



Hyder
Consulting

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Hyder Consulting – so much more than Water

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2007 is an important year for Hyder Consulting, not only in the UK but also for their offices throughout the world. This year signifies 150 years of advisory and design excellence for the company. Hyder has been reflecting on the iconic projects it has been privileged to be involved with. Tower Bridge in London (opening picture) and the Sydney Harbour Bridge are just two examples of Hyder's projects. As well as looking back at the past, Hyder is very much looking to the future and how they can work with existing and new clients to produce integrated and advisory sustainable solutions for design and environmental projects throughout the world.

Recognised as an award winning advisory and design consultancy, I learnt that not only do they carry out traditional engineering solutions but they are also heavily involved in a variety of specialist advisory services including waste management, renewable energy, sustainability and transportation, all of which are significant worldwide concerns.

Hyder has been fondly remembered in Wales as being part of Dwr Cymru Welsh Water but since a management buyout

nearly seven years ago, Hyder has built up a reputation as a key player in Wales not only in the water industry but within the engineering, environmental and planning sectors.

Overseas, from the Burj Tower in Dubai (closing picture), that currently stands as the tallest building in the world, to the Kowloon Canton Railway, Hyder is helping to shape the sustainable future of cities across the world.

A key example of this is Ski Dubai which is the world's first indoor mountain resort. It primarily allows people to ski and snowboard as well as enjoy a number of other snow related activities in a country which has never before experienced such wonders. Ski Dubai is part of a vision to create an environment where children can explore the many play areas available, find out what a snow mountain looks like, and experience snow for the very first time. As well as literally being the regions coolest attraction, the ski dome was also recognised as being environmentally sustainable due to its daily reuse of the snow, which is also used for land irrigation, a desperately needed measure in this water scarce region. Hyder's role as lead consultant and structural and building services engineer was recognised when the innovative building received the award for International Project of the Year from the British Construction Industry. In addition Hyder's other achievements have resulted in the Institution of Civil Engineer's award for International Consultant of the Year.



Ski Dubai – Bringing snow to the Middle East

Closer to home the company offers a multidisciplinary advisory engineering and environmental service, which it aims to deliver in a completely client focussed and collaborative way.



I met with Alan Proctor, Hyder's Executive Director, (UK and Europe), at their Cardiff HQ. We did not meet in his office, as he doesn't have one. Alan takes hot

desking to its limit, preferring to move around Hyder's UK offices so that he can keep in touch with his clients, staff and their projects. Hyder has around 4,200 employees worldwide based across the UK and Europe as well as the Middle East and Australia and in the past seven years Hyder has added another 1,000 staff to its books. Last year it reported an 86% increase in turnover across the group.

Alan clearly understands why they have achieved this. "Our success has been down to focussing on clients that need and value our expertise and understand what we can offer."

By working together with its clients, Hyder is able to form close partnerships and ensure that everyone involved is more than satisfied with the outcome.

Hyder is very much an award winning global company with a strong Welsh heart and a stronger sense of team working. In fact, Hyder has developed its own way of working, which places emphasis on an holistic approach to projects, creating distinctive teams from its staff, wherever they are based in the world.

Alan commented, "This is a company with an international perspective. Staff here in Cardiff feel Hyder has a very strong Welsh presence internationally and they are proud of it. Teams from Cardiff lead projects all over the world. Recently our teams here led the design on the Taiwan High Speed Railway, which had to run through typhoon and earthquake zones."

Hyder is a very fluid company with staff encouraged to gain experience at its many offices around the world. In fact Hyder's emphasis on career development has helped it retain valuable highly trained staff as well as encourage innovation.

There is little departmental demarcation at Hyder and it is this collaborative approach that allows Hyder to offer a complete design and consultancy service to its clients from design to project management and cost advice.

Although Hyder operates throughout the globe, it is extremely mindful of its approach to sustainability. Modern technologies, including video conferencing, are helping to reduce its carbon footprint and this is something that Alan feels very strongly about.

"This is part of our green ambition. We not only develop green projects for our clients but believe in looking at Hyder itself and how we operate as well. Hyder's green credentials have been further boosted by the acquisition of the leading UK ecological consultants Cresswell Associates. This green conscience is very much part of Hyder's future plans."

While Hyder has designed seven out of the ten tallest building in the world, Alan explained that it is not always the biggest and most significant projects that they are proud of.

"In the UK we are particularly proud of the Swansea and Cardiff Waste Water Treatment Works. This is due not only to their innovative designs but also to the partnership approach we adopted. We believe very much in working with contractors, clients and other stakeholders to achieve the best results. We were also involved in the M25 widening project, in which we used ground breaking intelligent traffic modelling, to produce the best solution."

Whilst at Hyder's office in Cardiff I also took the opportunity to meet some of the 320 staff based there and spoke to a number of key people driving the company forward.

Highways

A quality transport network is a cornerstone of economic development and significant investment will take place in Wales over the next ten years to provide essential road and rail links. A key catalyst for economic development is the Ryder Cup, one of the world's major sporting events, which will take place at the Celtic



Cardiff Waste Water Treatment Works



First Minister Rhodri Morgan and (from left) David Grey, Kevin Jones and Geraint Davies of Hyder at the Ryder Cup 2010 highways works commencement.

Manor in Newport in 2010. Working in conjunction with Newport City Council, Hyder has designed and is managing the construction of the highway infrastructure improvements that are required to bring traffic to and from the Celtic Manor.

Business Development Director Geraint Davies explained that it was an excellent example of Hyder's collaborative approach to project delivery.

"This is a very important project which has to be delivered to a tight deadline to allow the facility to be trialled well in advance of the Ryder Cup. The key is effective communication and we have ongoing dialogue with key stakeholders Newport City Council and the Welsh



Talgarth and Bronllys Bypass

Assembly Government, as well as with contractors Costain. We've encountered some significant environmental constraints, but by taking a pragmatic approach and working as a team we've found the optimum solutions and remain on target.

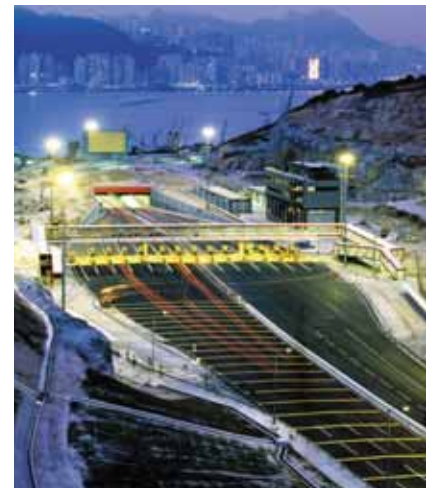
Hyder's environmental capability provides an extra dimension for transport infrastructure schemes."

"We have an extremely strong environmental team in Cardiff, which means we have the ability to do every aspect of the environmental work on a major highway scheme. We also have the other disciplines required to provide a totally integrated solution"

Testament to this is the recently completed Talgarth and Bronllys Bypass in Powys where Hyder was the designer for the scheme. Located in the Brecon Beacons National Park, the scheme was extremely environmentally sensitive and presented a number of environmental and engineering challenges. Amongst these was a dormouse bridge that was required to provide a link between two areas of dormouse habitat severed by the road.

Intelligent Transport Systems – the Sustainable Way to Ease Congestion

Hyder is behind the move to make this country's roads work smarter. ITS, or Intelligent Transport Systems combines the latest technology with lateral thinking to develop new approaches to combating congestion. Traffic problems, accidents and road closures cost British businesses billions of pounds every year and now the ITS team at Hyder is creating techniques that help our roads cope with the ever increasing levels of vehicles.



ITS in action in Hong Kong

Gerri Blackwood, who you may remember from the last series of *The Apprentice*, is Development Manager for ITS. "We are looking at increasing the flow of traffic without resorting to adding lanes and widening motorways. These are very expensive projects, but ITS tends to provide better value. For instance, introducing variable speed limits removes the bunching effect, which is caused by intermittent braking, which leads to pockets of congestion and slows down traffic."

For the last ten years, Hyder has been overseeing a major Highways Agency project to install a national road telecommunications system that will monitor the major routes across the country. This will support an active transport management strategy which includes the ability to open hard shoulders that act as a fourth lane on motorways

during busy periods.

ITS is also the green way forward as it encompasses public transport initiatives and seeks to find integration between the different modes of transport. Gerri said, “The key driver in dealing with congestion is giving people viable alternatives such as better public transport. This could be integrated timetabling between trains and buses but it is also providing WiFi access on trains so that you can work during your journey.”

Water

Water is often considered a traditional area for Hyder because of the Company’s historic connections with Dwr Cymru Welsh Water. The water company remains one of Hyder’s most important clients but, whilst Hyder continues to offer services to the Welsh market, it has expanded its operations to the larger water businesses in the UK and Europe as well as the Middle East and Australia.

Neil Kemble is Hyder’s Water Sector Director. “We work with a large number of major water plc’s in the UK including Dwr Cymru Welsh Water, Thames, Severn Trent and South West Water providing support and advice on new environmental and engineering projects as well as helping to solve problems with innovative thinking. We are also actively seeking opportunities globally, which will allow us to further utilise the excellent skill base we have at the Cardiff office.”

Hyder advises clients on every aspect of the water cycle from resource assessment, through water supply, to collection, treatment, disposal and re-use of water. In addition, the company provides advice on the economics and financing of projects and the organisation and management of water utilities.

Whilst traditional water services form the core of the business, Neil’s team of experts is often called upon to advise on a wide range of projects. As he explains “This is an example of Hyder’s flexibility, and its ability to create tailor made teams, matching expertise to individual schemes.”

One such scheme is the proposed Daventry District Canal, which will be the first new canal in the UK for nearly a 100

years. Neil said, “The canal is being created to redevelop the town centre and generate a new waterfront development. We are using our specialist skills from teams all over the UK from planning and project management to engineering and landscaping. It will also include a unique engineering feature to lift boats up the waterway. We are looking at various options that will provide an interesting visitor attraction as well as an efficient engineering solution.”



Dublin Bay Wastewater Treatment Works

Environmental Solutions for Sustainable Development

With the onset of climate change, environmental management has become an important consideration in our everyday lives. The issues are far reaching and legislation is increasingly being introduced to ensure the environment is protected and sustained. Hyder is at the forefront of understanding climate change

effects and developing sustainable solutions both in the UK and in the other regions in which it operates globally.

At Hyder’s Cardiff office the Environmental Solutions team is headed up by George Smith who explained “Environmental management has been part of our business for many years. We have an excellent multidisciplinary team in Cardiff and our capability has been enhanced by the recent acquisition of Cresswell Associates. On the back of this strong team the company is moving forward rapidly. Traditionally our environmental team has provided support on projects undertaken by other sections of the business such as major highway and water infrastructure schemes and that remains a key part of our business. But, we are diversifying and adding new skills and services to our offering with the aim of providing a range of specialist advisory services.”

One such area is Renewable Energy where Hyder is gaining a growing reputation for providing sound, early stage advice for development clients. George added “Because we take the trouble to understand our clients objectives we are in a position to advise them on what is realistically achievable and guide them through the complex statutory processes such as planning and environmental impact assessment.”

Waste is another area where Hyder is



Renewable Energy

making a name. “We have a growing team in Cardiff and around the UK, which is at the cutting edge of waste management and we are currently working with the Welsh Assembly Government and DEFRA to raise public awareness throughout Wales. Our waste and energy teams are also working closely together to provide advice for schemes generating energy from waste.”

Flooding Prevention and Protection

After the recent devastating floods in the Midlands and Humberside, flood prevention is upper most in planners’ and insurers’ minds. At Hyder significant time and effort is being spent on measures that will help to predict and prevent future flooding disasters in our cities and rural areas.

Bob Sargent, Hyder’s UK Head of Hydrology, commented “Our chief aim is to enable planners and developers to minimise flood risk. We can assess this with modelling that identifies not only water movement in sewers and drains but also across land. This unique combination means we can confidently provide a comprehensive solution. We are also looking at ‘green roofs’, which store water in times of heavy rain so that it reduces run off, and also permeable road surfaces for car parks.”

Hyder has used its technological edge and high level knowledge to develop flood management programmes for major cities such as Dublin and Glasgow and Bob’s team is also piloting the Government’s ‘Make Space for Water’ scheme, which is helping cities like Birmingham plan for flooding when redeveloping sites.

Hyder has also recently designed the UK’s newest dam at Norton Fitzwarren, Somerset, a flood prevention measure that will retain rain and surface water thereby reducing flooding in what was a high risk rural area.

The company is constantly looking for future challenges and the much-discussed Severn Barrage is attracting Hyder’s interest. Bob said, “Our considerable track record in developing flood alleviation and marine works whilst maintaining environmental solutions would tie into the planning of the barrage.

RPA - Hyder’s Latest Addition

With its founding directors offering over 100 years of combined experience in the quantity surveying and project management industry, RPA, Hyder’s latest acquisition, is clearly at the top of it’s league. The acquisition has brought about a common belief that the synergy between the two companies will lead to an improvement in services and delivery for both organisations.



Norton Fitzwarren Dam under construction

RPA offers quantity surveying, cost management and consultancy services from its offices in Cardiff, Bristol and Colwyn Bay and it’s client base includes major banks, superstores, the Welsh Assembly Government and local authorities as well as schools and hospitals.

I met RPA’s founding partner, Ian Parfitt, who is looking forward to adding a vital dimension to Hyder’s extensive portfolio. “This is a terrific opportunity for RPA to move up to another league with the backing of a company as successful as Hyder. We, in turn can offer the project and cost management services that have served our clients over the past 15 years and allow Hyder to expand it’s offering.”

Because of the balance of experience, success and strong structure, RPA will continue to operate as an independent organisation in its own right, with the backing of Hyder. This backing will allow RPA to expand it’s client base and achieve continual growth. Ian Parfitt explained, “RPA recognised that Hyder has a fantastic client base and huge experience in major building related projects that could be brought to our UK market. We are looking forward to working with Hyder to help expand our operations in Wales, the South West, the Midlands and London by offering a high-end cost consultancy service to all Hyder’s clients and to develop new clients in new areas.



Flooding problems at Norton Fitzwarren alleviated by the construction of the dam.

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**Outstanding people -
exceptional solutions**

Hyder's unique combination of 150 years of innovative, worldwide heritage and its high quality staff is the foundation for a very successful future growth of its Welsh business.



Artists impression of the Burj Tower