

Doing business a different way

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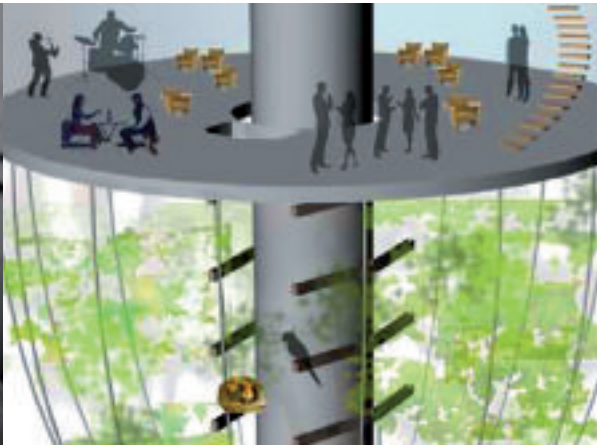
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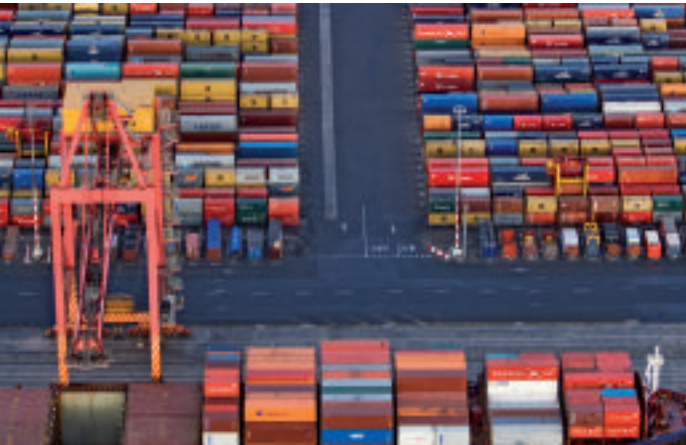
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Editorial:

Welcome to A², the business magazine from Arup which offers an insight into the new dimensions of consulting that we are exploring with our clients today.



“Arup is not a plc and does not have equity partners. We are owned by employee beneficiary trusts, which leave us free from the external demands of shareholders and able to do business in line with our founder’s beliefs of quality, independence and integrity.”

Alan Belfield, Chairman of Consulting in Europe

The theme for this third edition is ‘doing business a different way’, reflecting the growing need for organisations to think laterally and work to disrupt the competitive equilibrium that is often found in mature markets. This also reflects our approach.

Arup is not a plc and does not have equity partners. We are owned by employee beneficiary trusts, which leave us free from the external demands of shareholders and able to do business in line with our founder’s beliefs of quality, independence and integrity. The firm’s business model means we can be led by our principles, invest with longer-range horizons, explore ideas with less caution, innovate more and do what is right for our clients. On page 13, we draw a comparison with the John Lewis Partnership, another British organisation that has used its employee-owned business model to great effect, making it one of the UK’s leading retailers and a proud high street success.

Perhaps one of the finest examples of how Arup does business differently will be showcased this autumn with the commissioning of High Speed One, the Channel Tunnel Rail Link. Arup challenged the British Rail route for the Channel Tunnel Rail Link, 19 years ago. After considerable political discussion and negotiation, our innovative alignment proposal was selected in 1991 by the Secretary of State for Transport, when he stated to Parliament that CTRL would be “on the lines put forward by Ove Arup [sic] which approaches central London from the

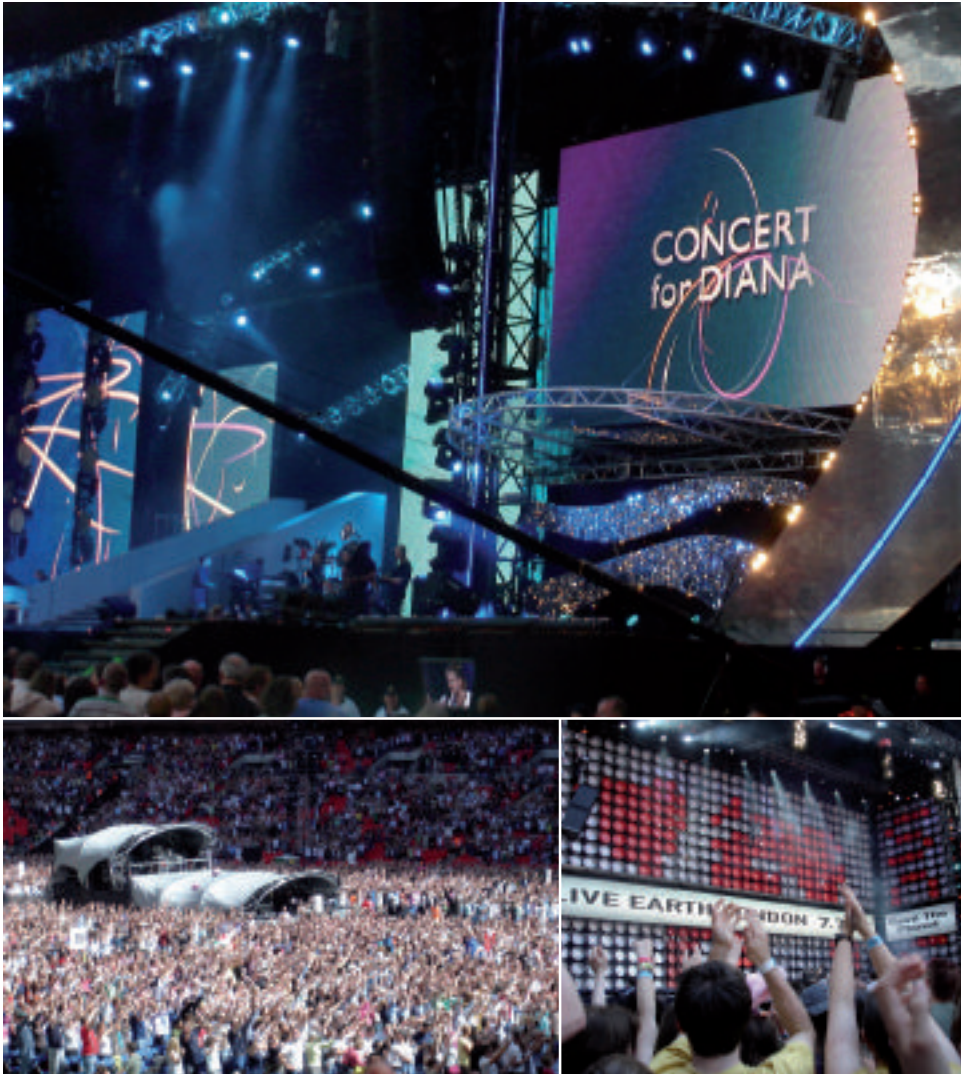
east, via Stratford...” He further stated that the Arup route satisfied Government transport objectives, its impact on the environment and on residential property would be minimised, and that our alignment “recognised the substantial potential that it offered for development along the East Thames corridor”.

Now the alignment for High Speed One will be commissioned in November, on time and within budget. This will be a very poignant moment for those of us involved over this period in bringing a £5.8 billion, 109km new high speed railway to fruition, along with the demonstrable benefits to Kent, Thames Gateway, London and the UK of getting the right line.

I hope you enjoy this edition of A².

Alan Belfield, Arup Chairman of Consulting in Europe

News



Above:
Thousands attended Live Earth and Concert for Diana this summer
Photographer Juhi Shareef

ARUP MEASURES CARBON FOOTPRINT OF WEMBLEY STADIUM EVENTS

Arup's involvement in the Concert for Diana, and Live Earth UK concert at London's Wembley Stadium in July, was a significant milestone in our efforts to ensure that all events are staged using a sustainable management process.

The Concert for Diana provided Arup with an opportunity to use our carbon footprinting expertise in the context of a live event. We worked to minimise greenhouse gas emissions so global climate change campaigners, Global Cool, could offset residual emissions by investing in United Nations-approved clean energy projects.

Arup also worked with event organisers, Live Nation, to develop an approach to sustainable event management for Live Earth UK, billed as the biggest live event ever.

Both projects were informed by Arup's work with the British Standards Institute to develop the first officially recognised standard for Sustainable Event Management (BS8901), due to be published this November.

NEW LEADERSHIP BOOSTS ARUP CONSULTING OFFERING

In line with the rapid growth of Arup's business consulting services, Gordon Wilkinson has been appointed to lead our Management Consulting activities in Europe. Gordon joined Arup in August 2007 and is helping to grow our business consulting activity, which currently has a turnover of £100M, with 1200 consultants.

With 20 years senior-level experience, Gordon has a solid track-record in delivering growth in highly competitive environments. Most recently, he was Managing Director of Capita Advisory Services, a leading business advisor to the financial, healthcare and government markets. He is well respected in the business community and was previously a Partner at KPMG.

Arup's Chairman of Consulting in Europe, Alan Belfield, is working closely with Gordon to expand the firm's offering and says: "Gordon's experience, client network and approach are bringing strong leadership and a new sense of momentum to our business consulting operations at this important time in our development."

Below: Alan Belfield welcomes Gordon Wilkinson to Arup





Above: BBC Scotland headquarters where Arup is providing extensive acoustics consultancy services

ARUP EXTENDS RELATIONSHIP WITH BBC

Arup has extended its relationship with the BBC since being appointed to its Management Consultancy Framework, in February 2006. Our work now builds upon core technical audit activities and risk profiling, to include assisting BBC Workplace with its strategic investment decisions in relation to property and assets.

Working collaboratively with the broadcaster, we have applied our thought leadership in corporate resilience to generate data to baseline the corporation's assets. The data will populate a risk-prioritised resilience investment model, due to be rolled out later this year.

We are also working collaboratively with the broadcaster to realise operational performance improvements in its facilities management (FM) services. An integrated architectural, engineering, project and cost management team from Arup is currently undertaking a full options appraisal in relation to one of the BBC's most significant building assets.

VEHICLE DESIGNER JOINS £70M R&D PROGRAMME

Neil Ridley, Arup's Director of Vehicle Design, has joined the steering group of the Premium Automotive Research and Development programme (PARD). The programme is based at, and managed by Warwick Manufacturing Group (WMG), part of the University of Warwick.

PARD is a £70M research and development programme. It aims to help premium car manufacturers and suppliers in the West Midlands to develop their skills, products, processes and market understanding, making them more competitive in the global marketplace. Funding for the programme has come from Advantage West Midlands, with match funding from Jaguar and Land Rover in particular, and 200 other participating companies.

Arup has a long-standing relationship with WMG, a global leader in innovation that embraces research, education and training, and collaboration with industry. For our Vehicle Design leader, Neil, the invitation to join PARD comes in recognition of his experience and ongoing contribution to shaping sustainable transport solutions.

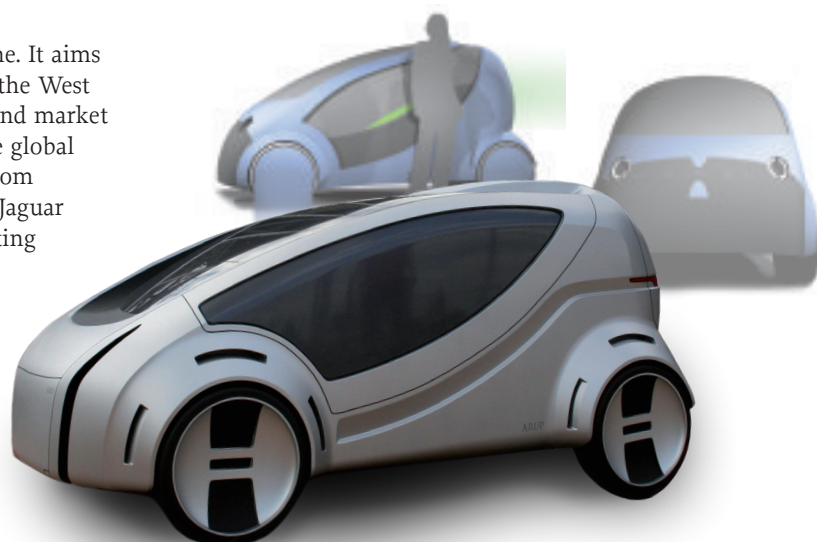
REPORT REVEALS SUSTAINABLE MANUFACTURING TRENDS

A new research report published in August, has surveyed over 300 companies to establish a real picture of how UK manufacturing organisations are embracing sustainability. Arup worked in collaboration with Warwick Manufacturing Group, part of the University of Warwick, to produce the report: 'Sustainable Manufacturing – a study into UK manufacturers' perceptions'.

Respondents across 20 industry sectors took part in the research, which revealed many businesses are still missing out on the full benefits that sustainable practice can deliver. Dr Kerry Mashford, Arup's Head of Sustainable Manufacturing & Construction led our research team and comments: "Adopting sustainable practices can differentiate companies from their competitors, and those already doing this are seeing real benefits."

The clearest benefits identified by the report are: financial savings (including improved margins, energy savings and waste reduction), increased turnover, enhanced image, and improved business practice and legislative compliance. Case studies also offer useful insights for companies wishing to assess the right sustainability strategy for them.

Below: Latest concept in ecological car design



Right: Work on Australia's \$82 billion infrastructure plan is already underway

Image courtesy of The Queensland Government



“Critically, the PMO is able to take a helicopter view over the entire programme, helping to prioritise demands from different agencies and ensure that the State interest is best served.”

Nigel Deacon, Manager, SEQ Water Grid, Department of Infrastructure, Queensland Government

AUSTRALIAN INFRASTRUCTURE PROGRAMME REALISED

Arup Project Management is providing specialist programme management advisory services to coordinate the successful implementation of the South East Queensland Infrastructure Plan and Programme (SEQIPP). The \$82 billion plan is being delivered by the Queensland Government and is one of Australia's largest public infrastructure programmes.

South East Queensland is the fastest growing metropolitan region in Australia, putting considerable strain on the state's infrastructure and community services. The SEQIPP details the Queensland Government's plan for regionally significant infrastructure that will manage sustainable growth and enhance access to services over the next 20 years. This is the first time in Australia that a state government has made such a long-term commitment to infrastructure provision.

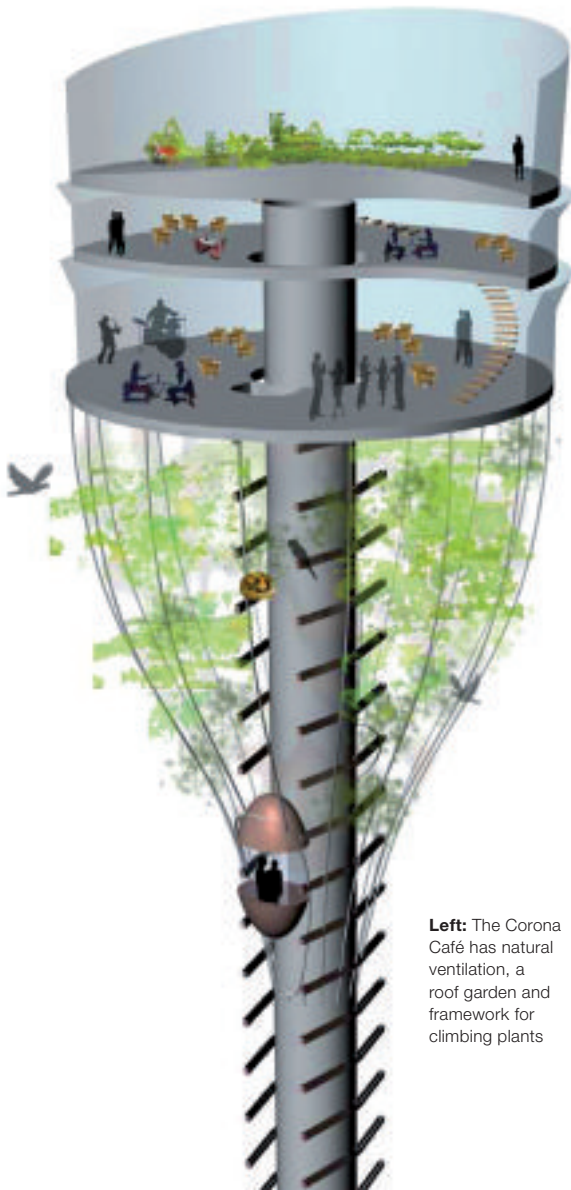
Government and industry cannot deliver such a programme under a 'business as usual' approach. To address the many challenges and opportunities posed by such a bold long-term programme, the Queensland Government has established a Programme Management Office (PMO) within the Department of Infrastructure. The PMO is the central coordination body ensuring delivery of the SEQIPP. It comprises a mix of government staff and advisors from Arup Project Management and the Peron Group, who are putting in place a range of innovative and best practice initiatives and reforms to turn the programme into reality.

GREEN BUILDING COMPETITION WIN FOR NEW YORK TEAM

Three teams from Arup's New York office recently took part in the Emerging Green Builders of New York (EGBNY) green building competition. The aim of the competition was to provide an applied learning experience in the principles of integrated design, sustainability, innovation and social consciousness.

Teams from the Arup office in New York worked in collaboration with other organisations, including local architects. The competition brief was to transform the New York State Pavilion in Flushing Meadows Corona Park into a LEED™ Platinum-rated Performing Arts Centre for the New York City Department of Parks & Recreation.

One of the requirements for entry into this competition was that all team members needed to have less than five years experience in the building industry. Of the three Arup teams that took part, one was awarded first place and another received an honourable mention, demonstrating the excellent skills and understanding our new graduates already have to shape a better world.



Left: The Corona Café has natural ventilation, a roof garden and framework for climbing plants

Retrofitting cities to meet



“We now realise that we’re emitting carbon dioxide at a level that is going to change the planet. Our cities have to become more sustainable now if we are to continue living in them, and stop climate change.”
Peter Head, Arup Director, Planning Plus

“Our cities have the potential to thrive, even in a future of climate change and scarce resources”, says Arup Director Peter Head. He argues that by adopting an integrated approach to managing our cities we can dramatically increase their chances for environmental, social and economic success in years to come. But we need to act now.

“We’re using resources at a faster rate than the world can supply,” explains Head, who leads Arup’s Planning Plus business. “And we now realise that we’re emitting carbon dioxide at a level that is going to change the planet. Our cities have to become more sustainable now if we are to continue living in them, and stop climate change. It is vital that we use city land in a more efficient way.”

The idea of retrofitting cities to be more sustainable is a complex one. But Head is quick to point out that small steps can deliver large benefits: “Change does not necessarily need to be radical”, he explains. “Unlocking value from present inefficiencies is our first opportunity. For example, Information Technology (IT) can be used for realtime journey planning, making existing networks more efficient.” Head cites the C40 global cities initiative

as an example, where forty of the world’s largest cities are working together to retrofit cities for better environmental and economic performance:

“They’ve decided to procure low energy traffic lights and put down a challenge to the market: whoever comes up with the best product will be awarded a contract to supply it to 40 of the world’s largest cities – a potentially massive market for the winning company. This shows how radical change can take effect quite quickly. And that businesses capable of coming up with new products can do well.”

Of course, low energy bulbs in traffic lights don’t constitute an eco-city. More widespread retrofitting has significant barriers to overcome: adapting the legal frameworks of cities to allow for integrated planning; implementing new ownership models for utilities and other services; and accessing eco-skills and technology. But cities like London will have to manage these issues if they are to reach the targets they’ve set themselves. London has committed to stabilising its CO₂ emissions in 2025, at 60% below the 1990 level and has developed a detailed action plan. The city must now concentrate on how it delivers its promise in developments



the carbon challenge

such as the Thames Gateway, where Arup is helping to plan a number of eco-developments.

Working with partners such as HSBC, who are supporting regional development in China using an eco-approach, Arup is helping a number of governments and cities unlock the barriers to delivering retrofitted eco-cities. Our work on Dongtan eco-city in China will be a key demonstrator of performance we can aim for. “Eco-cities need to be delivered on the ground at community level, as in Dongtan,” says Head. “But there are no blueprints for a typical eco-city. We need to find city-specific solutions that provide a higher quality of life at lower ecological cost, and help cities deal with risks such as climate change and access to clean water and food.”

Despite the size of the challenge, Head is confident that the economic benefits of sustainable development – and the rising cost of resources like energy and food - will drive the reinvention of our cities. Indeed, he argues that the recent increase in the number of sustainable development investment funds indicates that attracting capital for retrofitting cities may not be as difficult as many people think.

Head believes that eco-cities can be delivered through a public-private partnership (PPP) model: governments will get improved economic, social and environmental performance; the private sector will get new markets and a better return on capital. One important (and often overlooked) reason for this is that cities built on eco-principles will be desirable places to live. We already know that developers can charge a premium for homes in pleasant environments - near water, for example. And parents will pay more for houses within walking distance to good schools.

Confident that a business case can be made for retrofitting eco-cities, Head believes that once we begin to move into an ecological age where eco-principles will drive business, the benefits will become more apparent. Perhaps future Arup readers may wonder why it took us so long to get round to retrofitting our cities.

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“It is often only the end user who benefits from the sustainable development and retrofitting of existing cities, because the developer or investor is usually looking for short term returns. Arup is working hard to solve this unbalanced reward equation with economic and sustainable solutions that benefit everyone.”

**Roger Wood,
Associate Director,
Urban Design**

Main image: Aerial view of London at night
© Gandee Vasan/Getty Images



Main image: Colour by Numbers was a 72m high light installation that illuminated the Telefonplan tower in Stockholm, Sweden, for six months between October 2006 and April 2007. Anyone could control the colours in the tower with their mobile phone, just like a remote control. © Malin Arnesson

Far right: ShotCode cameraphone software can provide fast internet access by scanning 'ShotCodes' - circular sequences of black and white blocks that represent website url's. © ShotCode





Digital cities:

connecting people, environment and information

With increasingly creative uses of technology and interest from developers, the digital city is closer than ever to becoming a reality. Management of key infrastructure like waste, water, energy and transport is now supported by Information and Communication Technologies (ICT), making ICT one of the most important drivers for sustainable, economic cities.

By connecting people to the information they need, modern technology has the ability to improve a city's environment and economy, making it a more desirable place to live and work. At Arup, we describe our approach to delivering information in cities as Urban Information Architecture (UIA).

For city managers and developers, providing a framework for the delivery of information within their cities and large developments is vital. Léan Doody, Principal Consultant at Arup Communications, worked with a team of Arup experts to help Land Securities to plan Information Technology (IT) across a new development in Ebbsfleet, Kent. "We carried out workshops to look at which IT services would be needed across the entire development, from estate management and retail, to commercial tenants, residents and community developments," she explains. "The need to communicate information about the 20-year development's progress, transport and other local issues emerged as a strong priority." These services would build on Land Securities' existing investment in state-of-the-art infrastructure, including fibre optic cables running right up to houses and allowing fast internet access for years to come, without having to upgrade.

"If we want people to build sustainable communities and enjoy living in our cities, we must develop social networks that allow them to benefit from the latest digital technology," continues Doody. "Making it easy to find out how much energy they are consuming can encourage people to change their habits and use less. Similarly, quick access to information wherever there is a need for it, could encourage more people to use public transport."

In Dongtan eco-city, China, Doody found that IT could be used to help achieve many of the city's objectives. "We looked at what other urban strategies like energy, water, waste and transport were trying to achieve and considered how IT could help deliver results", she explains. The study proved that many urban strategies depend on IT, and methods like smart metering to monitor energy use can generate their own information streams for capture.

But planners and consultants are not the only ones driving increased demand for urban information. In general, people are beginning to expect faster access to information, wherever they are. The success of the digital city will depend, believes Doody, on how well we can use existing technologies like mobile phones, as well as inventing new and creative ways of displaying information for people. "It's the detail of the digital city that will determine its success," she says. "How we display information is very important, and it has to be done in a way that people will use and accept."

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"If we want people to build sustainable communities and enjoy living in our cities, we must develop social networks that allow them to benefit from the latest digital technology." *Léan Doody*, Principal Consultant at Arup Communications

Executing strategy -

closing the gap between investment and value delivery

A survey of over 300 respondents revealed that:

61%

spend more time on developing strategy than they did five years ago

46%

have a dedicated strategy team or function

49%

have no independent input into their strategy

In 50%

of firms with more than 10,000 employees, owners or shareholders had no say in strategy

36%

think strategy has no value to their organisation

18%

think their organisation is poor at putting strategy into action

10%

think their organisation is excellent at putting strategy into action

Turning strategy into a reality is fundamental to business success, but for many the gap between investment and value delivery is continuing to widen. Lessons can however, be learnt from the strategic success that private equity businesses are enjoying. Joint research by Arup and the Management Consultancies Association (MCA) recognises this and has identified ways to engage stakeholders in effective strategy implementation.

The most significant strategic problem businesses have is a 'lack of engagement and sense of ownership' according to an Arup-sponsored research report, published in May 2007 by the MCA. The report: 'Executing Strategy: what can private equity firms teach us?' advises that businesses should re-think their approach to developing and implementing organisational strategy.

Report author, Fiona Czerniawska, a Director at the Management Consultancies Association, suggests: "A third of the people we surveyed think that strategy is a waste of time. With this in mind, we looked at what private equity firms did differently when they took over a company, especially in light of strategy and strategic approaches. We then considered whether there were any lessons that can be applied to other organisations, irrespective of the ownership model."

When reviewed, the private equity (PE) model appeared to have five distinct advantages over other organisations' approach to strategy:

Ownership

Having a single, visible owner to drive strategy forwards appeared as the most commonly cited advantage. Having a clear direction and view for the short and long-term future of the business and how this is going to be achieved must come from the top. The direction must be clear and believed in because if this isn't obvious to the rest of the firm, implementation will be significantly harder to achieve.

Involvement

People do not expect their leaders to work in isolation. Supporting the Chief Executive with a smaller, more focused team can encourage active involvement and collaboration. Working together can ensure a more single-minded focus is adopted, and buy-in is more effectively achieved.

Speed

The speed at which management takes and acts upon decisions is vital. Many businesses spend too long developing a strategy. In order to create and maintain relevance and business development, the time between initial planning and implementation should be as short as possible.

Value creation

Having a single-minded focus on cash and value creation. When working with Infast, a UK specialist parts supplier, Arup was able to advise and guide the organisation to change its strategy. This meant the company became more focused on its core business with a vision and growth strategy that changed its fortunes: preventing over 200 specialist manufacturing job losses, saving over £1.5M in write-off costs and making a profit within six months.

Objectivity

By working in a smaller and more focused team, issues that are interesting but not relevant can be filtered out. Internal dilemmas that can muddy the waters are consequently no longer a problem. Overall, the report found that the single, most significant obstacle to implementing strategy was that people lacked a sense of ownership and therefore did not feel responsible for its success. Arup recognises that getting people involved in the strategy is essential for successful implementation and Arup Director, Alan Marsden comments: 'A strategy will fail if you don't involve people in the process.' While leaders may be defining the strategy, it is their responsibility to also gain the confidence of every employee. This will almost certainly require some behavioural change and unless people can see the benefit or value of having a strategy, it simply won't happen.

Arup has spent time with organisations helping them to understand why their strategies aren't working. Strategies must

be right if work on behavioural change and implementation is to be effective, Marsden explains: "We work with everyone in an organisation to align them to the business strategy and identify the behaviours needed and changes required. We then recommend a process to ensure people feel engaged and supported, before leaving them with the tools to continue when we are no longer there on a day-to-day basis."

A strategy is often viewed by organisations as a task, something to complete tick off and then leave, only to be reviewed the following year. However, Marsden adds that at Arup we believe: "A strategy is vital in providing ambition, direction, inspirational leadership and engagement for everyone within the business. It can motivate and encourage a workforce, provide a positive culture and ultimately, support financial success."



"A strategy is vital in providing ambition, direction, inspirational leadership and engagement for everyone within the business. It can motivate and encourage a workforce, provide positive culture and ultimately support financial success." *Alan Marsden, Arup Director*



Rethinking logistics:

The global economy does not evolve along straight lines and its underlying supply chains can be kinked, distressed, diverted or even ruptured by events that are often unforeseen. Whether the signs are there or not, any changes in the supply chain can result in a loss of efficiency, supply and business. To prepare for this, a more balanced approach to planning is vital.

An economy and supply chain that stretches from one end of the planet to the other is susceptible to economic instability. This is particularly important when companies in the UK and elsewhere are re-locating their activities from traditional manufacturing bases to other parts of the world, such as Eastern Europe and the Far East. This stretches the supply chain that runs from the source of raw materials via the production base to the end market, placing its resilience at greater risk.

There are environmental issues to take into account as well. “The sustainability agenda has gone from being on the periphery to being a core topic of conversation”, says Graham Bolton, a Director of Arup’s Management Consulting group. “We don’t know exactly what its impact will be, but we need to take a more balanced approach to planning the future supply chain infrastructure.”

This can sit uncomfortably against certain strands of prevailing wisdom in the logistics of production and distribution in a ‘globalised’ economy. Left unchecked, a supply chain can encompass unsustainable and exploitative production of raw materials and goods, coupled with inefficient distribution of finished goods to end markets. If companies choose to ignore these issues, there is a growing chance that their shareholders or customers will not.

Bolton is quick to refute the suggestion that sustainable or ‘green’ solutions inevitably lead to additional costs in the supply chain. “There are clear economic benefits to be gained from a good, lean supply chain culture and the elimination of waste”, he says. Arup understands, however, that most businesses demand a payback on new initiatives in the supply chain, despite their awareness of the mounting risks they face by ignoring the sustainability issue.



the economic benefits of a balanced supply chain

Supply chains are also subject to the vagaries of global production, supply, distribution and retail. Rising oil prices, terror attacks or extreme weather events are obvious examples of change factors, but there are countless more trivial scenarios telling us that every pinch point in the supply chain is a potential tipping point too.

In the end, says Bolton, it's about "having enough of the necessary stock available at the right place and time, and at the right cost." He adds: "At Arup we offer an holistic approach to understanding the breadth of issues, backed by the independence and creativity to find the best possible solutions."

The Arup solution, according to Bolton, is to "take a step back and take some time to identify the future challenges facing a business. Of course you have to look at the big picture but you must also be able to

focus on what is most important." Arup provides smart tools for analysing all the factors affecting the global supply chain, enabling companies to measure their progress and plan ahead.

The shape of supply chains in the future, and the strategies needed to develop them, is certainly subject to a complex range of factors. Some of these can be controlled to an extent, and others are all but beyond our control. Yet businesses would be wrong to decide that it takes too much effort and investment to tackle the issue. As Bolton concludes, "I am sure that companies who do measure the effectiveness of their supply chain can gain a clear competitive advantage."

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Main image: A container ship being loaded in an industrial port © James Lauritz/Getty Images



"There are clear economic benefits to be gained from a good, lean supply chain culture and the elimination of waste." *Graham Bolton*, Arup Director, Management Consulting

Profile: The John Lewis Partnership

The John Lewis Partnership has a visionary way of doing business. It is owned by its employees - the Partners - who are at the centre of everything it does. From a single store on London's Oxford Street in 1864, the firm has grown to become one of the UK's top ten retailers. It has 68 000 employees, making it the UK's largest employee-owned company and a huge success in its own right. The success story is set to continue, with ambitious growth plans announced earlier this year.

Main image: John Lewis store front, Kingston

Right: John Lewis store interior, Oxford Street
© Peter Jeffree

Top right: Charlie Mayfield, Chairman of the John Lewis Partnership
© Mark Thompson



Today's John Lewis Partnership might be a very different retail company from the one John Spedan Lewis handed to his employees in 1929. Annual sales for the year ending January 2007 topped £6 billion and with almost 70 000 employees and three retail companies over 200 sites, the firm has every right to be proud. The beliefs and ideals of the firm's founder, agreed in a written Constitution, remain the inspiration behind its culture, operations and ambition today. It is this strong foundation that provides a framework for consistency and continuity into tomorrow.



The firm already offers a wider range of products than any other British retailer and was voted favourite retailer by consumers in 2006. Its reputation is founded not only on the breadth, depth and quality of its product lines, found across its 26 department stores and 184 Waitrose supermarkets, but also on the ethical standards it applies. Going forwards, the firm aims to add 10 new stores to its portfolio, relocate three stores and double sales profitably during the next decade. This would see the number of Partners employed by the business swell to more than 100 000 by 2017. So how will it combine growth without compromising its beliefs, culture and standards?

The answer lies in the strength of the principles that have served the firm so well throughout the 20th century. Back in the early 1900's, John Spedan Lewis was careful to create a forward-looking governance system (a Constitution) that would be commercial - enabling the firm to stay ahead in a highly competitive industry, remain democratic and give Partners a voice in the business they co-own. This combination of commercial acumen and corporate conscience, then so ahead of its time, provided the spirit for growth. The firm sees no reason why the same principles cannot be carried forward to enable a new period of growth.

"There is a spirit about the John Lewis Partnership that transcends our growth ambitions", says Director of Communications, Susan Donovan. "We call this 'the Partnership Spirit' and it is grounded on some key principles: Partner happiness as part of a successful business; a sustainable business operation; customer service; and our care for the community. Everyone who works at John Lewis is a Partner - a co-owner of the business - and is therefore treated as an owner. We are a very commercial business but work hard to look after our Partners as we believe that they hold the key to delivering performance and ensuring quality. They share in our profits through an annual bonus."



"Our 2007 results show how the Partnership can provide profitability to create a sustainable and ambitiously expanding business. They also show that we can win the approval and loyalty of our customers and reward the achievement of our Partners."

Charlie Mayfield, Chairman, the John Lewis Partnership

Not driven by the demands of external shareholders, John Lewis's business model seems to encourage creativity, ambition and a longer-term business perspective and investments. If last year's 10% increase in sales and 25% increase in operating profit are anything to go by, the model is working, and working well. So how do decisions get made when everyone is a co-owner? Essentially, power in the Partnership is shared between three governing authorities: the Partnership Council (formed by a number of nominated Partners), the Partnership Board (essentially the Management Team) and the Chairman.

Charlie Mayfield became the Partnership's fifth Chairman in March 2007. He joined the Board in 2001 as Development Director and was responsible for the firm's online strategy, purchase of buy.com (now John Lewis Direct) and Last Mile Solutions (now Ocado). He has the challenge of ensuring that the Partnership retains its distinctive character and democratic approach whilst delivering strong commercial performance through a business strategy that will ensure long-term vitality and sustainability for the Partnership.

2006/7 financial performance

- Group gross sales up 10.6%, £611.8M to £6.4 billion
- Operating profit up 25.8% £72.7M to £354.3M
- Profit before Partnership bonus and tax up 26.8% £67.4M to £319.2M
- Partnership Bonus payment of £155.2M, up £34.9M (increase of 29%), 18% of salary (equal to more than nine weeks pay)
- Return on Capital of 7.9% up from 7.0% last year
- Net cash from operations before Partnership bonus and tax was £523.8M, up by 19.2%



Arup comments

“It is fascinating to take a closer look at the parallels between the John Lewis Partnership and Arup. Much like John Spedan Lewis, our founder, Sir Ove Arup, chose to create a different business model which was principles-led and not just profit-driven. Ove started the Arup practice in 1946 with an emphasis on bringing together professionals from diverse disciplines and encouraging them to work together to produce projects of the highest quality. It was an approach that enabled the firm to offer a fully integrated and holistic approach to clients, an approach Ove called ‘total design’. He wanted our ownership to benefit employees, in the belief that involved people deliver a better service, and this has resulted in Arup becoming the most global of the UK’s co-owned companies. Free from external influence, the John Lewis Partnership continues to be powered by its principles and is delivering exceptional results. We are occasionally described as the John Lewis of the consulting industry, which is a real compliment.”

Terry Hill, Chairman, Arup

The Chairman appears twice a year at the Partnership Council to report on trading performance and findings from the annual Partner Survey. This ensures good, open dialogue between Partners and the Partnership Board. Mayfield comments:

“John Spedan Lewis believed in a ‘better form of business’ and the challenge for us today is to prove that a business which sets high standards of behaviour and is not driven by the demands of outside shareholders, can flourish in the modern competitive environment. Our unique ownership structure puts us at a commercial advantage. We can choose to make long-term investments for the sustainable health of the business without external shareholders, who may be eager to see immediate profits instead of acknowledging the benefits of a more long-term approach.”

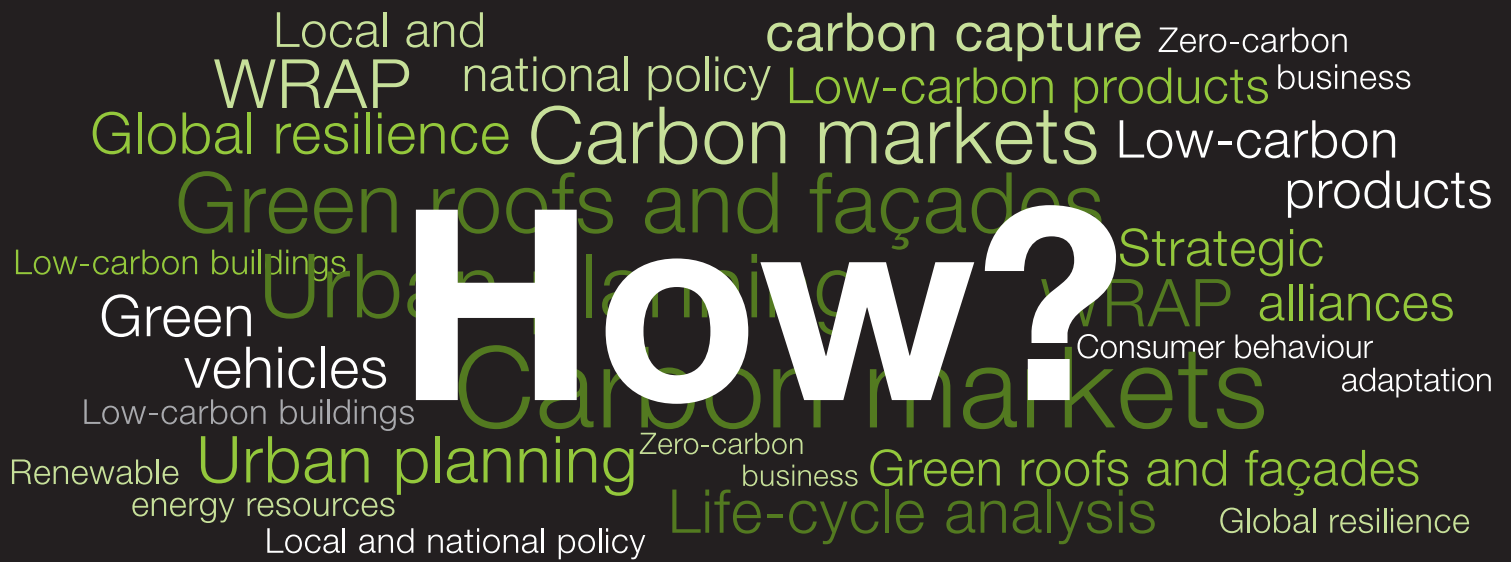
But are the firm’s new growth plans compatible with the objectives of its Partners? Mayfield believes the John Lewis structure naturally removes any potential conflict between Partners’ interests and the firm’s commercial goals. “In our model, the Partner and profitability objectives are utterly inter-dependent. We’ve termed this the partner-customer-profit circle. Many companies can show linear relations, but ours is circular because the greater the commercial success, the more Partners share in it. This unique business model delivers tangible returns for Partners and their focus on building a reputation for delivering

excellent customer service has, for the second year, resulted in us matching powerful financial results with two impressive votes of confidence from shoppers. Our 2007 results show how the Partnership can provide profitability to create a sustainable and ambitiously expanding business. They also show that we can win the approval and loyalty of our customers and reward the achievement of our Partners.”

The organisation takes its role in the environment as seriously as it does the welfare of its people. In 2006, the John Lewis Partnership was ranked second highest performing retailer in an independent survey of social responsibility and accountability, scoring 55% (the industry average was 35%). Today, the firm operates the most environmentally-friendly distribution fleet, reducing its CO₂ emissions by 7% relative to sales and improving energy efficiency by 15%. It ensures sustainable construction in all new builds and redevelopments; sources responsibly and pays suppliers a fair price, and contributes over 2% pre-tax profits to community projects.

Mayfield recognises that customers are increasingly aware of the importance of sustainability and how they expect the John Lewis Partnership to behave. “I think their expectations of us would be significantly higher than average as our reputation comes with a lot of responsibility and we must keep pushing ourselves to do better.”

-
- 1937** The Partnership buys Waitrose, a chain of ten shops
 - 1940** The Partnership doubles in size by buying the Selfridge Provincial Stores Group, one of which was Cole Brothers
 - 1955** John Spedan Lewis retires as Chairman and is succeeded by Bernard Miller
 - 1963** Death of John Spedan Lewis
 - 1972** Bernard Miller retires as Chairman and is succeeded by Peter Lewis, nephew of John Spedan Lewis
 - 1992** Waitrose opens its 100th food shop
 - 1993** Peter Lewis retires as Chairman and is succeeded by Stuart Hampson
 - 2000** Launch of Ocado, the online service that delivers Waitrose groceries to many homes in the UK. Ocado is part-owned by the Partnership
 - 2001** John Lewis launches johnlewis.com, the online shopping site
 - 2006** The John Lewis Partnership launches Greenbee, a new direct services company
 - 2007** John Lewis now one of the UK’s top ten retailers with 26 department stores, 184 Waitrose supermarkets, an online and catalogue business, a direct services company, three production units and a farm
 - 2007** Sir Stuart Hampson retires as Chairman and is succeeded by Charlie Mayfield



Beyond the debate:

How to achieve the UK's emissions targets by 2050

11th December 2007, Central London

There has been a lot of talk about climate change over the past few years. Now, we think it is time to move beyond the debate and focus on the real solutions that will enable a low-carbon UK by 2050.

One Big Day will bring together influential leaders from cities, business, technology and society to take part in a unique, interactive and visionary event to imagine what a low-carbon UK will look like by 2050 and examine **how** we can meet our emissions targets in a more unified way.

**It's a big challenge, with a bright future.
And it starts on One Big Day.**

ARUP

Please indicate your interest in attending
by emailing: onebigday@arup.com.
Attendance is free.

onebigday





Targeting faster healthcare: the **18-week** reform

By the end of next year, a shift in the balance of UK healthcare delivery will mandate that patients wait no more than 18 weeks from initial referral to successful treatment. Arup is working with General Practitioners (GPs) and Primary Care Trust (PCT) Commissioners to meet this target by redesigning services and facilities for faster healthcare delivery.

In July, within days of assuming office, British Prime Minister, Gordon Brown, re-affirmed the Government's commitment to the latest round of healthcare reforms. One of the central aspects of this policy is the 18-week programme for treatment - the latest in a series of initiatives to cut waiting times in the UK's National Health Service. Michael Wilshaw, Associate with Arup Healthcare Consulting, describes the policy as "a change in leadership and ownership, aimed at setting a new standard in healthcare." He draws attention to the shift in overall responsibility for elective patient care from hospitals to PCTs and GPs.

The main question is whether PCTs can cope with the change, given that many are still reeling from a reconfiguration that consolidated 300 of them into 150. "A number of PCTs require additional support to bolster their capability and capacity, especially as they are new organisations", says Wilshaw. Even so, the Chief Executives of healthcare trusts cannot afford to ignore the December 2008 deadline for the 18-week initiative because they face corrective measures if targets aren't met. Arup is already working with some entrepreneurial GPs and PCT Commissioners to research and implement the lessons they are experiencing.

Wilshaw believes that the experience gained in working with pioneering GP practices and PCTs puts Arup in a strong position to assist others, and stresses the

firm's unique offering to the market. "To make healthcare developments sustainable for the future, we need to recognise that the 18-week initiative is raising a supply chain issue. Primary healthcare must manage and commission the whole episode of patient care, and this is not just an additional process re-engineering issue for hospitals. From our perspective this reform affects both the design of services and the facilities that they are delivered from."

Overall, general practices and hospitals alike will need to re-think their existing procedures. The 'polyclinic' concept would see many procedures that are currently based in hospitals (X-rays, ultrasound, minor surgery), migrating to out-of-hospital facilities and expanded GP surgeries. Ideally, this would leave major hospitals in a position to concentrate on more complex and intensive procedures and operations. It would also potentially increase the speed of access to routine procedures, making them more localised and convenient for patients.

Of the upcoming 18-week targets, Wilshaw notes that these are maximum times and the average wait for elective treatment should be considerably lower: "The

ultimate aim in the UK is to take waiting times off the agenda so that we can concentrate on clinical quality issues." Part of the Arup approach is to tap into the entrepreneurial outlook of General Practice. Arup case studies show that developing services in primary care can improve levels of patient care while reducing waiting times and the cost of treatment.

Apart from the polyclinic concept, once GPs assume ownership of patient treatment beyond primary care, they will be able to better inform patients and help them make decisions. These decisions may be based on the relative facilities of nearby hospitals, local private and independent providers, and specialised GPs or hospital units. "There are no simple answers", Wilshaw concludes. "The Arup approach is designed to let people understand the value of their services in combination with the facilities and healthcare estate. It's a service that I don't believe any other consultancy is currently offering."

**For further information contact:
michael.wilshaw@arup.com**



"The ultimate aim in the UK is to take waiting times off the agenda so that we can concentrate on clinical quality issues."
Michael Wilshaw, Associate with Arup Healthcare Consulting

Spotlight



Name: Tony Lovell

Position: Leader of Arup Fire, Europe

Biggest challenge: Maintaining the strong balance of skills and backgrounds his team requires to deliver innovative solutions

Most innovative work: Challenging existing thinking on how smoke behaves in a compartment, to enable designs with more available open space

Future aspiration: Using a multidisciplinary approach to design more flexible buildings that adapt easily to change over their lifetime

When Tony Lovell, Leader of the European Arup Fire practice, came to the firm 12 years ago, he was the first person to join with an undergraduate degree in fire engineering. Back then, Arup had eight fire engineers worldwide and today has 155, with 60 in Europe alone. An innovative approach to finding solutions for clients has helped to drive this growth.

“When we sit down with an architect, structural or mechanical engineer, we know what’s important to them and can articulate to a variety of audiences exactly what the design is hoping to achieve,” Lovell explains. “We want to help designers and architects achieve their vision by communicating in a way that’s appealing, understandable and constructive. People think that fire engineering is just about saving money, but our goal is to achieve a better design to meet client needs.”

Often that means challenging received wisdom. Lovell and his team are currently modelling how smoke plumes behave in a compartment, challenging existing ideas about managing smoke. The research will enable them to achieve the increased levels of open space that clients and architects want.

This innovative approach relies on people with expert skills from a variety of backgrounds. The Arup Fire team is an even mix of men and women, half of whom joined from other disciplines. “We recruit people from different backgrounds and with different personalities,” says Lovell. “The benefit is that they will never take the same starting point to find a unique solution.” Evidence of this can be seen in projects like Canary Wharf, where Arup Fire has been responsible for all fire engineering for the last eight years. The main objective here has been to help construct buildings that can adjust and evolve around their occupants.

Lovell predicts that in the future, fire engineering will help design buildings that can accommodate change to a greater extent than current buildings, increasing their value for owners. Always keen to innovate, he envisages delivering this through: “A vehicle where we can bring together all disciplines – a unified Arup design response team that capitalises on the firm’s multidisciplinary approach.”

ARUP WINS FIRE SAFETY ENGINEERING (FSE) DESIGN AWARD

A comprehensive set of award-winning, alternative fire strategies by Arup has helped to deliver design freedom and cost efficiency for a striking new set of university buildings. The strategies were also recognised at the 2007 FSE Design Awards, where Arup won the fire engineering category.

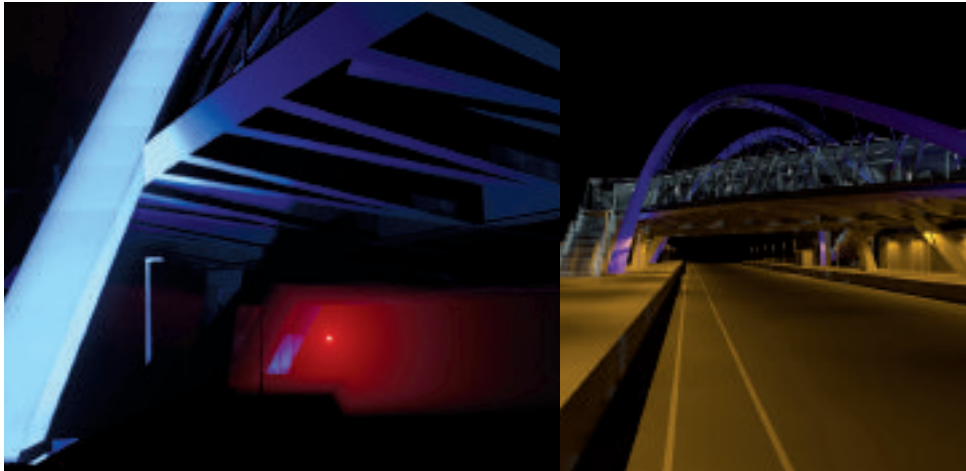
“We provided fire engineering advice to the University of Manchester after being appointed to maximise value delivery, whilst redeveloping large areas of their estate”, explains Adam Monaghan, an Associate at Arup Fire. Arup’s package of fire engineering principles has allowed for value, design innovation and flexibility, whilst maintaining the individualism of the university’s schemes.

After a complex cost-benefit analysis, the final outcome of the design included a combination of sprinklers, horizontal evacuation, smoke management, reduced periods of fire protection and sprinkler-protected glazing. This provided tangible value to the client and improved the aesthetics of the buildings.

Below: The 2007 FSE Design Awards brochure
© John McAslan + Partners



Innovations



Above: Modelling to support Network Rail's decision to allow for blue feature lighting at Wembley Stadium Station

VIRTUAL DESIGN: A THREE-DIMENSIONAL VISION OF THE FUTURE

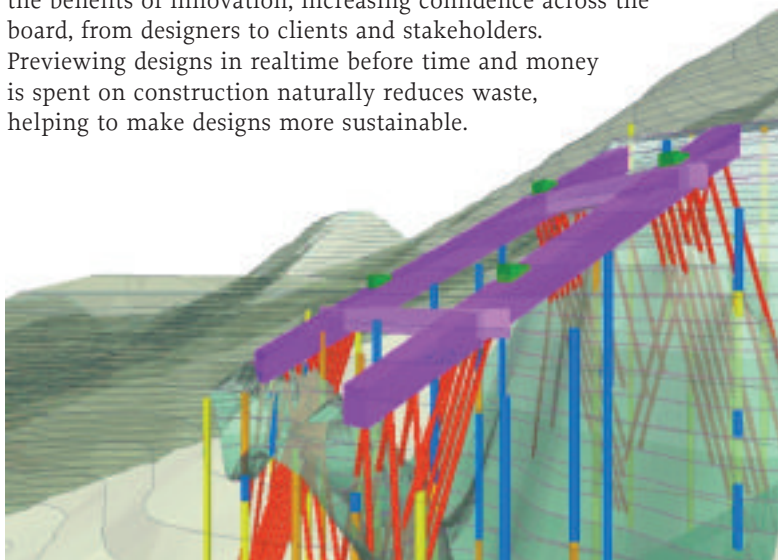
The Building Information Modelling (BIM) revolution is underway, bringing Arup's entire skillset together using 3D virtual design. Our first Virtual Design Network Conference in Birmingham in June saw business leaders and experts from across the firm, sharing knowledge about best practice using this advanced technology.

Designing virtually offers greater scope for innovation as ideas are explored through simulation before being physically modelled. It brings together teams of experts to learn from and support each other, while making their work more streamlined and cost effective. Global Manager of Arup's Virtual Design Skills Network, Alvis Simondetti, is at the forefront of the movement and says:

"Virtual design allows us to work smarter and join up our technical capabilities to deliver more value. We are doing business differently in each sector, yet future and wider business opportunities lie in working together without boundaries across all sectors."

Using 3D modelling technology is instrumental in communicating the benefits of innovation, increasing confidence across the board, from designers to clients and stakeholders. Previewing designs in realtime before time and money is spent on construction naturally reduces waste, helping to make designs more sustainable.

Right: 3D geographic information system (GIS) visualises piling for the foundation of a cable car tower



The Key Deliverables of virtual design

Increases confidence in innovation

Simulating designs first can help designers to learn and understand the behaviour of materials and explore wider options. Simondetti continues: "With a virtual design demonstrating every element of a proposal, clients can see the benefits for themselves, making it much easier to gain everybody's confidence in innovations."

Reduces waste (money/time/materials)

By working together in a virtual model, different disciplines can resolve potential problems and reduce wasted time, money and materials resulting in immediate resource savings. The process is increasingly linked with sustainability.

Aids communication of design benefits

Communicating the full scope of a design with realtime virtual simulations, can provide benefits to stakeholders, clients and designers. During the public enquiry for the M1 widening scheme, Arup used 3D technology to explain the proposal and communicate its expected impact mitigation on the surrounding area. The simplicity of seeing every element of a design in unison digitally, helped to alleviate local concerns, allowing work on the project to push forward.

Provides evidence of design alternatives

If you have a virtual image of a real building you can run 'what if' scenarios demonstrating how different factors could affect the design. A 3D model can deliver a complete overview of a building, containing all maintenance and operational requirements. Alternatives for reducing costs like energy and water usage can be identified, resulting in a more advanced solution.

Virtual design carries less risk and more gain in terms of reducing waste and breaking down design barriers to ensure a more innovative future. Ideally suited to services like masterplanning, this technology has the potential to revolutionise the way we work. At Arup, there is already enough physical evidence to support a vision of the future where 100% of projects use virtual design models.



Above:
Screen shots
of SimGuard
visualisations

EMERGING TECHNOLOGY ENHANCES BUILDING SECURITY

Arup is investing in emerging technology to dramatically enhance building security. The new incident management software, SimGuard, has the capability to manage disruptions and threats to buildings and key infrastructure.

Unlike multiple, stand alone security systems that generate a mass of information, SimGuard generates relevant data by integrating it in realtime, into a single station. "In the simplest terms, this software ensures that the right information is delivered to the right people, at the right time", says Alasdair Rodgers of Arup's Security and Risk division. "It prioritises issues for security and safety managers, and allows them to act faster."

The system incorporates four essential phases: planning, training, realtime response and debriefing. By recording every incident it provides vital intelligence about what happened, how staff reacted and what could be done better if the situation arises again. Simulation of crowd behaviour in scenarios like evacuation can also help design teams to identify and overcome potential bottlenecks at an early stage.

With its sophisticated capabilities, SimGuard is proving to be invaluable in building planning. In Israel, the system is already being used to determine the best security layout and evacuation routes for a major infrastructure project. A major European energy provider is also installing the system at 12 sites, including power plants and headquarters, with plans to roll it out to an additional 48 across its network.

Key performance benefits of SimGuard

- Provides a high resolution 3D visualisation of any site
- Creates a common operating picture: integrating and enabling instant transfer of data between multiple sensors such as CCTV
- Guides instant response: software is linked to a central threat and risk database that enables monitoring of essential information, in realtime, during incidents
- Improves building design: risk modelling capabilities enhance design of new buildings and optimise the layout of sensors in existing buildings

CONSORTIUM DEVELOPS NOVEL FAÇADE SYSTEM

As part of a consortium, Arup is leading the development of an innovative façade system that will potentially set a new benchmark in terms of curtain walling. The highly integrated system will influence both the design, procurement and installation aspects of any project.

The Consortium is supported by the Danish Realdania foundation and partners include Permasteelisa, a global leader in specialist façade contracting; Fiberline, a Danish supplier of composites; Art Andersen, a Danish specialist supplier of shading systems, and Cabot, manufacturers of translucent insulation, as well as architects 3XN and Make.

Below: Realdania
consortium
members



The system incorporates fibre-reinforced composites to produce more thermal efficiency than is typically achieved with aluminium. Reductions in façade depth will also offer gains in floor area. Design work will be tailored to meet a series of key drivers for future building envelope solutions, including stricter energy regulations, risk reduction, sustainability targets and aesthetic requirements.

Below: The
team work on
the Realdania
façade system in
progress





Above: Exterior view of the new Wembley Stadium

SUSTAINABLE EVENT MANAGEMENT: ARUP SETS A NEW STANDARD

A new British Standard will soon enable businesses to embrace sustainable event management as part of their sustainability strategies. Arup's Sustainable Business Management (SBM) team, headed by Neil Kirkpatrick, was heavily involved in the development of the draft standard: 'Sustainable Events Management System – Specification with guidance for use' (BS 8901).

Publication is scheduled for November this year and the standard has already been tested at high profile, national and global events. At London's Concert for Diana in July, it provided the management process that Arup and global climate change campaigner, Global Cool, used to measure the event's carbon footprint.

The new standard is innovative because it is a process, rather than a set of static guidelines. As Arup's expert in sustainable event management, Neil Grange comments, "It is scaleable, and therefore as relevant to a village fete, as it is to the Olympics. Instead of simply providing checklists, it embeds sustainability into every stage of the event process, allowing benchmarking and encouraging performance improvement over time."

The focus of the draft is not limited to the events organiser - it also influences suppliers and subcontractors further down the chain. It could, for example, lead to the preferential hiring of a carpet manufacturer or logistics company because an assessment of potential suppliers would identify those that can demonstrate delivery of enhanced sustainability performance in their products and services. For forward-thinking companies the standard signals definite benefits continues Grange: "At Arup, we think companies that embrace sustainable practice now are likely to gain a healthy competitive advantage".

Drafting the new standard involved extensive consultation with industry stakeholders ranging from venues to organisers and suppliers. As part of our work, Arup collaborated with the Events Industry Alliance (EIA), the umbrella trade body that has been lobbying the UK Government to recognise the events industry.

During the public consultation phase, Arup's Sustainable Business Management team was also commissioned by the British Standards Institution (BSI) to coordinate academic trialling of the standard at several events. These included Live Earth UK, Manchester International Festival, the summer Test Match at Lord's and part of the Innocent Village Fete in London.

With trials already producing tangible results, the BS 8901 sustainable events management standard would be an invaluable addition to the event management toolkit.

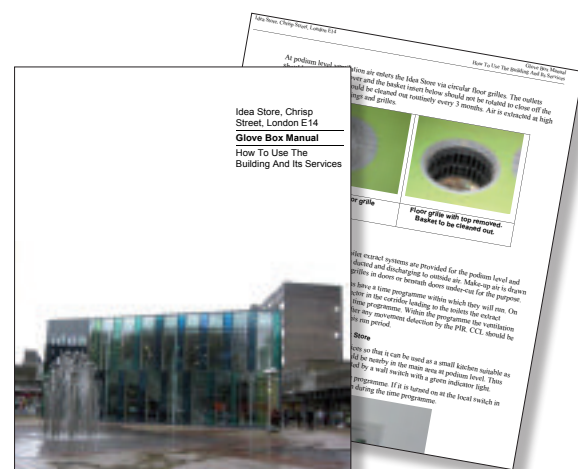
GLOVEBOX MANUALS FOR BUILDINGS

As buildings become increasingly complicated, finding out how to use them presents more of a challenge. To help combat this, Arup has conceived the idea of glovebox manuals for buildings.

Each glovebox manual is written in plain English and works to the same principle as those found in new cars. Basic details of all systems that occupants will want to either operate themselves, or have adjusted for them, are listed. This includes explanations of what systems do, how to change their settings, or switch them on and off.

Making basic operational guidance easily accessible to everyone is becoming increasingly important for building maintenance explains Arup Director, John Rose, of the Facilities Management consulting team: "Buildings need drivers - people who are equipped to operate them, if we are to ensure that systems consistently offer best performance."

Below: Glovebox manuals for buildings are handy reference guides for everyday tasks like controlling heating



For Arup clients, like staff at the Chrisp Street Idea Store in London, a building manual offers a quick reference guide for everyday tasks like controlling the heating, switching lights on, or working the fire alarm panel. For first time users, many of these systems can appear quite daunting, but with a glovebox manual every building can be a safer, more comfortable environment to work in.

PRODUCT DESIGN: CAPITALISING ON CREATIVITY

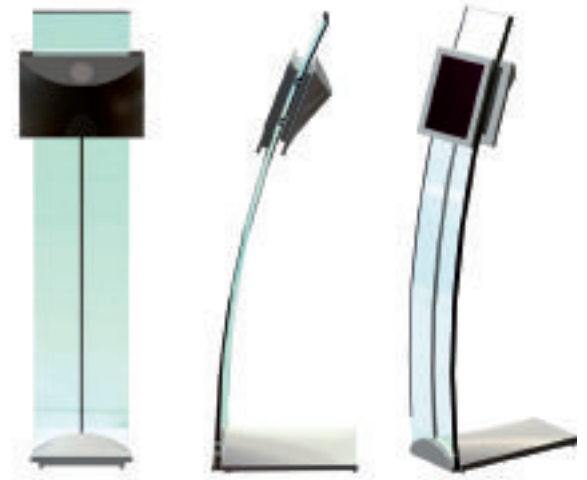
As conventional fee models and resource limitations make it harder for many businesses to maintain and grow their profit margins, Arup is exploring a new business model that replaces fee income with an alternative earning strategy. By retaining and commercialising the intellectual property (IP) on creative, in-house ideas and third party collaborations, we are developing a culture that encourages entrepreneurial thinking while building valuable market insight.

IP commercialisation can bring distinct advantages, says Product Design team member, Rebecca Minnitt: “Using this new business model, we are offering new services to our existing clients whilst expanding Arup’s client portfolio into new business sectors and parts of the supply chain. By proactively shaping commercial propositions we are starting to build up a portfolio of consumer products tailored to suit the needs of our clients.”

Capitalising on in-house IP benefits our clients, as it requires a thorough understanding of their businesses and their commercialisation processes. This includes analysis of the need for a product or service in the market place, and extensive discussions with manufacturers and suppliers. Combining Arup’s design and technical expertise with this commercial experience helps us to take products from concept, prototyping and production, to the marketplace, continues Minnitt: “First hand experience of manufacturers and markets is an invaluable skill, helping us to engage more effectively in every client’s business and lead them through projects that deliver viable and cost effective designs.”

As the IP business has the potential to create high returns it allows income to be re-invested into new research streams. Using a network that spans London, Melbourne and Hong Kong, Arup has taken six products to market in the last three years. These include the Harkk balustrade system following the collaboration with an Adelaide-based designer and manufacturer Harkk, to secure intellectual property on a suite of highly competitive balustrade systems for residential developments, pool surrounds, café screens, general partitions and signage. The collaboration is managed by a joint venture IP generation company which is licensing the design to manufacturers around the world.

For our clients, having a portfolio of readily available solutions means we can offer solutions in a fraction of the time it would take to return to the drawing board at the start of every project. This has already resulted in natural cost benefits for our clients and non-time dependent income for Arup, proving that instigating and commercialising ideas in collaboration with our clients is a viable way forward for competitive businesses everywhere.



Above: The 17” touch screen Touché presents 24-hour information on a sweeping blade of glass. It has been taken to market by Arup Product Design, with manufacturing partner Interface Signs.

Quick guide to the Arup Product Design toolkit:

- Idea development
- Commercially viable brief generation
- Market research
- Intellectual property registration
- Strong manufacturer and distributor relationships
- Materials selection procedures
- 3D design engineering + visualisation software tools, including high level indicative finite element analysis (FEA)



Left: The Harkk balustrade uses patented connection geometry with no fixings penetrating the glass infill. It is currently licensed for manufacture and distribution to three different companies in China, Australia and Europe.

City Development - Factoring in the wind

Seminar organised by the Arup wind team
Tate Modern, London | Thursday 20th September 2007

This conference aims to highlight good practice in wind engineering, discuss some of the current challenges faced in the field, and introduce some practical solutions to wind issues through the presentation of a number of case studies.

Speakers include:

Karen Cook
Kohn Pedersen Fox Architects

Peter Rees
City of London

Volker Buttgerreit
BMT Fluid Mechanics

Ian Castro
University of Southampton

John Roberts
Ove Arup & Partners

Steve Watts
Davis Langdon

Who should attend?

- Planners
- Architects
- Property Owners
- Developers

To register contact Rachael Dwyer on:
020 7755 2091 | rachael.dwyer@arup.com

www.arup.com/wind

ARUP

NEXT ISSUE

A special edition A², dedicated to reporting live coverage of Arup's second 'One Big Day' event.

This year's action-based event will be looking 'beyond the debate', to explore how the UK's emissions targets can be achieved by 2050. A² magazine will bring you an exclusive round-up and analysis of news and views from leaders and participants, focusing on UK cities, business, technology and society.

We are keen to ensure that this publication is enjoyed by our readers and provides interesting, relevant and informative articles. All feedback is welcome, so please take a couple of moments to complete and return the enclosed readership survey, or send your comments and suggestions to our editorial team at: a2@arup.com.

A² magazine is a quarterly publication produced by Arup for our clients and reflects our mission of shaping a better world.

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Designer: Tessa Smith

Contributors: Jim Chalmers, Matthew Blackbourn, Kate Fairweather



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The ARUP logo is positioned in the bottom-left corner of the page. It consists of the word "ARUP" in a white, serif, all-caps font. The background of the entire page is a light green grid pattern. On the left side, there are several vertical decorative elements: a thin gold line, a wider light blue band, a dark red vertical line, and another light blue band. The logo is placed over the light green grid background.