


AirPlus

INTERNATIONAL



**AirPlus Business Travel 2060.**  
A glimpse 50 years into the future of  
business travel.

AIRPLUS. WHAT TRAVEL PAYMENT IS ALL ABOUT.

This paper intends to cover the economic, social, cultural, infrastructural, technological and environmental factors that may impact the business travel industry over the next 50 years.

# The future is almost impossible to predict, but we can present some educated ideas.



Dear Reader,

Looking into the future of business travel is tough, as so many factors influence the industry. An ongoing tug of war will inevitably occur between cultural changes in the way people will want to live their lives, economic developments of those nations that will emerge as more powerful than the west, and environmental factors which will urge the population to think ever more about the effect their actions have on the planet's well-being.

This paper is by no means a definitive outlook on what the world will look like in 50 years, that's anyone's guess, but we intend to outline some of the key trends and possible scenarios that may emerge and could have a significant impact on the way travel management is conducted.

I think the most interesting proposal is the concept of travel management becoming a thing of the past. Travel managers will become, in essence, mobility managers or meetings managers: responsible for getting people in front of one another by the most appropriate means, whether that be via WebEx,

teleconference, videoconference or face to face. With ever-increasing pressures to measure business travel's return on investment, using the most cost effective technique to get people communicating while achieving results will be vital.

We hope you will read on with interest, not because you need to adjust your travel programme to respond today, but as a passionate participant in the field of business travel.

A handwritten signature in black ink that reads "Yael Klein".

**Yael Klein**  
UK Managing Director  
AirPlus International





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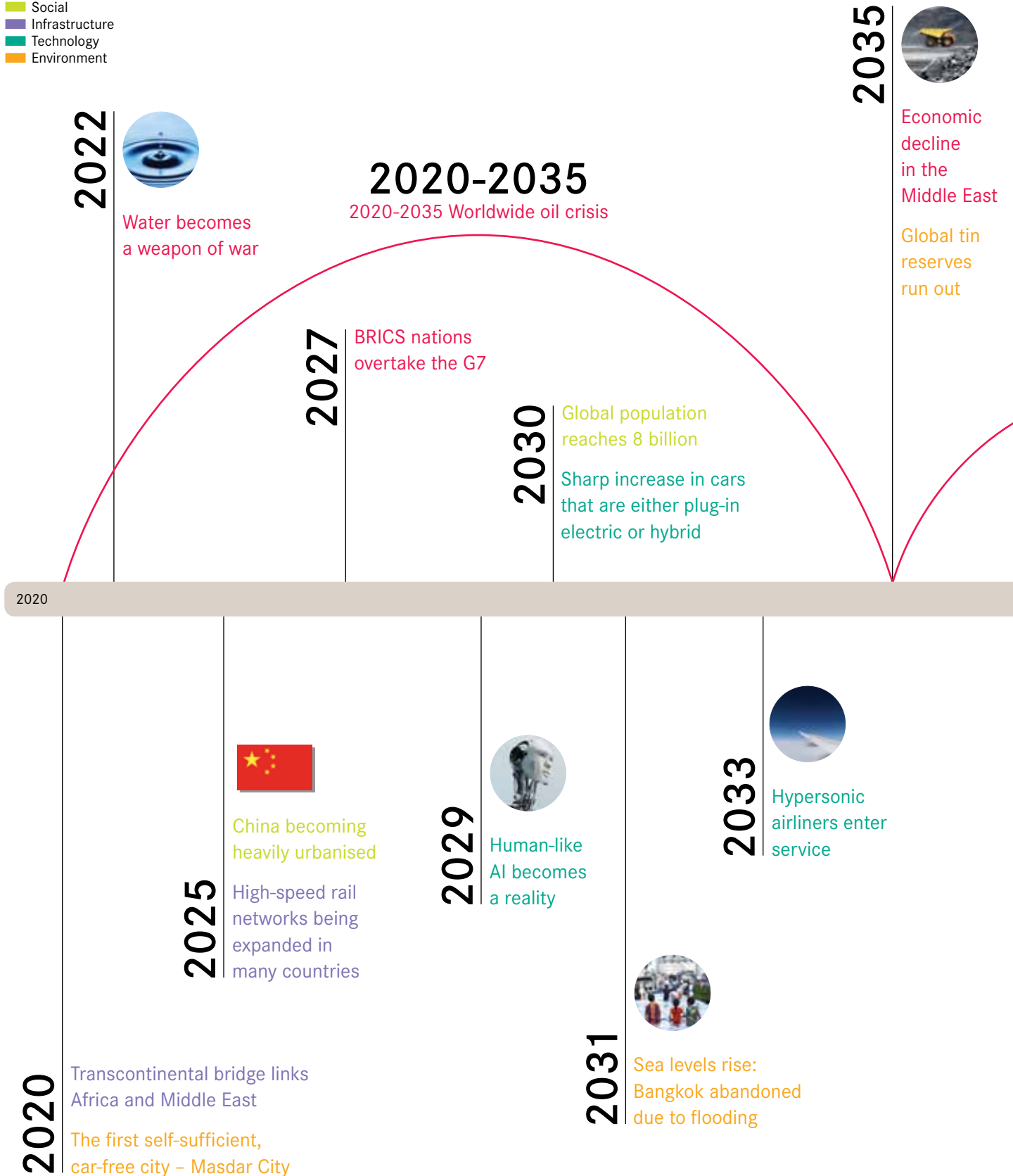
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# Business travel timeline 2020-2060.

- Economic
- Social
- Infrastructure
- Technology
- Environment



## 2035-2040

Russia becomes a food superpower



2044



Transglobal road and rail network opens

2056

The Earth is the hottest it has been for over 3 million years

2061



UK population reaches 80 million, becoming Europe's biggest country

2061

2041



Global population reaches 9 billion

Global average temperatures rise by 20°C

2045



Gulf Coast abandoned due to super-hurricanes

2050



Maximum long-distance air travel time 2.5 hours

Virtual telepathy dominates personal communication

Green energy resources make up to 30% of global energy consumption

# Introduction.

## Note from the writer

Crystal-ball gazing is never future-proof. In such an uncertain world there are inherent difficulties in looking ahead just 10 years, let alone 50.

Would industry commentators in 1963, heralding the development of Concorde, have predicted the smartphone, or the multicultural societies using them? Although plenty of predictions have been made of what the world will look like in 2060, there is unfortunately no common, convenient time horizon. The year 2000 had a symmetry that 2060 does not. Therefore, in this paper you will see references to 2040, 2050 and 2060.

The consensus is that the twenty-first century will bring unique challenges. Natural resources, such as oil and water, will become scarcer with worrying consequences for global security, financial stability and consequently business travel.

The world's population will continue to rise, creating an increasingly mobile workforce that will need to travel to do business and generate wealth. The degree to which this will actually happen is the subject of this paper.

The contents may be speculative, but that speculation is an extrapolation of what we know now, existing trends and what others predict will happen over the next 50 years.

**Mark Harris**  
**Travel Intelligence Network**



## 20 predictions for business travel in 2060.



The irony is that, while many of the above are still many years off, the seeds of many others are being sown today. It's a matter of when, rather than if.

## The potential state of the economic environment.

A global shift in economic powers will have a massive effect on how people do business abroad.

### Summary

The next 50 years will see major changes in country shares in the world's gross domestic product (GDP). China is expected to become the largest economy in the world by 2020; India is projected to overtake Japan by the same date and the Eurozone by 2040.

These changes will be driven by a better educated, more productive workforce – especially in the BRICS nations, in turn driving international travel to and from these countries.

The global economy is expected to grow 2.8% by 2040, with Asia and Africa and the BRICS nations leading the way by 2027. The Organisation for Economic Co-operation and Development (OECD) predicts that the Chinese and Indian economies will have eclipsed the West by 2060.

The recession of 2008-2012 changed corporate attitudes to travel forever. Most company travel policies were either downgraded, frozen or travel alternatives adopted. There is little sign of an appetite for a return to pre-recession practices, while soaring energy and fuel bills will inevitably be reflected in higher business travel costs.

However, productivity will be a key driver of growth, so there should always be a place for the face to face meeting, providing the purpose of the trip is income generative.

### Scarcity of natural resources

The global travel industry has intrinsic links to the natural environment and is therefore vulnerable to changing climates and resource shortages.

For example, water is a critical natural resource that is generally overused by travel suppliers and consumers in hotels, swimming pools and so on. The resulting degradation of water supplies will inevitably impact on business travel through rising costs. Oil shortages will have the same effect, whilst a boom in the oil supply will drive productivity and therefore travel.

The World Travel and Tourism Council estimates that business travel generates a return on investment ratio of 10:1. WTTC also attributes one-third of the growth in global trade in the first decade of the twenty-first century to international business travel. Any scarcity of natural resources would inevitably impact upon that productivity.

### BRICS nations come out on top

As the BRICS nations increase their overall share of global productivity, so business travel between these countries and the rest of the world will increase as new customers and trading partners are sought.

The BRICS are already committed business travellers. According to the WTTC, 90% of executives in China

“agree” or “strongly agree” that business travel improves a firm’s chance of increasing sales. These nations have already declared their appetite for foreign investment. Russia is looking to develop high-tech businesses, modernise its economy and create an international financial centre in Moscow. China is becoming ever more interested in consumer brands and in the service sector. The BRICS are also increasingly accessible to trading partners, with an increasing number of flights scheduled to these developing nations.

Each of these trends presents real opportunities for Western businesses.



Brazil



Russia



India



China



South Africa

## Politics

While the US, China and India jostle for economic supremacy, future power could be held by 20-30 strategic urban networks. For example, Beijing may be the centre of power in Asia, but Hong Kong has a global role, while Shanghai is the leading national industrial and financial centre.

The world’s population will stay on the move, fleeing repression, recession and disaster in search of a safe haven, but leaving no-go areas in their wake and turning stable areas into unstable ones. Absolute


poverty may be confined to regions of sub-Saharan Africa and the remote parts of India by 2050 but relative poverty is predicted to become more acute, while lower research budgets for health care, food, water, and energy could make future pandemics and the threat of bioterrorism more likely too.

The Carnegie Institute predicts that the changing global economic landscape will lead to substantial, and possibly unpredictable, shifts in international relations.

To retain their traditional influence, European nations may conduct foreign policy jointly and seek out alliances with the emerging powers. Japan and Russia will seek new partners as well, with the biggest of the emerging nations coming to see each other as rivals.

**Chinese and Indian economies eclipse the West by 2060.**



A person wearing a white lab coat is looking out a window. The window is bright and overexposed, showing a white frame. The person's hand is visible in the foreground, wearing a dark wristband. The background is a plain, light-colored wall.

The twenty-first century will inevitably bring unique challenges and, although we can make educated predictions, the future remains to be seen.



# Social and cultural changes around the world.

## Communications, total interconnectedness and more emphasis on work-life balance.

### Summary

Continuing expansion of the global population and workforce will be focussed on the developing rather than developed nations. A new generation of cities will emerge, with existing centres being abandoned due to social or economic collapse. Technology will increasingly define the way travel is booked and consumed, with intelligent robotics becoming part of everyday life by the middle of the century.

With an extra two billion people inhabiting the planet by 2040, the expanded global workforce will be increasingly mobile, yet centred on the cities that will dominate the global landscape.

By 2060, Generation Y will no longer be the predominant workforce, but the work-life balance will be manifested in remote or home working, as well as shorter-term working contracts. Travel is already mundane to today's workforce; in the future employees will be even less willing to spend time away from their homes and families.

### Population growth

The United Nations predicts that the global population will reach 9.2 billion in 2050, compared to 6.8 billion in 2009 and 2.5 billion in 1950. The global workforce is expected to expand by nearly 1.3 billion. Africa and Asia will actually add 1.4 billion workers but the workforce in the developed regions will shrink by over 100 million workers, due to rising unemployment and a shift of economic power. The UN predicts that the working-age population in Europe and the developed regions will fall from 62.8% of the total population in 2009 to 52% in 2050.

Population and workforce growth will be key drivers of global economic growth and will occur in the developing countries. The impact on business travel is likely to see greater outbound travel from

countries seeking new customers, but also a shift to domestic business travel for those countries who fail in this quest.

### Urbanisation

Around half of China's 1.3 billion population lives in cities, compared to 20% 30 years ago, and this is expected to reach 75% by 2040.

By 2050, 70% of the global population will live in cities. With land resources increasingly limited, building upwards rather than outwards is a sustainable urban solution. Not only will there be more tall buildings but those buildings will also reach new heights. New skyscraper technology will allow buildings to stand up to 1 km tall.

By 2050

# 70%

of the global population  
will live in cities.

### Communications and interconnectedness

Generation Y already regards more workplace flexibility, a better balance between work and home life, and the opportunity for overseas assignments as keys to greater job satisfaction.

Third-place working has made it equally practical to work in a business centre, at a train station or on the move. The Regus and Shell citywide workhub pilot in Berlin is an example of how facilities are being designed to bring workplaces to people, rather than vice versa.

## Travel management 2.0

Many travel policies will be loosened over the next 20 years, although there will always be different cultures in different organisations. But as more dynamic products and distribution channels are developed, the role of procurement will change, believes Paul Tilstone, Global Business Travel Association (GBTA) SVP.

*“Buying behaviour will be managed through total connectivity with technology rather than annual RFPs. Focus will then shift to supporting the traveller en-route and the company when the traveller is put at risk. As a result, responsibility for travel will change from procurement to HR or facilities management.”*

Greeley Koch, Executive Director of the Association of Corporate Travel Executives argues that the travel manager could become even more powerful within the corporate structure.

*“Travel has migrated into finance because it’s a cost, but when you look at the broader definition (i.e. productivity), finance isn’t the right place for travel. Travel used to sit with HR and could wind up back there but it will be in a function that approaches travel from the perspective of work-life balance in the future.”*

## Work-life balance and return on investment

Travel is no longer a novelty. Today’s employees are reluctant to be away from their families and homes, while delays, security checks and congestion can make travel an unpleasant experience. Combined with Generation Y’s affinity with Skype and videoconferencing instead of hopping on a plane, this will have a negative influence on the business travel industry in the medium to long term.


*“There’s a different mindset now” says ACTE’s Greeley Koch. “Companies have become smarter about the travel they are doing. If the ROI isn’t there, and there’s a hassle factor, they won’t make the trip unless the industry makes it easier to travel.”*

**Third place working  
has made it equally  
practical to work in  
a business centre, a  
train station or on  
the move.**









Our ability to further  
change the environment  
around us will make for  
a more comfortable  
travel experience.

# Global travel and infrastructure.

The role of travel management will change completely.

## Summary

Demand for business travel is set to grow over the coming decades, although the dividing lines between modes of travel will become increasingly blurred as transport systems become more integrated, especially in the urban centres that will dominate the landscape.

The focus will shift from travel management to mobility management as responsibility at corporate level for travel procurement assimilates event, fleet and employee productivity.

ExxonMobil (an American multinational oil and gas corporation) predicts that transportation demand will increase by more than 40% by 2040, with the bulk of that demand coming from business-related travel.

London's main airports will reach bursting point in 2030, and by 2050 passenger numbers will top 470 million, according to the Department for Transport. However that growth will not come unilaterally. The global business travel market will adopt a two-speed structure over the coming years, says Paul Tilstone: *"In some markets the infrastructure is good but demand is not growing. In others, like the BRICS nations, the opposite applies. When you factor in the next generation of travellers, travel policies will become more dynamic and personalised, based on booking style and corporate citizenship."*

Transportation demand  
will increase by more than

# 40%

by 2040.

## Distribution

The distribution landscape is unlikely to become any simpler in the foreseeable future. IATA wants airlines to distribute their full range of products and services through multiple channels, including GDS, intermediaries and direct to customers.

Airlines, hotels and other suppliers will provide wider access to fares and special rates regardless of the channel used, thereby developing better direct relationships with corporates and business travellers, reducing their reliance on intermediaries.

The trend to unbundle air fares will not be reversed either. Fuel surcharges, administration fees, GDS fees and so on add further complexity as carriers seek a competitive advantage.

## Supply chain

The supply chain of 2060 will be very different, although the opposing forces of consolidation and diversification will continue.

While TMCs and other specialist intermediaries merge, as long as consumer needs diversify, suppliers will continue to launch niche products, especially in the accommodation sector where boutique hotels and serviced apartments are thriving.

Consumer aspirations will change too. Five-star hotels will not have the same appeal to all segments of the market; budget accommodation will be perfectly acceptable for a one- or two-night business trip. Business class will only be used for long-haul trips, while 'no frills' carriers will be standard practice for European trips.



## Asymmetric mobility

Asymmetric mobility will be an everyday facet of business travel by 2060, allowing travellers to choose between rail, road or air in real-time via an integrated transport network based upon on-demand technology.

The concept of asymmetric mobility is already being tested in Germany by Moovel. This smartphone application combines the cities' public transport systems with Daimler Mobility Services' car2go and car2share products, my taxi app, cycle hire and walking routes.

The smartphone of the future acts as a ticket for public transport, an airline ticket, a key to access a vehicle, a hotel room key and a payment mechanism.



## The smartphone of the future is a ticket, a key and a payment mechanism.

By 2060, mobility in urban areas will be interchangeable between transport modes as systems and mobile technology become fully integrated. Companies are already adapting their technology to enable an increasingly mobile workforce to access corporate content securely from company or privately owned devices, anywhere in the world. This is dubbed 'Mobility as a Service'.

## The rise of the Mobility Integrator

A new category of supplier will emerge in the business travel sector in the next decade. Rather than regarding different modes of transport as competitors, Mobility Integrators present a holistic view of the transport network and enable travellers to design door-to-door journeys.

Mobility has an ecosystem of its own, embracing original equipment manufacturers (OEMs), public transport operators, infrastructure and technology providers and others.

## Travel Management Company or Mobility Management Company

Travel industry research firm Frost & Sullivan believe there will be "opportunities to integrate city-based travel with suburban and inter-city travel, and even beyond that to international travel". This will present business travel suppliers and intermediaries with the opportunity to create true door to door solutions that take into account the total costs of a trip – and the consequences for employee productivity.

In turn, this begs the question of the nature of business travel by 2050. Paul Tilstone of the GBTA believes that there will still be a business travel industry in 30 years, but not as we know it today: *"The business travel portfolio will change, taking in meetings, events, fleet and all ancillary aspects of the trip, but configured differently in different companies."*

Greeley Koch of ACTE believes that business travel will be redefined as employee productivity: *"The narrow view sells short what travel management can do – and that's much more than putting someone on a plane. If you focus on employee productivity, you are making a positive contribution to the bottom line."*

## Car sharing

Car2go from Daimler Mobility Services is one of an increasing number of car-sharing solutions on offer to corporates. It also exemplifies a shift from ownership to collaborative consumption and transport provision as a service rather than a product. This is the business model for 'Mobility as a Service'.



## High-speed rail

The development of high-speed rail networks will be a global phenomenon. China has already opened the world's longest high-speed rail route, linking Beijing with the southern commercial hub of Guangzhou, while the financial centres of London and Frankfurt are to be joined in the same way by 2016.

Meanwhile, Britain's HS2 project (connecting London to Birmingham and Manchester) is attracting debate

similar to the Channel Tunnel project in the 1970s. Estimated to cost £50 billion, it leaves many with the question of the added value it will bring.

Transcontinental rail networks are envisaged in the US and Europe too in order to connect increasingly urbanised populations.

By 2020, Africa and the Middle East will be linked by an 18-mile-long bridge that will take 15 years to build and will span the southern mouth of the Red Sea. The Bridge of the Horns will connect Yemen to Djibouti for cars and rail. New twin cities will be built at either end, collectively housing 8 million residents by 2025 (source: Noor City Development Corporation).

The resurgence of rail will continue well into the twenty-second century. By the end of the twenty-first a hypersonic, evacuated tube transport system will connect global population centres throughout Russia, Northern Europe, Canada and the US.

These 'vac trains' will involve travelling inside a closed tube, levitated and propelled by magnetic fields. After passing through an airlock, the train cars enter a complete vacuum inside the tube. With no air friction to slow it down, the vac train can reach speeds far beyond those of any traditional rail system – up to 4,000 mph or five times the speed of sound.





## The future of technology.

Holographic meetings, virtual hotel rooms, and driverless vehicles could become reality.

### Summary

Technology will shape not only the travel booking process, but why we travel. Virtual technology will erode the presumption that face-to-face contact is essential to do business. Faster journey times, driverless cars and other innovations will increase employee productivity by reducing downtime lost to processing trip requests, booking and consuming travel.

Technological innovation will enable transport networks and travel programmes to be shaped according to economic, resource, environmental and social conditions.

Communications technology will continue to dominate our lives, with videoconferences, virtual reality and mobile being the norm, powered by human-like artificial intelligence (AI) and virtual telepathy (combining virtual technology with neural science and linking the human mind to those in a different place in real time).

The business travel toolkit will include more flexible booking tools that are able to adapt to distribution issues: smarter mobile technology will give travellers greater connectivity and convenience; better tools for traveller tracking and integration with social networks. Collectively this will give corporate IT functions a greater role in travel management.

What we don't know is whether it will be culturally acceptable to video rather than meet face to face; how technology that enables communication will actually evolve and how the changing society and cultural norms will influence the deployment, use and adoption of virtual communication.

### A virtual meeting space

The next revolution in videoconferencing will be hologram videoconferencing. Researchers in Canada have already developed a life-sized hologram-like telepod for live, 3D videoconferencing.

The "TeleHuman" system allows two people to simply stand in front of their own pods and talk to 3D hologram-like images of each other and, unlike flat displays, participants can walk around to see each other's side or back. This 3D virtual imaging for humans should help overcome some of the resistance to videoconferencing as opposed to face to face.



### Driverless future

The driverless car is already with us. Licensed in three US states, Google's driverless car has already travelled over a quarter of a million kilometres with only one accident, when a human driver drove into the back of the car when it was waiting at traffic lights.

The twenty-first-century car is a mobile office that can be programmed via a smartphone to collect and

transport a traveller to a destination remotely. When the passenger disembarks the car compresses itself into a parking bay before the next call comes along. For intra-urban mobility, there are car-trains. The EU-funded Sartre project involved three Volvos being driven remotely behind a lead vehicle at speeds of up to 90 km/h – in some cases with no more than a four-metre gap between the vehicles. The driver, using an in-car connection, can converse via video and answer emails using through voice control.

### You can drive my car

According to Mintel, hybrid cars currently account for 3.3% of car sales in the US, which is the largest global market for hybrids, providing 60 -70% of global sales. By 2040, ExxonMobil predicts that hybrid and electric models will make up 10% of new car sales. However the car has additional functions that offer the city, its inhabitants and owners extra benefits.

**By 2040, hybrid and electric models will make up**

# 10%

**of new car sales.**

By the middle of the twenty-first century, most cars in the developed world will be computer controlled, while traffic flow is managed by advanced artificial intelligence networks. The theory is that this will reduce congestion, but with over 1.6 billion vehicles predicted to be on the roads, that is questionable.

The cities of the future will no longer be divided into zones for living, working, shopping and leisure – they will be multipurpose and will require innovative transport systems for goods and people. Like the city,

the car will become a multipurpose space for work and leisure.

### Driverless planes

Air travel will also be very different by 2050. Future airports will comprise railway-style boarding platforms, from which passengers embark into cabin pods which then await the aircraft's arrival.

Digital boarding passes will be verified by smartphones which will then deliver real-time updates on gates and boarding times. Check-in, boarding and even security screening will become automated.

The next generation of aircraft will be the cruise ships of the sky, with in-flight entertainment options including virtual golf and conference facilities. Empty seats will be collapsed, removed and stowed to allow the remaining passengers maximum leg room.

Air travel will be faster, cleaner and capable of reaching most destinations on the planet in less than two-and-a-half hours. Planes may not even need pilots. The leap from autopilot to the pilotless plane is not a big one, as technology reduces costs, resource requirements and the environmental impact. Meanwhile, space tourism will boom over the coming decades as prices tumble from a currently eye-watering \$95,000 a trip.

**The virtual meeting space will become an everyday concept.**



## Supersonic air travel

ACTER's Greeley Koch believes that supersonic air travel – enabling direct flights between, say, the UK and Australia – is essential to reinvigorate business travel, but points out that aircraft manufacturers are the only ones who can actually afford the level of innovation required.

Paul Tilstone agrees: *“Anyone who operates a global organisation knows it’s hard to manage a region where you have 12-hour time differences. It takes two days to get to Australia and the recovery period is debilitating. If a way could be found to remove the time variance, you’d be creating a virtual sun.”*

Ironically, while technology will diminish the need to travel, it will also enable travel to be undertaken more quickly, thereby boosting employee productivity. Extreme hypersonic flight could allow planes to travel at 20 times the speed of sound by 2050.

Conventional hypersonic airliners – capable of a mere five times the speed of sound – are predicted to enter commercial service by 2033. European aerospace giant EADS hopes its Zero Emission Hypersonic Transportation rocket plane will cut journey times between Paris and Tokyo to just two-and-a-half hours by 2050.

By this time, business travellers will be able to reach Australia from London in less than four hours, opening up the further flung markets for greater trade. On the downside, these planes won't have any windows to distract travellers!



## Sleeping on the job

By 2050, business travellers will be able to recreate their home bedroom in a hotel room, thanks to technology that will allow hotel rooms to be completely personalised.

Hotel room textiles and walls will feature augmented reality, so the traveller can upload a picture of their bedroom and change the fabric of the hotel room to look like home.

While sleeping, travellers will be able to record their dreams and even manage their content through a dream management system which could act as a coach, offering the opportunity to study or learn a language while asleep.

**In 2050, it will take  
just 2.5 hours to get  
from Paris to Tokyo.**



## The environment.

Climate change will increase travel regulation unless we choose greener options.

### Summary

Although rising greenhouse gas emissions are regarded by the World Economic Forum as one of the five biggest global risks in the years ahead. The financial impact of environmental change will be felt by more businesses across the globe whose future success will hinge on their ability to manage the major risks posed by climate change, depleted natural resources, the loss of biodiversity, and extreme weather conditions.

The conditions people will be willing to accept will shape the transportation networks.

The Carnegie Institute says that carbon emissions are *“on a path toward climate catastrophe, and by mid-century may constitute a serious risk to the global growth forecast”*.

Water is predicted to become a weapon of war by the 2020s. Nations will cut off rivers to prevent their neighbours having access to water downstream, dams will become the target of terrorist threat, and states that cannot provide water for their citizens will suffer. This future has been outlined by the Office of the Director of National Intelligence (ODNI), the organisation that oversees US intelligence agencies including the CIA and FBI.

As a result, the value of natural resources will grow and ecological footprints will become more important, which may give some travel modes an advantage.

A report by the European Rail Research Advisory Council (ERRAC) claims that by 2050 rail will be the most energy-efficient and environmentally friendly means of transport.

## Climate change

### Risks to the travel sector

- > Increased fuel costs for operation of vehicles
- > Infrastructure damage and supply chain disruption due to extreme weather
- > Increased cost or limited production due to water scarcity in some manufacturing locations
- > Increased regulation to limit greenhouse gas emissions and control waste streams

### Opportunities for the travel sector

- > Increased demand from corporates to reduce their logistical footprint and costs
- > New and expanded markets for low-carbon and cleaner transportation options
- > New freight routes resulting from declining sea ice

Source: United Nations Environmental Programme

The United Nations Environmental Programme predicts that extreme weather events, rising sea levels, droughts, and other climate-related weather conditions will have short-and long-term impacts on global transportation infrastructure and on business travel.

**By 2050, rail will be the most energy-efficient means of transport.**

Rising sea levels may affect the ability to travel across and under bridges; extreme storms and wildfires could temporarily close ports and airports; storms and higher winds can make travel more hazardous, increasing accidents and delays.

Climate change also creates reputational risks for transportation companies not seen as playing their part in devising solutions. The opposite applies to trailblazers in this field. Within the business travel environment, duty of care obligations will make traveller safety and security of paramount importance. With extreme weather events predicted to increase alarmingly, employers will need to know where their travellers are at all times.

## Sustainability

The environmental impact of pollution and emissions currently costs the global economy around \$4.7 trillion each year. Future biodiversity losses and the extinction of plant species could result in the loss of one major drug to the pharmaceutical industry every two years.

With the world's fast-growing population, and rising incomes in emerging economies, demand for natural resources is on track to treble by 2050 – meaning that water and other critical raw materials for industry will be less available, and more expensive.

The flipside is that businesses can create a competitive advantage by tapping into future demand for sustainable technologies, services and products and by reducing their own environmental footprint.

For example, corporations are reaping the benefits of reduced operating costs, increased building values, greater return on investment, and higher occupancy rates from new and retrofitted green buildings. The US Green Building Council is certifying 1.5 million square feet of building space every day in more than 130 countries.

Opportunities in other industries include growing demand for ICT services for collecting and processing environmental data that can allow governments and companies to monitor environmental performance.

## New aircraft materials

Advances in aviation technology at the end of the twentieth century and the start of the twenty-first have seen airlines' operating costs substantially reduced through improvements in aerodynamics, structures, materials, control systems and propulsion technology.

Lighter materials mean lower fuel costs, and structural materials, and design concepts are evolving rapidly despite the advanced materials that enable these savings sometimes costing up to 10 times as much as conventional ones.

Boeing's 787 Dreamliner is the first commercial plane with skin made of carbon-fibre composites and marks the increasing reliance of plane makers on high-tech materials that are lighter, stronger and less prone to corrosion.

According to Airbus, future aircraft will be built using *"a bionic structure that mimics the bone structure of birds"* that reduces the aircraft's weight and fuel burn, but also makes it possible to add features such as oversized doors for easier boarding.

Planes may also use self-repairing 'morphing' materials that change shape and return to their initial form, growing like the leaves of a plant and with the an in-built memory that will instigate a shape change through limited artificial intelligence, allowing the aeroplane to adapt itself to passengers' needs.

The future passenger cabin will be fully sourced from responsible and sustainable practices. Some elements could be created using 3D printing techniques, while holographic technology will provide the business traveller with access to in-flight videoconferencing

Aviation in 2060 will also see energy harvested within the cabin environment. Passengers' body heat will be collected at each seat or pod and combined with energy collected from other sources, such as solar panels, to fuel cabin appliances - a truly sustainable way to fly.

# Conclusion.

## Future innovation required

The biggest changes of the last 25 years have been technology related, and it seems impossible that the same will not apply to the next 25. But the fundamental challenge in the business travel sector is that of linking the disparate stages and providers into one, intuitive process.

What the next revolution in business travel will be is anyone's guess. Innovation in product, other than supersonic speed, is unlikely to have a game-changing effect on business travel, but the next generations of communication media might.

## Hopes and fears

If travel is an enabler of economic prosperity, the barriers to travel have to be addressed.

The infrastructure has to be more efficient, pricing more consistent, and national boundaries of security, taxes and visas overcome so that business people can move around the world freely.

Whether sovereign states have the collective will to remove these obstacles remains to be seen. Continued economic stagnation, coupled with the predicted future scarcity of natural resources, is likely to fuel an introspective, short-term approach by governments.

Despite the rise of Generation Y, many corporates will cling to outdated procurement methodologies instead of welcoming greater flexibility. By 2040, Generation Y will be gone, but human nature dictates the inherent link between maturity and conservatism. That's the challenge facing our industry in 35 years' time.



# Acknowledgments.

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KPMG

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ZDNet.com

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## About the author

Business Travel 2060 was written by Mark Harris of Travel Intelligence Network on behalf of AirPlus.

Mark Harris joined the business travel industry in 1990 and has been a Director of the specialist marketing consultancy Travel Intelligence Network since 2005. A former Marketing Director of Expotel and First Option, and Head of Marketing at ITM, he was voted the Business Travel Industry's Personality of the Year in 2006. TIN's output has included five editions of the Meetings Industry Report and four Serviced Apartments Industry Reports, many white papers, client magazines and articles for trade magazines. For more information visit [www.the-tin.com](http://www.the-tin.com)

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