

THE MAGAZINE OF STRABAG SE

**STRABAG** 

**EDITORIAL** 

# DEAR EMPLOYEES, LADIES AND GENTLEMEN.



Hans Peter Haselsteiner CEO and Chairman of the Board of STRABAG SE

As expected, we are currently working under crisis conditions. Yet, surprisingly, it's a crisis different to the one we expected, whereas the one we expected did not materialise. Private demand for construction services has recovered surprisingly quickly. However, as the construction trade obviously has trouble accepting this positive truth, there is a crazy competition going on at present, as if every contract were the last. Public demand, on the other hand, has not just lost its economy-supporting effect but is defined by the austerity programmes necessary for public debt relief. With these programmes, the new and threatening crisis scenario, namely national bankruptcy, shall be combated, but the measures chosen are rather inept. In order to achieve an effect, measures would have to be taken which would not attract support of the people - as can be seen in Greece and Iceland. As a consequence, those in charge try to whitewash the situation and postpone the problems to some day in the future to so save their own necks, while we place a burden onto the future of our children and grandchildren.

As if these weren't enough troubles, the political turmoil and revolutions in North Africa and the Middle East – as much as they are welcome – bring with them dangers, which affect in particular people who work in these countries, among whom are STRABAG employees, too. Fortunately, we managed to get all our employees safely out of Libya within some days after the outbreak of the first, relatively peaceful protests, and also some hundreds of staff members from third countries. On this occasion, I would like to extend my gratitude to Messrs. Srdan BOROMISA, Christian KNAACK, Richard NAPOWANETZ, and Karl-Heinz MÜLLER, who spared no effort and worked day and night to make it possible for these people to leave the countries.

In other countries of this region where we are operating, our colleagues still feel safe enough to stay. Yet, we have made all necessary arrangements to be able to react immediately in case the situation worsens.

Of course, we have taken all predictable financial impacts into account in our financial statement 2010, and we do not expect any further noteworthy losses. Despite these additional financial burdens, we can be more than satisfied with the annual result, for it shows the robustness of the organisation of STRABAG.

Our order backlog of a volume of € 15.4 bn as of 28 February 2011 makes me confident. It seems as if my fears won't come true, and I now even expect a rise in turnovers and results for the years 2011 and 2012, alike. Isn't it good that I was wrong!

Once again, I would like to say thank you to all of you, as you have contributed to this success of our Group with your performance. Maybe we could achieve even more together, if we improved our teamwork. That's why this issue of inform places a special emphasis on the 'team'. To read and to live up to this idea is called for.

Yours sincerely, Hans Peter Haselsteiner



www.strabag.com inform 21 ■ Table of Contents

#### TABLE OF CONTENTS

#### **NEWS**

- 04 THE BEST ONES WIN Awards Won by STRABAG
- 05 TO RANK AMONG THE BEST Stuttgart's Top Employer 2011
- 06 DELICIOUSLY SOCIAL Concordia
- 07 NEW HOME FOR TOADS Sustainability in Gravel and Sand Mining
- 08 DEMANDS AND SUPPORT Internal Employee Training Programmes
- 10 DESIGN PLANNING WITH FUSIONLIVE Efficient Design Management
- 11 GUARDING IRELAND'S MODERN TOLL ROADS Intelligent Toll Systems
- 12 SUCCESSFUL BREAKTHROUGH Tunnel News
- 13 5 QUESTIONS FOR ... Interview
- 14 PURE WOMEN POWER Career News

#### **COVER STORY**

16 THE SECRET OF SUCCESS: TEAMWORK Construction Site Teams

#### **PEOPLE AT STRABAG**

24 ALWAYS ON THE SEARCH STRABAG Personnel in the Spotlight

#### STRABAG UNITS

- 28 THE 'HENRY FORD' OF TIMBER CONSTRUCTION Innovative Timber Construction
- 30 THE MORE COLOURFUL; THE BETTER! Coloured Asphalt for Grey Roads
- 31 SAFELY THROUGH THE TUNNEL High-Tech in Road Traffic

#### **PROJECTS**

- 32 AS SAFE AS ALCATRAZ Research Institute on the Isle of Riems
- 34 OPERA HOUSE FOR THE 21ST CENTURY Music Theatre Linz
- 35 SILENCE IN THE 21ST CENTURY Noise Protection Gallery in Switzerland
- 36 GATE INTO DOWNTOWN VIENNA Uniqa Hotel and Commercial Building
- 38 OFF-ROAD TEST PASSED WITH FLYING COLOURS New Demonstration and Test Track
- 39 MODERNIZING THE ROAD NETWORK Rehabilitation of National Roads
- 40 THE BIGGEST Motorway A2 in Poland
- 42 CLEAN WATER FOR DOWN UNDER Wastewater Disposal in Australia

#### **EVENTS**

44 RACE FOR THE TITLE STRABAG Football Tournaments

#### **SPECIALS**

- 46 EXCEL-SHORTCUTS Little Software Helper
- 46 POSITIVE EFFECT OF COLOURS IN THE OFFICE Tips & Tricks
- 47 WANTED: PUZZLE CHAMPION Raffle



AWARDS WON BY STRABAG

## THE BEST ONES WIN

It's an honour for STRABAG to win an award! And, what's particularly worth mentioning is the diversity of international awards won. Not just top-class juries of architects, but also the general public cast their votes: "And the award goes to ..."

Slovakia/Austria. On 7 October 2010, the Slovak 'Building of the Year Award 2010' was presented at a gala night. This annual competition is organised by 'ABF Slovakia – Association for Development of Slovak Architecture and Building Industry', in collaboration with the Slovak Chambers of Civil Engineers and Architects. The first prize went to the Eurovea construction project. On the Bratislava banks of the River Danube, the Irish investor Ballymore developed a small city quarter with a shopping mall, a five-star hotel complex, a multiplex movie theatre, an office building and luxury condos, assisted by STRABAG. Representatives of Ballymore and consortium partners accepted the award together with Reinhard Kerschner,



The storeys are stacked on top of and at angles to each other.



A new city quarter of outstanding architectural design was created in Bratislava.

Project Manager of Eurovea and now a Sub-Division Manager at Division Austria/Switzerland 3B, and Gerhard Schinnerl, Head of Division Europe 3H.

STRABAG is also proud of the audience prize, which was also awarded at this event and which went to Eurovea, as well. On an Internet portal, the people of Bratislava had been invited to vote on 'their' project. Eurovea received the biggest share, namely 25% of the altogether 300,000 votes.

#### **BREMEN TOWN MUSICIANS HONOURED**

The Viennese apartment complex Terrassenhaus II 'The Town Musicians of Bremen', which was also built by STRABAG, may rejoice over a very special honour: the 'Clients' Award 2010'.

Whereas, since the introduction of this prize, the job descriptions of architects, the role of clients, and the relationships between the partners in a construction project have changed considerably, image, requirement, and concept of the Clients' Award have remained mostly unchanged. The Clients' Award is still one of the most prestigious and coveted prizes in the construction industry. It is awarded by the Austrian Central Association of Architects ('Zentral-vereinigung der Architekten Österreichs') to clients, who are particularly eager about promoting high-quality architecture.

"We are also proud of having implemented 'The Town Musicians of Bremen' for our client 'Neues Leben'. Together with them, we are delighted about this award," says Project Manageress Ina-Heike Drechsel.

CONTACT: Reinhard Kerschner, Building Construction and Civil Engineering, Division Austria/Switzerland 3B

**CONTACT: Ina-Heike Drechsel, Building Construction and Civil Engineering, Division Austria 3C, Sub-Division Vienna (AP)** 

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STUTTGART'S TOP EMPLOYER 2011

## TO RANK AMONG THE BEST



Von der Heyde, Verdonkschot and Betz are proud of the new quality seal.

Germany. To rank among the best is a challenge we have been rising to successfully every single day for many years. Yet, this has only been possible with the help of a motivated, satisfied and highly skilled workforce. From now on, Ed. Züblin AG's Stuttgart Division may advertise with a quality seal labelling the Division as one of 'Stuttgart's Top Employers 2011'. "We are proud of having received this honour," says a delighted Stephan von der Heyde, Manager of Züblin's Stuttgart Division, and adds: "It's good to know that our staff are satisfied with us." The competition is based on a scientific model, and the assessment involved interviews with employees and managers of the participating Division.

The 'Stuttgart's Top Employers' competition is held every year and is a valuable indicator that is gaining more and more importance, especially in the job applicants' market. "The quality seal allows us to present our business attractively for recruitment purposes and to so stand out positively from the crowd of competitors," emphasises Anita Verdonkschot, HR Representative at Züblin.

The works council of Sub-Division Stuttgart sees the award as a confirmation of the fact that the employees devote themselves to their company, identify with it and want to play an active role in its future.

"We would like to extend a heartfelt thank you to our colleagues for their participation, and we are looking forward to an exciting and similarly successful cooperation in the future," so the closing words of Stephan von der Heyde.

**CONTACT:** Stephan von der Heyde, Building Construction and Civil Engineering, Division Germany 2C, Sub-Division Stuttgart (EP)

**CONTACT:** Helmut Betz, Member of the Works Council, Sub-Division Stuttgart (EP)

**CONTACT:** Anita Verdonkschot, Building Construction and Civil Engineering, Division Germany 2C

#### News Flash ++

#### **New Contract: Taunus Turm in Frankfurt**

On 28 March 2011, Ed. Züblin AG was awarded the contract for the turnkey construction of Taunus Turm in Frankfurt's financial district. The construction contract comprises a 170 m office tower and a 62 m residential tower. Contract volume: approx. € 200 mn.

Welcome Brunner Erben and Astrada

STRABAG recently announced the acquisition of the two established Swiss companies, Brunner Erben and Astrada, with a combined workforce of around 1,000 well-trained employees. All employees will keep their jobs. Through these acquisitions, STRABAG can double its annual output volume in Switzerland to approx. € 615 million.

#### Sustainability Report

'Discover our sustainability' – was the motto for the presentation of STRABAG SE's Sustainability Report 2010. The new Sustainability Report can be downloaded from the STRANET at Konzern > Konzernkommunikation > Publikationen.





CONCORDIA

## **DELICIOUSLY SOCIAL**

STRABAG and Concordia. For years, STRABAG has been supporting Concordia, a charitable association. Now, employees in Romania and Austria have also demonstrated their social commitment. With their donations they 'sweetened' the lives of people in need.

Austria/Romania. 'Let's barter pieces of cake for donations!' Under this motto, the first cake buffet was launched in November 2010 at the Viennese STRABAG headquarters at Donau-City. On the initiative of Corporate Communications, a generous cake buffet was set up in the cafeteria: Nutella pies, marble cakes, croissants, muffins and many other goodies were prepared by hobby bakers for this charitable event. "STRABAG has been supporting charitable organizations for many years, like e.g. the projects of Father Sporschill. Now, we wanted to make a sweet contribution, too," explains Diana Neumüller-Klein, Head of Corporate Communications, the idea behind this event. The proceeds of this buffet can be used by Concordia to fulfil some of the dearest wishes of poor and old people or children.



Eva Hauser surprised the Concordia children with 600 chocolate bars.





There's so much in Romania that's unbelievable – the sparkling eyes of these children are such a thing, for sure!

#### **SWEET DONATIONS FROM AUSTRIA**

The enthusiasm about this event was so contagious that it also rubbed off on the STRABAG locations Ungargasse (Vienna) and St. Pölten (Lower Austria) which also invited to a cake buffet. Owing to dedicated teams of organizers, ambitious bakers and pie-makers as well as generous donations, an impressive sum of € 1,541.64 could be collected for Father Sporschill's 'Concordia Sozialprojekte' charity.

#### **SWEET CHOCOLATE IN ROMANIA**

'For our children'. With this motto of Concordia in their minds, STRABAG employees Eva Hauser and Mario Mader organized 600 chocolate bars as a surprise for the children of Concordia in Romania.

On 22 December last year, with their bags weighed down with chocolate, Eva Hauser, together with Romanian colleagues, travelled to the Romanian Children's Village, also known as 'The Farm', which is located approximately an hour's drive north of Bucharest. 80 children of various ages call this Village their home and live there together with their carers.

Eva Hauser and her colleagues had hardly arrived at the Village, when Cristina, Alex and their friends happily made a dash for the sweets. While carols were sung and poems recited, a Christmassy atmosphere came up. After a mass at the Village's own chapel and a joint dinner at the 'Casa Viena', it was time to say goodbye. "Ne vedem! – See you again!" the children called behind us, when we left.

This social commitment of STRABAG employees shows how simple it can be to do good by just using one's creativity – even without a big budget.

CONTACT: Bettina Mattes, Service Companies, Sub-Division Corporate Communications

**CONTACT:** Eva Hauser, Special Divisions & Concessions, Division Infrastructure Development 4W

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SUSTAINABILITY IN GRAVEL AND SAND MINING

## **NEW HOME FOR TOADS**

When these days the excavator is working at Laurenziberg, it's not to dig up gravel, but to create a new home for toads. The Gaul Group, a member of the STRABAG Group since January 2011, is an advocate for species protection in its pits.

Germany. The sole purpose of the two-day operation at the gravel pit is to provide native amphibians with alternative habitats. The work is done voluntarily within the framework of the cooperation project 'Mining Companies and the Protection of Amphibians' of the Nature and Environment Rhineland-Palatinate foundation and the companies of the 'rocks and soils trade', of which Gaul is a member, too. "Our aim is to unbureaucratically reconcile the mining of raw materials with the concerns of species protection. If it weren't for the gravel and sand pits with their typical biotope structures, there would hardly be any habitats left today for certain amphibian species, like the natterjack toad, for example," explains on-site project coordinator Sylvia Idelberger of the Society for Nature Protection and Ornithology of Rhineland-Palatinate.

#### **CRUSHED GRAVEL, CONCRETE, ASPHALT & CO**

Founded as a family business with one gravel pit back in 1956, the Gaul Group is now a producer of mineral raw materials and building materials as well as a contractor for mineral waste disposal. Apart from typical bulk solids like gravel, sand and crushed natural rock for road and building construction as well as concrete and asphalt production, the company's range of products now also comprises high-range building materials like special asphalts, high-performance concretes, and fine flints that are all manufactured in own production facilities. With this wide range of products, and with a company-owned fleet of 60 trucks plus external trucking businesses, the Gaul Group manages to move more than 3.000,000 tons of mineral bulk solids, concrete, asphalt and mineral waste every year.

#### Info + +

#### K. H. Gaul GmbH und Co KG

The three core competences of Gaul stand for a holistic concept for construction sites:

supply - disposal - service



As a side effect of mineral raw material mining, new habitats are created for animals.

#### **AWARD-HONOURED R&D**

Yet, it is not just the environment and species protection that are important to Gaul. The company also regularly invests in new techniques and maintains a close cooperation with research institutions. So it comes as no surprise that Gaul has been awarded the 'Innovation Prize for the Raw Materials Industry' for its sustainable gravel mining and has been honoured for its resource-efficient use of track ballast in asphalt as well as the development of a computer-controlled fleet logistics concept. "Because of their diverging interests, it is rather difficult to reconcile raw material production, species protection, and the desires of local residents. Nonetheless, we keep on working on this task that we have set ourselves," says managing director Thomas Gaul, stressing the goal of his company.

**CONTACT: Jörg Rasch, Transportation Infrastructures, Division Germany 6I, Sub-Division Building Materials North, K. H. Gaul** 



Gaul has a workforce of about 380, and has locations in the Rhine-Main, Rhine-Nahe, and Rhine-Neckar areas.



INTERNAL EMPLOYEE TRAINING PROGRAMMES

## **DEMANDS AND SUPPORT**

The STRABAG programme of internal advanced training for employees is continued: Project managers learn from the management. Read more on our internal advanced vocational training programme on highest level ...

**International.** For the professional implementation of ever bigger and more and more complex national as well as international projects we need well-trained project managers.

#### THE VERSATILE PROJECT MANAGER

"Requirements on our staff are rising permanently. Therefore, the Transportation Infrastructures segment decided to also offer a practice-oriented training for ambitious project managers," explains Fritz Oberlerchner, the Board Member in charge of this business segment, the reason behind this new training programme.

The special feature of this 18-month STRABAG training course is that teaching is done mainly by STRABAG Group managers. They offer their valuable knowledge and pass on tips and tricks from their wealth of experience. This course also allows for the participants to engage in networking and to exchange information across the borders of divisions, sub-divisions, business segments and countries.

The contents of the training scheme span from legal and commercial subjects to topics like intercultural competence.

#### **ACADEMIC PARTNER**

The programme is offered in a close cooperation with the University of Applied Sciences FH Campus Wien. This cooperation allows for providing practice-oriented training on an academic level. "The target-group-specific contents were devised together. Teaching is done mainly by STRABAG managers. FH Campus Wien is offering advisory support. Our ongoing tasks are to provide quality control, to evaluate the training course, and to conduct the exams and provide the infrastructure," describes Doris Link of FH Campus Wien, the cooperation between STRABAG and the university. FH Campus Wien issues certificates to the participants which are internationally accepted as they state the ECTS (European Credit Transfer System) credits earned.



Participants and internal lecturers of the Group Leader training course posing with Trainer Gabriele Riedl

#### SUCCESSFUL START

The first training course in Building Construction and Civil Engineering started in February 2010 and will end in September 2011. The presentation of the cross-disciplinary project theses, followed by the award of certificates by the STRABAG SE Management Board will mark the completion of this course.

"Already, a high degree of satisfaction with teaching, organisation, and practice-orientation is noticeable among the participants. Trainers as well as students are highly motivated, dedicated and ambitious," says Susanne Hopfgartner, who is in charge of the training course project.

In February 2011, the other courses commenced: the second one in Building Construction and Civil Engineering, and the first one in Transportation Infrastructures. From all the applicants, 35 were accepted to join the programmes.

#### THE FLEXIBLE GROUP LEADER

The Building Construction and Civil Engineering Austria Division has been offering another internal training scheme since September 2010:

13 Group Leaders from seven Sub-Divisions attend this course for a period of one-and-a-half years. Under the lead of the Division Managers, the learning content and practical experiences and knowledge are imparted by internal trainers, and in some few cases, by external lecturers. "The focus of this training course is on the daily job of a Group Leader, i.e. work in country-wide business," explains Patrik Steiner the goal of this course. The six-module-course offers a multi-faceted learning content spanning from acquisition and customer support, over legal and commercial topics, all the way to leadership. Participants are technicians as well as commercial staff, Austrians and Swiss, and engineers from the fields of civil engineering as well as building construction. Therefore,

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#### LIFELONG LEARNING

Self-improvement never ends, for: "Learning is like rowing upstream: not to advance is to drop back." Laozi (570 to ca. 490 BC)

**CONTACT: Susanne Hopfgartner, Building Construction and Civil Engineering** 

**CONTACT:** Markus Fischer, Building Construction and Civil Engineering, Division Austria and Switzerland 3B/3C





cross-disciplinary and cross-border networking are important aspects of this programme.

In order to provide for a sustainable effect of the theoretical training, group work is required in between the seminar blocks. And, a written exam must be taken at the end of each module. The training course will be completed with a final exam in February 2012.



Together ...

... towards the goal!



EFFICIENT DESIGN MANAGEMENT

# DESIGN PLANNING WITH FUSIONLIVE

Stacks of blueprints and designs, hundreds of documents, and yet another short-notice change in design by the client. It's getting difficult to keep track of up-to-dateness, status, and approval of construction plans. The solution: Fusion Live – a Group software for efficient design management.

**Germany.** Just recently, the 500<sup>th</sup> project was set up in FusionLive. Reason enough for inform to take a closer look at this software. We talked to Anne Brummer, FusionLive expert at the Central Technical Department, about the fields of application and advantages of this software.



Anne Brummer, FusionLive expert

# How can the use of the FusionLive software add to a project's success?

FusionLive is an Internet platform designed especially for the management and distribution of plans and documents. Project participants can access the latest data from their work places, no matter if they are right on the construction site or even in another country.

#### Info + +

Some projects, which successfully employed FusionLive or BuildOnline over the last years:

Bundesbank Berlin, Power Station Neurath, Hotel Four Seasons Moscow, Proton Therapy Centre Essen, Limerick Tunnel Ireland, Mormon Temple Kiev, Town Town Vienna, De Rotterdam Netherlands, Tajura Libya, Galeria Juraiska Poland, Tanzende Türme Hamburg.





Port of Zadar, Croatia: the 500th project using FusionLive

#### What other advantages does FusionLive offer?

Having started out with BuildOnline, we have seen to the development of FusionLive from the very beginning and have funnelled all our requirements into it.

Do I need any special IT-knowledge to be able to use FusionLive?

No, this software is extremely user-friendly. A separate 'work space' is created for every single project. There, everyone involved in the design of the project can upload their plans via the Internet.

# Where and how are the documents stored? What happens, if the plan has not yet been approved?

In the beginning, many questions will arise. Therefore, it is important that the project managers give thought to design organisation. This comprises, for example, the introduction of a project-specific filing system and a plan and document coding system as well as the definition of access rights and the coordination of design approval processes.

## What was the 500<sup>th</sup> construction project that was set up in FusionLive?

No. 500 is a particularly exciting project on Croatia's Adriatic coast, in the popular port town of Zadar, where an entirely new ferry port with numerous piers for small and large ferries and ships is being built.

#### Who is in charge of design organisation for this project?

As a matter of principle, the Central Technical Department assists the operative units in their work. In the case of the Port of Zadar project, we from the 'Design Planning Group – Central Technical Department' met with the Technical Manager and the Quality Manager to discuss these matters of design organisation. Based thereon, we elaborated the requirements of the project setup in FusionLive.

Thank you very much for the interview.

CONTACT: Anne Brummer, Service Companies, Central Division Central Technical Department, Sub-Division Central Technical Department Stuttgart (30)

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INTELLIGENT TOLL SYSTEMS

# GUARDING IRELAND'S MODERN TOLL ROADS

Already back in the Middle Ages, it was common practice to collect a toll from road users. Today, tolls are becoming more and more popular again as a means to finance the expansion of the necessary infrastructure network.

International. In Ireland, long queues of cars and waiting times in front of toll stations are a thing of the past. EFKON has been working on the Emerald Isle since 2006, and has been in charge of another successful project since last year: Limerick Tunnel. EFKON, a subsidiary of STRABAG, is one of the world's leading companies in the field of intelligent toll systems.

#### SUCCESSFUL IN IRELAND: PART I

Since 2006, EFKON has been in charge of operating all tolling facilities on the Fermoy Route in Cork. The contract was awarded by the SPV DirectRoute Ltd., responsible for financing, design, and construction, as well as operation of the route for a period of 30 years.

The introduction of electronic toll systems and barrier-free toll roads provides for more user-friendliness and is thus more easily accepted by Irish motorists. The new systems prevent tailbacks and waiting times and allow motorists to just drive through the stations.

#### **SUCCESSFUL IN IRELAND: PART II**

Every day, up to 40,000 cars can pass through the Limerick Tunnel, an important part of Irelands Transport 21 National Development Plan. The tunnel connects the roads N7 Limerick-Dublin and N18 Limerick-Ennis. In Limerick, EFKON currently has a staff of about 60, who see to the daily operations at the toll station. The station was opened in 2010 and has since been running extremely successfully.

At Limerick Tunnel, too, the continuous improvement of electronic toll systems provides for an evermore accurate metering and evermore easy use of the systems.

"We are highly satisfied with the chosen solution of a 'one-stop shop'. Not only did the STRABAG subsidiary EFKON supply and install an innovative system for toll collection, but the company also



As a toll station operator, EFKON is an expert in the field of intelligent transport systems.

perfectly operates the tolling facilities," praises Tom King, General Manager of DirectRoute Limerick.

CONTACT: Daniel Ulz, Special Divisions & Concessions, Division Services 4S, Sub-Division ITS EFKON (MZ)









'One-stop shop' in Limerick.



**TUNNEL NEWS** 

# SUCCESSFUL BREAKTHROUGH

Again, STRABAG has managed to consolidate its market position in tunnelling. The numerous projects are progressing rapidly. Read more about the 'breakthroughs' in our tunnelling projects.

International. Our decades of experience in tunnelling come in handy for national as well as international projects. Extensive knowhow, state-of-the-art technologies, and a motivated team are our keys to success. What is particularly worth mentioning is the dedication of our workers on site. Work in the tunnel is hard and arduous. People and equipment alike go to the limits of their capacity.

#### **50<sup>™</sup> INCLINED TUNNEL**

In power plant engineering, STRABAG also offers the construction of inclined tunnels. The 50<sup>th</sup> mechanically driven inclined tunnel in company history, the one that was built within the framework of the rehabilitation project at Power Station Kaiserstuhl of electricity supplier Obwalden, Switzerland, was successfully completed on 5 November 2010. Tunnel inclines range from 20 to 106 % and tunnel diameters from two to six metres. The total length of all inclined tunnels driven so far is 39.4 km.



We are proud of the 50th inclined tunnel in company history ...

#### Info + +

#### Biggest contract: Koralm Tunnel

And another piece of pleasant news: STRABAG won the biggest Austrian construction contract with a volume of € 570 mn. Koralm Tunnel will form the centrepiece of the new Koralm Railway Line between Graz and Klagenfurt. Once completed, this tunnel will be Austria's longest railway tunnel.

#### THE LAND OF THE WATERFALL

Good news is also reported from the Niagara Tunnel Facility Project in Canada. After some 4.5 years of excavation works, breakthrough was accomplished on 1 March 2011. The world's largest, currently available hard rock tunnel boring machine (TBM) has been employed at this tunnel construction site. Among other things, the Niagara Tunnel Project comprises the construction of a diversion tunnel to divert water collected at the Niagara River upstream from the falls to the power station below.



... and the breakthrough at the Niagara Tunnel Project.

**CONTACT:** Thomas Aschwanden, Special Divisions & Concessions, Division Tunnelling 2I, Sub-Division Tunnelling CH (IS)

CONTACT: Oskar Roittner, Special Divisions & Concessions, Division Tunnelling 2I, Sub-Division Special Projects (IT)



**INTERVIEW** 

## 5 QUESTIONS FOR ...

Siegfried Wanker, Member of the Board of STRABAG SE since 1 January 2011 and responsible for 'Special Divisions & Concessions'.

#### What was the most important milestone in your career?

I didn't have an easy start. After completing my studies, I got employed as a construction manager in charge of housing projects in Vienna. This leap into cold water was extremely demanding and left a mark on me.

#### Which challenge did you enjoy most?

After this time as a construction manager, I worked in the field of multi-functional real estate development in CEE. This was an extremely exciting period in Eastern Europe. My enthusiasm for project development dates from this work experience.

# What is the fascination of the 'Special Divisions & Concessions' segment for you?

Our segment impressively reflects the vision of STRABAG with regard to extending the value chain within the Group. For, we not only build roads and structures, but develop them, maintain and even operate them.

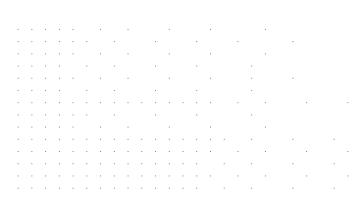
#### What's your expectation as to the growth of your segment?

In the medium term, I see the growth potential of all Divisions of 'Special Divisions & Concessions' as positive.

# What large projects are currently under construction in your segment?

The great diversity of projects of our segment is best demonstrated by the examples of Koralm Tunnel in Styria, the development of 'Tanzende Türme' in Hamburg, and the construction of a 'Desert Learning Centre' in the Emirates.

#### Thank you very much for the interview!





Siegfried Wanker, new SE Board Member

#### Siegfried Wanker in profile

**BORN** 

5 May 1968

STUDIED

**Civil Engineering at the Graz University** of Technology

IN 1994

he joined the Group as a Construction Manager

GATHERED WORK EXPERIENCE at engineering service providers

**SINCE 2005** 

Member of the Board of STRABAG AG

2005 - 2006

**Technical Head of Division Building Construction International** 

2007 - 2008

Technical Head of Division Corporate Development and Services

2009 - 2010

Technical Head of Division Project Development Infrastructure

SINCE 1 JANUARY 2011

Member of the Board of STRABAG SE

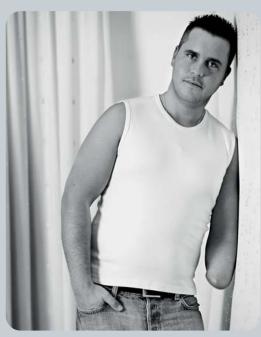


**CAREER** 

TPA BUILDING MATERIALS TESTER

# TOP DESPITE A HANDICAP

Germany. Jannik Jung was top of the class of the building materials testers' course (specialty: concrete/mortar) at TPA in Cologne. In a tragic railway accident in the summer of 2008, Jannik lost his left forearm. Yet, with will-power and ambition, the young building materials tester demonstrated that just because of a handicap one must not lose all interest in life.



The 29-year-old apprentice at TPA was top of the class

#### LIFE MOTTO

"Memento moriendum esse – remember your mortality!" (a motto, which he had tattooed onto his right forearm after his accident)

#### **HOBBIES**

Family and kids – "Without them, I wouldn't have managed to find my way back to life so quickly."

#### CAREER NEWS

## **PURE WOMEN POWER**

Whoever thought that the construction industry is for men only, is mistaken! At STRABAG, equal opportunities are important. Hence, there are many women working here who can boast great careers. In this issue of inform, we would like to introduce to you some of these female colleagues, who have managed to assert themselves in the construction trade.



"What counts for me is that I enjoy work."

**Britta Gülland (38)** studied architecture at the Hamburg University of Applied Sciences. After her graduation, she special-

ised in façade engineering and has been working with the Metal Technology Unit of Division Building Construction & Civil Engineering Austria since 2006. There, Britta's first job was in design coordination, from where she has meanwhile moved on to the position of a Construction Manageress in project development.



"It's already half the battle, if you know what you want."

After an office administrator apprenticeship, **Vicky Fetai (21)** completed another apprenticeship as a monument, façade and

building cleaner. At age 20, she completed this apprenticeship as Austria's youngest master craftswoman. At the end of 2010, Vicky won silver in the team and individual competitions of the European Championship of Professions. Currently, Vicky is in charge of about 50 objects in Vienna and Lower Austria and has her own staff.

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News

**CAREER** 

**NEWS** 



"Don't do unto others what you would not have done unto you."

Vesna Dragšić (50) is an experienced construction technician. Born in Croatia, Vesna can look back on an international

career as a Construction Manageress in building construction. She has been working in STRABAG's Transportation Infrastructures segment since 1998. Her work is characterized by her many years of experience and her flexibility and ambition. Vesna, for instance, successfully managed the Croatian motorway projects.



"The happiness of your life depends on the nature of your thoughts."

Martina Kraxner (29) studied business administration at the Vienna University of Applied Sciences. After her

graduation, she started her career as a business administrator in Civil Engineering. Early 2007, she moved to STRABAG Environment Engineering, where she held the position of a Group Leader from 2008 until 2011. Then, she was appointed Head of Division of Environment Engineering responsible for Austria and SEE.



"Respectfulness in dealing with others and a focus on the desired result will get you ahead."

**Diana Neumüller-Klein (30)** majored in investment banking and financing. Before joining STRABAG in 2007 to see to the

Group's IPO, Diana had gained experience as an analyst for company acquisitions at a major bank and in investor relations. Since 2010, Diana has been Head of Corporate Communications of STRABAG SE and was appointed Head of Sub-Division in 2011.



"I enjoy my work, because it get's me in contact with other people every day, and as a consequence, every day brings new experiences."

In 2008, **Sabrina Laue (23)** started out as a business management trainee at Sub-Division Stuttgart to become an indus-

trial business management assistant. After practical work with diverse commercial departments, she completed her training successfully in 2011. Since then, Sabrina has been employed at the Wages Department of Sub-Division Stuttgart, where she is in charge of industrial employees.

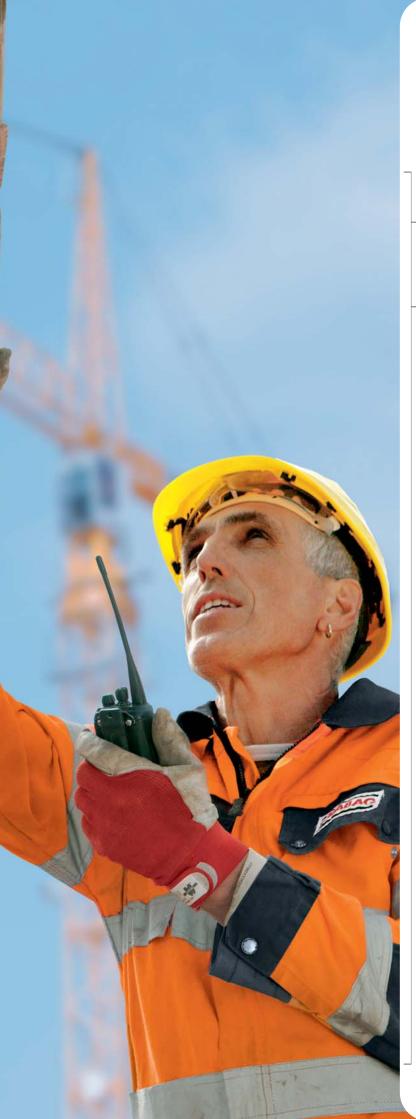


"Moored in the harbour, a ship is safe. Yet, that's not what it was made for."

Susanne Hopfgartner (30) studied international business in Vienna. During her studies, she got to know diverse departments

of the STRABAG Group. In 2006, she started as a commercial employee at Division Building Construction & Civil Engineering Europe. Since early this year, Susanne has been working for the STRABAG SE Management Board and, among other things, is in charge of the training courses entitled 'The versatile project manager' ('Der vielseitige Projektleiter').





**CONSTRUCTION SITE TEAMS** 

# THE SECRET OF SUCCESS:

- 2 + 2 = 5: Is a team more than the sum total of its members? In complex construction projects, teamwork is of particular importance.

International. The crane operator sits 30 m above ground in his crane cabin. From there, his colleagues down on the construction site look like ants. Highly concentrated, the crane operator manages to lift the concrete ceiling onto the columns. Such a job requires not only precise work, but, most of all, teamwork! If a crane operator does not cooperate with his colleagues, this will not only lead to inefficiencies but any wrong action, lack of communication, or egotistical behaviour could be fatal.

On construction sites, in particular, teamwork is of utmost importance! Hence, construction sites are places, where you will find numerous examples of successful teamwork. Here, hundreds of people, such as unskilled labourers, cleaning personnel, managers, skilled workers, sub-contractors, leased personnel, apprentices, foremen, group leaders, temps, staff of building consortium partners, and the like, work together to accomplish the shared goal of the construction of a building or a road.

Everyone knows what he or she has got to do. The situation is comparable to a musical orchestra, where all processes are coordinated to create a piece of music. Not one musical instrument can be replaced by another; the common language is music, beat and melody. On construction sites, coordinated team play is equally important. Every single person is dependant on the work of his or her colleague and must be able to rely on their best efforts. Only in a team approach, the work can be completed.

A TEAM 24/7

# WORKING AND LIVING ABROAD

In the construction trade it is normal that people often work abroad. They live out of their suitcases and move from construction site to construction site, and from continent to continent.

International. A new contract is won; the construction site team is set up. The project's location requires the team to live on site. Family and friends are left behind, and the building site becomes the new home. Contacts with the 'old' friends at home are limited to short phone calls and e-mails. The colleagues on site are the new family.

Work on a building site is hard. Loads of impressions, foreign cultures with unfamiliar mentalities, and a new environment need to be dealt with. The many experiences shared bind the team members together; they are all facing the same problems, and they all have the same fears. Work and life on a construction site abroad have their own dynamics. During the day, everyone is consumed by work. At night, people go out together or meet to watch a football game on TV.

"The demanding work environment is a great challenge. And that's exactly what binds people together. Friendships are formed that remain long beyond the end of the project. Working at the Metro Delhi subway construction project was a great experience, which I wouldn't want to miss, and which reinforces my decision to go on working abroad."

Sebastian Grüllich as Chief Tunnel Construction Manager in New Delhi/India, metro project BC-18 (March 2007 – September 2009) COM

→ A visit to Vienna Main Station. Since 2009, STRABAG has been working on this construction site together with its joint venture partners. STRABAG employees talk about their experiences with teamwork. Teamwork – what exactly does it mean? And, why do we need teamwork?

#### **WORKING IN A TEAM**

Let's first define the term teamwork. We speak of teamwork, if a joint path is chosen to reach a joint goal.

At Vienna Main Station, hundreds of people are working together. It's not just the four joint venture partners who must keep each other updated, but also numerous sub-contractors, the client, and public authorities. To which adds that the building site stands out for its complexity: different levels of experience, qualifications, command of languages, generations, and corporate cultures come together. It's just the goal that people have in common, namely to build Vienna's new Main Station within the given limits as to quality, cost, and time.

What is important is the shared interest. The entire team feels responsible for the successful completion of the project, and problems are addressed openly. Every individual identifies with the team. Success or failure will affect the mood. Hence, all team members must work in the team's interest for all they are worth.



"I am proud that I am working here at the new Main Station. Of course, it's not always all that easy, but I like it!

When working with colleagues, it is important to me that I can rely on them."

MICHAEL ZISSER formwork carpenter at Vienna Main Station

#### **WORKING ON A TEAM**

To set up a smoothly functioning team is not an easy job and, aside from a certain amount of knowledge of human nature, it also requires patience, because teams need time to grow together. Only after a while, it will show, if all the team members will be able to work together in the long run.

For this reason, the team leader plays a central role. His or her position in the team is not an easy one, but teams, too, require governance. The job of the team leader is to set the right goals and to assist the team members in achieving these goals by providing a supportive framework. Should it become apparent that disagreements escalate into conflicts, they need to be resolved. In such a case, the team leader functions as an arbitrator or mediator. He or she must create an atmosphere of trust and help the team to fully unfold. For this reason, continuous technical and social education and training for executives is of utmost importance if not to say indispensable.



"It's in the hands of the team members whether or not a project is successful! Every single team member is important, and every

single team member has needs and desires. The job is to not lose sight of the common goal."

MICHAEL STOIFL project manager at Vienna Main Station

#### **RULES FOR THE TEAM**

For work in a team, organisation, structure, and systems are of vital importance. The definition of rules provides for orientation and security. In order to be efficient, teams require a precise division of work.



"I think it's important to clearly define rules and tasks at the onset of a construction project. The workers must know

what they have to do within their areas of responsibility. For young colleagues it is particularly motivating, if they manage to solve a problem on their own. Yet, this also requires a certain amount of freedom."

**RUDOLF KANTAUER foreman at Vienna Main Station** 

A TEAM ON THE BUILDING SITE

# AND WHAT COMES AFTER IT?

The construction project abroad is finished. It was a tough, intensive, and educational, yet also a good time. The goal is accomplished, the object handed over to the client. But, what's now? Will people stay in contact with each other?

International. Winter landscape serving as a team trainer? The crisp air clears the head, the impressions of the mountains stimulate communication, and sportive activities foster the integration of team members. Sport is fun and brings people together!

Already some years ago, Reinhard Kerschner, then Project Manager at the Eurovea construction site, brought up this idea for his successful construction site team. Organised by Bettina Grünberger, but at their own expense, the Eurovea construction site team spent a casual skiing weekend full of fun together. This was in 2008, yet due to the great success, the event was repeated in the following years. These weekends helped bring the colleagues closer together and intensify contacts.

The project was completed at the end of 2009. It was a happy time. Meanwhile, the team members have assumed new tasks and have moved to new locations. Yet, not least thanks to Doris Fiala, contacts are still maintained. The Eurovea team meets regularly, even today. "Of course, not everyone has the time to attend all the get-togethers, but we try, and it's still great fun to meet," relates Kathrin Orthackner, an estimator. For this reason, the skiing weekend was also organised again for 2011.

We are a team and this won't change!

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→ But, what are the competences and skills that define the capacity for teamwork?

Capacity for teamwork is understood as having the social competence that enables people to join a group. A person is considered able to work in a team, if he or she regards cooperation as advantageous to the outcome of a defined task.

In a team, the diverse skills and strengths of the individual members are complemented by the group. Among these social skills are the ability to cooperate, readiness to communicate, and the ability to achieve consensus.

#### THE TEAM - AN UNKNOWN ENTITY

Humans have been living in groups ever since. We are born into groups, we live within them and, depending on our needs, we either enlarge them or move on to other groups. Through our group, we train our social skills. We experience a feeling of belonging and cooperation; we find security and we are at the same time links in a network of security. The team is a group, too. But, successful teams don't come into existence automatically. A team needs to develop. When people collaborate, relationships evolve between them which may sometimes be problematic. In order not to let teams remain

# 7 TIPS FOR PROFESSIONAL TEAMWORK

Gabriele Riedl, a trainer in the field of organisation and team development for many years, offers 7 tips for good and effective teamwork.



Expert tips by Gabriele Riedl

#### BE CAREFUL WITH REGARD TO TEAM SIZE

A basic rule says that a team should consist of as many members as necessary and of as few as possible. The ideal size is between three and five members and should not exceed eight. In case of very complex projects, which require teams of more than eight people, it is advisable to split the team into sub-teams with clearly defined tasks.

#### 2 AIM AT DIVERSITY

When composing a team, the team members chosen should bring with them different qualifications and characters. This will provide for a variety of viewpoints which, in a best-case scenario, might complement each other. Team members complement each other well, if their strengths and skills are used, developed and enhanced.

#### 3 DEFINE ALL TASKS

The jobs of the individual team members must be clearly defined, and, if need be, delimited or identifiable as internal interfaces. Such clarification prevents misunderstandings and overlaps, and,



unknown entities, it is important to engage in active team development. This helps get a better understanding of oneself as well as of one's social environment.

#### **WINNING TEAMS**

Successful teamwork is best known from team sports. There are many examples from sports history when NOT the team with the best individual players came out as the winner, but that in which the individual players interacted best, i.e. the most harmonious team.

The daily work on a construction site requires permanent teamwork. Only if all team members work together towards the common goal, the full achievement potential can unfold. It is in particular the complex situation of a construction project that calls for precise hand-in-glove coordination to successfully arrive at the common goal.



moreover, provides a basis for an equally clear definition of goals and results. A desired result is deemed clearly defined, if it is possible to decide when a task is fulfilled. What is important is that the result also is always regarded as a service to the customer (internal customer, building owner, client, etc.).

#### **4** ASSESS REASONABLENESS

Teams are suggested for highly complex tasks, as the information load, control and responsibility of such tasks can no longer be handled by one person alone.

#### **5** SEE TO INFORMATION EXCHANGE

All team members must regularly coordinate work, topics and tasks among themselves. Only by doing so, will there be understanding for the interests of the individuals and, also, an open flow of information. Tightly organised and moderated meetings are the beating heart of a successful team.

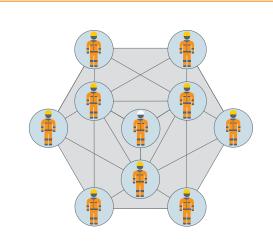
#### **6** LIVING THE TEAM SPIRIT

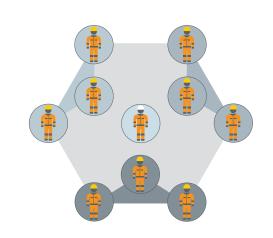
Mutual openness and trust provide for a special team spirit within a group. This will prevent the escalation of conflicts and will allow for living a 'feeling of togetherness'. In about 80% of all teams, a success will already show when trying to solve the first problem, for the team spirit increases work efficiency considerably.

#### **7** CONTROL TEAM DEVELOPMENT

Team development is a continuous process. Tuckman analysed the stages of group development, the length and intensity of which may differ. He described the steps from getting to know each other, through phases of frictions and conflicts – which, of course, will happen when people work together – all the way to productive teamwork and a successful project completion.

Read more on the stages of team development on the following pages.





# DEVE

STAGES OF TEAM DEVELOPMENT

## **TEAMS ARE FORMED**

Teams don't just pop up out of nowhere; they need to develop in order to become productive. The team model by Bruce Tuckman describes the stages of group development. We summarized this model for you.

Bruce Tuckman, a psychologist and organisation consultant, found out that teams are in a constant process of development. His model of group development stages is a very simplified wrap-up of this process and describes an automatism, which is in no way simple but rather the result of intensive efforts made by the team members.

#### **ORIENTATION STAGE - FORMING**

In this phase, the members of the team get to know one another. Behaviours are tested; relationships are formal and rather impersonal. Communication, too, is quite formal: People greet each other friendly and talk about the weather. Only very carefully, team members will voice their opinions. People focus on the leader, of whom they expect that he or she directs the team and provides security. Communication is effected mainly via a central middleman, the 'boss'.

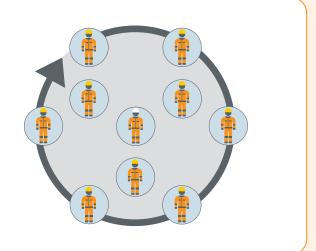
#### STRUGGLING STAGE - STORMING

The second stage or confrontation stage is a decisive one, for in this stage it will show, whether a team will live or break apart due to irresolvable conflicts. Ego orientation will lead to power struggles. Team members vie for position, disagreements on goals and tasks become apparent. Small, informal factions (cliques) of some few people form. Team members openly voice their opinions and feelings. Now, a first clarification of goals commences.

LOP

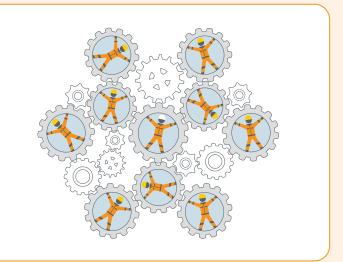
#### **ORGANISATION STAGE - NORMING**

Once the conflicts have been discussed, opinions are exchanged openly. In this phase, an in-group-feeling prevails. Roles and responsibilities are clear; communication is largely task-oriented. Common goals as well as rules and guidelines are laid down. Constructive cooperation makes the team grow closer together.



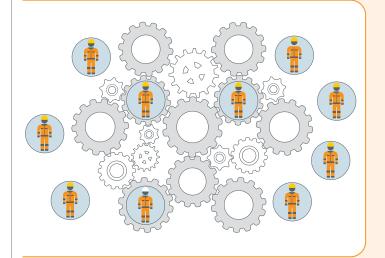
#### **INTEGRATION STAGE - PERFORMING**

This is the phase, where the entire team energy is focused on task accomplishment. Now, intensive work may commence. The group concentrates on the shared goal, information is exchanged openly, on a basis of mutual trust. Tasks are accomplished quickly and efficiently.



#### **DISSOLUTION STAGE - ADJOURNING**

Once the project is completed, the last stage sets in, namely the dissolution of the team. The tasks are accomplished. The end of the project means that the cooperation of the team is over, too. Now, it is important for the learning process of all team members to review and asses the experiences made.







STRABAG PERSONNEL IN THE SPOTLIGHT

## **ALWAYS ON THE SEARCH**

Coins, records, bookmarks or beer mats – the things people collect are manifold. Collector's passions are as diverse as life itself! In the previous inform issues we focused mainly on the sporting skills of STRABAG personnel. This time, we want to present the extraordinary hobbies of six colleagues, who collect special objects.

International. People often start collecting from childhood on. Yet, in most cases the objects of desire will change over the course of time, or the collecting passion will die down completely. Basically, you can collect everything. But, depending on what people collect, we can distinguish between various types of collectors:

The idealistic collector, for example, collects things just for keeping them, for these objects are mostly everyday goods which would otherwise be thrown away. Historic collectors are interested in detecting historical backgrounds and developments. To them, things appear more valuable the older they are. Experience collectors can be described as truly non-materialistic. The adventure itself, but also a feeling of completeness, makes the hearts of these collectors beat faster. Sentimental collectors usually try to preserve the connection to the 'good old days' and, more often than not, to their childhood days. Exclusivity collectors are on the search for rare and sometimes very extraordinary objects. Scarcity value is what attracts them most. The exact opposite to this type of collector is the collector of useful things, to whom the value of an object is of no interest. He or she just wants to own all useful things in life. "Who knows, they might come in handy some day."

No matter how diverse the types of collectors or what they collect, they all have the following things in common: a great passion, lots of patience, and a little bit of luck or chance to find the coveted objects.

Enjoy the read!





MAPELEN ELENDE

Reinhard Mittelstrasser with his collectibles





# **Historical Clothing**

NAME: Manfred Groß

**POSITION:** Project Manager Environment Engineering

**START OF COLLECTION: 1984** 

**SIZE OF COLLECTION:** 180 decorations, 180 pieces of headwear, 320 uniforms, 350 accessories, 118 identification papers, 180 sword knots, 120 sashes & belts

**PASSION:** "My interest in contemporary history provoked my passion for collecting historical uniforms and accessories. In order to find the rare objects, I frequently visit flea markets or take part in auctions. I particularly enjoy sharing my hobby with others and presenting my collectibles at diverse exhibitions.







#### **Concert Posters**

NAME: Reinhard Mittelstrasser

POSITION: Division Manager Bitunova

START OF COLLECTION: 2001

SIZE OF COLLECTION: 670 posters - limited editions, signed,

numbered and of international artists

PASSION: "I love rock concerts and, some day, I became aware of the posters which vary greatly in artistic design. These posters provide not just for pleasant memories, but, as they are printed in limited editions, posters of very popular bands or scenes or by certain artists will appreciate in value, which makes collecting them even more interesting."



## **Stamps**

NAME: Magdalena Seliger

POSITION: Receptionist, STRABAG House, Donau-City

START OF COLLECTION: 2006

SIZE OF COLLECTION: approx. 200 stamps

PASSION: "Every day since I joined the Group in 2006, I've admired all those stamps from around the world. Now, I'm collecting them, for I think it's a pity to throw away these little pictures – the 'greetings from countries far away' – just because they've served their purpose."



**PASSION:** "My boyhood idol Jean-Claude Van Damme, with his movies and as a black belt holder, aroused my 'fighting spirit'. That's why I would like to become at least as good as he is. I am practising rigorously, and my medal collection will grow further."

SIZE OF COLLECTION: as many as possible, currently 60



NAME: Günter Mischkulnig
POSITION: Division Manager Real Estate
START OF COLLECTION: 1975
SIZE OF COLLECTION: 30 animals

**PASSION:** "The delight I take in turtles and my interest in them gave me the idea to breed and raise these little animals. By doing this, I also want to make a contribution to the protection of this fascinating reptile species."

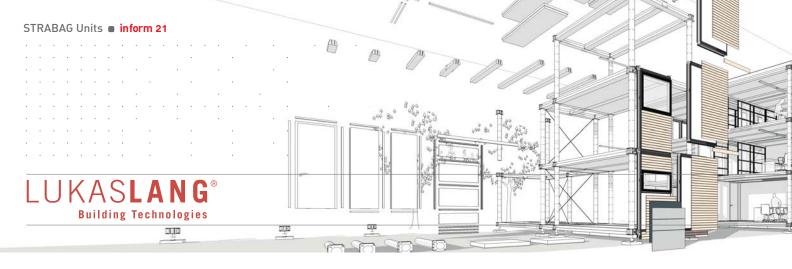
#### We are looking for you!

Many of our colleagues engage in charity work. In the next issue of inform, we therefore want to turn the spotlight on the social commitment of STRABAG personnel, who go that extra mile, not just for the company, but in their private lives, too. Are you one of these people who volunteer for a good cause? Or perhaps you know a colleague who stands out for his or her social commitment, benevolence or charity? If so, we would be delighted to hear from you: STRABAG SE, Corporate Communications, Bettina Mattes. (Copy deadline: 31 July 2011)



POSITION: Civil and Road Construction Engineer
START OF COLLECTION: collects intensively since 1995
SIZE OF COLLECTION: two large and two small display cabinets

PASSION: "Since I deal a lot with sediments in my job, and as I have got some knowledge from work with gravel, lime and cement plants, finding and collecting fossils has somehow turned into a hobby. A wonderful side effect of this hobby is that I get to know many areas of unspoiled countryside. To my wife's sorrow, I particularly enjoy spending time on my hobby during family holidays."



INNOVATIVE TIMBER CONSTRUCTION

# THE 'HENRY FORD' OF TIMBER CONSTRUCTION

What Henry Ford achieved in the automotive sector of the 20<sup>th</sup> century by revolutionising it through industrial mass production, has Lukas Lang accomplished in the timber construction trade of the 21<sup>st</sup> century: he introduced a revolutionary construction system to individually, quickly and flexibly build houses out of industrially prefabricated timber components.

**Austria.** The Group affiliate 'Lukas Lang Building Technologies' has made a revolutionary step towards ecological building. "We took the business idea of the car industry as an example: prefabricated building components from the factory," explains Harald Scharf, the visionary Managing Director of Lukas Lang, the modular system. "A respective production volume provided, this allows us maximum product quality at low production costs."



#### Did you know that ...

- the year 2011 was declared the International Year of Forests by the United Nations?
- the wood content of a Lukas Lang office building with a usable area of 650 m² grows back in Austria within just four minutes time?
- a Lukas Lang office building can later be re-used as kindergartens or as single-family homes, for instance?
- with Lukas Lang buildings real estate is turned into movable property?



Working in rooms awash with light

#### MATADOR IN AN XXL FORMAT

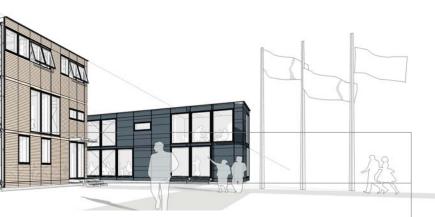
As they are industrially prefabricated, the components are always the same. This allows for fast building. A 1.000 m² building will be completed within three months at maximum. The components are assembled right on the construction site, but without mortar or any long drying periods. The only things the assemblers need are hand tools, cordless screwdrivers, and lifting equipment.

#### A HEALTHY WORKING CLIMATE

Wood is the oldest building material in the history of mankind, and yet it's popular today as never before. For, wood is an ecological material which conveys a feeling of comfort and cosiness. For centuries, people have been aware of the advantages of building houses of this natural building material.

Natural light, a sense of open space, and the scent of wood enhance concentration and performance. Timber construction allows for eye-catching façades with large glass panes and floor-to-ceiling window fronts. As of recently, the STRABAG staff at the tradition-rich Hausleiten location has also been working in a healthy Lukas Lang house. "After moving into the new offices, the initial scepticism of our staff about the new construction method has quickly been replaced by a high degree of satisfaction with the new working environment," acknowledges Heribert Herzog, Head of Central Division BRVZ Real Estate & Insurance. Another economic advantage of Lukas Lang office buildings is their low energy requirement.

www.strabag.com inform 21 ■ STRABAG Units





Glass and timber elements dominate the offices.

#### **FLEXIBILITY AND SUSTAINABILITY**

"Build your office just as big as you need it today. You can enlarge it tomorrow." Lukas Lang is synonymous for flexibility. The construction system without load-bearing internal walls allows for tuning the size of the offices exactly to the space requirements of the company. Room layouts can be changed as often as it is needed. "If additional space is required for new employees, additional segments can be added immediately," explains Harald Sharf the flexibility of the system.

It is also possible to disassemble the entire building quickly and at low cost and to re-assemble it again at another place – even in a different configuration. For example, a large office building can be turned into two kindergarten buildings. Hence, re-use of a Lukas Lang building is not limited to its original layout.

"We won't always know what the future brings, but we can react proactively," says Harald Scharf.

CONTACT: Harald Scharf, Lukas Lang Building Technologies

#### **COMPLEMENTING THE STRABAG PORTFOLIO**

- flexible timber construction for buildings with up to three storeys
- high-quality offices and staff apartments for long-term construction sites
- possibility of different future use

#### **PROJECTS**

- Office building, Hausleiten (Austria) completion: end of 2009
- Therapy centre, Kitzladen (Austria) completion: summer 2010
- Apartments for employees, Bad Saarow (Germany) completion: summer 2010
- Administration building, Egger Company (Romania) completion: November 2010
- Office building, Dubi (Czech Republic) start of assembly: May 2011

Show houses for single-family homes will follow mid-2011.



Individual construction with system - so done at STRABAG Hausleiten!















Building flexibility for the future - described in a witty way

# BHG

COLOURED ASPHALT FOR GREY ROADS

# THE MORE COLOURFUL; THE BETTER!

Be it for architectural reasons or for aesthetic purposes, to achieve signalling effects in transportation infrastructures, or just as an alternative to grey surfaces: asphalt need not be black all the time! Colours are gaining ever more importance in asphalt construction.

**Austria.** You may have seen them already in Paris, London or Brussels: the red roundabouts, the blue bicycle lanes, or the yellow bus or tram stops. Coloured pavements have been popular in Western Europe for quite a while, already. BitumenhandelsgesmbH, a STRABAG affiliate, has become aware of this trend and has widened its range of coloured asphalt in 2010.

#### FLAME RED, GRASS GREEN, OR YELLOW OCHRE

In the early days, due to the then commonly used black binding agent, dyeing of asphalt was possible only to a limited extent. Even if large doses of red pigments were added, the outcome was a not all too appealing shade of brownish red.

The innovation of the 'transparent' binding agent resulted in an immense expansion of the range of possible colours. The pigment industry offers an almost unlimited number of colour pigments, which, due to their light, weather and temperature resistance are also perfectly suitable for use in asphalt. In combination with a great



So much is possible colour-wise!





Together, sample parks were built for exhibition purposes.

variety of crushed mineral rock, nearly all desired colours can be

#### **COLOURS ARE THE VOGUE**

More and more urban planners and architects have come to appreciate coloured asphalt in their projects, be it to blend with the environment or to appear funky and modern – so much is possible today. In order to impressively exhibit the wide range of colours available, the company set up 'sample parks' in the Austrian provinces of Tyrol and Burgenland. "I am particularly pleased with the terrific cooperation we get from our colleagues at the competent units of Transportation Infrastructures in building the pavements. Together, we are aiming at making coloured asphalt 'socially acceptable' everywhere," explains Sales Consultant Horst Mocker the vision behind these efforts.

**CONTACT:** Horst Mocker, Transportation Infrastructures, Division Building Materials 6V, Sub-Division Bitumen Trade (RA)





Colours in front of the Lower Austrian Festival Hall



HIGH-TECH IN ROAD TRAFFIC

# SAFELY THROUGH THE TUNNEL

A tragic accident in the motorway tunnel, traffic hold-up, smoke, panic, stress. Who's to call the emergency service? Every single minute counts when it comes to saving lives! Center Systems has set itself the goal to not leave emergency alarms up to fate.

**Austria.** The high-tech company Center Systems is an important contributor to road traffic safety, made possible by employing artificial intelligence in the form of software solutions, which automatically detect dangerous situations and immediately set off the alarm. Whoever thought that STRABAG concentrates solely on building, is mistaken, for Center Systems, a group affiliate, is a leading one-stop provider of communication, traffic and surveillance technologies with a great number of own innovations to boast.

#### **24-HOUR TUNNEL SURVEILLANCE**

Video systems are installed to detect pre-defined traffic events. The traffic control centre is then automatically alerted, if such events happen, and, in addition, videos of dangerous situations are stored for later analysis. Events to be detected comprise distances between cars, cars heading in the wrong direction, slow drivers, smoke and traffic congestions. A Video-based Traffic Control (VBTC) system may involve hundreds of cameras and carries out analysis and surveillance at the same time.

#### UNINTERRUPTED COMMUNICATION

In case of an accident, a special radio system provides for interruption-free communication of the emergency teams. This enables fire fighters, ambulance teams, police and road service staff to communicate in disaster situations. The system can also take over the function of all common radio systems, and, as an additional feature, it allows for broadcasting VHF radio programmes to reach all road users via car radio in case of an emergency to keep them informed.



Special cameras automatically detect dangerous situations.

Founded in: 1968 Staff: approx. 200

Turnover: approx. € 35 mn in 2010

Group affiliate since: 2010

Center Systems makes our tunnels safer. And, in order to retain the lead in the market, the company is putting great emphasis on research on new technology. For, safety comes first!

CONTACT: Petra Grünwald, Special Divisions & Concessions, Division Services 4S, Sub-Division ITS Center Systems (MZ)



"He who stops being better, stops being good!"

RESEARCH INSTITUTE ON THE ISLE OF RIEMS

## **AS SAFE AS ALCATRAZ**

The prison island Alcatraz is well-known for maximum safety. The Isle of Riems, too, has top-notch safety requirements, because the island is home to the world's oldest virological research institute for animal diseases. This institute was founded back in 1910 by virologist Friedrich Loeffler.

Germany. Under the lead of Züblin, the world's leading laboratories are being enlarged. Two new research buildings of a total size of 79,000 m² and a length of 230 and 210 m respectively are being added to this research institute on the Isle of Riems in the Baltic Sea. These buildings will house 89 labs and 163 stall units of the highest biosafety levels. The gross volume of the contract amounts to € 260 mn. The buildings shall be handed over to the client at the end of 2011, after extensive safety tests.

The centrepiece of the modern research buildings is a laboratory wing for examinations requiring the highest biosafety level (BSL-4). These special labs can only be entered through a series of double-door air lock entry systems. Within the labs, the researchers must wear hazmat suits with breathing air supplies to provide the wearer with clean, external air.

#### **BIOSAFETY COMES FIRST**

The latest findings in the field of biosafety and containment technology provided an important basis for the construction of the top-safety laboratories. "A number of aspects of structural and building services engineering as well as organisational measures must interact, in order to prevent contagious organisms from escaping the safety areas," explains Frank Morawski, Project Manager of Ed. Züblin AG, the special requirements of this top-safety complex.

For this reason, the external envelopes of the containment buildings need to be fully air and gastight with an additional multistep, negative-pressure box-in-box system in the BSL-4 area.

"Our main task was to understand, design, and implement the highly complex biosafety process requirements. We had to learn that here fire protection and other standards are ancillary to biosafety," explains Project Supervisor Alexander Schreiner.

The reinforced concrete surfaces in all rooms were a particular challenge and required extreme precision work. In seven working



Here, the world's third most important research facility for animal diseases, besides institutes in Canada and Australia, is being enlarged.

Contract volume: € 260 mn Construction start: July 2008 Completion: October 2011 Cubature: 285,000 m³

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steps, the concrete surfaces were coated with a fabric-reinforced epoxy resin laminate.

#### **UNUSUAL PROCUREMENT**

Another challenge was the procurement of special sterilization plants (so-called digesters), which are produced and traded exclusively in the United States. Apart from the delivery of the highly-complex sterilizers, the joint planning had to be coordinated as well as quality control with TÜV during assembly at the various assembly plants abroad.

#### **3D-SIMULATIONS**

Coordination of the many building services engineering tasks and the highly-complex requirements called for the employment of special 3D-simulation models. With these models, the sequence of the individual installations could be elaborated and optimised. "This helped the various site managers to practise on the computer, at an early stage, the interplay of their installations with those of their colleagues," explains the Project Manager the practical application of the 3D-simulations.

CONTACT: Frank Morawski, Building Construction and Civil Engineering, Division Germany/BNL 2F, Sub-Division North (DO)



The extensive biosafety requirements are a great challenge for project implementation.



MUSIC THEATRE LINZ

# OPERA HOUSE FOR THE 21<sup>ST</sup> CENTURY

In April 2013, when the music theatre in the city centre opens its doors, new musical sounds will resonate through the city of Linz. State-of-the-art theatre and stage technology will provide for an outstanding ambience.

**Austria.** The new music theatre will be a wonderful addition to the cultural scene of Upper Austria's capital. Big operas, from Wagner to Strauss, Mozart's operettas, or international musicals and concerts will be staged in this new house of culture.

#### THE OPERA HOUSE AT VOLKSGARTEN

With careful consideration of the location, architect Terry Pawson managed to create a convincing design by perfectly combining urban planning aspects with architectural finesse. "The view from the foyer onto the Volksgarten park and famous Landstraße high street are magnificent," enthuses Construction Manager Daniel Zeller about the perfectness in which the opera house was linked to the city centre.

#### LET THE CURTAIN RISE

The building has a total cubature of approximately  $290,000 \text{ m}^3$  and a gross floor area of roughly  $53,000 \text{ m}^2$ . The most essential parts of the building are the impressive auditorium seating 1,000 to 1,200 theatregoers, a studio stage seating 270, and the large



The three-dimensionally inclined auditorium of the new music theatre

Contract volume shell construction: € 23 mn
Contract volume façade and
finishing works package 1: € 12.2 mn
Construction period shell construction: 09/2009 – 12/2010
Opening: April 2013

practicing hall, which will be home to the Bruckner Orchestra and has room for 200 patrons. The stage is state of the art. The innovative concept comprises a revolving stage of a diameter of 32 m for scene transport with an integrated 15 m revolving performance stage and three lifting platforms.

#### **ARTISTS ON THE CONSTRUCTION SITE**

Shell construction was carried out in record time between September 2009 and December 2010 on extremely limited space. Two basement levels were built, five upper storeys and a stage tower. The building itself is 26 m high, and the stage tower 37 m. The shell construction contract amounted to € 23 mn.

"For me, the first highlight was concreting of the first section of the floor slab. In just one step, we built a white tank of 3,000 m³ of concrete during a long and tiresome night," remembers the Construction Manager, and adds: "Another masterpiece was the construction of the ceiling formwork of the auditorium's three-dimensionally inclined first and second balconies. It's a magnificent piece of architecture but a challenge to build."

Under the motto of 'accomplished together', topping out was celebrated at the end of November 2010. Yet, other work is to follow. Altogether, STRABAG was contracted to carry out dry lining, floor screed, interior plastering, scaffolding, and prefab and stone façade works worth € 12.2 mn.

"We are particularly proud that we are playing an active part in the construction of the music theatre in Linz from the very beginning to the planned completion," says Division Manager Schreyer, delighted at this new contract.

CONTACT: Thomas Schreyer,
Building Construction and Civil Engineering, Division
Austria/Switzerland 3B, Sub-Division Upper Austria (AV)

NOISE PROTECTION GALLERY IN SWITZERLAND

# SILENCE IN THE 21<sup>ST</sup> CENTURY

The small town of Stansstad is located in the heart of Switzerland, at the shore of Lake Lucerne, a popular holiday destination. The town of 4,000 souls lies in between green mountains, forests and pastures. Yet, right through this perfect idyll runs a noisy road. Silence is called for ...

**Switzerland.** With the completion of national route A2, Stansstad has gained good transport connections, but the A2 runs right through residential areas. Permanent traffic noise makes the area increasingly uninhabitable. The demand for a rehabilitation of the road has become ever more urgent. Now, a noise protection gallery shall improve the situation!

#### SOMETHING'S BEING DONE, AT LAST

Various traffic concepts have been debated since the 1990s. Yet, it was not before 2008, that it was finally decided that the existing, obsolete noise control structures don't suffice any more. The partial enclosure of all lanes is necessary. In June 2008, STRABAG won the contract to build the noise protection gallery.

On a stretch of about 280 m, from Stansstad railway station towards the neighbouring town of Stans, both sides of the A2 will be enclosed. In the direction of Lucerne, on a length of about 210 m, the gallery will just cover the two lanes on the side of the village.

#### **NIGHT WORK**

"Our motivation was to elaborate a solution in terms of construction time, accident dangers, traffic problems, and cost-efficiency that would meet the specified requirements," says Division Manager Markus Meier. This also included the requirement to keep the nuisance for residents through noise and construction emissions at a minimum. For this reason, just one of the two old noise control walls was knocked down in a first step and the new side wall erected immediately. "This was necessary, but made our work extremely complicated," explains Meier, among other things, the reason for intensive but indispensable night work. Another challenge of this project was to keep the traffic flowing. "This called for a tight coordination of all works, because we had to keep two lanes in each direction open at all times," relates Meier.



The new noise protection gallery brings quiet to Stansstad.

#### PIECE BY PIECE

The use of in-situ concrete was chosen as the optimum solution for constructing the gallery. The walls and roof slab were made of this material. The roof was pre-stressed and sealed in transverse direction. The concrete walls together with the slab formed a frame, which was founded on displacement piles. Additionally, for fire protection reasons, a closed partition wall had to be built on the entire stretch of the double-sided enclosure to separate the two roadway areas.

Contract volume: CHF 27 mn

Construction period: 06/2008 - 06/2011

Total length: 490 m

Concrete volume: approx. 9,000 m<sup>3</sup>

Reinforcement: 1,360 t

CONTACT: Markus Meier, Building Construction and Civil Engineering, Division Austria/Switzerland 3B, Sub-Division Civil Engineering Zurich (IE)

UNIQA HOTEL AND COMMERCIAL BUILDING

# GATE INTO DOWNTOWN VIENNA

In November 2010, another eye-catching building in Vienna's skyline was completed: the 'gate' into Vienna's city centre. This complex on Vienna's Danube Canal fits perfectly into the urban planning concept and is, at the same time, a stunning piece of architecture.

**Austria.** The spectacular development houses a five-star hotel, a rooftop restaurant, a shopping arcade, offices, a seminar centre and public squares and passages. Together with the Media Tower vis-à-vis, the structure, designed by French star architect Jean Nouvel, forms a prominent gate that leads into Vienna's city centre.

#### **UNUSUAL SUPPORTING STRUCTURE**

On top of the podium building, which consists of a ground floor and five upper storeys, sits a tower that reaches up to level 18 and seems to be slightly inclined to the left. The major part of the structure's load is supported by the tower core. It is tightly anchored in the soil, standing on a 3.4 m thick reinforced-concrete foundation

slab. Diaphragm walls and buttressing ceiling elements transfer the vertical forces into the subsoil.

Underneath the podium structure, five basement levels accommodate an underground parking garage for 239 cars, storage rooms and technical rooms. The tower seems to grow out of this podium.

The complex also meets highest standards in terms of electrical, mechanical and plumbing systems, which are technically managed and operated by STRABAG Property and Facility Services.

#### A SPECTACULAR DAY ON THE CONSTRUCTION SITE

Extraordinary scenes could be witnessed on 26 February 2009: A 1,600 t supporting structure had to be lifted up to a height of more than 30 m.

This structure, built by the consortium consisting of STRABAG and Zeman & Co, serves the purpose of carrying the load of the other upper levels. "Within just a couple of hours, we had to lift the two prefabricated storeys and place them onto the load-bearing structure," remembers Project Manager Hansjörg Geisler. "This called for unusual methods!" First, the two lowest hotel levels were assembled close to the ground, then the corresponding ceilings were concreted, and only then was the entire structure lifted up to its final position. This innovative method was much more cost-efficient than the traditional method of erecting a 30 m high shoring tower. In the following four months, structural steelworks plus composite concrete ceilings of the remaining standard floors were completed on schedule.



The impressive ceiling fresco lights up the Viennese sky.



Contract volume shell construction: € 28.5 mn Contract volume steel construction: € 8.2 mn

Construction start: July 2007 Completion: November 2010





A tower with an eye-catching glass façade rises from the podium structure.

#### **FANTASTIC AMBIENCE**

The new building in a prime location will house not just a shopping mall and a hotel, but will be crowned by a rooftop restaurant on upper level 18. The new first class hotel will be run by the Sofitel chain which belongs to the French Accor Group.

The restaurant and bar, up in a height of 77 m, are open to the public. The wrap-around glass façade was built by STRABAG Metallica under a contract worth € 25 mn and offers a magnificent and impressive view of Vienna's city centre. The huge, illuminated ceiling fresco adds to the extraordinary ambience of the restaurant.

CONTACT: Hansjörg Geisler/Klaus Radakovits, Building Construction and Civil Engineering, Division Austria 3C, Sub-Division Vienna (AR)

NEW DEMONSTRATION AND TEST TRACK

# OFF-ROAD TEST PASSED WITH FLYING COLOURS

Gravel, sand and boggy ground – all this must be tackled by Volkswagen vehicles before they may go on sale. To put vehicles to the acid test, the new test track facility in Slovakia comprises all challenges a car may be confronted with over the course of its life.

**Slovakia.** The off-road demonstration and test track, which STRABAG built for the Volkswagen Group, can simulate all extreme natural conditions cars might get into some day. This elaborately designed test track is the only one of its kind in Europe today. New cars must pass special tests before they are cleared for sale. The off-road test track is used, on the one hand, for such internal tests by Volkswagen and, on the other hand, for presentations in front of interested customers.

#### **UPHILL - DOWNHILL**

This test track facility in Devínska Nová Ves has been in operation since last November. It comprises 26 sections and is designed for a daily capacity of 170 test drives. Curves and inclines of the course

are built in a way that vehicles can be tested in all kinds of extreme situations to reveal all their technical features. Vehicles are put through their paces with the most diverse mechanical load tests.

#### **OVER ROUGH AND SMOOTH**

The track is five meters wide and lacks for nothing, not even a 100% (i.e. 45 degree) incline or other extreme challenges. Individual modules simulate demanding conditions vehicles might get into. They must be able to tackle ditches, deep water, stairs, boggy ground, rock and other kinds of dangerous terrain.

"The requirements of this special test track were new to us and very unusual. We had to pay special attention to the diverse types of soil and building materials," explains Construction Manager Pavol Jozefík. At the same time, the track was designed to meet all occupational health and safety requirements.

Contract volume: € 360,000

Construction period: 09/2010 - 11/2010

Track length: 1.488 km Highest mountain: 8.41 m

CONTACT: Marián Kanuščák/Pavol Jozefík, Transportation Infrastructures, Division Czech Republic/Slovakia 60, Sub-Division West (TG)



Extreme challenges can be simulated on this test track.



REHABILITATION OF NATIONAL ROADS

## MODERNIZING THE ROAD NETWORK

The Romanian government is investing! In order to kickstart the economy, necessary infrastructure projects are being commissioned. One important road section is already being built by STRABAG: the national road in northwestern Romania, near the Hungarian border.

Romania. In the northwestern Romanian counties of Bihor and Satu Mare, STRABAG is currently rehabilitating national road DN 19 between the cities of Oradea and Satu Mare. The contract comprises the widening of the road and the extension of the existing road network, the rehabilitation and new construction of bridges, as well as safety installations in line with the European Standards for long-distance roads.

Contract volume: € 78 mn

Construction period: 01/2009 - 07/2011

Length: 122 km Asphalt: 450,000 t

The project is part of the sixth Romanian programme for the rehabilitation of national roads. The € 78 mn project for the rehabilitation of roughly 122 road kilometres is split into two contracts based on the FIDIC Yellow Book, which regulates design and construction on the basis of international standards.

#### FINAL CONSTRUCTION STAGE

The first step in rehabilitating the DN 19 was the widening of the road to both sides. Then, with three layers of asphalt, the roadway was raised to its planned level. In order to meet the tight deadline, work on several sections was done simultaneously. The Group's existing infrastructure of asphalt mixing plants allowed for a continuous asphalt placement. Meanwhile, the project is in its final stage. Owing to the extraordinary commitment of the project team, in combination with the active support provided by Group affiliates ARL, SAT, and Dywidag, the completion deadline of mid-2011 will be met. "Because of the early onset of a cold and hard winter in 2009, the construction site team worked with extra ambition," relates Technical Head of Division Martin Prochiner, who is proud of the on-schedule project completion.



Visit of Board Members in the Romanian town of Valea lui Mihai

#### **SPECIAL GUESTS**

14 October 2010 was a special day. On this sunny day, Fritz Oberlerchner and Hannes Truntschnig, the Board Members in charge of Transportation Infrastructures, visited the building site in Valea lui Mihai together with the then Division Managers Gerald Schobesberger and Manfred Rosenauer. "For the colleagues involved in the DN 19 project this special visit provided a great motivation as they are facing the future challenges of transportation infrastructure projects in Romania," says Commercial Division Manager Florian Sebesta.

**CONTACT:** Martin Prochiner/Florian Sebesta, Transportation Infrastructures, Division SEE 6L, Sub-Division RO/BG (ME)

Info + +

#### **Backlog of Large-scale Contracts**

Construction of new motorway bypass Deva - Orastie: built in a joint venture in which STRABAG holds an 85% share and under a contract worth € 178 mn. The scheduled construction period for this project is 24 months, and it will be implemented together with the following two projects in Transylvania, in the heart of Romania.

Project 6R14: rehabilitation national road Târgu Mureş – Saratel contract volume: approx. € 38 m construction period: 24 months

Project 6R15: rehabilitation national road Sibiu – Sighişoara contract volume: approx. € 38 mn construction period: 24 months

Project DN 67B: rehabilitation national road Scoarţa – Piteşti contract volume: approx. € 62 m construction period: 48 months

#### MOTORWAY A2 IN POLAND

#### THE BIGGEST

Length: 105 km, width: 11 m – these are the key data of the biggest motorway section in Europe currently under construction and developed in public private partnership (PPP).

**Poland.** The 105-km-long stretch of motorway 'A2 segment II' between Swiecko at the German border and Nowy Tomysl is part of one of Poland's most important traffic arteries as well as of the trans-European network Berlin-Warsaw-Minsk-Moscow.

The interim result after the first half of the construction period is a positive one: "Work on this so far biggest individual contract in company history is ahead of plan," says Project Manager Walter Neurathner.

#### **BUILDING - OPERATING - MAINTAINING**

STRABAG is the leading partner in the construction company 'A2STRADA Sp.zo.o', which won the € 1.3 bn contract to plan and build the motorway. The special purpose vehicle (SPV) 'Autostrada Wielkopolska II', in which STRABAG is also holding shares, will see to the operation and maintenance of this toll road. The concession runs until 2037.

Contract volume: € 1.5 bn

Construction period: 07/2009 - 05/2012

Length of section: 105 km Bridge structures: 84 Soil moved: 13 mn m<sup>3</sup>

#### **ONE-STOP PROVIDER STRABAG**

Various divisions from all three business segments contribute to the fast construction progress, with Division Infrastructure Development 4W playing the leading role. Involvement of the Central Technical Department (Zentrale Technik), as well as contracts awarded to other group affiliates, such as Heilit+Wörner, Hermann Kirchner, Möbius Bau, TPA, Bitunova, and SAT, provide for more than 90% of the net product of this project to remain within the group.

During the summer months, up to 2,500 workers and more than 1,000 pieces of construction equipment are present on the construction site.

#### **CONCRETE - FOR LONG DURABILITY**

The entire stretch, except for the junctions and bridges, will sport a concrete roadway. Altogether, two million square meters of concrete surface will be created, i.e. approximately the size of 300 football fields. The 27 to 29 cm thick concrete pavement will be built in two layers using exposed-aggregate concrete. This pavement shall provide for good grip and shall reduce noise emissions.



#### **PERFECT LOGISTICS**

"Work must go on simultaneously on the entire stretch," explains the project manager. Hence, work planning is a challenge in terms of logistics. Due to weather conditions, the concrete can only be placed between mid-April and mid-November. "We have to make best use of this short time and are, thus, using three mobile concrete mixing plants on the construction site," adds the project manager. Given the length of the construction site of more than 100 km, these mixing plants need to be moved frequently, in order to provide for the deliveries of concrete to the concreting sites to take as little time as possible. "Considering all this, I am very proud that we are on schedule," says Neurathner.

#### **ADVANTAGES OF A CONCRETE PAVEMENT:**

- long durability
- good grip
- no rutting
- low noise emissions
- low maintenance cost



A2 Poland: the biggest individual contract in company history so far

#### **ENVIRONMENT PROTECTION IS A PRIORITY**

Due to the fact that the motorway runs through several nature reserves, a lot is and has been invested in environment protection during construction: For example, so far, more than 10,000 small animals (frogs, toads, ...) have been picked up and carried safely over the construction site. Once completed, the motorway section will comprise 14 animal bridges and more than 140 animal passages to allow smaller and medium-sized animals to cross the motorway safely. In addition, safety walls on a stretch of 2.5 km will prevent a rare and endangered bat species from getting on the motorway.

CONTACT: Walter Neurathner/Lukas Ciesielski, Special Divisions & Concessions, Division Infrastructure Development 4W







For animals, the new motorway is no insurmountable barrier.

#### Info + +

#### Public-Private-Partnership (PPP)

PPPs are co-operations between the public sector and private sector companies, in which the latter see to planning, financing, construction and operation of a project. The public sector is in charge of project refinancing (e.g. toll income). The operating/refinancing time is between 20 and 30 years.

#### **Awards Won**

- 'PPP Road Deal of the Year' by Jane's Transport Finance
- 'Best Infrastructure Deal in EMEA' by EMEA Finance



Züblin employees are proud of the completed project.

WASTEWATER DISPOSAL IN AUSTRALIA

## CLEAN WATER FOR DOWN UNDER

Alkimos was one of the most important water and wastewater infrastructure projects in Western Australia of recent years. Züblin's first large-scale project on the Australian market was completed successfully.

**Australia.** Water supply and wastewater disposal are of particular importance in Australia. The Alkimos Project was developed and implemented with cutting-edge technology and on the basis of sustainable concepts.

Located a mere 40 km north of Perth on the western coast of the Australian continent, the new water and wastewater network shall supply thousands of people. According to surveys, the area around Perth is going to grow strongly. By 2030, 150,000 people are expected to live there. To service the growing population, a first-class, state-of-the-art water and wastewater system was required.

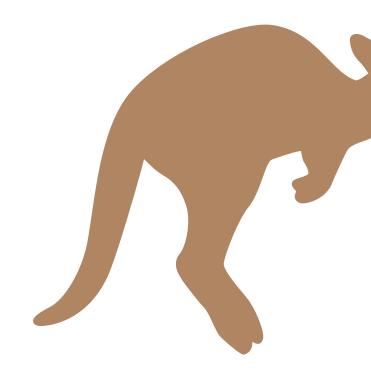
Contract volume: AUD 161 mn (approx. € 117 mn)

Pipe jacking contract: AUD 20 mn (approx. € 14.5 mn)

Cut-and-cover tunnel contract: AUD 65 mn (approx. € 47 mn)

Construction period: 09/2007 – 01/2011

At the end of 2006, the 'Water Corporation' teamed up with Brookfield Multiplex, Macmahon Contractors and Züblin Australia to form the 'Alkimos Water Alliance'. The contract: design, construction, completion and putting into operation of the wastewater treatment \_





Because of the soil conditions, a dual mode TBM was used.

scheme plus the development of the respective infrastructure, consisting of pipelines and all necessary drilling works and routing of sewers. The plant has an initial capacity of 20 million litres per day but could eventually be expanded to achieve 160 million litres per day.

#### **SPECIAL METHODS**

The project also included the extension of the existing main sewer, which had to be connected to the wastewater treatment plant. Work on this task commenced in February 2007. This tunnelling job was the main responsibility of Züblin. Due to the changing ground conditions along the sewer line, a special tunnel boring machine (TBM) was required which allowed for employing two tunnelling methods: open trenching on an approximately 1 km long stretch and pipe jacking on a 5 km long section.

This dual mode TBM combined the properties of a traditional EPB machine with those of a slurry TBM. Usually, the required machine type (EPB or slurry) is chosen prior to project start, depending on the respective condition of the ground. In case of strongly varying ground conditions it may happen that drilling is started with the

correct type of machine, but at a later stage the other type would achieve better results. "The dual mode TBM can 'switch' quickly from one type to the other and can thus obtain optimum performance in all ground conditions," explains Project Manager Josef Kofler the decision for the dual mode TBM. Züblin's know-how and wealth of practical experience were hugely useful.

#### SPECIAL PIPES MADE IN THAILAND

Züblin Thailand designed, produced and delivered the required jacking pipes. The 3,000 mm long pipes had to be lined with a 2.5 mm HDPE interior coating to prevent corrosion. "Internal coordination worked well," said Kofler. Züblin started its pipe jacking works in February 2008 and completed them successfully in March 2009. "Owing to the good cooperation, the job could even be finished three months ahead of schedule," says Kofler, delighted at the good performance. In January 2011, the wastewater treatment plant was put into operation.





#### Info + +

#### The Country of Contrasts

Australia is a dreamland for many people all over the world. Red soil, snow-white beaches, untouched natural landscapes, tropical jungles and strange animals – Australia, a paradise of nature.

The 'Lucky Country' as the Australians like to nickname their continent is one of the world's leading immigration countries: Every fourth citizen with an Australian passport was not born in this country. But still, the cultural mix seems to work well here. Intercultural problems are by and large unheard of!

Australians are regarded as people full of the joys of life. "People here are pragmatic and straightforward. Working with them is uncomplicated," opines Josef Kofler, who has been working and living for Züblin in Australia since 2007.



The impressive boring head is brought into position.

#### **ZÜBLIN AUSTRALIA**

Züblin Australia was founded for this project in October 2006. Since then, the company has won several other contracts in the field of intake and discharge tunnels. In Australia, Züblin is focusing on pipe jacking works. The unique method of using prefab concrete pipe elements in design and construction, allows Züblin to operate in a very special market.

Australia, and in particular Western Australia, is going to actively confront the general economic downturn. Therefore, the construction industry is rather optimistic about the years to come. Economic impulses are expected to come in particular from the infrastructure sector as well as from the mining, crude oil and natural gas industries. The most important of these infrastructure projects comprise the construction of roads, ports, railways, airports and water supply and disposal services. And, numerous mining projects are also waiting to be dealt with. For this reason, Züblin is working on its relationships with Australia's leading mining companies.

#### CONTACT: Josef Kofler,

Special Divisions & Concessions, Division International 3G, Sub-Division Country-wide Business (MJ)

STRABAG FOOTBALL TOURNAMENTS

#### RACE FOR THE TITLE

Indoors in wintertime or outdoors in summertime – football is played all year round! So done at the  $7^{\text{th}}$  international BMTI football tournament in Hungary or the championship for the Polish STRABAG Trophy.

**Hungary/Poland.** Six teams from seven European countries took part in the latest international BMTI football tournament in Hungary. The teams were from Germany, Croatia, Austria, Poland, Czech Republic & Slovakia, and Hungary.

#### HAT TRICK IN HUNGARY

The BMTI team 'Czech Republic/Slovakia' achieved a hat trick, by winning the tournament for the third time in a row. Croatia and Poland won the 2<sup>nd</sup> and 3<sup>rd</sup> place, respectively. Pavel Nečas was top scorer with altogether four goals.

The next chance for the international teams to compete again is this year in the Czech Republic. And, the teams are already practising hard, in particular the Czechs and Slovakians as they have got to defend the title for the fourth time!





Happy winners: TPA Poland



Before kick-off: the teams of BMTI Czech Republic & Slovenia and Germany posing for a photo

#### POLISH STRABAG CHAMPIONSHIP

Another exciting football tournament took place in Poland. There, no less than eleven teams competed for the coveted STRABAG Trophy. Roughly 130 Polish employees from BITUNOVA, STRABAG, SAT, Heilit+Wörner, Polski Asphalt and many others raced for the title.

The lucky, yet also exhausted winner was the TPA team. The event was organised by the winner of last year's tournament and this year's  $3^{\rm rd}$  place winner, the team of BITUNOVA.

#### **GREAT BENEFIT FOR ALL**

Anyway, it's not all about competing at these tournaments. Sports as such bring people together and enhance communication





The organisers of the Polish Championship: BITUNOVA

www.strabag.com inform 21 ■ Events



Here we go!

on an international level. The exchange of experiences with colleagues – not just about football topics – is the idea behind these events. Other positive effects are that people get to know each other in informal settings and that international cooperation is intensified. And, last but not least, sporting activities are a welcome change after an exhausting workday ... even if all muscles are sore the next day.

CONTACT: Petr Nečas, Service Companies, Central Division BMTI, Sub-Division CZ/SK Lease Management

CONTACT: Robert Dobek, Transportation Infrastructures,
Division Building Materials 6V, Sub-Division Emulsions (RE)



**EMPLOYEES KEEN ON SPORTS** 

## SPORTIVE CHALLENGE

Austria. Michael Kräftner and a ragtag group of hobby endurance athletes are always on tour sports-wise. The STRABAG Alpin Team has been taking part in the most diverse athletic competitions for many years: ski mountaineering, mountain runs, cycling, marathons, and the like. The athletes bear all costs of these hobbies themselves. Also, everything around the events is privately organised. "By performing as the STRABAG Alpin Team in hobby sports, we want to present ourselves as a dynamic team. Doing so, we try to set an example for our colleagues, namely to do sports and to strive for self-improvement in all areas of life," explains Kräftner the idea behind the team name. Be it just to practise or to prepare for a competition - doing sports together, in a motivated team is fun!

A very special highlight will take place on 10 September 2011: the world's toughest team race! The Dolomitenmann is a team relay race held in the East Tyrolean, or Dolomite Mountains of Austria, near the city of Lienz. "In 2010 we made it into the top 20 of the professional ranking.

Also in 2011, sports challenges are awaiting us! "All colleagues, who are looking for an adrenaline rush are invited to join our training," says Michael Kräftner, already looking forward to the next competitions.

CONTACT: Michael Kräftner, Transportation Infrastructures, Division AT / Adria 6C, Sub-Division Lower Austria (AD)



Michael Kräftner in action

LITTLE SOFTWARE HELPER

#### **EXCEL - SHORTCUTS**

F1	Online Help or Office Assistant
F2	edits the active cell
F12	displays the Save As dialogue box
<b>+ -</b>	extends the selection of cells to the right
Alt +	starts a new line in the same cell
ctrl + +	inserts blank cells
ctrl + -	deletes selected cells
ctrl + .	enters the current date
ctrl + :	enters the current time
ctrl + 1	displays the Format Cells dialogue box
ctrl + A	selects the entire worksheet
ctrl + C	copies the selected cells
ctrl + F	displays the Find dialogue box
ctrl + F4	closes the window
ctrl + K	inserts Hyperlink
ctrl + N	creates a new workbook
ctrl + 0	opens a file
ctrl + P	opens the Print dialogue box
ctrl + S	saves the active file
ctrl + V	inserts the contents of the Clipboard
ctrl + W	closes the window
ctrl + X	cuts the selected cells
ctrl + Y	repeats the last action
ctrl + Z	reverses the last action
ctrl + + K	bold formatting
ctrl + + F	italic formatting

**TIPS & TRICKS** 

## POSITIVE EFFECT OF COLOURS IN THE OFFICE

## **DELIGHTS**

The colour orange helps get morning grouches into gear and increases creativity. But beware: orange may also increase your appetite.

Our suggestion: An orange-coloured desktop background offers variety during long PC working hours.

### **BRIGHTENS**

Yellow will cheer you up! This bright colour stimulates your spirits, and, as it increases your learning aptitude, it is of particular help during intellectual activities.

Our suggestion: Just print out a yellow rectangle and hang it up in some distance. Looking at it you will surely feel joy.

## **RELAXES**

Green is a colour that will help strengthen your nerves for stressful office situations and will help you regain your inner balance.

**Our suggestion:** The easiest way to add green to your workplace is through plants. And, an additional advantage of plants is that they improve the room climate by producing oxygen.

Why not give it a try!

www.strabag.com inform 21 ■ Specials

#### **RAFFLE**

# WANTED: PUZZLE CHAMPION

Honey bees are team players!

Together they purposefully and efficiently work on producing honey. It is their cooperation alone that makes them so successful.

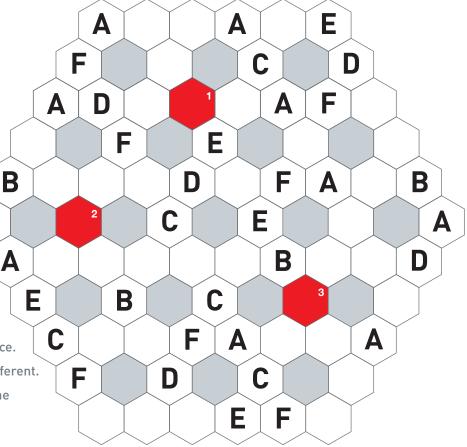
#### **Explanation:**

Fill in the letters A, B, C, D, E and F in the empty cells so that around each grey honeycomb each letter occurs exactly once.

Letters in neighbouring cells must be different. The letters in the three red fields form the solution.

Join in, it'll pay off! Among all entries, we will raffle off three STRABAG watches from the new 2011 collection!

Entry deadline: 15 August 2011



Solution:



Please mail your solution to: bettina.mattes@strabag.com

# Info + + Bettina Mattes, Chief Editor of inform

#### **New Chief Editor**

#### Dear Readers,

Since the beginning of this year, when Barbara Amon (former Saulich) went on maternity leave, Bettina Mattes has been the Chief Editor of inform. If you have any interesting stories about projects or any other exciting information or contribution you would like to see printed in the inform magazine, then please contact me: bettina.mattes@strabag.com.

I am looking forward to hearing from you!

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