

The Review

Spotlight

Innovative business models to ensure the success of alternative fuel vehicles.

Innovation

Improving forecasts of adoption through 'Nudge' theory.

Rail

Transforming the future without damaging the present.

Solving the chicken and egg problem of alternative fuels

Welcome

Welcome to the latest edition of Steer Davies Gleave's *Review*. In this issue we proudly introduce SDG Economic Development, our new economic development venture established to build on our existing strength in transport and enhance our service offer to adjacent policy areas such as enterprise, knowledge, skills and governance.

I would also like to personally invite you to our series of inspirational thought-provoking seminars, Movement Matters. These seminars, that take place across the UK and the United States, explore how transport shapes and influences places, people and economies.



Hugh Jones
CEO

Steer Davies Gleave opens new office in the UK

We are delighted to announce the opening of our new office in Manchester which, in conjunction with our established Leeds office, extends our ability to serve all clients in the North of England, The Midlands and Wales.

Our growing Manchester team already comprises consultants with expertise spanning all modes of transport. This team can provide clients with our full range of impartial transport advice and planning services across all modes, development and urban planning.

Also based in our Manchester office is our new integrated economic development offer led by Simon Pringle, formerly with consultancy SQW. His team will work in our UK and European markets, helping clients to improve the competitiveness and the potential of their places, sectors and markets. The roles of science and technology, knowledge and skills, and enterprise and innovation in improving economic performance are key specialisms in their work. For more information on this new venture, please refer to page 3.

Cycling as a catalyst for healthy neighbourhoods

Steer Davies Gleave, Hackney Council and the Hackney Cycling Campaign are joining forces to co-host the sixth annual Hackney Cycling Conference on 27 April 2017. Hackney enjoys the highest levels of cycling in London, and the event has become a fixture in the calendar of professionals, campaigners, and elected members eager to hear new ideas.

The theme for this year's conference is "cycling as a catalyst for healthy neighbourhoods". It will be the first major cycling conference after the Mayor of London publishes his Transport Strategy, and other UK cities will be on the verge of mayoral elections. It is the perfect time for professionals, politicians, academics and campaigners to come together to discuss the implications of these changes for our streets and neighbourhoods.

For further information, including the call for papers and ticket bookings, please visit <http://www.hackney.gov.uk/cycling-conference.htm>

New faces



Andy Collinson
Director

Andy Collinson joins our Advisory team in Leeds as a Director. He has wide experience as High Speed Rail Design Manager and as the Project Director for CDL's 10-year asset management commission for Heathrow Express.



Michael Colella
Associate Director

Michael Colella joins our UK Advisory team as an Associate Director. He brings 20 years' industry experience from working on a range of commercial, economic, and planning issues in the rail sector. Michael will use his strategic and commercial experience to support our Rail team working in areas such as major schemes and devolution and creating bespoke solutions for UK and US clients.



Riccardo Bobisse
Associate

Riccardo joins our UK Planning team as an Associate. He is an urbanist with over 12 years' experience in urban design in both the public and private sectors. He has previously worked on the production of the masterplan for the Old Oak Park development in West London and on masterplanning, urban design strategies and streetscape projects in the UK and Europe.



Keith Whalen
Regional Director

Keith joins us to lead our business development and operations in North America. He brings 27 years of experience, having held several senior leadership positions for top transport management firms.

Looking to move?

If you are considering your future and are looking for somewhere to make a real difference, Steer Davies Gleave has much to offer. The firm continues to grow in Europe, Asia and the Americas. To find out about the opportunities we have to suit you, visit our website:

www.steerdaviesgleave.com/careers

Company updates

New economic development practice launches

Economic development is a story of the interplay of innovations which creatively stimulate, reshape and destroy industries, producing dynamic but often uneven economic and technological progress.

To ensure that economies can manage the many changes and challenges they face, including political, technological and market risks, we need policies and strategies which are place-specific, globally aware, multi-disciplinary and robust in the face of uncertainty.

In response to this, Steer Davies Gleave has launched a new integrated economic development practice – SDG Economic Development –, which works with new and existing public and private sector clients to help them achieve sustained and inclusive economic development in increasingly complex times.

The emphasis of the new practice is on integrated economic development: ensuring that all components of economic success and resilience are examined holistically or as part of a wider system. As such, the practice focuses on the development, appraisal and evaluation of policies, strategies, programmes and projects that promote sustainable and inclusive economic growth. This may be achieved

through infrastructure provision, greater entrepreneurial activity, better generation of knowledge and science and/or increased skills, education and employment. The new practice works creatively with clients in both its vision and approach, and is pragmatic in its implementation and delivery of projects.

One key tenet of the new practice is to leverage its deep understanding of ‘what works’, gained from the extensive experience of delivery and evaluation to develop compelling and effective strategies for clients across the Knowledge, Business, Labour Market and Infrastructure and domains.

The senior leadership team for the new practice includes its new Managing Director, Simon Pringle, who is building a high-powered senior team able to grasp and shape the integrated economic development agenda. The team includes Scott Dickinson and Dr Mark Matthews.



Simon Pringle
Managing Director

Simon is a highly-experienced economic development specialist whose long career has spanned central government and consulting. He brings a wide range of technical, analytical and process skills to economic development work, which position him well to assess the economic performance and future potential of sectors, markets and

places, and to develop solutions for delivering increased competitiveness and economic growth. He has worked extensively across the UK and in Central and Eastern Europe, with much of his work focused on strategy development and innovative action planning. He recently led the Independent Economic Review of the UK’s Northern Powerhouse, and has just been appointed by Liverpool Partners to write the City Region’s Science and Innovation Audit.



Scott Dickinson
Associate

Scott is an economist by training and brings over 25 years’ experience of designing, appraising, delivering and evaluating public policies, strategies and interventions. He has a long-standing interest in developing the understanding of the dynamics of places, sectors and markets, and their interactions with each other. As well as writing national Value-for-Money studies on neighbourhood renewal and sustainable communities for the Audit Commission, Scott co-authored IPPR’s recent ‘BREXIT North’ paper, which sets out BREXIT-related risks and opportunities for the North of England.



Dr Mark Matthews
Associate

Mark is a specialist on the role of science and innovation in economic development and has built a career that spans academia and consulting. This has included executive responsibilities in facilitating international cooperation in these fields and establishing a new public policy think tank. He has worked on a wide range of strategy assignments (including government White Papers) and on evaluations and reviews in science, innovation and industrial competitiveness. Mark is particularly interested in strategies and tactics that help clients improve their innovation processes. He is also keen on developing better ways of communicating and demonstrating the important ‘public good’ outcomes generated by higher education research.

To find out more, visit www.sdgED.com



On the need for transport hub masterplans

The wonders of Crossrail have been heralded for years, and not without reason. The mammoth scale of the engineering endeavour and the technical achievements are admirable. However, from an urban design perspective it is much more exciting to study what Crossrail will do for London.

By **Riccardo Bobisse**

This new public transport artery is going to warp the space-time continuum of the capital, making it an even more connected city and effectively parachuting suburban London into Zone 2. Studies on housing price performance around Crossrail stations all agree that, the closer to the centre of London, the more attractive investment is.

This “*Elizabeth line house property price energising effect*” can be felt within a mile radius of each station, adding up to a substantial quantum of land and housing to be developed¹. In fact, according to recent research, by the time Crossrail is operational it will have added up to £35bn to residential property values around the 37 stations². Do we have the right planning and design tools to take advantage of this scale and pace of change and deliver great places?

If we observe the way the Crossrail project has been delivered and marketed to the public, it is undeniable that there has been a genuine effort to promote design, especially in relation to the stations and the surrounding public realm. However, Crossrail’s remit is limited to the stations and its attention to design stops 50 metres outside the station entrances. This is possibly inevitable, as Crossrail’s corporate mission is to deliver an engineering project on time and budget. However, the effects of Crossrail on surrounding built fabric and the communities living around the stations extends well beyond TfL’s remit and will last for many decades after 2018 when the line opens.

It will be up to Local Authorities to tackle the challenge to transform development



pressure into an opportunity for placemaking. Ideally this will include capturing some of the wealth generated by increased property values to improve social and cultural infrastructure, but the number of stations areas (especially outside central London) currently relying on updated urban design tools is still limited. There is no need to reinvent wheels here, but instead to better use the planning tools that local authorities already have and to ensure that Supplementary Planning Guidance documents provide a vision and a clear process.

As highlighted in SDG’s study on the value of station investment and its regenerative impact³, setting the structure for development gives confidence to potential developers. The role of masterplans is also to ensure that any development delivers a quality built environment and provides the right mix of land uses and types of housing. In this context, masterplans need to be flexible enough to adapt and respond to the needs of politics and the market. They should carefully examine capacity and test the scale of proposed development against environmental quality as well as local character and identity.

Well-conceived masterplans express a shared vision of a place and help achieve it. They should not attempt to crystallise the detailed appearance of an area (unpredictability is a quintessential urban quality!) but to coordinate interventions and bring the attention to local character. Some local authorities have already realised that it is the right time to make use of urban

guidance, but very often this is limited to public realm guidance, lacks a more holistic approach and concentrate on the opportunity areas identified by the previous administration.

We also seem to be at the beginning of a new phase where Councils will take a more proactive approach in the light of Mayor Khan’s recent document “*A City for all Londoners*”⁴. The Mayor intends to accommodate growth within London by intensifying development around stations and well-connected town centres, while retaining and improving placemaking, because in his own words “*as London develops, it is vital it remains a great place to live and work*”. He also talks about “*good growth*” and the need to respect the distinct characters of different parts of the city or “*London’s various villages*”.

It all resonates with good urbanism, but the next step will be to articulate these aspirations into practical tools such as attractive, effective and growth-oriented transport hub masterplans.



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1 <http://bit.ly/2jjaul8>
2 CBRE, 2016 <http://bit.ly/2iKOecE>
3 <http://bit.ly/2jafcvL>
4 <http://bit.ly/2eZu281>

A tale of two plans, or mind the gap!

London has seen rapid change over the past 25 years, reversing decades of decline through a combination of globalisation and adopting ambitious strategies to help unlock growth, embrace diversity and nurture talent. The devolution of powers to London through the creation of the Mayor for London and the London Assembly has been a catalyst in transforming the city. London's Mayors have been at the centre of this change, using its relatively limited powers to showcase what can be done.

By Michael Colella

Whether it is the city's food scene, education system or transport network, it is hard to dispute that London has much improved. However, London is becoming a victim of its own success, and not everyone has benefitted from this. A city which has grown from a little over 6.5 million people in the 1980s to nearly 9 million today is putting severe pressure on its infrastructure and services, with the availability and cost of housing a particular concern. Without clear policies to deal with these issues, London could easily fall victim to the old phrase best said by the late Yogi Berra "Nobody goes there anymore, it's too crowded!"¹.

London sets its future priorities and strategies through a series of documents, most importantly the London Plan, which is currently being revised with a public consultation planned for 2017. The new Mayor for London, Sadiq Khan, and his team are determined to see real change by making it a city for all Londoners. From a transport perspective, the new London Plan consultation is likely to set out a series of ambitious new strategies which could include:

- creating a more sustainable London;
- significantly improving air quality;
- integrating transport investment with housing and jobs potential;
- more emphasis on improved accessibility



and better public spaces; and

- better coordination of national and London investment including HS2 and complementary schemes.

At the heart of this shift is the desire to make London a healthy, resilient, fair and green city. The change in emphasis is driven by a need to deliver improvements in a more synergistic manner, which can lead to better value for money.

Breaking down policy silos could mean that transport investment (besides renewal of existing assets) will in future be driven by its ability to unlock affordable housing, generate new jobs and improve London's environment rather than the other way round. The public consultation on improving air quality in London is a step change on current policies, with people's health and safety becoming more paramount and triggering new travel behaviours with less emphasis on motorised transport.

This policy shift, looking at corridors and more Opportunity Areas, could see a more balanced city but also, through innovative funding strategies, generate increased income streams which could fund the initial investment in the first place. Transport for London (TfL) and the Greater London Authority (GLA) are already looking at some of these principles to support the delivery of Crossrail 2 and the Bakerloo Line Extension

as well as the vision for Old Oak, but there appears to be a greater appetite by the current Mayor to be bold. Corridors provide an opportunity to assemble public land, including TfL, Metropolitan Police and NHS land, in a more holistic approach, to deliver significant levels of affordable housing and better public spaces, helping create a better London, not just a bigger London.

London has been at the forefront of policies that are shaping city regions across the world, including the central London congestion charge, Crossrail 1 funding and cycle networks. Integrating transport with other infrastructure planning policies is critical in enabling London to continue to grow in a more balanced and affordable manner.

At Steer Davies Gleave we see the emerging new London Plan and Mayor's Transport Strategy as an opportunity to see transport as an enabler of good things rather than an end in itself. Bridging that gap should be exciting!



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¹ Quote of former American Baseball Player Yogi Berra on why he no longer ate at one of his favourite restaurants. <http://bit.ly/2jYeS3j>

Solving the ‘chicken and egg’ problem of alternative fuels

A phrase much used in the alternative fuels industry is the ‘chicken and egg problem’. Without demand for recharging and refuelling alternative-fuel vehicles there is no case for investment in infrastructure; but without infrastructure to recharge/refuel them, most people will not buy alternative fuelled vehicles. There is a solution to this problem, but it requires action from both the public and private sectors, new and innovative business models, and perhaps most importantly a long-term approach.



By Jon Peters and Stephen Wainwright

Alternative fuels for transport are coming. Oil is a finite resource and vehicles fuelled with oil derivatives such as petrol and diesel emit pollutants which harm both the environment and human health. Facing this issue, transnational governmental institutions such as the European Commission – as well as national governments – are setting policy and regulatory frameworks to encourage and mandate greater use of alternative fuels. They are investing to support deployment of the recharging and refuelling infrastructure needed to service the growing fleet of vehicles running on alternative fuels such as electricity, compressed natural gas (CNG), liquefied natural gas (LNG) and hydrogen.

But wide scale provision of the necessary infrastructure requires significant investment to provide enough geographical coverage to reduce user anxiety about the availability of recharging and refuelling options. However, the current proportion of the vehicle fleet that runs on alternative fuels is small, and the revenues from the sale of charging, CNG/LNG or hydrogen are not enough even to cover infrastructure operating costs, never mind financing costs, or to generate a return on the capital investment. (see Fig.1)

For this reason, the deployment and operation of alternative fuel infrastructure is currently funded through either public sector grants or benevolent or speculative

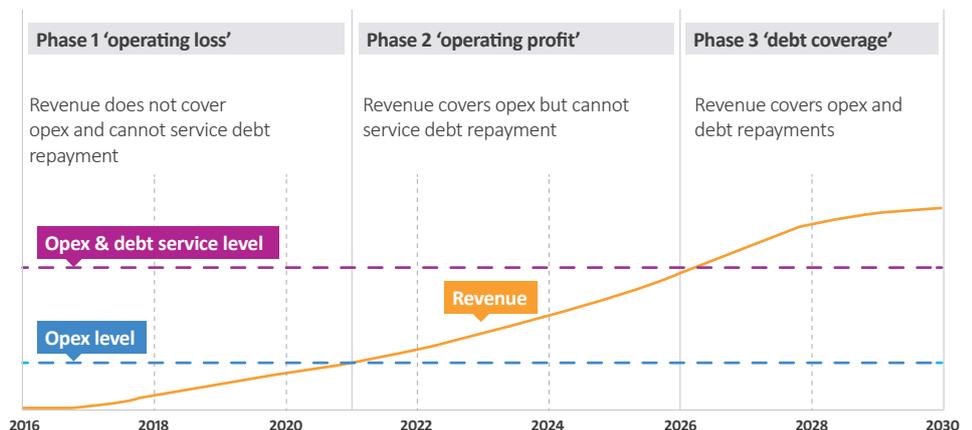
private sector investors. It is not a business that can currently operate commercially (as depicted by Phase 3 in Fig.1) but it needs to be one, if the transition from conventional fuels to alternative fuels is to be achieved at scale and within a timeframe consistent with achieving international policy objectives on decarbonisation.

Making forecasts of demand for alternative fuels in transport is extremely challenging, because large scale change is likely to happen only when policy, regulatory and economic incentives combine to make buying an alternative-fuel vehicle the

sensible choice for most people. This will involve addressing the risks related to the residual value and running costs of new alternative-fuel vehicles for consumers. However, most industry estimates suggest a significant uptake in demand from the mid-2020s onwards.

Our work for the European Commission shows that conventional business models for infrastructure deployment and operation will become commercially viable for electric charging at a similar time, with other alternative fuels following by the late 2020s or the 2030s. To get to that point, however,

Fig.1: Three phases of financeability through demand ramp-up



(Source: Steer Davies Gleave analysis for European Commission, 2016)



either the chicken and egg problem needs to be solved or massive public sector or benevolent investment will be needed, to deploy and support the infrastructure whilst the demand is negligible.

Innovators are looking for ways to break the egg. One of the most promising new business models we have investigated is the ‘Tied Vehicle & Infrastructure’ or ‘Captive Fleet’ model. This provides guaranteed demand for alternative fuels from a vehicle fleet, which improves the business case for investment in the infrastructure. This is achieved through a contracting arrangement that brings together guaranteed fuel purchase with infrastructure deployment and also (optionally) vehicle purchase/leasing. Such projects can bring benefits to a number of stakeholders (see Fig.2) by making the infrastructure available to both the captive fleet and the public.

By removing one part of the chicken and egg problem – the availability of infrastructure – one of the key barriers to consumer demand for alternative fuelled vehicles is removed. The introduction of alternative-fuel vehicles in captive fleets can both reduce fleets’ greenhouse gas emissions and costs, and raise awareness of cleaner technologies, thereby contributing to multiple public sector objectives.

These business models are suitable for many different types of fleet, and particularly suit fleets based in urban areas which

may be fuelled at a single location. Public sector fleets such as local council vehicles like refuse/garbage vehicles, health service vehicles, and taxi and bus fleets (both publicly and privately operated) would often be suitable. Our work suggests a commercial business model for investment for even relatively small fleets of 50-100 vehicles (depending on the background public demand, fleet usage profile and fuel type).

The opportunity exists to develop Captive Fleet projects now, where public sector (local/regional authority) partners are willing to facilitate and potentially co-sponsor projects and where fleet operators (either public or private) are willing to be involved. Depending on the contracting structure, such projects could be carried out almost entirely in the public sector (with a public sector fleet operator and public sector funding/financing). However, PPP structures would also work, and could include private sector bus or other fleet operators (such as logistics), recharging/refuelling infrastructure providers, energy/fuel providers, fleet providers or manufacturers, and financiers.

These projects would be particularly suited to including vehicle purchase/leasing arrangements as part of the contract, with financing structured to avoid large upfront payments for new fleets and reduced fleet costs associated with sizable fleet orders.

A phased approach to deployment of alternative-fuel infrastructure is needed. By using innovative business models such as the ‘Captive Fleet’ now, a backbone of infrastructure can be built up, starting at key urban locations, stimulating public demand

and operating on a commercial basis. Partnership between the public and private sectors will be needed, along with financing instruments tailored to support projects structured in this way. As public demand for alternative fuels grows, conventional models of infrastructure deployment and operation will become viable, and further infrastructure rollout at densely-trafficked areas – such as in urban areas or at transport nodes – can be accomplished on a commercial basis.

Finally, infrastructure will be required on motorways and major roads, enabling interurban and even international travel. Even with mature demand in some areas, public sector intervention is likely to be required with partnership between motorway service area operators, the alternative fuels industry and national/regional government agencies, coordinated at European level to avoid a fragmented network and to ensure full alternative-fuelled mobility.

Steer Davies Gleave will soon be presenting the results of a major study funded by the European Commission into innovative business models and financing solutions for the deployment of alternative fuels infrastructure at a conference organised by the European Commission and the European Investment Bank in Brussels.



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Fig. 2: Stakeholder benefits of Captive Fleet business model

The key benefits to the fleet operator are:

- Help to upgrade fleets to alternative-fuel vehicles (to meet corporate or public sector environmental objectives and/or environmental regulation) which may be at a premium price compared to conventionally-fuelled vehicles, through:
 - access to public sector grants (from the EU and national schemes in the Member States); and
 - access to low-cost financing through utilisation of public sector credit ratings.
- Reduced fuel costs (particularly for fuels such as CNG/LNG where the differential compared to conventional fuels can be very attractive).

The key benefits to the public are:

- Provision of alternative fuels infrastructure, which can then be made available for public use (before it would otherwise be feasible to do so on a commercial basis);
- greater access to the benefits of alternative fuels, such as lower vehicle operating costs;
- emergence of a secondary market for alternative fuel vehicles (as fleets are replaced or upgraded) and increased vehicle uptake, over time mitigating consumer concerns about residual value of alternative fuelled vehicles; and
- cleaner vehicles in urban areas.



INTERVIEW

Laura Shoaf

Managing Director of
Transport for West Midlands



Lessons from across the pond

Born and educated in the US, Laura Shoaf now holds one of the UK's top transport jobs, Managing Director of Transport for West Midlands (TfWM). We asked her whether the new transport agenda there could offer any lessons for planners in North America.

In the last five to ten years, the UK has seen a major shift in the way it approaches transport planning. Rather than designing and delivering transit systems to achieve transport outcomes, planners are now addressing wider social, environmental and economic issues.

"We are thinking about how transport can help ensure we have housing where we need it, how it can unlock jobs and ensure that educational opportunities are in the right place" says Shoaf. "That is the fundamental change that has happened here in the UK."

As a result of this change in approach, neighbouring authorities have started to work together on the transport agenda, which in turn has paved the way for wider political collaboration. These new, larger areas have a stronger voice in central Government, where the ruling Conservative Party's focus is on devolution of power to the UK's regions.

This is the case in the West Midlands, where seven local authorities, including Birmingham, the UK's second biggest city,

created a combined authority in June this year. The combined authority is tasked with driving economic growth and leading strategic policies such as skills, economic regeneration and transport. Almost three million people live in the region, with 77% of households owning cars; last year they made 275 million trips by bus, 50 million by rail and 5 million by light rail.

Shoaf, who studied urban planning at New York University before moving to the UK, heads the combined authority's transport arm TfWM, having worked her way up to this top transport job via a number of strategic planning roles across the West Midlands. "Our plans are ambitious, but they are ambitious for the right reasons," she says. "It's what the people of this region deserve. We want to deliver a sustainable, integrated transit network and we want to see mode shift; the region is still heavily dependent on cars and we would like to see that change."

The challenges faced by the West Midlands' cities and towns are not too different from those faced by many of the US's growing urban conurbations: road and rail networks at capacity, population growth, dependency on cars, and the question of how best to harness the benefits that technologies such as smart ticketing and autonomous cars can bring. In the next 20 years, the area expects its population to grow by 440,000 people, a number equivalent to the current population of Liverpool.

Over the next few years, West Midlanders can expect to see their 'Midland Metro' light rail network expand and the creation of transport links to stations for HS2, the high-speed railway which will link London with Birmingham and cities in the North of England. Buses too, are an important part of the picture, says Shoaf, accounting for the lion's share of journeys each year.

Of course there is one huge difference between the UK and the US, and that is scale. "We struggle because we are a small island, so the ability to use more space is definitely more challenging here," says Shoaf. "We have to be more innovative in the ways we build capacity, because we can't just add another lane to a motorway." Perhaps those lessons of working in limited space could be useful for the US too, muses Shoaf, since one of the battles faced by some US towns and cities is how to limit urban sprawl.

Urban planners in the US could also look to Europe for ideas on how to create 'green cities', says Shoaf, perhaps considering congestion charging to reduce the use of cars in city centres. "Not just in the UK, but across Europe, we're making great strides in defining what green cities look like, what car-free cities look like," she says. "There are some fantastic examples of how modern infrastructure can make a city feel world class and genuinely achieve modal shift."

Transforming the future without damaging the present

Transformational transport infrastructure projects are under way across Europe to meet our increasing demand for travel and city aspirations for greater connectivity. How do you create a step change in passenger experience, connectivity, neighbourhood benefit and operational resilience without damaging the current transport network and experience?

By Mike Goggin

From the major redevelopment of London Bridge Station to the redevelopment of Vienna Hauptbahnhof, the creation of new capacity, enhanced experience and visually appealing transport infrastructure comes at a price and with risks.

The challenge is a big and tangible one. From lost ticket revenues through to community anger and direct disruption, the impact of poorly-delivered investment in transport infrastructure can be catastrophic for the delivery organisations and their political and financial supporters. What then can be done? The mantras of “going into it with your eyes wide open”, “preparation is the key to success”, and “rapid learning is the key to survival” may sound trite but are borne out as critical success factors.

“Eyes wide open”

Understanding the value – operational, economic, financial and reputational – of the railway station/transit hub/motorway junction will provide a clearer case for investing in alternative transport strategies, construction methodologies or program phasing. Simply promising a “better future” will not remove passenger wants and needs. Better then to understand them thoroughly, prioritise their delivery, and communicate fully.

“Preparation is key”

True preparation is building inherent strength and resilience into all the organisations involved. Ensuring staff capability and

equipping them with the tools to deliver is necessary but not sufficient. Individual and collective insight on what is important, and a sense of mission, will empower appropriate rapid and holistic decision-making.

Minute-by-minute decisions will affect thousands of commuters, just as millions in expenditure are laid in concrete and steel. Equilibrium of understanding must exist between immediate business and transport outcomes and ultimate project delivery.

“Learning to survive”

Monitoring, listening, engaging and testing need to be continuous through the project’s delivery. Amending temporary layouts, information provision and retail is required to respond to unanticipated reactions, and seasonal impacts like adverse weather or holiday shopping. It’s an opportunity to minimise passenger disruption and to help support a better final station/hub/junction, without the baggage of a newspaper headline calling attention to failures during construction. So what does this mean for the renaissance of transport infrastructure and, I’d argue, for its public transit and highway networks in major cities?

It means a cold, hard calculated assessment of the impacts, conservatism in the ambition over what can be achieved, a ruthlessness to simulate and pilot different scenarios for their impacts, and a creativity to embrace technical, commercial

and behavioural tactics to develop optimal solutions. Once-in-a-generation reconstruction is worth paying for, but not at any price.



To find out more, contact:

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Best laid plans frustrated

During Christmas 2014, Network Rail was performing a major infrastructure renewal in the centre of London that affected one of the city’s key rail stations, London Kings Cross. Things went wrong and the track blockade continued beyond its original timescale. This was further exacerbated when the contingency plans were not implemented, as different teams of staff decided to react to the situation without cognizance of the wider impacts. Although they were working in good faith, ignoring the plan for something untested and uncommunicated sparked hostility from passengers and provoked a highly critical national media. This example shows us that there is a need for shared confidence of decisions and intent, through well-rehearsed collective cohesion among individuals and organisations.



Vienna Hauptbahnhof

Movement Matters

UNITED KINGDOM

Movement Matters is a series of inspirational seminars, debates and workshops, presented by Steer Davies Gleave, exploring how transport shapes and influences places, people and economies.

Drawing on experience from international leaders in transport, government and related industries, we share insights and debate opportunities and challenges. Our series of events spans the UK and the USA, with sessions planned in London, Manchester, Leeds, Los Angeles, Boston and New York.

The UK sessions feature a range of thought-provoking and stimulating topics including the relationship of technology and transport, the challenges of increasing urbanisation and the demographic timebomb and its effects to our cities.

Steer Davies Gleave’s Movement Matters series provide a burst of fresh thinking without keeping you out of the office for too long. Explore upcoming sessions below:

01

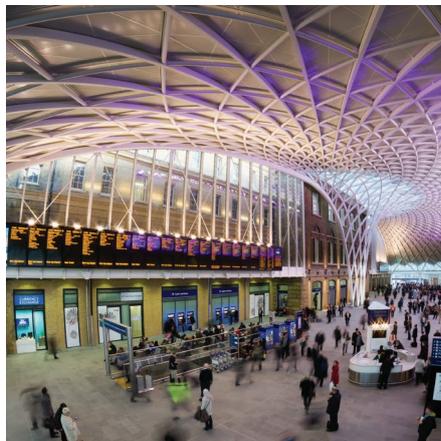
The future railway organisation

29 March, 2017

Topics discussed:

How will Britain’s political landscape, technology changes and the continuing need for capacity, impact railway organisations as we currently know them?

What is the best shape and nature of the future railway organisation to bring about sustainable, efficient and successful change?



How do you bring infrastructure and operations together for the benefit of the user?

There are multiple challenges to be addressed in Britain’s railways – arguably the most radical changes lie ahead since the demise of steam and the reconstruction of the railway after the Second World War.

As Britain’s railways see the emergence of new digital technologies, the dawn of HS2 and continuing growth in demand, what will be the implications for rail infrastructure management and train services delivery?

Our specially-selected panel will offer insights from outside the UK, from airport-airline relationships, and from establishing a new organisation to manage a brand new railway such as the Elizabeth Line. Join us to discuss how Britain’s railway needs to adapt to deliver for the future.

Speakers

- Stephen Gardner**, Amtrak
- Andrew Haines**, Civil Aviation Authority
- Howard Smith**, Transport for London

02

Disruption or decline, what’s next for the black cab?

10 May, 2017

Topics discussed:

How can the industry adapt to respond to new transport technologies and mobility trends?

Traditional cabs versus on-demand taxi services, how can both co-habit?

On-demand taxi services from companies such as Uber and Gett are providing new ways of travelling around our cities and towns. In many cities these services are offering greater numbers of vehicles and lower prices than traditional black cabs and minicabs, providing greater choice for users.



This seminar will discuss the future of the black cab in London and explore how the industry is adapting to respond to new transport technologies.

Our specially-selected expert panel will discuss the future of the black cab and the taxi and private hire industry more widely, including how the sector can adapt to address air quality, integrate with other transport modes through Mobility as a Service and evolve with the introduction of autonomous vehicles.

Speakers

Thomas Moody, Transport for London
Matteo de Renzi, Gett Taxi
Matthew Clark, Steer Davies Gleave

03

The rise of the high-rise

14 June, 2017

Topics discussed:

How can London cope with higher densities in a constrained space?

How is the London skyline changing and what is planned for the future?

London faces the need to deliver of the order of 50,000 new homes per annum for the next 20 years. With a constrained city that needs to respect the desire to protect open space and a greenbelt that prohibits its outward growth, London development will inevitably need to provide homes at greater densities than has historically been the accepted norm.



Sustainable development and appropriate density ranges are influenced by setting in terms of location, existing building form and massing, and public transport accessibility.

This Movement Matters session will provide a forum for an informed discussion around the subject of density of development in London and how existing and planned transport corridors offer opportunities for delivering greater housing numbers in the outer parts of London.

Our panellists will set the scene in terms of a policy position from Transport for London, an architect's view on how good design can deliver quality development at increasing densities, and an indication of how developers are reacting to evolving policy and their customers' view on desirable development.

Speakers

Lucinda Turner, Transport for London
Artur Carulla, Allies and Morrison LLP.
 Leading house builder - TBC

To register for free or to find out more about Movement Matters, please visit: movementmatters-sdg.com



Upcoming

The future railway organisation

29 March, 6.00-9.00pm

Speakers

Stephen Gardner, Amtrak
 Andrew Haines, Civil Aviation Authority
 Howard Smith, Transport for London

Disruption or decline, what's next for the black cab?

10 May, 8.30-10.00am

Speakers

Thomas Moody, Transport for London
 Matteo de Renzi, Gett Taxi
 Matthew Clark, Steer Davies Gleave

The rise of the high-rise

14 June, 8.00-10.00am

Speakers

Lucinda Turner, Transport for London
 Artur Carulla, Allies and Morrison LLP

The night economy of 24-hour cities

September 2017 (TBC), 8.30-10.00am

*Tickets allocated on a first come first served basis

*Please note, the programme and speakers are subject to change.



INTERVIEW
Kunal Kumar
 Municipal Commissioner
 for Pune, India



India's smart cities challenge

For this issue of The Review, we spoke to Kunal Kumar, Municipal Commissioner for Pune, India, about the city's ambitions to become a smart city.

Pune is a major Indian city, the second largest in the western state of Maharashtra. It is a wonderful example of the vibrancy, excitement and ancient culture for which India's cities are famous, but it suffers from all the social problems that come with the energy and colour, too.

As in so many Indian cities, large-scale poverty and homelessness, crime, congestion and pollution are a constant challenge to politicians, planners and citizens in Pune. With urban populations growing year on year – in a country on course to be the most populous in the world by 2030 – it might look as though those problems can only get worse.

Unless, that is, a radical new approach to city planning can be found, Pune Municipal Commissioner, Kunal Kumar, believes that the India Smart Cities Challenge can be the key to finding that radical alternative.

The Smart Cities Challenge invited all Indian states to nominate cities to compete for redevelopment funding. Pune was one of 20 winning cities selected from 97 initial entries for its creative 'smart' approach to planning. But what exactly does 'smart' mean?

Commissioner Kumar explains: "When people hear 'smart' they think high-tech, but

it doesn't mean that, or, at least, it doesn't necessarily mean that" he says. "The main thrust of a smart approach is to maximise the use of existing resources, to get more from less and to mobilise the population. Putting all our heads together makes us all smarter; it's the only way of improving a place in the ways the people who live and work there really want and need."

The emphasis on participation is a constant theme: "The people best placed to understand what a city needs are the people who live and work in it," argues Commissioner Kumar. "Right from the start we based our plans on consultation. We asked what people wanted and developed their ideas into three main 'pillars': economic sustainability; environmental sustainability; and quality of life. Of course the needs of a city like Pune are complex but the number one priority was very clear: better transportation."

This is, perhaps, not such a surprise. Transportation directly affects all three of Commissioner Kumar's 'pillars'. "Encouraging car owners to get out of their vehicles and into much more energy-efficient and green modes of transportation can make a huge difference to the air quality in our city as well as reducing congestion," he explains. "But we had to be clever about it. We didn't want to just commission some shiny new eco-buses that would end up adding to the congestion, looking green on paper but not so much on the streets."

The solution was one area where 'smart' really does mean high-tech. Steer Davies Gleave was invited to work with the city on transportation planning, and proposed an Intelligent Transportation System. GPS tracking through a control and command centre will keep the buses moving and keep the passengers up to date with live information about where they are.

Coupled with new spending on pedestrian friendly road infrastructure, the smart bus system should deliver faster, more reliable journey times with lower emissions. It is a virtuous circle: getting car owners onto buses, and buses running efficiently with good consumer information, makes space for cycle schemes that actually work – Pune plans to increase cycling from 9% to 25% of journeys.

All too often the image of public transport in India calls to mind the ancient and horribly overcrowded train or bus, struggling through chaotic, congested streets. Pune and other smart cities could be about to change all that.

As Commissioner Kumar says: "The difference that these changes could make for the quality of life in Pune cannot be exaggerated. And if we can do it, others can too. We know that people think of Indian cities as chaotic and overcrowded, but watch this space. We're changing things here and the way we are doing it could offer lessons for the whole world."

Studying prices and quality of rail passenger services

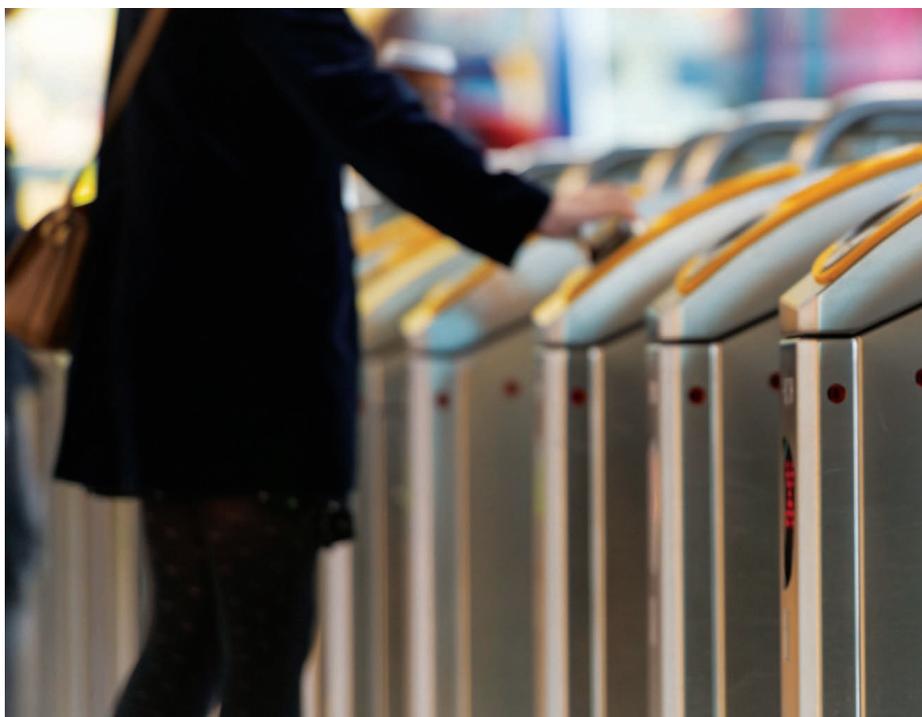
Rail fares in most of Europe were at one point strictly regulated as a function of distance, in many cases to avoid private sector railways exploiting their market power. While some European railways still have such “kilometric” fares, at least for longer-distance travel, recent work by Steer Davies Gleave has revealed increasing diversity in not only the structure and level of fares but also how they are sold as tickets.

By Dick Dunmore

Pressure from competing airlines, and in some cases from open access rail operators, has led many rail operators to abandon kilometric fares in favour of charging what the market will bear or, increasingly, offering discounts for less flexible advance purchase or off-peak tickets. There is also a divergence between long-distance and international fares, typically left to the market, and regional and suburban fares, typically specified by the relevant local authorities and tailored to commuters and those who need to change between rail, tram and bus.

Many larger cities have now switched to zonal fares, whether a single zone covering the whole city, or concentric rings, or sectors or a mosaic of zones, some of which extend up to 50 kilometres from the city centre. Varying the number and size of the zones, and the discounts for all-day or period tickets, allows the authorities to vary the relative prices paid in the city centre and the suburbs, by peak and off-peak passengers, or by regular users or brief visitors.

One consequence of local variations in fares is that every city has a different approach. In some cities fares are based on distance, or the number of zones entered, but in others each ticket is valid for a specific period of time. A “day” ticket may be valid on a calendar date or, as in Budapest, for exactly 24 hours after it is bought. The range of discounts available for particular groups varies widely: transitions between free travel,



child and adult fares occur at almost every age up to 18, or in some cases are deferred for students or the unemployed. Fares for the elderly may apply from a particular age, or from industry-specific retirement dates, or be linked to a pensionable injury. Discounted or free travel may also be offered to families or groups of unrelated people travelling together. In some states parents have railcards entitling any children with them to a discount, but in others children have railcards nominating the parents and grandparents with whom they may travel.

Two European states, the Netherlands and Switzerland, have divided their entire network into fares zones, although individual cities or conurbations can still offer local fares and discounts. In the Netherlands, the OV-Chipkaart smart card allows passengers to pay for any journey by touching in and out, although lower fares may be available. Switzerland offers four different types of season ticket, depending on whether commuters wish merely to travel between two points, or to include local travel at one or both ends, or to have access to all modes of public transport across a particular area.

Smart cards such as the OV-Chipkaart are becoming more common but require the provision of card readers which may not be cost-effective unless, as is common in Great Britain, they are accompanied by barriers which also reduce or prevent ticketless travel. Many cities with a tradition of “open” public

transport systems, in contrast, have retained paper tickets, backed up with random ticket inspections, although in some cases M-tickets, displayed as a bar or QR code, can be bought and “carried” on a mobile phone.

London, which introduced its Oyster smart card in 2003, now accepts payment by contactless credit and debit cards from banks around the world, meaning that visitors need only “touch in” and “touch out” with their existing card to pay for their travel

Contactless payment began on the buses in December 2012, expanded to other modes in September 2014, and by July 2016 more than 500 million journeys had been paid for with more than 12 million cards from 90 different countries. In July 2016 Transport for London signed a licence agreement¹ allowing the underlying system to be used by other cities.



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¹ Details of the licensing agreement can be found here <https://tfl.gov.uk/info-for/media/press-releases/2016/july/licencing-london-s-contactless-ticketing-system>

Improving forecasts through 'Nudge' theory

It is notoriously difficult to predict what's going to happen with new technologies. However, being able to do so is of uttermost importance in the transport sector. Behavioural Economics, if applied correctly, can help in this almost impossible quest of predicting the speed of adoption of new technology. To illustrate this, we use two very different types of technology, Uber and Electric Vehicles.

By Tony Duckenfield

At the moment, with all the various emerging technologies affecting the transport industry, such as autonomous vehicles, Mobility as a Service, or Shared Transport solutions, it has never been more important to be able to predict the speed of adoption of new technologies and its impacts.

These innovations could transform our communities and cities and have a profound impact on society and the economy. This is only if city planners take advantage of the opportunities the new technologies offer, while also mitigating their unintended negative consequences, and for this to happen we need certainty and data.

To illustrate how Behavioural Economics can help with predicting the speed of adoption of new technology we use two very different types of technology: Uber, the cab booking app, and electric vehicles (EVs). Both technologies have proved to be successful, but the rate of adoption for them has been quite different. Uber has gone from being a start-up to a £50 billion multinational in seven years, a rate of growth which few expected. On the other hand, electric vehicles (or EVs) have only really started to take off in 2016, after ten years, with adoption at the low end of forecasts.



Introducing Behavioural Economics

Behavioural Economics can be viewed as a set of principles, derived from observations, which help to explain human behaviour. It has developed out of a desire to explain outcomes which are at odds with those expected from a classical economics viewpoint. While more commonly thought of in the context of influencing (or 'nudging') behaviour, it is equally applicable to predicting the take-up of new technologies.

The impact of some of the principles of Behavioural Economics are summarised below in the context of the consumer reaction to Uber and EVs.

- **Herd behaviour** - Clever marketing has enabled Uber to become fashionable among its key target audience and even when it was small, it behaved as though it was big. EVs, on the other hand, are still seen as a niche product.
- **Habits** - For people already using mobile phone apps (the majority of smart phone users), using a cab booking app is not an issue and it is just part of the smart phone user habit. The same is not the case for EVs, where there is a need to break the habit of buying a petrol- or diesel-powered vehicle.

This requires a significant intervention and a clear reason for considering change.

- **Being seen to be good** - This potential positive for EVs has been challenged by the negative media coverage concerning their environmental credentials, combined with messages that something much cleaner (hydrogen fuel cells) is just around the corner. Uber can be seen to be good for the environment by making it unnecessary to own a car.
- **Empowerment** - A key feature of the Uber app (and indeed other cab booking apps) is that they are all about empowering users, by giving them control and information, including the ability to rate drivers. In contrast, the issue with EVs (albeit more perceptual than actual) is 'range anxiety', which reflects a lack of control over the ability to refuel at any time.
- **Relativity** - For cab booking apps relativity is a positive factor, as they are seen to be cheaper than taxis, while for EVs the reverse is the case as they are perceived to be more expensive than petrol or diesel vehicles (see also short-termism).



- **Short-termism** - This is a major challenge for EVs, since a higher short term cost is being traded off against long term running costs. There is no equivalent issue with cab booking apps as there is no up-front cost; also savings are immediate, especially with the incentives used to encourage sign-up.
- **Messenger** - Uber's success has been fuelled by the role played by Uber users themselves in spreading the message (which they are incentivised to do by money-off promotions). There is no equivalent 'voice' extolling the benefits of EVs.

Implications and applications

This comparison between Uber and EVs helps to illustrate how Behavioural Economics can be used to help understand the issues related to the adoption of new technologies, and how the process of adoption can be speeded up. A topical current example is autonomous vehicles, where we can see that the empowerment principle is a key factor, since they involve giving up a degree of control. On the other hand, if the aim is to encourage their adoption, the short-termism, being

seen to be good, and relativity principles might be deployed through attractive pricing models which encourage sharing, and the use of environmentally friendly vehicles such as EVs.



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Suggested further reading:

- "Using Behavioural Insights to influence travel behaviour", Tony Duckenfield (<http://tinyurl.com/gp8bc3g>)
- "Thinking Fast & Slow", Daniel Kahneman
- "Behavioural economics: seven principles for policy-makers" New Economics Foundation
- "Nudge", Thaler and Sunstein
- "Inside the Nudge Unit", David Halpern

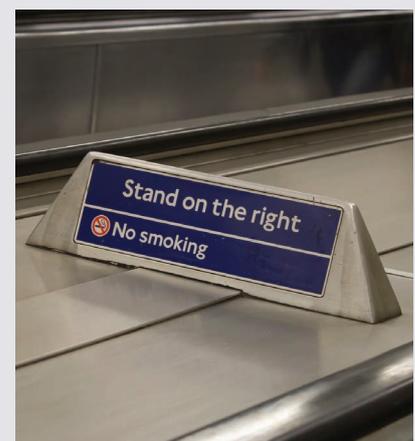
News in brief

Empowering critical thinking through SDG's R&I programme

Our internal Research and Innovation programme exists to empower staff to ask demanding questions about what we do and how we do it, and to invest time and energy in developing new methods and answers. We host meetings every two weeks for people to bring ideas and sound them out with colleagues. Everyone is encouraged to be original, creative or just plain eccentric at this stage: we believe that even the strangest of ideas can lead to fresh ways of doing things.

It is a challenge to convey the variety of topics our staff have taken on over the last three years. We've considered the use of luminescent paint on roads and efficient ways for passengers to board aircraft; we wondered whether the 'death of the High Street' is inevitable (no, it isn't); we considered new ways to finance rolling stock, and why men seem more likely to be killed in cycling accidents than women; we've modelled the effect of the 2014/15 fall in fuel prices on travel, and reviewed the implications of an ageing population for transport; and we have benchmarked construction costs for LRT and Metro, and figured out why TfL found it's better if people don't walk up escalators at busy London Underground stations. Perhaps most perplexing of all, we tried to map out the consequences of Brexit for transport in the UK (it's complicated).

For more information about R&I, including our next R&I showcase client event, please contact john.swanson@sdgworld.net



Optimising event-day mobility experiences

The sports and events market is having to respond to the rise of digital engagement to ensure that their brands stay relevant and that they can connect with fans. The challenge for these sports brands is how to make the digital content relevant to event day and non-event day attendees. A key part of this engagement is connecting fans with multimodal transport services and using data analytics to improve the end to end journey.

By Russell Yell

As sports brands evolve their digital engagement strategies there is a growing trend to deliver event-day specific solutions, providing a smartphone app which equips fans with features such as live video content, venue access control, cashless refreshment ordering and indoor navigation. To complement this, sport venues are also being equipped with high density wi-fi networks and other connectivity services to ensure that the audience is engaged and has an optimal experience within the venue.

A successful event day for a fan is one where the travel to and from the venue is as stress-free as possible and they are given as much time as they desire to enjoy their time at the event. Stress for spectators can be reduced by ensuring that they are well-informed with timely, relevant information and an awareness of suitable travel options. Communicating transport information as part of the digital engagement strategy is therefore essential. However, the extent to which this is done and who is responsible for this engagement varies greatly.

Solutions such as Paris St Germain's Stadium App and Olympique Lyonnais' Parc OL App interact with the fan before they leave their home, providing transport information to help fans make the right travel choices and purchase tickets for services. The 2015 Rugby World Cup journey planner delivered by Steer Davies Gleave was also an integral part of the Travel Demand Management Strategy for the tournament, and was well embedded and key in the digital communications process. Other events and venues, however take a less integrated

approach, passing any travel information needs to a third party journey planner. This disconnect limits the ability of the event operator to interact dynamically with the customer and to influence their behaviour.

As smartphone use grows, so do new ways of interacting with transport systems. New on-demand services (such as Uber), geofenced and personalised alerts, and mobile ticketing, give the user exposure to more personalised and dynamic content, and they represent an amazing opportunity for operators. Behind the scenes the operators of these digital assets can learn from the data flow to influence behaviour. For a sporting venue the way in which people interact with these new services needs to be controlled, to ensure that the attendees are making best use of available transport capacity, can enjoy a stress-free match day experience, and do not cause unnecessary congestion on the surrounding transport networks.

So, as sports brands invest in digital engagement they should not lose sight of the opportunity to include an affiliated mobility

offering which will equip them with the means to influence dynamically the travel behaviour of their customers and ultimately to deliver an event where transport isn't the lasting memory.

Our Sports and Major Events team at Steer Davies Gleave is working closely with our Intelligent Mobility team to advise our clients on how disruptive services, data and dynamic digital engagement can be embedded into their operations to deliver successful mobility outcomes. We are currently working with a European sports governing body to deliver a standalone solution for one of their events in 2017.



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Fig.1: Steer Davies Gleave's event day mobility engagement concept



Making money go further

With the eye-opening scale of some of the transport transactions we are involved in, perhaps we think once the deal is done, the excitement is over – and the asset just runs. But the new owners of the infrastructure will now face significant expenditure over the life of the contract, making sure that the asset continues to perform as required and is fit for hand back at the end of the concession.

By Lucia Manzi

In planning this expenditure, the operators will face important decisions on how to manage their asset: that is, how they schedule their work programme and prioritise their investment decisions. The questions that they must ask include:

- Are we spending our money efficiently? Should it be prioritised differently?
- How do we maintain the asset at minimum cost without missing the performance targets?
- How should the allocation of maintenance budget change over time?

In broad brush terms they can follow three different approaches. They can:

- **Spend and Save:** bring the asset up to such a condition at the outset that no further expenditure is required.
- **Spend little and often:** make smaller but frequent interventions aimed at keeping the asset condition stable.
- **Rot and Replace:** the opposite of spend and save, ignore maintenance until an unacceptable level of service is provided – and then invest until an appropriate level is achieved.
- A combination of the above.

Building up from its extensive knowledge in asset demand and its characteristics and evolution over time, Steer Davies Gleave has developed a “top-down” asset management tool which can help asset owners to optimise their maintenance strategies. The tool applies systems dynamics principles to model the behaviour of complex systems



over time, using a number of feedback loops and considering external variables and/or constraints that affect the system. The model can be used at a strategic level to optimise the use of capital and operational expenditure over the life of assets.

Given a set of starting conditions, the model can simulate the performance of the system over time, reporting on the operating condition, the various types of expenditure and the penalty charges incurred. Changes can be made to assumptions and data values to rerun the model and compare the outputs.

As a management tool, the model can help to optimise the pattern of expenditure so that it can minimise costs and the risks of contractual failure and penalty charges. To do this it runs repeated cycles, searching through many different patterns of expenditure within a given total budget, to find the mix that minimises the penalty charges. This provides a rapid way of seeing how service provision can be improved within a given budget.

This is another tool that our technical team can use in supporting investors and their financial backers in proving and enhancing the values of their assets.



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News in brief

Steer Davies Gleave to develop Bankside Boardwalk in London's SE1

SDG's Design for Movement team was selected by the Better Bankside Business Improvement District as the winners of the Bankside Boardwalk design competition, an initiative part-funded by Transport for London's Future Streets Incubator.

Initially located on Lavington Street near London's Tate Modern, the reusable boardwalk will help to test how streets and pavements can be reconfigured to respond to the changing pressures that streets in cities and towns face, including accommodating increases in footfall and the need to navigate safely around building sites, temporary hoardings or road works. The boardwalk will be installed in 2017 after engagement with local businesses and residents, and will be on site for a six-month trial.

London's US Embassy receives planning permission

The large-scale construction of new developments in the surroundings of Vauxhall/Battersea Power Station continues apace. One of the first schemes to open will be the new US Embassy, which is relocating from Grosvenor Square. This relocation has released the existing Grade II listed embassy building for redevelopment as a luxury hotel located in the heart of Mayfair.

SDG has provided transport advice for the redesign of the Grosvenor Square listed building to provide a luxury hotel. The key transport issue is the removal of the existing security measures and road closures around the current Embassy building, which will help reintegrate the site with the surrounding urban environment. The scheme received planning consent in November 2016 and construction is due to begin mid-2017.





Growing appetite, limited opportunities

The last decade has been difficult for transport infrastructure providers. After years of reliable growth, motorway traffic fell or remained static, after the 2008 financial crisis. Traffic through airports, railways and even ferries also suffered. However, it seems that across Europe the market has stabilised, and we are again seeing progressive traffic recovery and growth. In response, there is a growing appetite for investment in the sector through new PPP schemes, and specially through secondary sales/acquisitions and refinancing.

By Charles Russell and Lucia Manzi

Through our many projects in this field, Steer Davies Gleave has been able to build a picture of traffic development over the last years across Europe and worldwide. We can see that, in part reflecting the socio-economic performance of each country, motorway traffic in Germany, France and the UK was only marginally affected by the turbulence of the 2008 economic crash and its consequences, and we have seen steady growth in these markets from 2012 (see Fig 1). In Spain and in Italy, the impact of

the crisis was much more dramatic. Here too, however, traffic began to recover from 2012 onwards.

In 2016, we have finally seen accelerated growth across almost all the transport assets we have reviewed, and backed by robust data and forecasting we believe that this trend will continue in the medium term. Slow but sustained economic growth across the EU economies will lead to growth in traffic levels, although shocks from Brexit and any further changes in the political landscape elsewhere could derail this picture.

Reflecting this increased certainty in the commercial futures of the assets, owners are again exploring how they can maximise their position. While we do see a slim but steady pipeline of new greenfield PPP transactions in Belgium and the Netherlands, and expectations of new projects in France, Germany and Norway, much of the activity is now focusing on the secondary market.

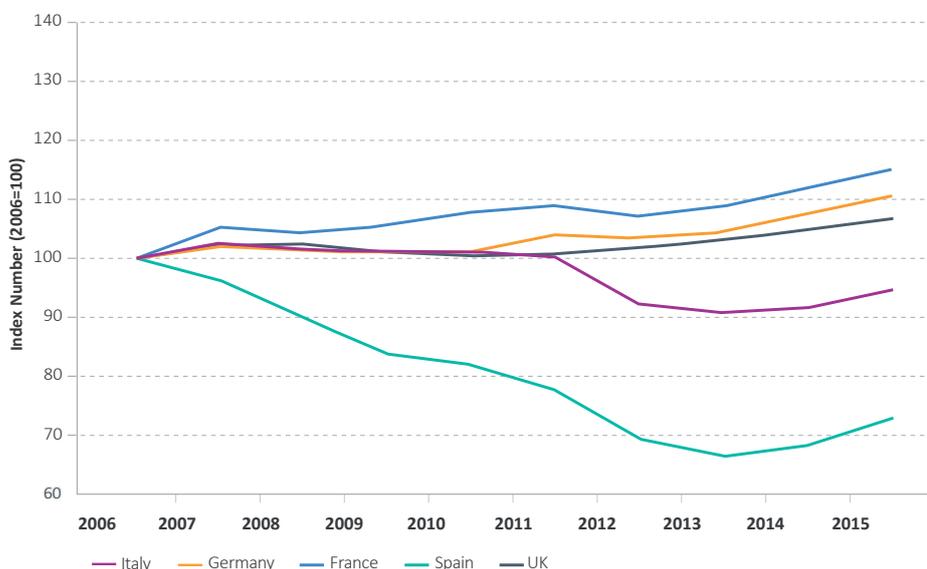
In response to this, Steer Davies Gleave has been actively working on a number of projects, across all asset types, on both the buy and sell sides. These transactions have covered individual facilities as well as important portfolios of mature assets, with interest from many of the traditional investors as well as an increasing range of infrastructure funds.

The Spanish and Portuguese markets have been very active. Assets brought into operation during the boom years have been actively traded – with increased confidence in the traffic and revenue levels allowing both sellers and buyers to reach shared valuations of the worth of the assets. There have also been a number of transactions in France, Ireland and Italy, while in the UK a significant shareholding in the M25 concession was traded and the sole tolled motorway asset in the country, the M6 Toll, was being sold as the Review went to press.

While toll road and airport transactions remain at the core of the secondary transport market, we have also been supporting an increasing number of “core+” projects such as parking operations, service stations and station retail.

From our position in the market as traffic and technical advisors, we can see that the number of potential investors in the market keeps growing. We are seeing requests for support from many new, or newly-named, funds wishing to enter the market. While many of these are based in Europe, we have also met investors from across the world, from Canada, USA, Australia as well as the Gulf, South East Asia and China. Linklaters¹ recently reported that, over

Fig 1: Motorway traffic levels in selected European countries



Source: Steer Davies Gleave report

the next ten years, global institutional investors will have funds of US\$1 trillion at their disposal for investments in European transport and renewable infrastructure assets. Unless a sufficient flow of suitable deals come to market, this demand will almost certainly drive up prices for core assets and stimulate growing interest in the less conventional assets.

Of course, reflecting the steady but slow growth of the European PPP markets, traditional sponsors – such as contractors Vinci, ACS and Atlantia – are examining new greenfield projects across the world, seeking opportunities in the emerging brownfield markets in the Americas and elsewhere.

Steer Davies Gleave has the experience and the spread to support international investors across this complex global market. We have offices in a number of the countries with the most active PPP markets (in Europe, Canada, USA, Mexico, Colombia, Chile and Brazil) where we can provide a real ‘on the ground’ understanding of the assets and of the social, economic and regulatory environment in which they operate. We have just established an office in India, as that country’s toll road market opens up, and we have proven experience across many other important countries, including Australia and south east Asia.

Across all of our assignments, we can offer an international team drawn from across our different geographies. This gives to our clients a consistent service reflecting our international best practice and our understanding and relationships with our different clients. We think this represents a unique strength of Steer Davies Gleave’s success in building the reputation we have across the world of infrastructure finance.



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1 <https://www.ft.com/content/f0722c82-051b-11e5-9627-00144feabdc0>

News in brief

Passante di Mestre receives ‘European Bond Deal of the Year’ 2016 PFI Award

We are delighted to announce that Passante di Mestre, a successful project in which Steer Davies Gleave was involved, has won the 2016 PFI Award ‘European Bond Deal of the Year’ from Project Finance International. Steer Davies Gleave acted as technical and traffic advisors to the bond underwriters.

The Passante di Mestre project is a toll road bypassing the city of Venice in northern Italy. The concession holder Concessioni Autostradali Venete (CAV) is the first issuer in Italy to benefit from the Project Bond Credit Enhancement Initiative (PBCE) launched by the European Investment Bank (EIB).

The PFI Awards honour achievement and ingenuity in the global project finance market. The awards were presented at the 2016 PFI Awards Dinner, which took place on the evening of Wednesday 1 February 2017 at the Hilton Park Lane in London. The event is considered to be one of the most prestigious events in the global project finance calendar, and saw 800 of the world’s most senior and successful market professionals gather to celebrate industry excellence.

Marco Concari, Head of Technical Due Diligence at Steer Davies Gleave, was present at the event with our client.



Complex questions. Powerful answers.

Infrastructure, cities and transport are constantly evolving to meet new demands, new ideas and new technologies. Mixing rigour and technical expertise with an open-minded, imaginative approach, we help our clients maximise opportunity and realise value within this rapidly changing landscape.

Impartial, objective and results-driven, we are never content simply to meet expectations. We combine our commercial, economic and planning expertise to find powerful answers to complex questions. Answers that help people, places and economies thrive.