arrondissement de Bainet. We were already collaborating very well with local organizations and the administration, and that helped us provide rapid earthquake relief.

**But Haiti was in shock on January 12, and I'm sure that also applied to your colleagues there?**

Miraculously, nothing happened to our office or our helpers, but it took some time before we could be sure of that. Our office manager Astrid Nissen – who has been living in Haiti for six years now – immediately reported the disaster via the Internet. Astonishingly, that worked. Anxious hours and days followed until we were sure that all our staff were OK. Of course, after the initial shock they first had to get themselves together, look →

for their relatives and so on. But they very quickly began assessing the situation. Port-au-Prince no longer exists, they reported; it has disappeared. They checked out the damage and of course looked for people.

### What were the first steps taken by Diakonie Katastrophenhilfe?

We immediately called all our people together in Stuttgart in line with our emergency plan. A staff unit was formed without delay to discuss the initial steps. The first thing we did was to make money available from our emergency fund; this enabled us to start helping in Haiti straight away. Everyone knew what was needed after an earthquake: drinking water above all, food, shelter, blankets, cooking utensils, medicines. We had an advantage here in that we didn't have to fly in relief supplies and helpers over the ocean, but could build on our local cooperation partners. Wherever possible we always source relief supplies locally. This saves time and transportation costs and helps the region twice over.

### Could you give us an example of collaborations?

One of our partners is a Dominican-Haitian women's organization; they volunteered to take doctors and medicines to Port-au-Prince to immediately start treating people there. They sent the first fact-finding mission to the capital by ship because the border between the Dominican Republic and Haiti was

impassable. Outside support didn't start coming in until a week after the quake, after the Americans had reopened the airport. In the south-east, the main center of our operations, we were also able to get assistance moving quickly thanks to our cooperation with local partner organizations there and strong networking within the population. Here we started by distributing what we had. Furthermore, back in Germany we decided to share a relief flight with Caritas – an absolute exception for us because it's actually our policy to buy the necessary goods in the region. But there was a lack of medicines which couldn't be sourced in Haiti.

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*"By the end 2010, Diakonie Katastrophenhilfe in Haiti had initiated 22 relief projects worth more than 8.3 million euros."*

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Rainer Lang, *Diakonie Katastrophenhilfe*

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### What were the main tasks that your organization had to address, apart from distributing drinking water and food?

We started with reconstruction very quickly. We knew it would make no sense to invest in large camps, which are usually too cramped and deprive the people of any privacy. We wanted small units, and were in agreement with the authorities on this. At the same time we set up tents

for families next to their destroyed houses so they could stay in their familiar surroundings. We also began building solid accommodation – but not as a temporary solution: we wanted permanent homes. We had tested some model houses in other regions and adapted these to the conditions in Haiti. We have already built 500 houses in the south-east, and another 800 are planned. 300 houses are going up in the west, in the mountains of Petit Goâve. A hundred of them have already been completed. We are also rebuilding four health centers thanks to a major donation of 230,000 euros from B. Braun. We celebrated the topping-out

ceremony of the first station with the residents of Brésilienne in December 2010. These health centers in rural areas are essential for survival. They are the first and most important health facility

for the sick, the injured and pregnant women. A badly damaged hospital is to be rebuilt, too, and our plan also involves three new schools in Jacmel.

### What obstacles did the helpers on the ground encounter?

The first challenge was to build up a functioning organizational structure. This was quite difficult because of the lack of communications: fixed-line







phones were unusable and communication via mobile phones very limited, so our office was initially only able to communicate personally with the partner organizations; in other words we had to drive to see them. The airport proved to be a bottleneck; relief planes were virtually queuing up in the air. In the south-east of the country we were able to set up emergency relief centers quickly, thanks to our good relations with the local administration. But things were different in Port-au-Prince: here, all the ministries were destroyed; there was no infrastructure left.

**What was the most formative experience for you on the ground?**

I shall certainly never forget the day I arrived in Port-au-Prince: the extent of the disaster in such a small space; mountains of rubble everywhere under which people were buried; people standing on the rubble pulling at the stones with their bare hands to find their relatives, even though

they already knew that they were dead. Suddenly everything had gone, just collapsed; and what remained was a feeling of helplessness. I remember a hospital – a poorly built concrete building. Its four stories were just stacked up on top of each other and the patients were lying in-between, crushed, dead. And the smell and the dust. I will never forget that. Yet there was also a glimmer of hope: a lot of people were not just sitting around apathetically; they were doing something constructive, mobilizing all their strength for a fresh start.

**You returned to Haiti in the fall. What had happened in the meantime?**

The mountains of rubble had gone. Life had returned to the capital. Markets were open again. But that can't hide the fact that many people are still living in tent cities. There are shortages of everything, and much still needs to be done to enable Haitians to live their lives without outside help. ■

**Rainer Lang**



was in Haiti for the first time – after the earthquake – from January 19 to early February 2010. The 56-year-old returned to the country about nine months later. His task was to report and compile a documentation. It was not to be the only disaster area he was to visit in 2010. In Port-au-Prince, Lang had been shocked at how much destruction can be wrought in such a relatively small space, but he was completely stunned at the scale of the floods in Pakistan in the summer of 2010. Rainer Lang, who has three children, has been working for *Diakonie Katastrophenhilfe* since May 2008. Before that he was with the ACT Alliance, a global network of church organizations.



## Hungary



The first step towards changing people's behavior is often to talk with them, discuss things, and encourage them to think. This is also the Hungarian Green Team's recipe for success.

It all began with a look into the garbage can: after a conference at B.Braun's Budapest headquarters it was crammed full of empty water bottles and disposable plastic cups. For a long time this was a common sight that few people thought about. "It was simply the way the supply of drinks was handled," says Maria Fazekas, responsible for corporate communications in Hungary. Until a young member of staff started thinking aloud about what a waste of valuable resources this plastic orgy was. She also had an idea of how this could be done in a better way – and her idea was welcomed by management. Shortly afterwards, the many little plastic water bottles were replaced by water dispensers sporting huge bottles; and instead of the plastic cups, all the hundred-strong staff at headquarters were issued with glasses labeled with their names.

## Paper consumption

In 1974 the world consumed 8.7 million tonnes of paper – in 1999 Germany alone used 17.5 million tonnes. According to the WWF, paper consumption has increased sevenfold since 1950 to 367 million tonnes.

Industrialized countries consume an average of 164 kg of paper per person per year – in the so-called developing countries the figure is only 18 kg.

Top of the table are the Americans with 335 kg per person per year – an Indian gets by with 4 kg.

A German child in the first year of his life consumes as much in paper products as an Indian in 57 years

Source: [www.wald.org/papier/hinter01.php](http://www.wald.org/papier/hinter01.php)



**Saving money by thinking.** That was when the Green Team was born. Initially it was a few employees who voluntarily promoted the idea of a responsible use of resources in their spare time. Then, in September 2009, the Green Team officially took over responsibility for promoting environmental awareness in the company's daily work routine – with presentations, a regular newsletter, practical, easy-to-implement ideas, and suggestions for the colleagues.

"Often, it's enough to just invest a couple of seconds thinking about something," says Maria Fazekas, who today is an active Green Team member herself. "Do I really need to print out or copy this document or that file?" This idea enabled the Green Team to significantly reduce the amount of paper used at headquarters. The other steps were similarly simple, but no less effective. With a little thought you can also reduce your water and electricity consumption in your day-to-day work. "Of course without leaving everyone sitting in darkness – that would hinder their work," Maria Fazekas adds with a smile. "And another thing: maybe we really don't need to use the elevator every time."

What began with a small group of people at headquarters is now to be gradually extended to the other Hungarian locations and, ideally, each individual employee. In the dialysis centers which B.Braun Avitum operates all over Hungary, plastic bottles and cups are still the order of the day. But not for long, if the Green Team get their way: with articles on the intranet, the newsletter, and above all, personal contacts and special Green Day events, they are determined to propagate the environment-preserving and resource-saving approach. "After all, the most important switch is to be found in everyone's head," says Maria Fazekas. ■

Germany

Getting children interested in environmental protection and the natural world; protecting habitats; developing and implementing strategies on sustainable energy – these are all prize-worthy regional initiatives for B. Braun.

## The secrets of the dormouse



This time the jury found it really difficult to make a decision: all three candidates for the 2010 Aesculap Environment Prize were still neck-and-neck after intense discussion. "We've not managed to decide on a sequence for the top three," says Michael Hensch, chairman of the jury and the City of Tuttlingen's Environmental Officer. However, the solution was not difficult in the end: the jury voted unanimously to award three first places at the 19th competition for the Environment Prize, which was launched in 1992. So the award and 10,000 euros in prize-money were shared by the municipal nursery in Hausen am Andelsbach, the Schwarzwald-Baar regional group of NABU (Nature and Biodiversity Conservation Union), and the 'Neckartal Rottweil Business Park' team. The nursery was chosen because the teachers "integrate the environment-

protection issue into daily kindergarten routine in many ways," the jury said. For example, the children between the ages of three to six years were already learning about photovoltaics, and on excursions the little ones tracked "the feeding traces of the dormouse." The NABU group was honored for its years of campaigning for a wetland area that offers sanctuary to rare animal and plant species. And at the Rottweil business park an environmental and energy concept is increasingly taking shape on the factory premises of a former textile manufacturer.

**More than a biotope.** Sustainability is a prerequisite and an objective of the Environment Prize, stresses Dr. Bernd Böhler, environment-protection and safety manager at Aesculap in Tuttlingen and the company's representative on the jury. The basic

idea has remained unchanged since the initiative was launched: Aesculap wants to support activities that promote the protection of the environment. And, in line with B. Braun's philosophy, the company focuses on promoting local projects. "We want to show that we are part of the region and feel responsible for it," says Dr. Böhler.

Since the prize was introduced, associations, clubs, public institutions, schools and even companies near Aesculap's headquarters in Tuttlingen have submitted 294 projects – and 80 of them have won prizes. The range of initiative themes has broadened over the years: the list of winning entries includes projects to protect biotopes and species, as well as studies and practical projects in the fields of renewable energy, fair trade, environmental education and ecological company management. ■

### IMPRESSUM

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