

DHVtimes

THE GROUP'S INTERNATIONAL MAGAZINE



2008 Olympic Games

DHV Group provides integrated expertise



Green legacy for Winter Games Canada



South Africa is preparing for the 2010 World Cup

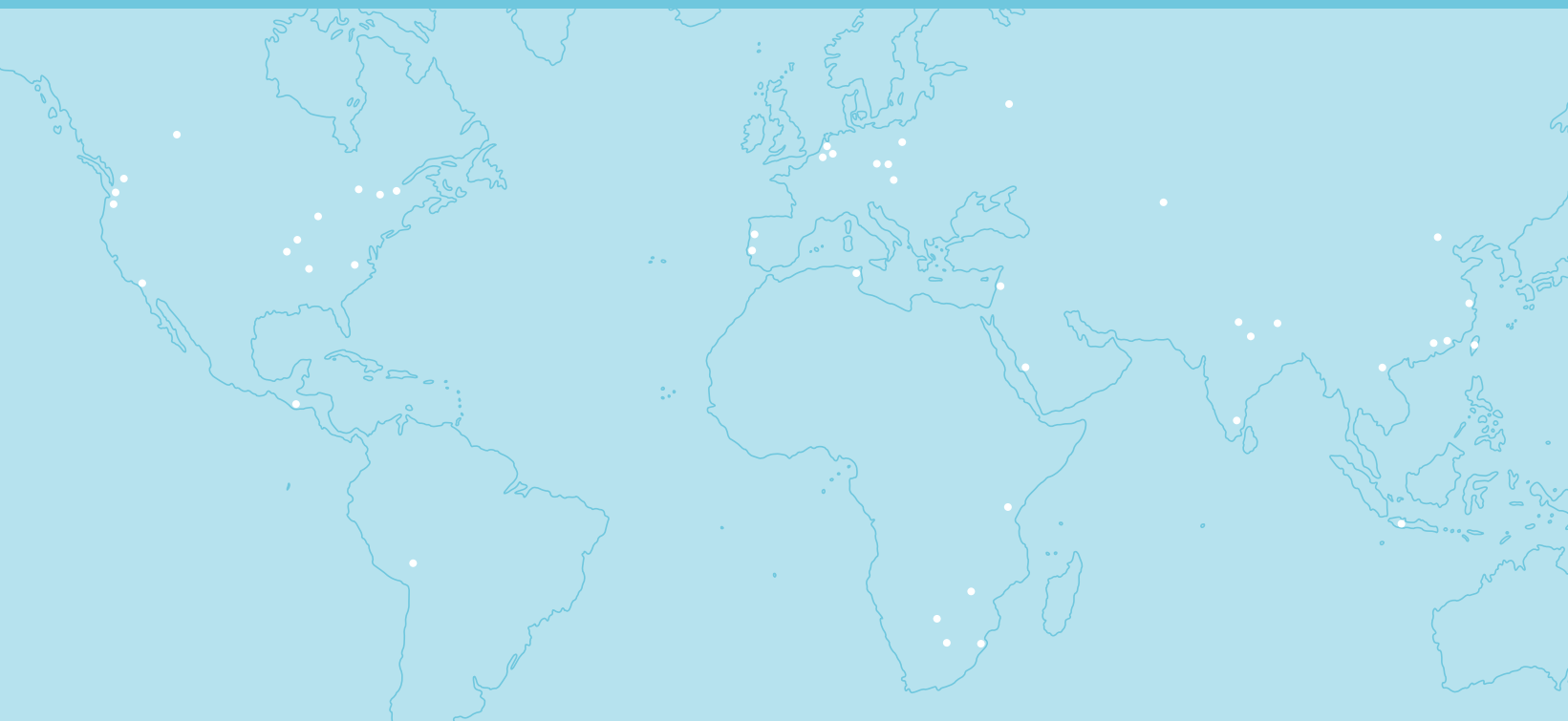
DHV GROUP, CONSULTANTS FOR THE SUSTAINABLE DEVELOPMENT OF OUR LIVING ENVIRONMENT

The DHV Group is a global provider of consultancy and engineering services in the markets of Transportation (including Aviation), Building & Manufacturing, Water, Spatial Planning & Environment. We meet our clients' needs by applying the concept of '*Local Delivery of Global Solutions*': the cutting-edge knowledge of the group is provided through a close-knit network of offices in Europe, Asia, Africa and North America.

Our network of colleagues and alliances is connected through our shared mission, values and projects, focused on the development of innovative concepts and solutions for a sustainable development of our living environment.

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COLOPHON

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Top performance

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The Olympic Games start in Beijing on 08-08-2008. The Olympics are the ultimate mega-event, one where people show the peak of what they can achieve. First and foremost this applies to the sports arenas, but it is equally true of the organization of such an event. An influx of tens of thousands of visitors and sportspeople requires steep investments in facilities like accommodation, infrastructure and security. The impact on the host country is enormous. The entire world looks on and everybody voices an opinion. Opinions are formed not only by performances on the sports field, but increasingly also by the efforts made to stage the event in an environment-friendly and socially-responsible way.

The DHV Group is doing its bit to allow such mega-events to take place with due consideration to sustainability. We are able to develop the innovative strength this requires thanks to our powerful combination of market-driven multidisciplinary expertise centers and an extensive international network of local offices: *local delivery of global solutions*.

In the cover article of this DHVTimes, we are pleased to reveal how we used this concept in four projects in China related to the Olympic Games. With some pride, we also highlight our involvement in activities like preparations for the World Cup soccer tournament in South Africa (2010), the World Expo in Shanghai (2010) and celebrations (2009) marking the 400th anniversary of Henry Hudson setting foot in America. All are large-scale events that call for a sustainable approach, and we as the DHV Group are pleased to offer our support.

We want to be the best in providing this kind of support. We, too, are striving for top performance, on behalf of our clients and for a sustainably organized living environment, now and in the years ahead. Permanent innovation is our key driver. It is only by innovating – in products and in processes – that we will be able to go on improving in a socially responsible way. Together with you and our partners, we are looking forward to going for gold.

Bertrand van Ee
Chairman Executive Board



The Chairman of the DHV Foundation, Mr. J. C. (Hans) Blankert, is very passionate about sport. Until five years ago he was Chairman of the Netherlands Olympic Committee (NOC*NSF). Today the positions he holds include membership of the supervisory board of Rotterdam's Feyenoord stadium. DHVTimes asked him about the significance of the Olympic Games to a country and to him personally. "The Olympic Games offer a country terrific opportunities to develop further," he says.

“The Olympic Games give the economy an enormous boost”



How do you look back on the period that you chaired the NOC*NSF and what do the Olympic Games mean to you personally? — “It was a terrific time. During my term as Chairman, the Summer Games were held in Sydney and the Winter Games in Salt Lake City. The Dutch teams did better than ever before there. I’m still very proud of that. The successes achieved on those occasions were instrumental in securing greater recognition for sport in the Netherlands. The same also applies to disabled sports. In Sydney, the NOC*NSF signed an agreement with the associations of disabled athletes. As a result of that agreement, they are now full members of the Olympic family. The Games mean a lot to me, but they mean a great deal more to developments within the organizing country. Such events give the economy an enormous boost. They require a big investment beforehand in accommodation and infrastructure, but the profit usually far exceeds the investments. It’s often difficult to express in money terms. The enormous media attention alone puts you in the picture worldwide.”

The sustainability aspect is playing an increasingly great role in the organization of the Games. What gains do you believe have been achieved over the past years? — “Just like companies, the Games have no option but to become more sustainable. Attention to the environment is continuing to grow worldwide. It is logical for the Games to move in step. An awful lot has already been done, but there is still a lot more to do.

HANS BLANKERT

Mr. J. C. (Hans) Blankert (1940) studied business economics at Rotterdam's Erasmus University. After various managerial positions in the business community and chairmanship of organizations including the employers' association VNO-NCW and the Social and Economic Council (SER), he was appointed Chairman of the umbrella Dutch sports federation NOC*NSF in 1999. On stepping down in 2003, he was made an honorary member of the NOC*NSF. He received from IOC members Crown Prince Willem-Alexander of the Netherlands and Mr. Hein Verbruggen the Olympic Award, a prestigious IOC honor, for his outstanding service to sport. Mr. Blankert became Chairman of the DHV Foundation in 2000.

The IOC has installed a special Sports and Sustainability Committee. Among other things, the Committee keeps a watch on whether organizing countries incorporate sustainability into their plans. For example, the accommodations used must remain usable after the Games. All kinds of conditions are imposed on the organizing countries, for instance with regard to the choice of materials and the way water is used. That was already the case in Sydney and it will only increase in the years ahead. The IOC also consults with organizations like Greenpeace on how the Olympics can be made more environment-friendly. The question is obviously to what extent such a mega-event can be held in a truly sustainable way. Just look at the way in which competitors and spectators are transported. At present there is not really a sustainable solution to the toll this takes on the environment and the available raw materials. But that doesn't alter the fact that we must do our utmost to minimize the impact.” >>

“All eyes will be focused on China.”



BIG EVENTS AND SUSTAINABILITY

The organization of big events like the Olympic Games – often in densely populated areas – is faced with complex issues such as accessibility, environmental impact and safety. Growing environmental awareness has resulted in an increasing will – in public and private sectors - to bridge the gap between economy and environment, and to opt for smart and sustainable solutions.

Socially responsible and sustainable enterprise is an intrinsic part of DHV Group's mission. As we are a major player in the consultancy field, with services that encompass the entire project cycle, we are well placed to support those customers who wish to execute large-scale projects as an integrated whole. As a result the DHV Group is involved in many 'green' master plans, from airports to large water management and urban planning projects. For the Group's involvement in the preparation of the Olympic Games, see page 14 to 16.

“The Netherlands should put itself forward as a candidate for the 2028 Olympic Games.”



Beijing is committed to “The Green, High-tech and People's Games”. What is the significance of that statement to global developments and to the Olympic Games in particular? — “China is of course enormously proud to have been awarded the Olympic Games. Their level of ambition is high. They want to be the best, not only in the number of medals, but also in the way they organize the event. Their accommodation will undoubtedly set a new standard that subsequent Olympics will want to beat. As I mentioned, the Games have a great impact on the organizing country and for China it will be no different. All eyes will be focused on the country and that is a good thing.”

The 2028 Olympic Games to be held in Amsterdam. What must we do to make it happen? — “The idea of bringing the Games to the Netherlands came about in Sydney as a result of the major sporting achievements of the Dutch participants. The Games were held in Amsterdam in 1928. It would be terrific for us to succeed in doing it again exactly 100 years later. I believe the Netherlands should put itself forward as a candidate. Therefore, the Nether-

lands must make efforts now to prepare its candidacy. That's essential, as an awful lot must happen for the IOC to pick you as its candidate. For example, a country must first show that it is capable of organizing other major events, like world championships. The Netherlands must also mobilize an active lobby, among IOC members for instance. Ultimately, they are the ones who choose the cities. As they are often officials of national sports associations, Dutch officials need to attend all major sporting events. Furthermore, the idea must be backed by Dutch politicians. It cannot be done without government support. And of course you must have the required infrastructure and accommodation, like a stadium with an athletics track where some 80,000 people can attend the opening and closing ceremonies. I have no doubt that the Netherlands is capable of doing it.”

What role do you envisage for consultancy firms like DHV Group? — “The Games present an ideal opportunity for firms like DHV Group to display their capabilities. DHV Group is already involved in numerous countries, including China, in all kinds of projects closely related to major events. Similarly, the business community must maintain an active presence in the decision-making circles that count. And you must obviously supply the very latest and most innovative products. DHV Group is unrivalled in doing just that.” ●

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Removable parking garage for large events

Parking a car at a large event can be a frustrating and expensive experience, as the number of visitors who would like to park close to the venue usually far exceeds the number of available parking places. Therefore, event organizers often have new car parks constructed to meet the demand. However, since many of these car parks are discarded after the event, their construction is both a waste of space and money and a decidedly environment-unfriendly thing to do. DHV and Park4all have found the ideal solution to this problem: a multi-storey car park that can be dismantled. The garage can be constructed within four

to six weeks at pretty much any site – no foundations needed. After the event the garage can be dismantled quickly to serve its purpose elsewhere. The garage is a modular system which can be used to create any parking capacity required. It consists of ultra-light and sustainable material and meets all the requirements of NEN 2443, the Dutch guideline for off-street and multi-storey car parks. ●

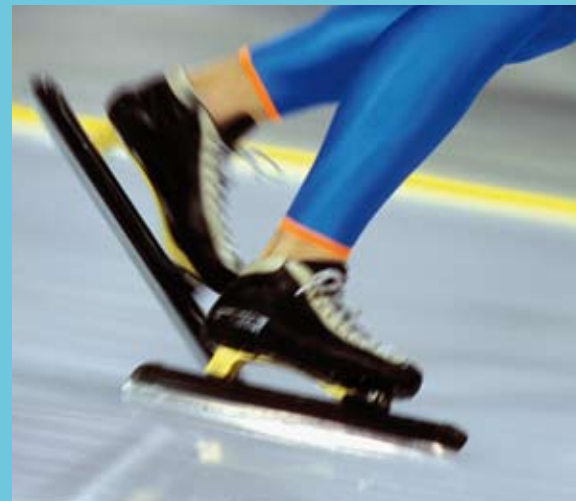
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Delcan and DHV provide services for Richmond Oval:

Green legacy for Winter Games Canada



The next Winter Olympics and Paralympic Games will be held in Canada in 2010. And as is also true for the Summer Olympics, the Winter Games are about more than sports. They provide an opportunity for their hosts to celebrate their arts, culture, diversity, and the Olympic Spirit – before, during and after the Games. Delcan and DHV are providing their joint expertise for the Richmond Speed Skating Oval that is being built for the Games, and for its subsequent use as a center of excellence for sports, community and health.

The venues for the 2010 Winter Games are situated within a 120 km zone from the snowy mountains in the north to coastal Richmond, south of Vancouver. The distinctive Oval (a striking 33,750-square-meter construction with room for 6,500 visitors) is situated on the banks of the Fraser River at Richmond and will house a new 400-meter skating track. The client, the city of Richmond, has four main goals: to build a legacy, build 'green', build a complete community, and build financial viability. Since DHV partner Delcan prides itself on providing innovative, economically sustainable and environmentally sustainable engineering solutions, it is ideally placed to ensure ultimate customer satisfaction.

HIGH STANDARDS

"Delcan is the civil subconsultant to Cannon Design, the leading architectural group," says Colin Kristiansen, Project Manager for the Richmond Oval at Delcan's Vancouver office. Delcan's role in the Oval project includes site preparation, foundation

densification and preload, dike improvements, storm water management, site design and utilities. "The design and construction of this multi-use facility are governed by very high standards, with a focus on achieving the client's goals."

Delcan was selected by Cannon on the basis of their expertise and good working relations with the client. "We are providing innovative techniques to help achieve the city's sustainable design objectives and LEED* accreditation", Kristiansen explains. Strategies include roof drainage retention and reuse for toilet water, detention and treatment of storm water in a large aerated wetland pond, and infiltration galleries. The project benefits from the team of experts in water management based at DHV in the Netherlands. "Richmond is one of the few places in North America that has many features similar to the Netherlands," says Kristiansen. The city is completely surrounded by dikes, and drained by a network of storm sewers, canals and pump stations. The proj-

PROJECT

Richmond Oval

LOCATION

Richmond, on the Fraser River, south of Vancouver, Canada

CLIENT

City of Richmond

DELCAN/DHV ROLE

Civil engineering services including: site preparation, silt-and-sediment control during construction, ground densification, preload, storm water management, site utilities, site grading, dike improvements, and transportation planning

COMPLETION DATE

Due for completion by late 2008

ect is due for completion before the end of 2008. Clearly, as a part of the DHV Group, Delcan is excellently positioned to help put Richmond ahead of the Games. ●

**The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria.*

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DHVnews

An integrated approach to wind energy / Unique Tongnan Bridge opened to traffic / SSI design giant water scheme in Lesotho / GIS presentation for Aceh / Luoyang to get ITS / Parque Alqueva / DHV to cooperate with WWF

NACO provides specialist know-how for Pulkovo Airport's new terminal in St. Petersburg.

NEW AIRPORT TERMINAL

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St. Petersburg's Pulkovo Airport is to get a new terminal building. The British architectural firm Grimshaw Architects, which led the team that won the competition to build the new passenger terminal, will further develop its winning design into a draft design to which NACO will provide specialist knowledge in the fields of terminal functionality, civil engineering and the design of the landside facilities. The new terminal will have an area of 149,000 square meters and will handle both domestic and international flights. Its capacity will be over 17,5 million passenger movements per annum. The current passenger terminal, which will keep its current external facade, will remain in service, although it will be thoroughly renovated once the new terminal is fully operational (sched-

uled for July 2008). Apart from Grimshaw and NACO, the team designing the new passenger terminal is made up of Buro Happold (building services), ARUP (construction), Chapman Taylor (retail) and Turner & Townsend (cost management). ●

SILICON PRODUCTION FACILITY

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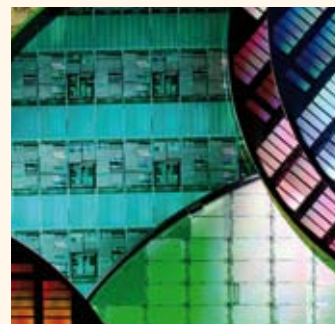
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The Chemelot industrial park in Sittard-Geleen (situated in the southern Netherlands) will be the site of the Netherlands' first silicon production facility, to be called The Silicon Mine (TSM). The facility is scheduled to manufacture some 3,750 tons of silicon a year, but may produce up to 14,000 tons a year. Silicon is the raw material for manufacturing so-called wafers, which are the main ingredient of solar cells. The construction of

the production facility will cost an estimated € 350 million. It is the joint initiative of three entrepreneurs, Gosse Boxhoorn, Hubert Thijs and Jan Willem Hendriks. The project is expected to be completed in late 2009. An important party to the construction of the production facility, DHV is currently applying for TSM's environmental, construction and discharge permits, and is drawing up the production facility's safety report. In addition, DHV is involved in the engineering of TSM's connections to Chemelot's facilities, such as drinking water, cooling water, extinguishing water, steam, compressed air, measuring air and wastewater. ●



Silicon wafers are the main ingredient of solar cells.

PORT OF SOHAR

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The Sohar Industrial Port Company has commissioned DHV to draw up a plan for the management and maintenance of all infrastructures within the Port of Sohar, Oman. DHV will be responsible for the functional analysis of the assets and tenant industries. Additionally, DHV will outline a plan for the safety management of these facilities. Efficient management and up-to-date maintenance of the port facilities are in order to keep the port functional and safe. The Port of Sohar was designed and built in accordance with international standards and will be maintained to international standards as well. The initiative is aimed at optimizing maintenance costs during the port's lifetime by implementing an efficient infrastructure maintenance and management system. DHV is scheduled to finalize its main-



DHV has built quite a name for itself in Dutch wind park consultancy.

tenance plan this year. The Port of Rotterdam has a 50 percent interest in the Port of Sohar and supports its Oman sister company with both expertise and experience, which includes evaluating DHV's management plan. ●

AN INTEGRATED APPROACH TO WIND ENERGY

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In 2007 DHV put the finishing touches to its first integrated wind energy project in the dunes of Maasvlakte (part of the port and industrial area of the city of Rotterdam), where DHV erected several wind turbines for two clients in less than a year.

This first fully integrated project is a huge step forward toward DHV using its strength right across the board. It may well lead to DHV's being commissioned to realize wind parks abroad. Over the years, DHV has built quite a name

for itself in Dutch wind park consultancy, being involved in over half of all the wind energy generated in the Netherlands. Traditionally, the organization provided just the foundation design, but it is increasingly adopting the integrated approach. DHV now provides a full package for the construction of wind parks, comprising all the necessary preparations as well as the attendant infrastructure, project management and construction supervision. DHV can make all sorts of arrangements for its clients, from submitting applications for all the relevant permits to making other arrangements to ensure a smooth building process. ●

UNIQUE TONGNAN BRIDGE OPENED TO TRAFFIC

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In the autumn of 2007, the remarkable Tongnan Bridge in Tianjin, China, was formally



The DHV-led Sea Defence Consultants consortium is developing a system which will issue a timely tsunami warning to the people of Aceh.



Tianjin's unique Tongnan Bridge was designed to improve inner-city traffic.

opened to traffic. It is the latest crossing of the Haihe River, improving transportation within the city while creating an unusual landmark and significant environmental enhancement. The concept for the bridge was developed for the city of Tianjin by Verburg Hoogendijk Architects in Amsterdam and DHV's Shanghai office. Expert bridge engineering was provided by Delcan's bridge engineers from Vancouver and Toronto, in collaboration with the Tianjin Municipal Engineering Design and Research Institute, to ensure the technical excellence of the

bridge and to enable the architectural concept to be realized. The Tongnan Bridge is a unique structure. It comprises a through steel box girder with trusses on each side. These trusses support hanger elements from which the bridge decking is suspended. With a main span of 128 meters and a total continuous length of 176 meters, the bridge is absolutely unique in the world, there being no even remotely similar structure known to exist anywhere else. ●

GIS PRESENTATION FOR ACEH

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Indonesia's Agency for Rehabilitation and Reconstruction, charged with the reconstruction of Aceh, commissioned Sea Defence Consultants (SDC) to develop a Tsunami Early Warning System (TEWS) for



DHV and Delcan have been commissioned to realize an urban traffic control system in the Chinese metropolis of Luoyang.

Aceh. Escape and emergency response infrastructure like sirens, escape buildings and roads are crucial components of a TEWS. In order to present the project data to the governmental organizations that are responsible for public safety and the emergency response and coordination, DHV (leading partner in SDC) developed a 3D Google Earth presentation of the infrastructure components siren towers, new and existing escape buildings and escape routes. In December 2007 the Google Earth presentation was finished. SDC's assignment, and thus the TEWS component, is projected to be complete by April 2009. ●

SSI DESIGNS GIANT WATER SCHEME IN LESOTHO

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In Lesotho a giant water scheme has been initiated to address the increasing domestic, industrial and institutional

water needs of the lowland districts. The Lowlands Water Joint Venture, headed up by SSI, with input from DHV, has been awarded a contract for the detail design of this bulk water supply scheme. One of the government's Millennium Development Goals is to reduce the number of people without sustainable access to safe drinking water and basic sanitation. The eighteen-month detail design phase is the second of the four-phase project and includes reviewing water demands in the



Lesotho's Senqu River. Aided by DHV, SSI is designing a water scheme to address the water needs of the lowland districts.

area, reviewing the hydrology of river sources, confirming water demand and projected water requirements, conducting geotechnical and environmental surveys and consulting with public interest groups. Historically, many Lesotho towns and rural settlements have relied on a mix of surface water and groundwater, although groundwater represents only 10% of total urban water consumption. Two urban settlements only use groundwater as their water supply. ●

LUOYANG TO GET ITS

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DHV and Delcan have been commissioned by the Luoyang traffic police and the CMC International Tendering Corporation to realize an urban traffic control system in the Chinese metropolis of Luoyang. Luoyang city's new Intelligent Transport System (ITS) will allow for better use of the existing road network and will thus help reduce the city's traffic congestion. Furthermore, it will help increase road safety and reduce air pollution. The project is a turn-key contract which will involve, among other things, designing the system and the traffic information center, connecting the systems to existing road installations and training the people who will be using the system. Delcan



DHV and WWF join forces to develop specific water management programs in vulnerable wetlands and river deltas.

will be in charge of the software used at the traffic center and of project management, while DHV will provide expertise on traffic modeling and urban traffic management. In all, the project will take about 18 months to complete. It is scheduled for completion in February 2009. ●

DHV TO COOPERATE WITH WWF

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DHV and the World Wildlife Fund (WWF) have signed a partnership agreement for the development of specific water management programs in vulnerable wetlands and river deltas. By comparing notes and joining forces, both organizations hope to prevent spatial interventions from having a negative impact on nature in these vulnerable places. In order to achieve this goal, WWF will deploy its global nature conservation program, while DHV will apply its ex-

tensive expertise on water management in the field of area development. DHV and WWF previously cooperated on an integrated water management plan for the Kafue Flats, an important nature reserve in Zambia. The two organizations are scouring their global networks for new projects which are suitable for cooperation. WWF is well aware that nature conservation programs only have a chance of succeeding if social and economic preconditions are met. Therefore, WWF is looking to participate in local and regional area development projects, which is where DHV enters the picture. ●

PARQUE ALQUEVA

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On the banks of the large Portuguese reservoir formed by the Alqueva Dam lies Parque Alqueva (Alqueve Park). In December 2007 DHV S.A., com-

missioned by the investment company Sociedade Alentejana de Investimentos e Participações (SAIP), put the finishing touches to a consultancy project regarding an ambitious plan for the development of sustainable tourism in this rural, unpopulated region. The project, in which many authorities are involved, aims to develop tourism with a low impact on the environ-

ment and local culture. DHV was a critical opinion-maker during the development of the infrastructure design in the fields of energy, water supply, wastewater and stormwater networks and waste management. DHV supported the client in several ways, providing an analysis of alternatives and solutions for the primary water supply of two different areas. ●



DHV Portugal advised on the development of sustainable tourism in Parque Alqueva.

DHV assesses sustainable projects for Pécs

Investing in culture



The beautiful old site of the Zsolnay Porcelain Factory.

Leading a consortium of five members, DHV has won the tender to provide feasibility studies for the city of Pécs, which will serve as a European Capital of Culture in 2010. The advisory reports on the multi-faceted project, including integrated strategies for its implementation, were completed at the end of 2007.

The city of Pécs, situated at the foot of the Mecsek Mountains in south-western Hungary, has a lot to offer its visitors and inhabitants. The ancient city combines historic charm with youthfulness, as the city is home to the second-largest university in Hungary. The European Union has designated Pécs to be a European Capital of Culture in the year 2010, thus giving the city the opportunity to showcase its vibrant cultural life and cultural development. In anticipation of this role, the city has launched an initiative to develop its public spaces. "Pécs is taking this opportunity to realize five important projects to strengthen the city's cultural infrastructure," says András Mészáros, Director of the Pécs European Capital of Culture organization. "These projects will enable Pécs to make a big step forward, beyond 2010."

SUSTAINABILITY MATTERS

The winning consortium, comprised of Ernst & Young, COWI, EX ANTE and Econo-Consult in addition to DHV, has carried out feasibility studies for these five projects, which include a new concert hall-cum-conference center, a new library-cum-knowledge center, a grand museum/exhibition

center, a new cultural destination for the beautiful old site of the Zsolnay Porcelain Factory, and the refurbishment and restructuring of urban public spaces. "The client required detailed studies for each part of the project, including future management, marketing, costs and income," says Nándor Bognár, Director of DHV Hungary. "And the projects must be sustainable. The tourist economy, local businesses and the community must benefit from these investments well beyond 2010,"

EXPERIENCED TEAM

Each of the members of the consortium plays a leading role in a specific project, with DHV taking overall leadership. The feasibility studies will form the basis for EU-funding applications, submitted in early 2008. "Thanks to our involvement in projects for former Capitals of Culture, including Rotterdam, we have quite a bit of valuable experience in this field," says DHV's Jan Oosterman, an expert working on the Pécs project. DHV's broad past experience, combined with a future-oriented emphasis on sustainability, certainly offers fitting support for the development of Europe's future Capitals of Culture. ●

PROJECT

Pécs, future European Capital of Culture

SUBPROJECTS

Library/Knowledge Center, Grand Exhibition Center, Concert Hall/Conference Center, Zsolnay Cultural District and Renewal of Parks and Public Spaces.

LOCATION

Pécs, Hungary

CLIENT

Municipality of Pécs

DHV ROLE

Leader of the consortium (international expertise from experience with similar projects and cities)

SERVICES

Feasibility studies; EU-funding applications

COMPLETION DATE

Due for completion by June 2008

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2008 Olympic Games

DHV Group provides integrated expertise



Preparing for the 27th Olympics has been a challenge for China. Huge, complex projects had to be carried out quickly to restore cultural landmarks, improve environmental conditions, and create the ultimate in sports facilities. The Olympics will showcase China's venerable tradition and culture, and demonstrate its future-oriented spirit.



A joint venture consisting of DHV/NACO, Foster and ARUP provided the design for the new T3 Beijing airport terminal. T3 will bring the total passenger-handling capacity up to 80 million, making this China's largest airport.

For an event of these proportions, China wanted the best of the world's providers of engineering and architectural skills and expertise. With millions of eyes around the globe watching the world's top athletes competing, Olympic host cities demand the finest arenas, facilities and infrastructures as the backdrop for this prestigious event. The DHV Group is well equipped with the experience and expertise needed in the fields of building and manufacturing, water, waste, traffic management, highway infrastructures and aviation. "Nevertheless, doing business in China requires more than that," says David Ji, Director of the Beijing office. "For us, sustainable growth in China is more than an 'event'. The DHV Group has been present in China for over twenty years and we have a current staff of around 120 people in the Beijing, Shanghai and regional offices. The DHV Group has handled over 200 widely differing projects, creating a record of highly positive involvement in China. We not only offer broad experience and deep knowledge in a wide range of fields, and attention to sustainability, but also the possibility of combining this with the advantages of local knowledge and local delivery."

"For us, sustainable growth in China is more than an event."

VALUABLE ASSISTANCE

"You can see how our local presence can offer added value in our involvement in the construction of the new headquarters building of the Chinese State Television Company and adjoining Cultural Centre in Beijing," says Tim Jeanné, Director of the DHV Shanghai office. "The Office for Metropolitan Architecture (OMA)/Rem Koolhaas came up with a stunning design and Dutch DHV engineers were called in to play a leading role in the acoustic design. Our DHV office in China was able to provide valuable assistance with local standards and translations." Jeanné further comments: "DHV's track record in China and the added value we're able to deliver as a group has given us the edge over international and domestic competitors, qualifying DHV as an Olympic-class supplier of world-class master planning and design, and top-notch supervisory and advisory services."

Apart from the acoustic design for the prestigious new Chinese State TV headquarters and Cultural Centre, the DHV Group provided an Intelligent Traffic System for Beijing's Traffic Management Bureau, designed a new terminal for Beijing's International



DHV and Delcan designed an Intelligent Transport System (ITS) to ensure a smooth flow of traffic in Beijing.

Airport, and carried out the feasibility study for the Olympic Water Sports Center in Qingdao.

AVOIDING TRAFFIC-JAMS

In two projects relating to transport, the Chinese branch of the DHV Group will help tackle several important tasks confronting Beijing in connection with the Games. "Within a short time, the city's flight-handling capacity has to be completed to an extent which is usually carried out in >>



Qingdao's former shipyard complex is being transformed into a sustainable water sports center.

“The buildings and complexes will continue to fulfill a valuable function.”

phases over a period of up to ten years in other places,” says David Ji. “And the huge influx of visitors to Beijing during the Olympic Games will also strain road traffic management to the utmost, calling for intelligent traffic management.”

DHV/NACO, in a joint venture with Foster-ARUP, provided the design for the new T3 Beijing airport terminal and Ground Transport Center. Based on an estimated 43 million passengers extra annually, T3 will bring the total passenger-handling capacity up to 80 million, making this China's largest airport.

Good management of the traffic congestion expected on the roadways is also crucial. On no account will the Beijing Traffic Management Bureau permit the non-appearance of athletes at their events during the Olympic Games because of their being caught in a traffic jam. And of course, spectators must also be able to reach their seats at the events in good time. To deal with traffic management, an Intelligent Traffic System developed by DHV/Delcan has been introduced. It includes a Decision-Support System, providing travellers with visible

messaging indicating alternative routes in case of accidents and traffic problems on the road.

SUSTAINABILITY

While the Games provide an immediate impulse for many projects, China is of course looking far beyond 2008. “When the visitors have left, the buildings and complexes will continue to fulfill a valuable function,” says Tim Jeanné. DHV has taken this into account, for example in the master plan provided for Qingdao Olympic Water Sports Center, situated about 650 km southeast of Beijing. The planned marina, cruise ship terminal and landscape design make use of a previously existing shipyard complex. In this way it is adapted to the environment in such a way that it is closely integrated with the city. It will provide Qingdao with an excellent maritime area for post-Olympic use.

Sustainable environmental solutions are becoming increasingly important in China, according to David Ji. “But even where this is not an explicit issue, sustainability is often implicit in the delivery,” he says. “Take the new Beijing air terminal. Use of energy



DHV played a leading role in the drawing-up of the acoustic design for Chinese State Television's new headquarters building.

was taken into consideration for the design of the walls and roofs, and the terminal is provided with 400 Hz frequency converter units to power airplanes so that they can turn off their engines quickly on arrival. This is not specified separately, but it is built into the state-of-the-art solutions that the DHV Group has to offer.” ●

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South Africa is preparing for the 2010 World Cup



Countrywide jubilation greeted the 2004 announcement that South Africa would host the 2010 FIFA World Cup. And now with a little over eight hundred days to go until the first whistle, South Africans across the full spectrum of professional disciplines are accelerating their efforts to ensure that world-class services, facilities and infrastructure are firmly in place before the first international guest steps off the airplane.

This is the first time that an African country will host this historic event and citizens from all walks of life are becoming increasingly excited about this unique opportunity to boost growth and development. SSI's high level of expertise in all engineering disciplines has received due recognition with the granting of a variety of key contracts associated with World Cup 2010 projects. Earlier this year, DHV officially handed over the management of its multi-million US dollar portfolio in Africa to its subsidiary SSI, which has 19 offices throughout South Africa and in Mozambique, Botswana and Kenya, as well as a number of project offices elsewhere in Africa. SSI's managing director, Naren Bhojaram, says the overriding philosophy governing World Cup 2010 projects is future sustainability. "The billions being invested in transport, infrastructure and IT must leave two important legacies for the country," he says. "The first comprises facilities and infrastructural elements that can be converted to serve local communities, and the second is durable, flexible tourism structures. Skills transfer and the creation of new manufacturing

facilities is part and parcel of the sustainability philosophy. The tremendous investment in finance, time, materials, technology and expertise called for by the 2010 World Cup must continue to render benefits that will advance the nation for years to come. "SSI has been able to respond to 2010 World Cup tender invitations with a strong and uniquely competitive edge, thanks to our international affiliations with organizations such as the Amsterdam Arena Advisory, leading specialists in the planning, development, management and exploitation of state-of-the-art stadium facilities. As the independent consulting arm of Europe's first feasible multi-functional stadium, the Amsterdam Arena, the Advisory is providing access to its expertise and practical know-how gained during the development the Arena, through DHV." Naren adds that SSI's affiliation with Netherlands-based knowledge institution TNO will provide optimum input in front-end project planning. "Together, DHV, TNO, the Amsterdam Arena Advisory and SSI comprise a winning combination for 2010 World Cup deliverables." ●

SSI IS PROVIDING SERVICES ON THE FOLLOWING 2010 WORLD CUP PROJECTS:

- Electrical installations at the new 48,000-seater Nelson Mandela Stadium in Port Elizabeth
- Architectural and engineering services for the development of the 8,000-seat Umhlatuze Multi-Purpose Sports Stadium in Richards Bay (as part of a joint venture)
- Electrical, electronic and mechanical services (including access control and electronic ticketing) for the new 45,000-seater Orlando Stadium in Soweto.
- Durban CBD public transport plan
- Nasrec High-Level Public Transport Operational Plan
- Intelligent Transport System (ITS) for Johannesburg (with Delcan)
- Gauteng Province freeway upgrades
- Lender's Technical Advisor (LTA) on Gautrain Rapid Rail Link Project
- Independent Environmental Control Person (IECP) on Gautrain Rapid Rail Link Project
- Airport upgrades at Johannesburg OR Tambo and Cape Town International Airports

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National Sport Centre Moravia



DHV CR (Czech Republic) is designing the national Sport Centre Moravia – a multifunctional football, athletic and leisure time arena in the city of Ostrava. Thanks to its conception the stadium meets the demands of FIFA, UEFA and Czech-Moravian Football federation. In case Prague succeeds in the candidature for the Olympic Games 2016 or 2020 the outside-Prague competitions can take place there.

After successful evaluation of the outputs of the feasibility study on the National Sport and Leisure Center Moravia in 2006, DHV was commissioned in 2007 to prepare the conceptual design of the project of the comprehensive reconstruction of the city stadium in Ostrava. The project would follow the business model and technical options of the reconstruction, which were already introduced in the feasibility study.

Ostrava city stadium will be a multifunctional and multi-purpose stadium, where light-athletics contests, football matches and various cultural events (either festivals or concerts) can take place. The stadium will in future offer a total capacity of 30.000 seats.

At the beginning 2008 DHV won the competition for the first design stage of the overall project. Being the author of the spatial model and surrounded transport facility DHV will act as a leader of the consortium consisting of another two design offices. Total investment cost of the project are estimated 70 million EUR and the date of completion of the stadium is expected for 2010-2011. ●

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World Expo 2010

DHV's Shanghai office has been chosen to act as the local representative of the Dutch project team responsible for the Dutch Pavilion at the 2010 Shanghai World Expo, and to help them realize architect John Körmeling's design. DHV will assist in the overall management of the design phase as well as the construction stage and will coordinate between the Dutch and Chinese parties involved in the project.

The design, entitled 'Happy Street,' will comprise a route through a rollercoaster-like construction lined with houses. A number of parts and aspects of this concept can still be manipulated and molded in several ways. Visitors can stroll along it, walk down its 450-meter street via various different routes, and either walk past or enter the houses.

The 2010 World Expo will be held in Shanghai, China, from May 1st to October 31st, 2010, its official theme being 'Better City, Better Life.' This theme revolves around a new way of thinking, new technology and new practices for achieving a healthy and sustainable urban existence. China hopes the exhibition will attract 200 participants and 70 million visitors. ●

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Marga Donehoo, DHV Group:

“DHV and Henry Hudson have a lot in common”

“In 2009, it will be precisely four hundred years since the Dutch East India Company ship *De Halve Maen* (The Crescent) sailed into an uncharted river in North America. On board was the English explorer Henry Hudson with his crew of Dutch and English sailors. The uncharted river is now known as the Hudson River and the spot where the crew first set foot ashore is today's New York. Given New York's current position in the world, Henry Hudson's journey was obviously a significant event. Its anniversary (next year) will be celebrated extensively on either side of the Atlantic, with the Netherlands and the USA being the main participants in the events. DHV will be part of the celebrations, not just because President of the Executive Board Bertrand van Ee happens to be a board member of the 'Henry Hudson 400' foundation, but because DHV is one of the sponsors of the foundation. We really like the objective of the foundation, which is to try and capture the open, creative and enterprising spirit of Hudson's time and to let it loose in the twenty-first century. Even now, nothing beats pushing back frontiers and discovering new things.

DHV and Henry Hudson have a lot in common. To us, Hudson's arrival in North America is symbolic of the stage the DHV Group is in at the moment. Just like Hudson, we would like gain a foothold in America. We are already represented in North America in the fields of ITS and Rapid Transit and Rail by

Delcan. In addition to that, we hope to attain a position in another market sector – water. There are plenty of opportunities when it comes to coastal development, waterfront development and water management. We are always looking for new contracts, especially in our home markets. However, having good products is one thing, but having useful contacts is quite another. In order to win major contracts, you must have contacts in the right networks. By sponsoring a foundation like 'Henry Hudson 400' we may gain those contacts.

However, sponsoring an event is not something you do just to reap the benefits for yourself. The event must reflect your identity and it must give feel good. Both the celebrations and our historical ties with Manhattan do feel good, since we are proud of the DHV Group's Dutch roots, our relationship with water and the pioneering spirit. One of the more concrete activities in which we are scheduled to participate is the water conference which will be held in New York in September 2009. Needless to say, DHV will be actively involved with this conference, along with several colleagues from both the Netherlands and America.” ●

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CURRICULUM VITAE

Marga Donehoo (born 1956) joined DHV Holding in 2007 as Director of Corporate Initiatives. She is in charge of coordinating the DHV Group's initiatives in the fields of Innovation and Corporate Social Responsibility and assists both the Executive Board and the International Policy Board.

Before joining DHV, Marga Donehoo was a marketing manager for Fluor BV (a part of the Fluor Corporation) in Haarlem, the Netherlands. During her 27-year career with Fluor she held several international management positions in communication, project management and strategic development.

