PERFORMERS AND ACHIEVERS
FOCUS ON OUR EMPLOYEES

AIMING HIGH IN THE NETHERLANDS
PORT OF ROTTERDAM

ONE WITH THE DESERT
BUILDING TRUST IN ABU DHABI

THE MAGAZINE OF STRABAG SE
A focus in this issue of inform is one of today’s most commonly used buzzwords: CSR. But Corporate Social Responsibility is more than just buzz. One of the puzzle pieces of CSR – and consequently an important goal of sustainability – which can be found in the article on page 8 is that of “Risk, Strategy, Return”. A look at our books confirms that STRABAG apparently has no problem with this dimension: even if we still have not reached all of our strategic objectives (e.g. in Russia) and various risks have become manifest (e.g. the economic collapse in several group countries, payment defaults, exchange losses, etc.), all the important performance indicators have for years shown a constant upward trend. A second look shows that this continuity, this sustainability, is due to the high summarisation level of the figures. To describe this effect, I came up with the word “millipede principle”, and I have repeatedly pointed out the importance of being able to build on the fact that in such a large group as ours there will always be sufficiently many large areas doing better-than-average business, thus more than compensating for poor results in depressed or languishing units.

Whether euro rescue package or STRABAG millipede principle, every form of collective solidarity – if it is to be accepted and supported by all – requires the greatest possible effort by every member not to make use of it. Sustainability therefore is a commandment for all management levels – not just regarding individual pieces of the puzzle, but comprehensively for all dimensions of CSR. When it comes to the subject of risk and return, our extensive profit participation and bonus system makes an important contribution to reaching our objectives thanks to its incentive effect. With other CSR dimensions, such as CO₂ avoidance or occupational safety, there are no incentive measures (yet). This makes it that much more important that every one of us is aware of his or her sense of responsibility! Simply relying on others to make the necessary effort WITHOUT doing it oneself is such a serious offense that consequences must follow. We are constantly working on better measuring and being able to compare these efforts and will soon have indices at our disposal to reflect aspects such as environmental impact, employee and customer satisfaction, ethics standards and more, even within our smaller business units. I am certain that the group will be as satisfied with the resulting picture as with today’s view of the business results. Here too, however, a second look will reveal deficits which the relevant colleagues will have to accept responsibility for.

I therefore ask you to give the subjects of CSR and sustainability your particular attention. Thanks go to Norbert Pralle for assuming the task of coordinator.

Yours,

Hans Peter Haselsteiner
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HOW MUCH IS A CUBIC METRE?

Students ask questions like this every day. After all, mathematics is not exactly the most popular subject at school. The STRABAG secondary school learning partnership “Mathematics on the Construction Site” shows that this doesn’t always have to be the case.

**Germany.** To help make mathematics more exciting and accessible for young learners, STRABAG Transportation Infrastructures in Düren and the local secondary school GHS Gürzenich joined forces to establish the learning partnership “Mathematik auf der Baustelle” (“Mathematics on the Construction Site”).

THE “SELECTED LANDMARK”

Emboldened by years of success, the project leaders submitted the partnership for this year’s “365 Landmarks in the Land of Ideas”, a nationwide competition in Germany. The STRABAG idea impressed the independent jury of experts composed of 20 scientists, business managers, journalists and politicians so much that they selected the project as winner of the innovation competition from among more than 2,600 contestants, making “Mathematics on the Construction Site” one of 365 “Selected Landmarks”.

The awards ceremony and presentation of the learning partnership took place during an open house on 30 June 2011 at the GHS Gürzenich secondary school in Düren. Thomas Nyhlsen, head of STRABAG’s Düren office, is proud to have received the award. Speaking at the awards presentation, he stressed: “Together with the school administration, the teachers and the students, we are proving that mathematics does not have to be boring. The students are eager to learn, and transportation infrastructures offer an exciting field of activity. I am sure we will continue this success story for some time to come.”

MATHMATICS ON THE CONSTRUCTION SITE

In small groups of eight to fourteen tenth-graders, Peter Frohn, estimator at STRABAG’s Düren office, makes mathematics accessible and understandable. Once a week, they meet on the construction site to come up with the right solution for different mathematical problems. Equipped with ruler, pen and paper, the young engineers and technicians survey, measure and quantify distances and areas or make scale drawings. The students learn that ten metres are not a mere measurement, but a tangible distance. Back in the classroom, the young learners calculate area and volume and even work out calculations of the project at the end of the exercise. On the construction site, the often dry subject of mathematics is anything but boring! But the students are not the only ones who benefit from the learning project. This exciting project has helped STRABAG to interest some of the participants in a career in the construction industry and to sign on for vocational training. “This makes math fun,” the students say. “Finally, learning is exciting. Maybe math will become one of our favourite subjects after all.” This fantastic project helps the young people learn not only for school, but also for life.

**CONTACT:** Peter Frohn, Transportation Infrastructures Group Division Germany North 61, Sub-Division Cologne (DE)
International. People connect certain values and services with the STRABAG brand. As STRABAG employees, we are company ambassadors. Our actions determine how people view our company.

Whether we express our opinions at work, privately or online makes less and less of a difference. The rapid technological developments of the past few years have changed the way people communicate with one another. Friends meet in chat rooms, press releases are posted, photos are uploaded, information is created and published in wikis, and the latest topics are debated in online forums.

Web 2.0, the “participatory web”, makes it possible for users to interact with each other in social media dialogue as creators, producers and distributors of user-generated content. The best-known social networking and collaborative websites are YouTube, Twitter, Facebook and Wikipedia. The interactive exchange on these sites is fast and simple. More often than not this exchange is public and available for all to read and follow. But caution: the Internet never forgets! Once something has been posted online, it is almost impossible to remove.

ODEN scores big

Swedish STRABAG subsidiary ODEN Anlaggningsentrepreneur AB has been commissioned to build three new infrastructure projects: a part of Sweden’s largest new city district, a track tunnel with intermediate stations for the metro in Helsinki, and a section of the E45 motorway in Sweden. Total contract value: € 76 million.

Digital etiquette

Social networks are increasingly blurring the distinction between our private and professional lives. This makes it necessary to have clear rules regarding the use of social media websites. On the one hand, the rules of the real, offline world also apply online. Internet communication should be polite and honest, with a clear distinction between fact and opinion. And, as is the case in real-world interactions, confidential is confidential.

STRABAG rules of the game

STRABAG SE has drafted a set of binding rules, applicable for the entire group, governing the use of social media websites. The Social Media Guidelines apply to all online social media communication on relevant websites by someone acting on behalf of STRABAG or by the company itself.

“For the moment, we want to stay on the safe side. The fact is that mobile phone videos posted on YouTube of a loudly cursing STRABAG employee on the construction site do not go down so well. The people involved often don’t think anything of it or don’t even know that they are being filmed. We must be aware of the fact that it takes only seconds for information to become public for all in the Internet,” says Diana Klein, Head of STRABAG SE Corporate Communications.

The Social Media Guidelines are available to group employees in 16 languages. The guidelines can be found in the STRANET at: KONZERN > Konzernkommunikation > Wir über uns > Konzernrichtlinie Social Media STRABAG Konzern

Contact: Diana Klein, Service Companies, Corporate Communications
COMMERCIAL TRAINING CENTRE, GERMANY

FOSTERING GROWTH

In this issue, we are pleased to present another successful group training facility: the Commercial Training Centre (KABZ), the group’s central training facility in Germany for all commercial trainees destined to undertake operational duties.

Germany. In times of ever scarcer skilled workers, in-company training is becoming an increasingly popular alternative. The STRABAG Group is taking steps to secure the availability of human resources by training new recruits in a number of different areas itself. The Commercial Training Centre (KABZ) at the group’s Bebra office (near Bad Hersfeld in central Germany) gives commercial trainees a comprehensive overview of the STRABAG Group, including everything it does and stands for. The centre also provides them with BRVZ-specific knowledge which cannot be conveyed during their operational training. The specially designed training modules allow the KABZ to guarantee an efficient transfer of knowledge in terms of both quality and time spent. This training offer represents a supplement to the regular training process. The KABZ is headed by Winfried Stein with support from BRVZ and the operating divisions.

JOINT DEVELOPMENT

The centre on 1 April 2009 began offering five different seminar modules, covering the instructional content previously offered by BRVZ Cologne. This training offer was created to comply with the legal requirements stipulated by the ordinance on vocational training. As before, the operating units in charge of the training remain responsible and accountable for the commercial trainees.

The training centre’s steering committee is composed of representatives from the operating units, trainers and BRVZ staff members. The committee deals with all content and organisational matters in order to continuously improve and develop the five modules together.

The following five modules must be attended for one week each during the 3-year period of training:

- Module 1: Introduction (pre-requisite for Modules 2-5)
- Module 2: Human resource administration and payroll processing
- Module 3: Accounts receivable and billing
- Module 4: Accounts payable and treasury
- Module 5: Cost accounting, management accounting, joint ventures, balance sheets

I like my work at the Commercial Training Centre because...

- every day is a new challenge
- I enjoy working with young people
- I can pass on knowledge
- things are never boring
- I never stop learning

Winfried Stein, KABZ Training Supervisor
Which careers does the KABZ offer training for?

- Industrial clerk
- Office clerk
- Clerk for office communication
- Real estate clerk

On 1 August 2011, this training workshop began offering central operational training for the most important building trade careers. The plan is to increase the number of trade trainees in Bebra from 35 to around 100 by the end of 2012. The offer is targeted especially at young people who, after completing their training period, want to gather their first professional experience nationally at different units and locations within the STRABAG Group.

**CONTACT:** Katharina Müller, Service Companies, Central Division BRVZ Germany

The Commercial Training Centre gives trainees an opportunity to exchange experiences with trainees from other divisions and business units in order to set up a nationwide network within the group’s German operations. Some 498 participants have attended KABZ training seminars since its opening.

**TOMORROW’S SKILLED WORKERS, TODAY**

To ensure the long-term availability of skilled workers, one stated goal is to further expand the training of qualified recruits. In addition to the commercial training at the KABZ, the Transportation Infrastructures segment recently launched a training offensive for trade workers at the Bebra office. To help guide the expansion of recruitment training, the existing training centre at the group’s Kirchner subsidiary, which has already proven itself an effective training facility, is being transformed into a STRABAG AG group training workshop.

“You don’t have to know everything, you just have to know where to look for it.” This quote by Albert Einstein perfectly sums up our modular training here at the KABZ,” Winfried Stein explains.
A NEW DIRECTION FOR THE GROUP

OUR ENGAGEMENT FOR THE FUTURE

The word “sustainability” is often used without sufficient thought or care, but nevertheless stands for a good thing.

International. “Our construction activities leave their mark on nature,” says Hans Peter Haselsteiner. “As we cannot alter what forms the core of our business activity, we are constantly thinking about how we can use our activities to contribute to protecting the environment.” Environmental awareness has arrived in the construction industry. This can above all be seen in the real estate sector, where sustainable buildings are fast becoming the standard among office properties. These buildings take into account environmental and social criteria during the utilisation phase and consider the distance the construction material has to travel as well as the recycling rate of construction waste during the actual construction.

JUST A TREND?

Several years ago, businesses were asked to draw up standards for their quality management. Extensive reports and documentation had to be completed, processes were evaluated – a development which occurred above all as a result of innovations in the field of IT. A similar development can currently be seen regarding sustainability. There already are a number of environmental certificates on the market. Products are assessed based on their origin, environmental impact and travel distance. There are now so many seals and certificates out there that it is difficult to keep track of them all. Estimates speak of 16 certification systems in the construction sector alone. The fundamental objective of these certificates is to enable clients to make better comparisons for informed purchase decisions.

More and more clients are asking about ethical and environmental criteria during tender processes in addition to the economic aspects. These requirements must be fulfilled in order to survive in the international competition. An example worth mentioning – one which already is common practice – comes from the Netherlands, where railway operator ProRail offers bidders reduced prices on a sliding scale depending on how serious the bidding company is about measuring and reducing its CO₂ emissions. During the prequalification process, above all for large projects, ProRail asks about
the sustainability activities not only of the immediate subsidiary or business unit, but of the entire group.

**NOT JUST HOT AIR**

The separate issues must all be seen together:
- Economic responsibility
- Environmental responsibility
- Social responsibility
- Employees and workplace
- Mission, vision, ethics
- Values and compliance

It is for this reason that these different issues are shown as pieces of a puzzle which, put together, illustrate the whole range of CSR on the one hand as well as its integrated approach on the other.

Corporate Social Responsibility (CSR) encompasses all of these different dimensions of sustainable development. Joint handling of the matter is guaranteed by the close cooperation of the Central Staff Divisions CLS, CM, Central Technical Department, TPA, BPM, BMTI, Corporate Communications as well as ombudspersons, compliance officers and foundation representatives. General coordinator since May 2011 is Norbert Pralle. The STRABAG Group CSR officer reports directly to the management board.

“Unfortunately, the word ‘sustainability’ often is a worn-out fashion buzzword used only for marketing purposes. We will only take specific steps to achieve the maximum results which fit to our business and to our company values,” Pralle says. “This new direction naturally requires an additional effort. We see enormous opportunities in these activities, however.” The forced effectiveness leads to extensive energy savings, optimised processes and, subsequently, reduced costs. If the group reacts early enough, it can attain competitive advantages, identify new markets and new clients, secure competence in life cycle assessment, or increase its innovation and development activities.

**LIFE-CYCLE ASSESSMENT**

Environmental responsibility is one dimension of CSR that encompasses the two aspects of life-cycle assessment and environmental impact mitigation measures. Specific strategic activities in this area have already been carried out:

In a first step, STRABAG identified all input sources within the company as a basis for a quantitative analysis of the CO₂ emissions. CO₂ assessment is an important part of the life-cycle assessment. This life-cycle assessment determines the impact which a construction project has on the environment, taking into consideration the entire building lifecycle from planning to construction to operation to demolition or dismantling. The aim is to transfer all lifecycle-relevant activities into routine processes as quickly and efficiently as possible and to use the available synergies. Numerous activities have already been started and these form a solid foundation. They merely need to be coordinated and expanded specifically for life-cycle assessment. On this basis, life-cycle assessment is being expanded into a strategic tool which can be used in the submission of alternative bids, for example. This allows the group to consider non-financial factors early in the bidding process. The consideration of environmental impact has also already led to innovative approaches within the group, such as the inclusion of de-nitrification systems or the development of low-temperature asphalt. Especially the last example shows that these environmental measures are also of economic value.

**CONTACT:** Norbert Pralle, Service Companies, Central Division Central Technical Department, Sub-Division Central Technical Department Stuttgart (30)

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**What does the logo represent?**

The logo symbolizes the global dimension of the challenge. It references the atmosphere, and water is represented as the fundamental resource of our blue planet. The colour blue evokes attributes such as cleanliness and reliability; it is said to have a unifying and harmonious effect. We associate blue with an environmentally conscious way of life.

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**What exactly does CSR stand for?**

Corporate Social Responsibility (CSR) stands for the voluntary contribution on the part of business toward sustainable development beyond the legal requirements, and for responsible entrepreneurship that is accountable to society. This especially involves the dialogue with the stakeholders, i.e. with the various groups who have an interest in the company such as clients and shareholders, but also employees.
Father Georg Sporschill SJ always has an open ear for everyone.

International. Internal and external ombudsmen are available throughout the group for employees to turn to at any time with information or relevant matters of concern. One of our newly appointed internal ombudsmen is Father Georg Sporschill SJ. The internal ombudsman is a point of contact for job-related personal issues. inform spoke with Father Sporschill about his new responsibilities as STRABAG ombudsman.

How did your relationship with STRABAG come about?
Twenty years ago, I came to Romania to work with street children. That’s how I came upon STRABAG – in addition to the largest hotel in Bucharest, the company built the most beautiful home for children. What followed was a wonderful working relationship. Hans Peter Haselsteiner has now assumed the duties of managing the CONCORDIA charity foundation and has entrusted me with the task of internal ombudsman at STRABAG.

How would you define your responsibilities as STRABAG ombudsman?
As an internal intermediary, I am above all available for personal issues. Employees can come to me to talk about subjects such as burn-out syndrome, illness, relationship problems, the meaning of life, or other matters.

Is there a special reason why you have chosen to take on this task?
I want to help make sure that STRABAG’s employees do not lose their zest for life and the zeal for their work. The employees do great things all around the world. I am glad to help them continue in their success.

What appeals to you about this job?
For me, working with people is challenging and fulfilling at once. Everyone is different and every problem is different. Finding a solution together is the most rewarding aspect of working as an ombudsman. It is exciting to get to know the world of construction.

An employee feels burnt out and demotivated. How would you help?
First of all, it is important to be a good listener in order to understand the people’s problems and put yourself in their position. I would also try to work with the person to find out the cause of the problem. In this way, one or more solutions can be found. I would like to stand by the employees to give them advice and strength.

Can employees count on your discretion regarding personal problems?
Discretion is one of my highest priorities. I can assure everyone that the personal remains personal. I observe the “seal of the confessional” here too.

What gives you strength?
When I love my work, when people need me, when I experience beautiful things. These moments give me strength, but prayer also gives me strength. If you give thanks, you are rewarded with new strength.
What does “being happy” mean for you?
Not wasting my time. When I am with people who I get along with well or who I can help in some way, then I feel happy. Important for me are honesty and good intentions. I think especially highly of courageous people.

What goals do you have for the future?
I would like to help people who have to face difficult tasks or who have a lot of worries. That can be street children as much as people with a lot of responsibility.

How can employees contact you?
As much as possible, I always have an ear open for all STRABAG employees. I speak German, Romanian and English.

You can reach me in a number of different ways. To contact me in person, you can reach me by e-mail at g.spo@gmx.net or phone at +43 664 55 99 630.

Thank you for the interview!
FOREIGN ASSIGNMENT WITH FAMILY

THE WHOLE KIT AND CABOODLE

Off to Holland with six children in tow

Netherlands. “For me, it was clear that I would only go abroad together with my family,” says Stefan Weiss. “Having a weekend relationship and seeing our six children only sometimes was out of the question.” In February, Stefan Weiss and his family moved to the Netherlands for the A15 PPP project. Weiss is responsible for contract management in the project company and will additionally assist in handling bids for future PPP projects in the Netherlands. The whole family quickly adapted to their new home – dog and cat included. “At first, there were a lot of organisational challenges to deal with, but the kids quickly made new friends. However, it was only because of the unlimited support of my wife Astrid that this move was possible at all,” Weiss stresses.

We wish Stefan Weiss lots of success in Holland!

BACK TO SCHOOL

For a successful career, there is no more way around lifelong learning through continuing and further education. But it takes courage and ambition to take the step of going back to school. Here we present some colleagues who have shown the engagement, stamina and necessary organisational talent to do just that.

Congratulations!

Sonja Hartlieb (34) has spent the past 15 years working for the STRABAG Group. Her professional life began right after graduating from a commercial secondary school in Austria: in the human resource administration at BRVZ Spittal/Drau. In April 2002, she transferred to human resource development at BRVZ HRS. For her own personal development, Hartlieb in 2009 decided to enrol in a training course on coaching and organisational development. Gripped by education fever, she followed up the training course with Master’s studies in the field, earning her degree in June 2011.

“An exciting training opportunity – with little free time, but plenty of new experiences and contacts!”
Thomas Lengauer (22) began training as a construction machinery technician at BMTI Kramsach (Austria) in June 2007, successfully completing his traineeship in 2009. After his military service, the young construction machinery technician can often be found working out of house on the construction site. But that was not enough: in addition to his job, Lengauer spent his evenings and weekends cramming for the examination for the master craftsman’s diploma, passing successfully in June 2011.

“My motivation for doing this challenging training was that I can use the knowledge for on-site repairs, because on the construction site you are often left to your own devices.”

Ante Milardovic (28) studied civil engineering in Split, earning the title of engineer in 2005. In July 2006, he began his career as a technical trainee at STRABAG Transportation Infrastructures Croatia. Following the 12-month trainee programme, he worked as claim manager in Zagreb from 2007 to 2009. In 2009, he transferred to the subsidiary PZC Split, where he currently oversees two construction projects in Dubrovnik. Since 2010, Milardovic has been studying at the University of Split to earn his diploma degree in civil engineering.

“My motivation for doing this challenging training was that I can use the knowledge for on-site repairs, because on the construction site you are often left to your own devices.”

Markus Peter (43) studied civil engineering at the Regensburg University of Applied Sciences. After his studies, he started as a construction supervisor for piping construction at Josef Riepl. Following a brief period of working for himself, he transferred to STRABAG Regensburg in May 1999. The expert for district heating, gas and water manages projects in the field of piping construction in Germany and supports the group’s units in project acquisition and design. In a four-month course, he successfully completed his training as welding engineer.

“I didn’t think that going back to school 17 years later and re-learning how to learn would be so difficult, but it was worth it!”
FOCUS ON OUR EMPLOYEES

PERFORMERS AND ACHIEVERS

Top performances are the result of a complex set of factors that includes technical, logistic, organisational, structural, strategic, manual, architectural and physical competences. Behind each and every activity, there are people responsible for these masterly achievements.

International. Why do people subject themselves to physical strain that possibly goes beyond the normal, healthy boundaries?

From the world of competition sports, we know that it is the inner motivations such as passion which drive people to top performances. Athletes often train beyond their limit in order to achieve their goal. But no matter how much professional athletes train individual muscles, the brain is and remains the most important organ of the human body. The desire to challenge oneself and to “sound out” where one’s own boundaries are situated appears to be the most powerful form of motivation. Top performances are best achieved through willpower, self-confidence and a positive attitude.

In this issue of inform, we focus in on a number of different tasks and accomplishments of dedicated colleagues. In an interview with mental trainer Alois Strobl, you will then learn how to reach your goals and what opportunities can open up through mental training. “Program” your masterly achievements in your head.
Nuremberg, underground metro tunnel: People expect constant, uninterrupted telephone coverage even in tunnels. But how does one guarantee mobile phone coverage within a metro tunnel?

FULL COVERAGE ANYWHERE AND EVERYWHERE

inform met up with Robert Beyer of STRABAG PFS, whose job it is to guarantee telephone and wireless Internet coverage within metro tunnels. Guaranteeing perfect reception in Nuremberg’s metro system requires an increased cleaning and maintenance service within the tunnels. The great amount of dust and the constant vibrations in the tunnel can result in technical parts, screws or antennae to become loose or dirty.

COMPLEX NIGHT-TIME WORK

Often it is only possible to work at night, when the trains stop running and no passengers are disturbed. For Beyer and his team, that means starting work when the last train is on its way to the shed. Their tour of duty starts at about 11pm. The repair and maintenance works for the entire metro network take about one month to complete. The crew can manage three to four stations per night.

Every antennae is thoroughly checked for its proper functioning, cleaned and firmly anchored. The special safety requirements in the tunnel require every member of the team to complete a separate safety training course.

Extreme caution is called for: the third rail carries 750 V of direct current. One wrong move and the worker receives a fatal electric shock. Working in metro tunnels therefore requires concentration and teamwork.

superior PLANNING

This job requires months of organisational preparation. Every action must be reported and planned. “For me, it is important that the work is exactly planned ahead of time. Only in this way can we work quickly and efficiently. Of course, there always are some brief delays, but with an experienced team we can react immediately and expertly,” Beyer explains. And when the work is finished, Nuremberg’s metro system is again fully wireless functional.
Canada, Niagara Tunnel: The use of a unique surveying technique: a self-developed 3D laser that is setting new technical standards.

INNOVATION WITH 3D LASER

The enormous tunnel diameter of 14.4 m, as well as the actual construction itself, made it necessary to develop a new surveying technique. Prestress grouting involves pressing a cement suspension through injection nozzles built in between shotcrete and waterproofing film. The pressing of the suspension produces a fluid pressure which then forms a layer around the concrete shell. This compresses the concrete tube. The resulting deformation of the concrete shell must be precisely monitored through a suitable surveying technique.

EXACTLY TO THE MILLIMETRE

There were no devices available on the market which could guarantee the required accuracy of 1 mm in continuous operation. Standard 3D lasers can measure from up to 200 m away, but only with an accuracy in the centimetre range. This level of accuracy is sufficient in usual applications in tunnelling, but not enough for the Niagara Tunnel project. For this reason, a completely new laser system had to be developed. The development was carried out in Austria by Züblin Spezialtiefbau, Mechatronics Group, under the supervision of Harald Krenn, and by Tunnelling – Waterproofing, under the supervision of Norbert Komma and took around eight months to complete.

For the most accurate and exact planning, a model of the tunnel was created to test the laser for its accuracy and long-term use under extreme conditions. Hundreds of hours of development and testing were necessary. Operation of the surveying system and of the entire injection facility began in August 2011.

superior ACCURACY

This unique surveying system surpasses the regular techniques in the field of tunnel prestressing. Previously, the results of the injection had to be monitored through survey poles or stressed survey wires. The new system makes it possible to document the injection work over a length of up to 60 m with an accuracy of less than 1 mm in real time. The project shows that the group-wide cooperation of specialists can help open up new directions.
At the end of the rescue operation, which was closely followed around the world, all of the trapped miners were freed after 69 days underground. The rescue of the 33 miners was celebrated with singing, dancing and tears of joy. “Although I didn’t know the trapped miners personally, I immediately felt a close bond to them. The most wonderful confirmation of our work was that all the miners came out alive,” says Ricardo Agorga, Züblin employee with the nickname of “minero 34.”

→ Chile, 5 August 2010: The Chilean mining accident at the San José mine occurred at around 2pm on this Thursday afternoon.

THE MIRACLE OF CHILE

A rock-fall collapsed the spiralling underground service ramps, trapping 33 miners deep below ground. The terrible news quickly spread through the entire country. The international press was informed and soon millions of people became aware of the situation. The miners had to spend more than two months below ground without knowing how long their rescue would take, or if they would be rescued at all. Züblin co-workers in Chile played an important role during the rescue operation. The San José mine is located 45 km northwest of Copiapó, a town where Züblin operates. The Chilean government decided to put state-owned mining company Codelco in charge of the rescue operation.

“SUDDENLY THERE WAS A CALL”

“On 7 August, we received the call asking if we would be willing to assist in the rescue efforts,” says Dirk Pförtner, head of Züblin’s Chilean operations. “Without hesitating, we immediately put together a team to make its way to the site of the accident.” At the beginning, wood and tools had to be organised quickly. But the material could only be purchased in Santiago and had to be transported over a distance of more than 800 km. Just a few hours after the call, twelve truckloads were ready to go.

The Züblin team was on site day and night to provide support in logistic matters. What began as simple assistance turned into a contract worth around USD 4 million. Züblin coordinated all organisational aspects from the preparation of the lunchboxes to the repair of the Fénix rescue capsule in the Züblin repair shop.
Construction in Sochi is finally getting underway. Construction sites wherever you look. STRABAG is building the Olympic Village with approximately 64 residential buildings.

UNIQUELY RUSSIAN

An old Russian proverb says: “Don’t go to another’s monastery with your own charter.” Wolfgang Friewald is well aware that often a separate set of rules applies on the Russian market. Friewald has spent several years in Russia working for STRABAG and he knows the Russian mentality very well. “You’ve often got to be patient,” Friewald knows from experience. “It can happen that a service agreed on day X is not rendered until days later. That’s completely normal here.” Improvisation accompanies the work every day, but detailed construction planning is required nonetheless.

INTERCULTURAL COMPETENCE

As with every international project, what is needed is the intercultural competence of all involved. The STRABAG team around Friewald includes Austrians, Czechs, Germans, Italians, Mongolians, Russians and Serbs – currently some 140 people, around 300 employees when things get really busy – all of them working together to reach the same goal. The team has to coordinate a great number of subcontractors, suppliers and about 3,500 workers.

Concepts such as time, quality, hierarchy, reputation, communication and cooperation are often understood differently. Not just different ways of thinking and speaking, but also different working styles and habits can lead to conflict if they are interpreted incorrectly. When working together in international teams, the members automatically judge things according to their own learned behaviour. When the other culture does not live up to the expectations, misunderstandings are the inevitable result. All members of the team must be aware of this risk.

Communication has a decisive influence on the success of a project. Furthermore, non-verbal communication is much more strongly influenced by culture than verbal communication. Eye contact, gestures and body language are often interpreted differently. There are many different ways of dealing with this. The knack is to be aware of these differences and to organise the work in such a way that everyone brings in their skills in the best possible way... not an easy task, also in Sochi.
QUESTIONS FOR MENTAL TRAINER ALOIS STROBL

VICTORY ALWAYS STARTS IN THE HEAD

Andre Agassi once said that he had won Wimbledon at least ten thousand times in his head before it became reality. Mental training, or the “conscious training of our thoughts”, has been applied in competition sports for years. After all, our thoughts determine to a great extent what we do.

Mr Strobl, you are an expert in the field of mental training. How do professional athletes work with “inner visualisation”?

We people have a strange characteristic: we always want to be right. When I tell myself, “I will probably NOT succeed,” then I won’t. At the first sign of deviating from the goal, I recognise that “I was right: I won’t make it.” So if I can’t imagine winning Wimbledon, then it also won’t happen.

I have to make an important decision – how can mental training help?

Mental training firstly involves drawing internal maps in order to figuratively orient oneself in rough terrain. Unfortunately, advice such as “Just don’t think about it,” to distract yourself from stress doesn’t work. You shouldn’t think about the obstacles you want to over-

“THUMBFOCUS”

“Only you can change yourself to direct your fate and your future. The willingness, the willpower and the perseverance to practice are necessary for your long-term growth and development.” (Alois Strobl)

This short exercise hints at what all is possible by directing our mental processes – not just for our physical, but also for our mental range of motion. Try it for yourself!
come; you should be taking steps and finding ways to overcome them.

Isn’t that just esotericism, psychobabble or pure fantasy? How can mental training help me in my daily routine? Mental training is not a mystical or esoteric matter. Learners determine for themselves what, how and how intensely something is relevant to deal with.

Why are some people more successful than others? Some people think that the successful fail less than the unsuccessful. They are mistaken. Successful people have usually experienced more failure and difficulty than we think, but they don’t let themselves be deterred and they learn from their mistakes. It often is easier to repeat past experiences than to face the challenge of trying something new.

Easier said than done: How can I create a good feeling in my head? Mental training uses different methods to “anchor” good, comfortable mental states which can then be called upon when needed. I am not talking about seeing life through rose-coloured glasses, but about influencing our thoughts in a structured, positive way. Let’s assume you have been asked to take on a new task, but you’re worried that you’re not up to it. You could use mental training to boost your self-confidence. You vividly imagine yourself taking on this task and tell yourself: “I don’t know if I can handle this new task. That remains to be seen. But I will do my best! When I notice that it’s too much for me, then I will ask myself what skills I need in order to deal with the new challenges. I can learn and grow.”

Can mental strength help me to relax? Of course. Proper concentration requires a good state of relaxation. For this reason, mental training places a focus on the balance between tension and relaxation. You can use the training to consciously influence this state as you need.

1. Stand with your feet as wide as your shoulders. Don’t move your legs after this.
2. Extend your right arm horizontally in front of you with the thumb pointing up and fix your eyes on your thumb. Turn your upper body slowly to the right as far as you can. Remember the point on the wall behind your thumb as a reference point and turn back to the starting position.
3. Close your eyes and imagine what you have just done. In your mind, move back to the reference point. Then, still in your mind, keep turning. Imagine how you turn 20-30 cm further.
4. Now open your eyes and realise this same movement. Turn as far as you can.

Has anything changed?

Here’s an allegory as food for thought: in India, young elephants have their legs chained to a pole so they don’t run away. The little elephant tries to move at first, but the heavy chain holds it back and it realises that there is no getting away. The elephant gets bigger, and soon it is strong enough to break the chain. But it doesn’t try anymore. In the end, all it takes is a flimsy rope to keep the elephant from running away. The elephant is thus not kept captive by any real chains. It would only have to pull once with sufficient force to break the rope. But it doesn’t even try. We people are often the same. Things change around us, but we still believe that there is reason not to act. Reasons which exist only in our heads.
STRABAG EMPLOYEES IN THE SPOTLIGHT

HELPING HANDS

Martina Doutlik helps seriously ill children fulfil their long-held dreams. Doris Fiala collects T-shirts, shoes and notebooks for adolescents in Kosovo. Anette Wollner dedicates her heart and soul to helping young people in Nepal. Joachim Storm is already retired, but he continues to motivate people and encourages them to donate. And Krzysztof Orchowski supports children through sports.

International. What these STRABAG employees have in common? They all dedicate themselves to volunteer work, particularly to helping the youngest in society. The employees profiled on the following pages represent only a small selection of the many helping hands within the group. But they are an especially good example of how diverse and valuable the work of every individual is.

Whether campaigning for environmental protection or animal rights, volunteering with the volunteer fire department, the Red Cross or a charity organisation, or donating your money or your time – doing good feels good.

People are often motivated to volunteer because they were personally affected by a certain cause, and because they have a strong desire to help. Social engagement helps to create new networks. People forge new relationships and bonds which can enrich their lives. The personal experiences are diverse and valuable. One thing is clear in all cases: in the end, gift-givers always receive a gift in return.

Let yourself get swept up by the social engagement of our employees!

Doing good feels good!
KNIGHT FOR A DAY

Living an adventure, meeting one’s idol and forgetting about the illness for a while – Martina Doutlik helps make these wishes come true. Since 2005, she has volunteered for the Make-A-Wish Foundation® Austria. The world’s largest wish-fulfilment organisation has already helped fulfill over 280,000 wishes, more than 100 a year in Austria. Martina Doutlik remembers one wish particularly well:

Benjamin loves knights and their adventurous times. He knows everything about them. That’s why his big dream was to be a knight for a day – that would be great! And that wish came true. The Make-A-Wish Foundation® Austria team, a medieval knight’s association and the people at Greifenstein Castle agreed to help Benjamin experience a day to remember. Benjamin and seven of his friends got to go to the castle, where Benjamin could slip into a knight’s costume and engage in an exciting sword fight. A real medieval feast followed, which the guests naturally wolfed down with their fingers. Medieval song, dance and games made the day as knight perfect. The absolute highlight was the highest honour for a knight: Benjamin was knighted to “Sir Benjamin of Greifenstein”. After this unforgettable day, Benjamin went home with his certificate, sword, shield and Playmobil castle. “All the fulfilled wishes give me new strength to help children make the apparently impossible possible.”

“A happy moment like this is the most beautiful way of saying thanks,” says Martina Doutlik (second from right).

SUNFLOWERS IN KINDERGARTEN

Children splashing in the pool, water spraying about, the unmistakable sound of merriment and laughter. Nothing unusual. But a closer look shows that all the children at the Sunflower Kindergarten have a handicap. Joachim Storm supports this kindergarten for handicapped children. And he volunteers his time too – something he has been doing for over 20 years now. Together with his wife Ruth, he organises benefit concerts, bowling tournaments, Christmas markets and other events designed to get people to donate. Bicycles, wheelchairs, toys, a “sound pavilion” and a shed with a donkey – these are just some of the many things which the kindergarten was able to buy with the donations. An absolute highlight is the water playground which helps the children to challenge and train their feet.

Joachim Storm worked as janitor at the Züblin-Haus in Stuttgart and is now enjoying a much-deserved retirement. But far from being
THERE’S NO SUCH THINGS AS IMPOSSIBLE

A lot of helping hands are needed to do good things. One of these hard-working helpers is Doris Fiala. She is on the phone, volunteers and organises, true to her motto that “nothing is impossible – you can do anything you want if you truly want it”. All this she does for needy children in Kosovo. She collects donations and always looks out for second-hand goods that others can still use. In today’s throw-away society, that can be quite a lot. When it comes to clothes children have grown out of, she always knows where they can be used again.

Doris Fiala passes on the many shoes, bags, shirts, jeans, dolls and toy cars which she can collect to Sister Johanna Schwab. Johanna Schwab is no stranger to STRABAG. For years, she has been helping people in Kosovo find the things they need, from clothes, food and handicraft materials to the construction of better schools and homes. With her work in Kosovo, Sister Johanna Schwab not only wants to help the individual people, she also wants to improve the relations between the different ethnic groups. Every year, she organises events such as winter and summer sports games to bring the cultures together. For her work, she needs many hard-working Doris Fialas helping in the background.

bored, the good soul of the Züblin-Haus has spent many years volunteering his time for young and old alike. But helping children is what he loves the most. He and his wife raised three children of their own and took on a number of short-term and long-term foster children, some from difficult backgrounds.

It’s clear that he will continue to be there for people. For Joachim Storm, children are the greatest treasure on Earth.
Anette Wollner is an enthusiastic trekker. And where better to pursue this hobby than in Nepal with its impressive summits, coupled with the country’s exciting culture.

In 2004, her journeys led her far from the beaten path to the village of Kartike: no running water, no electricity, no toilets – many of us would find it hard to imagine living under such circumstances. Anette Wollner and her husband were deeply affected by the conditions of the local school: How could the children learn in a run-down bamboo shed with a leaking roof and mud floor? Shocked by the poor conditions, they agreed: “We’ve got to do something!” Thus was born the project “Nepalkids” and the Wollners now travel to the Himalayas every year.

With the help and support from relatives, friends and co-workers, they gathered donations to help build and maintain small village schools. The locals do their part too, helping with the construction or to sew the school uniforms. Since they started, the Wollners have helped build four small schools. The biggest project, the construction of a fifth school with ten classrooms, is currently in the core and shell phase. In addition to building schools, the project also supports 123 sponsored children. The sponsors’ annual donations help to buy school uniforms, school supplies and even beds, if needed.

This fantastic project helps give the children of Nepal a way out of illiteracy, child labour and poverty. “Seeing the children’s joy, observing how proud they are in their uniforms as they go into their newly built school, that makes me happy and I then know that all the work was worth it,” Anette Wollner explains. “But despite all the work we’ve already done, there remains plenty to do!”
We want you!

Sounds, tones, voices, rhythm, melody! In our next issue of inform, we would like to get to know the musical side of our employees. We look forward to “hearing” from you at: STRABAG SE, Corporate Communications, Bettina Mattes. (last send-in date: 31 January 2012)

CYCLING FOR A GOOD CAUSE

Racing the slopes by bike, uphill and down, over rough and smooth. The group of cyclists around Krzysztof Orchowski clearly enjoy what they do. The special thing about it all? When they do sports, they do it for a good cause.

In 2006, friends, acquaintances and co-workers came together to found the German sports club “Sport für einen guten Zweck” (“Sports for a Good Cause”). Krzysztof Orchowski was one of the founding members of the club, which regularly organises international sports events to collect money for needy children. The bike tours have taken the group through different countries, including Romania, Italy, Hungary, the Czech Republic, Poland and Germany. And Orchowski is always along for the ride! Because he wants to help, and simply because cycling together with the group is fun.

The joy which children get from playing sports gave him the idea of starting something similar in his native country of Poland. This fall, he hopes to set up his own foundation, “Sport Dla Dobrego Celu”, and to begin to organise his first events. For starters, the foundation will work on developing a nutrition and sports plan for a kindergarten in Wrocław together with kindergarten teachers, psychologists and sports experts. His goal is to show Polish children that sports and exercise can be fun. Primarily, the children will learn how sports and community bring people together. Fairness, team spirit, discipline, preparedness and friendship in sports can help children and adolescents deal with and solve many of the problems they face in their daily lives. Orchowski knows that the impact which sports have on the lives of children and adolescents goes far beyond the physical. And he wants to make an active contribution.

DO YOU WANT TO GET INVOLVED TOO?

Contact the organisation of your choice:
- www.makeawish.at
- www.nepalkids.org
- www.sddc.pl
Efficient building requires efficient tools and lean processes. 5D planning is the Central Technical Department’s answer to this future challenge. The aim of this innovative tool is to provide a model-based, integrated method of working for all project participants across all project phases and trades – all on a common basis.

Germany. The 5D planning group is in charge of developing the technology step by step with partners from the software industry – made-to-order to suit the group’s requirements and needs. Partial solutions already exist and are ready to be implemented while development steadily continues. 5D is being implemented in steps – and every step is of value in and of itself.

“BEAMING” INTO THE FUTURE

One building block of 5D that is available already is that of visualisation. The Central Technical Department is now working on perfecting 3D planning through visualisation. “What a construction project will look like at a certain point in time, and the quantities that will have been used up to then – all that can be shown using 5D,” says Konstantinos Kessoudis in explanation of this method’s efficient application. “Everything is possible with just a few mouse clicks!” 5D allows you to “beam” yourself into the future to constantly observe the progress of construction. With the new service of visualisation,
the possibilities of presentation are endless – from high-resolution images to films to interactive 3D PDFs, the use of stereoscopy and much more.

The type of presentation can be made to order individually to match the project requirements and client wishes. Sometimes a technical presentation is enough, deliberately reduced to the essentials to explain complex relationships. In other projects, animated short films or 3D PDFs are better suited to do the job. The possibilities also include experiences in which the model can be seen and walked through in 3D.

You can find out more about the current state of development of 5D and about the services offered by the Central Technical Department’s 5D planning group in the STRANET.

CONTACT: Konstantinos Kessoudis, Service Companies, Central Division Central Technical Department, Sub-Division Central Technical Department Stuttgart (30)

Did you know...

- that the Autodesk Maya 3D animation software used in 5D planning has also been used to make movies such as Avatar?
- that one second of a 3D animation film consists of 25 individual images composed of several image layers? Depending on the quality, it takes between five and 60 minutes to calculate one image layer.

SERVICES:

- 3D models for trade coordination
- Conflict check
- Fast and secure planning of complex structures
- Presentation of construction progress
- Quantity determination from the 3D model
- Preparation and implementation of the production process based on 3D model geometry
- Visualisations
  - High-resolution single image rendering
  - Integration of construction site facilities
  - Technical info as supplemental presentation
  - Virtual camera pan
  - Animation of construction progress and special technical suggestions
  - 3D PDF and 3D printing
  - Stereoscopy
  ...and much more

5D: The fifth “D” stands for data and process linkage. Planning data, attributes and process data are linked with one another through the 3D model. Quantity determination and forwarding of these quantities into a bill of quantities, the estimation, the model-based triggering of orders, the collection of actual values, the billing and the depositing of information are all included for operation and maintenance.

The team from 5D planning looks toward the future
A BRIDGE FOR PEOPLE

The people of Toruń have been waiting for this moment for nearly 80 years: finally, on 14 October 2010, the contract for the construction of the bridge in Toruń was signed. It was a historic day – not just for the city of Toruń, but for STRABAG as well.

Poland. STRABAG Building Construction & Civil Engineering has been doing business in Poland for 25 years. With this contract, the group secured its second-largest order to date in the history of STRABAG Poland. Above all, the new bridge in Toruń is a “bridge for people” – and this is the guiding motto for the project. The people of Toruń are proud that the much-longed-for bridge is finally being built.

PROTECTION OF HISTORIC OLD TOWN

Toruń (pop. 200,000) is located around 180 km north-west of the Polish capital of Warsaw. The city is mainly famous for its medieval old town, which has been designated a UNESCO World Heritage Site. Toruń is situated on the river Vistula, which is crossed by two historic bridges: a railway bridge built in 1873 and a road bridge from the year 1934. But these two bridges no longer can handle the growing volume of traffic. The new bridge will decidedly change the traffic situation in the city. In addition to benefiting the city’s inhabitants directly, the construction of the bridge will also be good for tourism by finally shifting transit traffic away from the historic old town.

AN ORDER OF ENORMOUS PROPORTIONS

The bridge, measuring 540 m in length and 30 m wide, will feature two lanes of traffic in each direction. The project also involves the construction and modernisation of extensive access roads, viaducts, ramps, tracks and intersections. The three largest viaducts will be 830 m, 600 m and 300 m long. The total length of all bridge structures will be more than 4 km.

RECORD SPAN

The bridge stands out especially for the record span of its suspended arches. Each of the two arches has a span of 270 m and a height of 50 m. This is the first time that a span of such enormous proportion is being realised in Poland. “The project team worked together with a group of specialists to develop this unique method of arch assembly. Especially worth pointing out are not only the size and mass of the parts, but above all the precision with which each of the two arches is to be put together,” says project manager Leslaw Milewski.

The 10 m high arch elements, with a weight of 20-30 t, have to be delivered to Toruń by truck, where they will be joined into two
giant arches. A specially adapted square is being built on the banks of the Vistula just for this purpose. After they are joined, the two double arches are hoisted by crane to the prefabricated supports, where they are attached.

The complete bridge construction will weigh 9,500 t. By way of comparison, that would be 300 Boeing 737-500 passenger aircraft. The second stage of the bridge building is the suspension of the roadway deck, which will be transported step-by-step to the site by cranes.

AN ARTIFICIAL ISLAND

Anchoring the main bridge support requires the creation of an artificial island in the Vistula. A special barge, anchored in the middle of the river, will serve as the assembly site. Sheet piling elements are delivered from the shore by a small barge. The sheet pile retaining wall is then reinforced with stones from the outside. The sand which is dug out around the wall will later serve as construction material in which 20 m high piles are driven. At the same time, water is pumped out of the construction. The island in the Vistula will be completed by the end of 2011. The fill-up will require around 40,000 t of sand and 5,000 m³ of concrete.

Despite the discovery of unexploded ordnance from the Second World War or the Vistula’s low water level, which has made the transport of construction material more difficult and has led to a number of collisions with the underground infrastructure, the construction works are proceeding as planned. The “bridge for people” will be completed in the summer of 2013.

CONTACT: Urszula Komorowska, Building Construction & Civil Engineering, Division Europe 3H, Sub-Division Poland (PP)

Contract volume: € 140.4 million
Construction steel: 18,000 t
Concrete: 70,000 m³
Prefabricated girders and piles: 5,000 pieces
Bridge length: 540 m
Bridge width: 30 m

www.strabag.com
HOTEL JW MARRIOTT IN BAKU

A HOTEL OF SUPERLATIVES

The Marriott hotel chain, with hotels all over the world, stands for the highest standards of luxury and comfort. Soon Azerbaijan will be adding a new five-star hotel to its hotel landscape. The JW Marriott in Baku will open at the end of this year.

Azerbaijan. This oil- and gas-rich Caspian Sea nation is currently in the process of re-inventing itself with spectacular museums, colossal architecture and infrastructure projects of immense proportions. The capital of Baku is slowly growing into a unique metropolis. And the new five-star JW Marriott plays an important role in it all.

CITY OF WINDS

Baku is also called the “City of Winds”. And after some 28 months of construction, all involved know why Baku bears this nickname. Gusts of wind constantly blow through Baku, intensified by the city's location directly on the sea. Primarily in spring and fall, the strong winds result in a significant construction delay, although this delay has again been made up for. In June, for example, strong gusts resulted in a 60% reduced crane use. The second crane pull-down took five weeks instead of the planned five days.

A LOCATION OF SUPERLATIVES

The luxury hotel is situated in one of Baku’s best locations, directly next to the parliament building and opposite the main boulevard. This translates into a wide range of entertainment and leisure options, but also brings with it certain problems. Some members of parliament have to pass by the construction site to get from their homes to the parliament building. Somewhat frantically and yet orderly, a massive police contingent regularly sees to it that the delegates get to their destination quickly. All traffic suddenly comes to a standstill. Time and again, different heads of state visit Baku. The result is always the same. Since the construction site is situated within a high-security zone, all work must be stopped within minutes and the entire site has to be cleared. For reasons of security, there is no advance warning.

UNIQUE FEATURE

The 23-storey building has two elliptic towers facing north and south connected by a central block, a unique feature growing out of the fourth floor. The rooms were positioned in such a way that all enjoy a full view of the sea. Great emphasis was placed not only on the exclusive furnishings and interiors, but also on the building’s exterior appearance. Some 15% of the cost was invested in a façade combination featuring glass and stone elements, around 5% in landscaping including palms and water fountains.

Remarkable is also the hotel's magnificent luxury ballroom, which will serve as a venue for exclusive events. A special highlight is the car lift with which guests are “driven up”.
The new JW Marriott in Baku – a combination of exclusive location, view and luxury

LUXURY EVERYWHERE

Azerbaijan’s relatively low level of industrialisation requires most of the construction material to be imported. Over the course of construction, more than 1,000 truck and container shipments were processed. In order to do justice to the high standards of a five-star hotel, material came from all over the world – palms trees from Spain, marble from northern Italy and granite from China. “The conditions described are of course attractive and a challenge at once. But with lots of team spirit, coupled with a balanced mix of experience and youthful enthusiasm, the team managed to overcome more than one spontaneous challenge,” says project manager Hans Hrobath.

AN INTERNATIONAL TEAM

The project was successfully implemented by a STRABAG team consisting of people from eleven countries – Austria, Germany, the Czech Republic, Russia, Great Britain, Uzbekistan, Malaysia, Hungary, Poland, Turkey and Azerbaijan. With such an international team of planners, the challenge was – in countless coordination meetings – to find a common way to unite the architectural vision with the engineering reality while keeping in mind the wishes and needs of the client and of the later hotel operator Marriott. The entire planning had to be coordinated to match the various standards and rules – American, European, Russian and Azerbaijani.

CONTACTS: Hans Hrobath, Building Construction & Civil Engineering, Division RANC 3L, Sub-Division West (NP)

Contract volume: approx. € 120 Mio.
Construction time: May 2009 – Sept. 2011
Client: PSHA Construction
Gross floor area: 73,000 m²
Züblin lands a big fish at Europe’s largest port: the contract to build the De Rotterdam high-rise complex directly on the banks of the river Maas in the area of the Port of Rotterdam.

De Rotterdam, the largest privately financed construction project in the Netherlands at this time, is currently being carried out by Züblin. The three-part high-rise ensemble will help bring to life the new city district along the river banks. The plans call for a main building with three towers comprised of a low-rise and a high-rise portion. Each of the towers will rise to a height of around 150 m. When it is finished, De Rotterdam will feature approximately 280 hotel rooms, 220 residential apartments, 60,000 m² of office space and 2,000 m² of conferencing space. The project – in effect a “vertical city” – was designed by the Dutch architect Rem Koolhass.

Construction is being carried out by Züblin Netherlands, a joint venture of STRABAG Belgium and Züblin Germany, Division Stuttgart. An agreement of intent was signed in May 2009, followed by an extensive coordination and optimisation phase. In October 2009, a pre-contract was concluded for the construction pit and for the site equipment. The full order was assigned to Züblin in February 2010.

De Rotterdam is being built directly on the water, in the difficult and subsidence-prone Port of Rotterdam. In preparation for the foundation work, the pit was shored up with sheet piling. This was done to allow for groundwater diversion during the subsequent excavation work. The material transport required was realised over the water. The works involved the use of 1,056 full displacement piles and pre-fabricated elements. The piles have a diameter of around 60 cm and a length of up to 24 m. The pile – a steel shaft with footplate – is driven into the ground, the pre-fabricated element is assembled and the hollow cylinder is filled with cement. Following the piling and the preliminary excavation, the sheet pile pit consisting of steel shafts measuring 1,000 mm in diameter was reinforced horizontally at the head end. After installation of the groundwater diversion system, the actual excavation of the pit for the two basement levels could begin. In order to connect the piling with the foundation, the upper parts of the piles had to be dismantled – a difficult task, as the reinforcing wall had to remain undamaged.

Extensive subsidence is to be expected as a result of the difficult subsoil conditions. Subsidence occurs due to the extremely different load conditions and stress distribution, which leads to the creation of a subsidence bowl or trough with a depth of up to 6 cm.

These deformations are to be corrected using technically challenging correction systems installed in the basement levels beneath the so-called backpacks. “We keep track of the subsidence using a complex monitoring system that allows us to keep a constant watch so we can take the needed corrective measures,” says Frank Seibold, co-project manager along with Frank de Roo. Complex parts constructions in the shell and core, the façade and the finishing works must allow for these movements. More difficult in both planning and execution is dealing with the residual deformations that can result despite the correction system. The residual deformations are compensated for by elevations in the basement area and the ceilings of the various floors, enlarged gaps or complex façade and finishing connection points.
WEIGHTY BACKPACKS

A special architectural feature of the building will be the so-called “backpacks” – the areas above the 23rd and 25th floor projecting out over the building below.

The main supporting assembly of the building consists of delicate construction parts such as supports, diagonals and the central core areas. Because of the building’s height and the expected subsidence and deformation, these parts will experience particular stress and strain. A further challenge is the shell and core construction of the “backpacks”. These project up to 8 m from the building and will not bear their own weight until completion of the diagonal supports. This requires the installation of temporary steel trusses. “Once the structures can bear their own weight, these temporary constructions are dismantled. This is a complicated task, and one we must plan for already today,” the project supervisor says.

CONTACT: Frank Seibold,
Building Construction & Civil Engineering,
Division Germany 2C, Sub-Division Stuttgart (EP)

Total construction volume: € 250 Mio.
Share of order volume: € 170 Mio.
Construction start: January 2010
Completion: December 2013
CONSTRUCTION IN THE AUSTRIAN ALPS

IN LOFTY HEIGHTS

One-of-a-kind views, white powder snow, bright sunshine, snow-covered peaks. A place where every skier’s dreams come true.

Austria. One of the main attractions of Salzburger Land is the Schmitten, the mountain above Zell am See. The panorama view of more than 30 peaks above 3,000 m elevation is absolutely stunning.

STRABAG contributes to the historic preservation as well as the expansion and improvement of the tourism destination. For over 15 years, the STRABAG office in Zell am See has carried out various construction projects in and around the Schmittenhöhe ski region: from the construction of the chair lift and the cable cars, including the Schmittenhöhebahn with its stylish Porsche design gondolas, to reservoirs, ski pistes and ski underpasses.

SNOW IN THE SUMMER

Construction in the tourism region can only be done during the summer months. As the work is carried out at elevations of up to 2,000 m above sea level, it is not unusual to encounter winter conditions in the middle of summer. “In the summer of 2007 alone, while building the summit station for the new trassXpress gondola lift, it snowed five times and we had snow up to 30 cm deep,” says Gerald Stadler, head of the Zell am See office, commenting on the unique problems of building at high altitudes.

But having winter conditions in summer is not the only thing that can make the work difficult. Another challenge when building lift facilities is the steep and often rough terrain. The material can only be transported by helicopter, and all flights must be perfectly planned. Again, weather conditions play an important role. In the mountains, rain, wind and thunderstorms can come seemingly out of nowhere, grounding helicopters on short notice.

FANTASTIC VIEWS

In addition to building the new lifts, STRABAG also built all three local reservoirs, with a total volume of nearly 300,000 m$^3$ of water, plus approx. 25,000 m of pipes to supply the snow cannons. Other projects include three pumping stations, two ski piste underpasses, countless visitors’ parking lots as well as new pistes and ski trails.

Hopefully, the work on the Schmittenhöhe can continue. “We hope to see things proceed quickly and as planned, especially when it comes to expanding the ski area toward Piesendorf. Coupled, of course, with the hope that we can make an important contribution to this extremely important project for the future of our region,” Stadler says in conclusion.

CONTACT: Gerald Stadler, Division Austria/Adria 6C, Sub-Division Upper Austria/Salzburg (AE)
SHOPPING CENTRE EXPANSION

SHOPPING AT THE “TÄBY”

STRABAG positions itself as a new player on the Swedish market with the renovation of Sweden’s largest shopping centre.

Sweden. Täby Centrum near Stockholm, built in 1968, is Sweden’s first glass-covered shopping centre – and the largest in the whole country. But the time was right for renewal. When it is completed, the new Täby Centrum will feature over 230 shops on more than 76,000 m² of lettable space.

SHOPPING AT THE CONSTRUCTION SITE

The planning of the new Täby Centrum required solutions for avoiding lost income among the retailers. In fact, the planners aimed even higher – setting themselves the goal of boosting the number of visitors during construction.

“We want to make sure there is no lost income during the renovation process. This requires us to optimise our processes and to rethink our approach. For example, we won’t work at times when we could disturb sales. This means that certain works must begin as early as 4:00 in the morning and stop by noon. The construction site must be kept clean and safe and the customer’s shopping experience cannot be affected by dust or noise,” says Jens Lackmann, technical division manager at STRABAG Project Development.

In the past, we in the construction industry often assumed that ‘we’ve come here to build and everyone has to adapt accordingly’. Today it is the exact opposite and we adapt ourselves completely in line with the client.” All considerations regarding the construction have the end user’s benefit in mind – that includes the shop owners as well as the consumers.

ODEN, ZÜBLIN AND STRABAG

In the first phase of construction, a new parking structure was built in October 2010. “ODEN and Züblin carried out the construction of the three-storey car park. This involved complicated earthworks and we are already below the groundwater level – in other words, we now need just that expertise which our colleagues possess,” Lackmann says of the working partnership.

The project is characterised by a correct order of construction measures and perfect logistics. The main area of the shopping centre will be inaugurated in 2013, and the works in the northern section will be completed one year later.

“Construction time: 2010 – 2015
Order volume: approx. SEK 1.7 billion
Built surface: 100,000 m²
Businesses: 230

“We could easily build more quickly, but this would have an impact on the end customer and on the business with the clients. And that is not the point of this project. The focus here is on the end consumer,” division manager Lackmann concludes.

CONTACT: Peter Andersson, Transportation Infrastructures, Division Sweden 6S

Sweden’s largest shopping centre is undergoing renovations
Relocation of the roadway to create a valley of tranquillity.

MODERN ROAD CONSTRUCTION IN GERMANY

12 KM THAT REALLY ADD UP

Approximately 12 km – that’s the length of A4 motorway between Magdala and Jena-Göschwitz. By March 2013, a new section of motorway will be completed here, on the largest motorway construction site in Thuringia. But that’s not all: the project also includes the construction of the Jagdberg Tunnel. And not only people will benefit from the construction: the 140 hectare nature and bird sanctuary being restored here stands out for its unique diversity and represents an important contribution to protecting the environment.

Germany. HEILIT+WOERNER Bau GmbH has been hard at work between the Magdala and Jena-Göschwitz exits since April 2008. Enormous amounts of earth are moved here every day: some four million cubic metres will be re-used in building the embankments and noise barriers. In addition to the six-lane roadway and the two parallel bores of the Jagdberg Tunnel, three overpasses, four motorway bridges, a new exit/entrance ramp at Schorba-Bucha and five rainwater retention basins are also being built. Rising along both sides of the road is a 22,500 m² natural granite wall that reaches up to 13 m high in parts. Beneath the wall lie deep-anchored embankment reinforcements cemented with shotcrete.

MOBILITY FOR TOMORROW

Client is the “German Unity Motorway Planning and Construction Company” (DEGES). HEILIT+WOERNER is carrying out the earthworks and the road construction using specialty equipment developed in-house by HEILIT+WOERNER, such as a mobile concrete mixing facility, concrete-pouring train and the HW-Multitalent. Construction of the new A4 section will require 500,000 t of antifreeze on a layer measuring 43 cm thick in all: a 15 cm layer of hydraulic cement concrete base course and 27 cm of concrete roadway on geotextile with an aggregate concrete surface. The concrete roadway alone measures 330,000 m².

AGGREGATE CONCRETE IN THE TUNNEL

A unique technical challenge is the construction of the road surface in the tunnel. In addition to organising the construction works and logistics, it is also necessary to implement a complex occupational safety and health concept. “HEILIT+WOERNER has been building concrete surfaces in tunnels for years. The unique challenge in the Jagdberg Tunnel is that, in line with the latest techniques, the aggregate concrete construction method is being used...
Concrete surface machine at work during construction of the A4 in the tunnel bores as well,” explains project manager Jan Wenzel. Since the road surface concrete must be produced in two layers with two types of concrete (a top layer with an aggregate concrete surface and a bottom layer) using two surface concrete machines driving behind each other, the joints must be laid in the lower layer automatically. Until then, project manager Jan Wenzel and his team have a few tricky details to sort out. “The tight conditions in a tunnel bore and the countless drainage grates in the roadway require a high degree of concentration and flexibility from the construction gang using our specially developed concrete surface machines.”

FOCUS ON NATURE

The project is not only building new things on the 65 ha construction site; it is also giving back to nature an area that is nearly twice as big. The construction of the tunnel and dismantling of the old roadway will remove all traffic from the protected areas. While the Muschelkalk Hills sanctuary offers rare birds a new home, the Leutratl Nature Reserve, with 27 endemic species of orchid, is being brought back to life.

CONTACT: Frank Halata, Transportation Infrastructures, Division Germany South 6H, Sub-Division Large-Scale Projects (EE)

Info + +

Environmental-Friendly Logistics Concept:

- 1.5 million m² transported in seven months using the tunnel bores in their shell-and-core state
- up to 70 vehicles in continuous triple-shift operation, all equipped with particle filters
- implementation of a complex occupational safety and health concept (e.g. ventilation, respiratory protection, additional continuous impact monitoring) for mass transports through the tunnel bores
- finely optimised earthworks concept to guarantee the necessary performance parameters in cut and fill areas taking into consideration soil quality, noise barriers and earth embankments
- use of encapsulated, low-dust rotary tillers
ON THE ROAD TO SUCCESS WITH COLT

STRABAG and COLT – an example of a relationship between two companies that is built on trust and fairness. STRABAG PFS convinced COLT with its international service offer and was awarded the contract to handle the technical facility management in five countries – true to the motto: “From a single source”!

International. STRABAG PFS has been charged with maintaining the technical facilities of telecommunications service provider COLT. COLT, one of the largest telecommunications and IT service providers in Europe, provides data, voice and managed services. The company operates its own fibre optic networks as well as 18 data centres in 13 countries. STRABAG PFS already proved its expertise during a one-year partnership covering technical facility management (TFM) and fault management in Germany, Austria and Switzerland. Now COLT has awarded STRABAG PFS the TFM for all its offices and businesses in Germany, Austria, Switzerland, Belgium and the Netherlands for the next three years.

WORKING TOGETHER PAYS OFF

The contract for Belgium and the Netherlands was awarded in 2011 as part of a special tender procedure. A modified, significantly greater scope of service with a larger contract volume was agreed against the background that COLT wanted to award the contract for all five countries to a single professional partner for a period of three years.

“During the bidding procedure and rounds of negotiation, STRABAG convinced us in particular with its attractive concepts, mainly English presentations, complete presence across national boundaries, and expertise in dealing with data centres,” says Karsten Klöcker, lead manager for COLT and head of facility management for the Bavaria Region.

COLT also praised the networking of former Senior Key Account Manager Rudolf Gulich, who supported the COLT team and stood by its side.

He adds: “Gerhard Arndt of STRABAG PFS Germany has carried out the costing for all five countries.” The principle of “One face to the customer” impressed COLT as much as the detailed gainsharing model, an offer for the partners to share the success while optimising costs for the customers.

CROSS-BORDER SERVICE

The team agrees: an enormous advantage was the existing country organisations as well as the targeted integration of STRABAG Belgium and Netherlands by Mathias Kratz. The latter two have offices and technical support as well as the country headquarters in Antwerp and Vlaardingen near Rotterdam. COLT Germany is serviced from STRABAG PFS’s six German regions, while the client can count...
SERVICES:
- Energy, ventilation and air conditioning
- Energy management
- Technical building installations and facilities
- Fault management
- Consulting
- Building in existing structures

24/7/365 FAULT MANAGEMENT:
- Rapid response
- Comprehensive expertise in fault management
- Experience in sensitive areas such as large data centres, network hubs, wireless towers and antennae
- Extensive remedial measures to prevent faults

“Together with the site engineers from COLT, we will prove our sustainable, professional and synergetic services across national boundaries,” says division head Mathias Kratz.

What do Potsdamer Platz 5 in Berlin, Palais-Quartier in Frankfurt am Main, Corvinus University in Budapest and the Grand Hotel Polonia Palace in Warsaw have in common? Their owners trust in property and facility management from STRABAG PFS.

STRABAG PFS will draw up an individual management strategy for every property. Because: over-the-counter solutions are of no help for clients.

The maintenance of highly complex technical facilities is a specialty of STRABAG PFS

on the support of STRABAG PFS Austria in Austria and STRABAG AG, Property and Facility Services, Zurich, in Switzerland.

MAINTENANCE CAN’T WAIT

STRABAG PFS is taking on the maintenance of the technical building installations and facilities as well as the fault management. The latter guarantees the full functionality of the facilities 24 hours a day, 7 days a week, 365 days a year. Technical building installations and facilities include highly sensitive data centres, network hubs and data containers.

CONTACT: Mathias Kratz, Special Divisions & Concessions, Division Services 4S, Sub-Division Facility Management (MQ)

CONTACT: Gabriele Renard, Special Divisions & Concessions, Division Services 4S, Sub-Division Facility Management (MQ)
platforms present the team with difficult challenges regarding formwork and concrete pouring. “Pouring concrete in the summer is possible only at night. But the up to 600 workers also have to work during the day at temperatures near the boiling point,” project manager Dirk Leitzig says, explaining the physically demanding working conditions.

VISION 2030

Sustainability – that certainly is not the first thing you think of when it’s 40 degrees in the shade. The conditions are quite unusual: without the black irrigation hoses winding their way like lifelines around every palm, around every bush and on every field, nothing would grow in this inhospitable region. The Desert Learning Center is targeting LEED Platinum

Abu Dhabi. The Sheikh Zayed Desert Learning Center is one with the desert, both thematically as well as visually. Conceived as a centre for learning and teaching, the building is rooted in the Al Ain Wildlife Park, the country’s largest animal park, and takes the desert’s cultural and environmental legacy as a central theme. The building’s reinforced concrete structure is modelled on a Möbius strip. The almost exclusively inclined walls and far-projecting corridors and

BUILDING TRUST IN ABU DHABI

ONE WITH THE DESERT

Züblin has been present in Abu Dhabi for decades and is developing spectacular projects under the glowing desert sun. Wherever know-how is needed, wherever deadlines and special requirements heat up the climate even further – Züblin is there, proving its high degree of construction competence!

Contract volume: € 51.4 million
Share: 65 %
Client: Al Ain Wildlife Resort (AWPR)
Building the Orient of Tomorrow

At least since the financial crisis, Abu Dhabi has made a name for itself internationally. At a time when state and bank rescue packages were still not commonplace, Abu Dhabi, the larger and richer of the emirates, made headlines for stepping up to bail out its “smaller” debt-laden brother Dubai. In order to set itself apart from Dubai’s focus on lifestyle tourism, Abu Dhabi is highlighting the country’s cultural component.

The overheated investment situation has also cooled off considerably in Abu Dhabi. Half-finished and empty office and residential towers stand out of the gleaming skyline like rotten teeth. But still, construction continues. “The ambitious goals of the sheikh have not been forgotten nor are they buried underneath the sand. Only the time horizon has been extended and the plans have been cut back to more realistic measures,” says unit head Kris Wiume.

Status as the highest international and an Estidama 5 Pearl rating as the highest local certification for sustainable construction. The Estidama rating system was developed by the United Arab Emirates for sustainable building. Introduced just two years ago, the system is to help implement Abu Dhabi’s Vision 2030 in its construction culture.

The high standards are to be achieved through concrete core activation that achieves the necessary cooling using 105 solar collectors, a 150 KW photovoltaic facility and an underground heat exchange system that draws fresh air for the cooling in through over 1 km of pipes measuring 1.2 m in diameter. When it comes to sustainability and energy efficiency, Züblin has a clear knowledge lead over the local market.

EVERYWHERE SUN

SUN accounting software is used in Abu Dhabi. The software is used in countries which are not covered by AS4U. The SUN-Co department provides support in the set-up of the accounting system in line with the group chart of accounts, the data migration from predecessor systems, compliance with company and local accounting rules, drafting of reports and employee training. Linked to the SUN accounting system is a powerful reporting and analysis tool with many report templates. The transfer of the accounting data from SUN to AS4U is done at the end of the month via a computer interface. Another interface exists to the estimation and construction management software ARRIBA, which offers a transfer of data to the target/actual comparison (project report).

CONTACT: Jörn Oster, Special Divisions & Concessions, Division International 3G, Sub-Division Country-Wide Business (MJ)

CONTACT: Siegfried Napowanez, Special Divisions & Concessions, Division International 3G
TIPS & TRICKS

A PICTURE IS WORTH A THOUSAND WORDS

We all know the saying: “A picture is worth a thousand words.” To truly do justice to this saying when taking photos, it makes sense to follow a few useful tips. Because it can be extremely difficult to touch up pictures once they have been taken.

Inform asked professional photographer Tom Philippi to give us some valuable tips and tricks of the trade: What does he look out for when taking pictures? What really matters? Philippi has specialised in architecture photography and has already photographed several buildings and structures for STRABAG. Get the best out of your photo, no matter what the situation or the conditions are like.

Enjoy the read, and happy photographing!

GOOD WEATHER MAKES PHOTOS SHINE

A good photograph needs the right conditions of shadow and light. Keep an eye on the weather and, if necessary, have the patience to wait for a clear sky. This will make it much easier to edit the photo later.

“DON’T CUT OFF PEOPLE’S HEADS”

It sounds funny, but unfortunately it too often is the case. It is not uncommon for Corporate Communications to receive good pictures with one serious flaw: the people are “cut off”. A foot, an arm or even part of a head are missing from the picture. Such photos can rarely be used as the missing parts can no longer be added afterwards. When taking a picture, think about which crops are wanted and which are unwanted.

STRAIGHT IS STRAIGHT

Next to the proper placement of the main subject, it is important to keep buildings or people “straight” – i.e. perpendicular or upright. Otherwise the person or the crane could appear to be falling over! Avoid “falling lines”. Let straight be straight!

Blue skies, lots of sun – a photo that truly catches the eye.

The Leaning Tower of Germany? Think about “falling lines” when you take a picture.
FOCUS ON THE MAIN SUBJECT

Too much “information” often distracts from the actual subject of the picture. The photo appears cluttered. Don’t just shoot at everything that comes in front of your lens. Separate the important from the unimportant. Think about what you want to show in your picture. What should be the focus? Things which distract from the essential, such as ladders, buckets, packaging or the like should be moved to the side before you take a picture.

One can only guess what the actual subject in this picture is. Focus on one object.

NO DOING THINGS BY HALVES

Try to photograph the whole building. To get a large building into a picture, you’ve got to move far enough away. Try different positions and take several shots of your subject.

CONTACT: Tanja Winkelhofer, Service Companies, Corporate Communications

Take a picture of the whole building – you can always focus in on details later.

TIPS FROM THE PRO

THE FINAL TOUCH(-UP)

DISCOVER NEW PERSPECTIVES AND DIAGONALS

For a new or more exciting perspective on the subject, you could try a number of different positions while taking a picture. Shooting a picture from above is also called a bird’s-eye view, a low perspective is known as the worm’s-eye view. This requires finding elevated places from which to shoot, crouching down on your knees or getting on the floor. Also worth it is looking for diagonal lines or other lines that express tension. The way a diagonal runs through your picture can create some truly fantastic moods.

MOVEMENT AND ACTION BRING PICTURES ALIVE

A lot of topics and subjects live from movement and action, which can be created in a number of different ways: a moving object, hair or other objects blowing in the wind, or longer exposures to capture an object in motion.
ACTIVE COLLEAGUES

SPORTS, FUN, ACTION

Whether single or team competition, the sport activities and events are as varied and diverse as the group itself.

Slovakia/Austria. A badminton tournament was held in Bratislava every week from January through April 2011. Motivated players from a number of different companies took part in the competition, including a team from ZIPP Bratislava.

The sports event was organised under the motto of “Children for businesses and businesses for children”. The goal was to support young talents in badminton.

The exciting tournaments gave the employees and the children’s club HK Philosoph a chance to measure their skill. For the employees, the recreational tournament was a lot of fun.

The happy team of the Polish colleagues at the STRAtria

“Hey, that’s us!” cried Kinga Nieznanska as STRABAG triathlon organiser Mario Rabitsch called out the relay winners “La Strada” during the awards ceremony. The long journey of more than 800 km form Poznań, Poland, to Vienna was worth it twice over! Karolina Buczna, Julia Nowakowska and Kinga Nieznanska not only had fun at the games, they are especially proud of their surprise victory in the ladies’ relay event at the STRAtria on 10 June 2011.

The Polish colleagues weren’t the only international participants. In all, 264 people from eleven countries took part in the games. Alone or in teams, the athletes had to swim for 750 m, cycle for 22 km and then run for 5 km before reaching the finish. The awards ceremony in the Gironcoli-Kristall room at the Vienna headquarters was not even over before plans were being forged for the next STRABAG triathlon.

We look forward to a sporting “to-be-continued” in 2012.

CONTACT: Petra Frisová, Building Construction & Civil Engineering, Division Czech Republic/Slovakia 3J

CONTACT: Mario Rabitsch, Service Companies, Division Central Technical Department 30, Sub-Division Central Technical Department Vienna

STRABAG Kunstforum + +

Double Victory

Shining faces of young artists at this year’s awards ceremony for the STRABAG Artaward International! The awards presentation on 30 June 2011 by Hans Peter Haselsteiner to five young artists from Austria and abroad in the STRABAG Artlounge was a great success this year, as it has been in years past. For the first time this year, two main prizes were awarded!

The works by 647 artists from Austria, the Czech Republic, Hungary and Slovakia showed an enormous artistic diversity. For the first time in the 18-year history of the STRABAG Artaward, the international jury announced two winners: Marta Czene from Hungary and Svatopluk Mikyta from Slovakia. Special recognition went to Kim Corbisier from Hungary, Cristina Fiorenza from Austria and Jakub Hošek from the Czech Republic.

The STRABAG Kunstforum supports young talents not only through the Artaward, but also with exhibitions and an artist-in-residence stay in the STRABAG Artstudio.

CONTACT: Barbara Baum/Tanja Skorepa, STRABAG Kunstforum
SEEKING THE PUZZLE KING

SUDOKU

Exercise the left side of your brain!
All entrants will participate in a raffle for three STRABAG watches from the new 2011 collection!

Instructions: fill in the empty squares so that the digits 1-9 appear just once in each row, column, 3x3 sub-grid and fields of the same colour.

Send your entries to: bettina.mattes@strabag.com
Last date for entries: 15 Feb. 2012