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Innovation Report 2016

ANNUAL STUDY OF UK TRAVEL TECH SPEND

Exclusive 48-page analysis reveals jet-heeled surge in software investment

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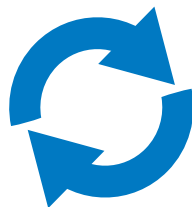
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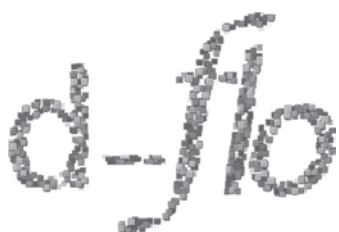
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EDITOR'S COMMENT

Now we are 10: Travo tracks the mobile era

When *Travolution* was launched 10 years ago, Apple's iPhone wasn't even yet a rumour.

The introduction of the revolutionary handset was still a year away, and yet today the original iPhone is considered 'vintage' or even 'obsolete'.

It just shows how quickly things have changed and how rapidly we might expect them to change again in the next decade.

Indeed, this year's **Innovation Report** picks out mobile as an area that is driving change and was, in part, responsible for a significant increase in technology spend in travel last year.

Our analysis this year shows how investment in software is spearheading this and it is the intermediaries – travel agents and tour operators – who are leading the way.

There's nothing vintage or obsolete about *Travolution*, as we continue to track the latest developments in online travel retailing and distribution.

We've got lots of exciting plans to mark our 10th birthday throughout the year, with some fantastic partners signed up to support our Travo@10 campaign.

Our Summit on September 28 and Awards on November 29 are our flagship, not-to-be-missed events, so keep an eye out for more information about them on **travolution.com**. I look forward to seeing many of you at these events as we celebrate making it to double figures.



LEE HAYHURST
TRAVOLUTION EDITOR



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Advanced-machine learning enables the Criteo engine to choose the right audience and publisher for each ad; display the most relevant deals, products or travel destinations; and optimise the look and feel of the creatives for performance.

For travel advertisers, Criteo

technology provides a single view of each traveller's behaviour across all devices, delivering relevant ads throughout the booking journey. It can also optimise advertiser spend toward the most lucrative travellers – such as those seeking longer stays or booking for multiple people.



In the age of the multi-screen consumer, Criteo ads target users across all devices and channels – from mobile web and apps to email and Facebook – and link advertisers direct to 10,000 publishers and leading advertising exchanges.

The Criteo platform offers access to one billion unique users and hundreds of billions of dollars of sales data every year.

Based in Paris and New York, Criteo employs 1,700 people in 27 offices around the globe.



JON BUSS, MANAGING DIRECTOR FOR THE UK AND NORTHERN EUROPE

Jon has over 20 years' experience in starting, buying and leading large international businesses and small start-ups. He is responsible for driving revenue and growth across the Northern Europe region. Prior to joining Criteo, he was managing director of Experian's Marketing Services portfolio of digital businesses including Hitwise and CheetahMail. Jon has a passion for disruptive technologies in digital marketing.



JON LORD, UK COMMERCIAL DIRECTOR

Jon has spent more than two decades leading, driving and scaling marketing and sales performance strategies across international businesses. Before joining Criteo, he was part of the management board at Tradedoubler, a leading European performance marketing network, where he led international sales and delivery teams in 10 markets.



PAULINE LEMAIRE, HEAD OF TRAVEL UK

Pauline manages Criteo's relationship with the biggest travel advertisers in the UK and Europe, including the brands of the Expedia Group, Tui Travel, Hilton and Skyscanner. She has a strong travel background, particularly in the airline industry. Prior to Criteo she spent 10 years at Air France and KLM.



Online travel's never looked so mobile

24% of UK online travel bookings take place on a mobile device.

54% of mobile bookings are made in-app.

100% of marketers need a cross-device strategy.

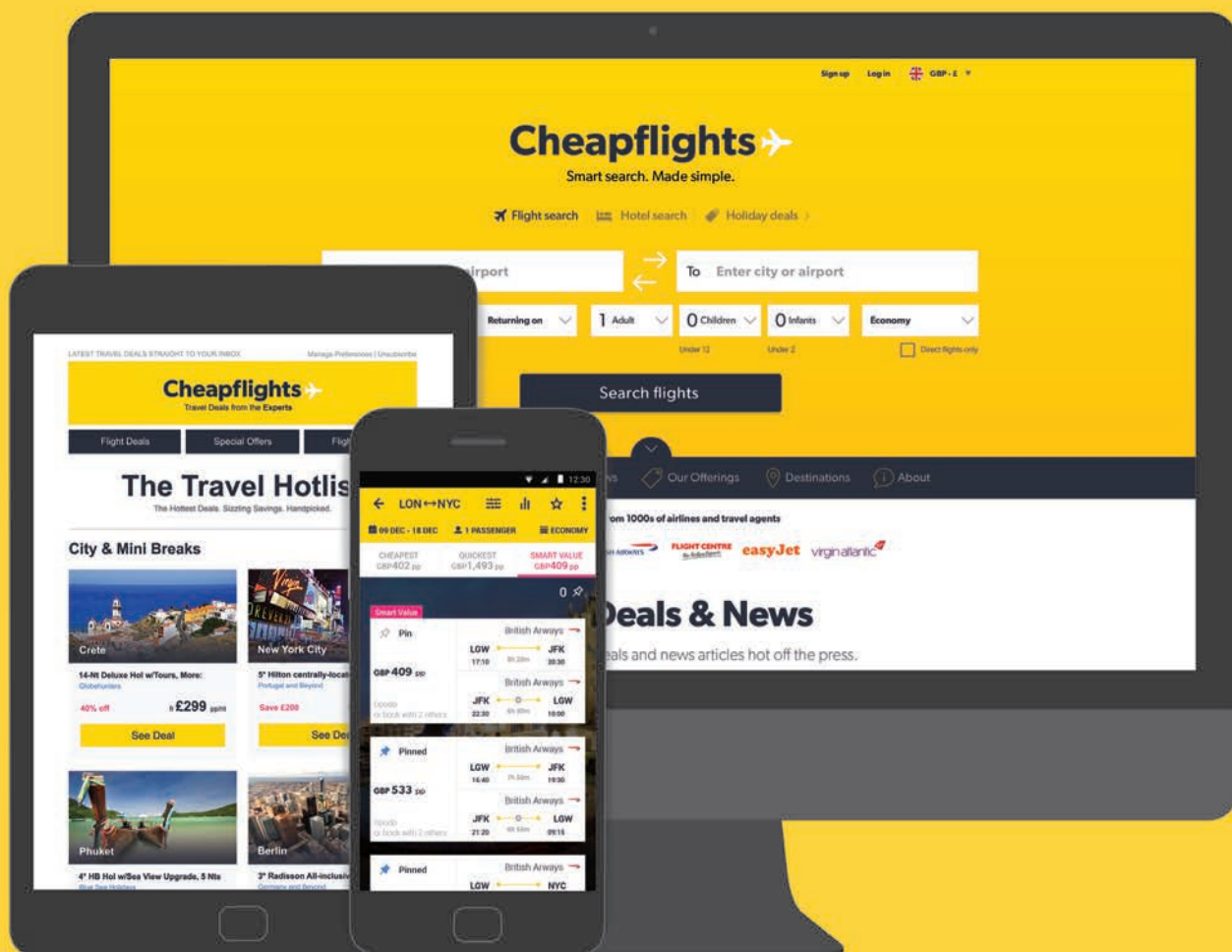
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From one innovator to another, happy birthday Travolution

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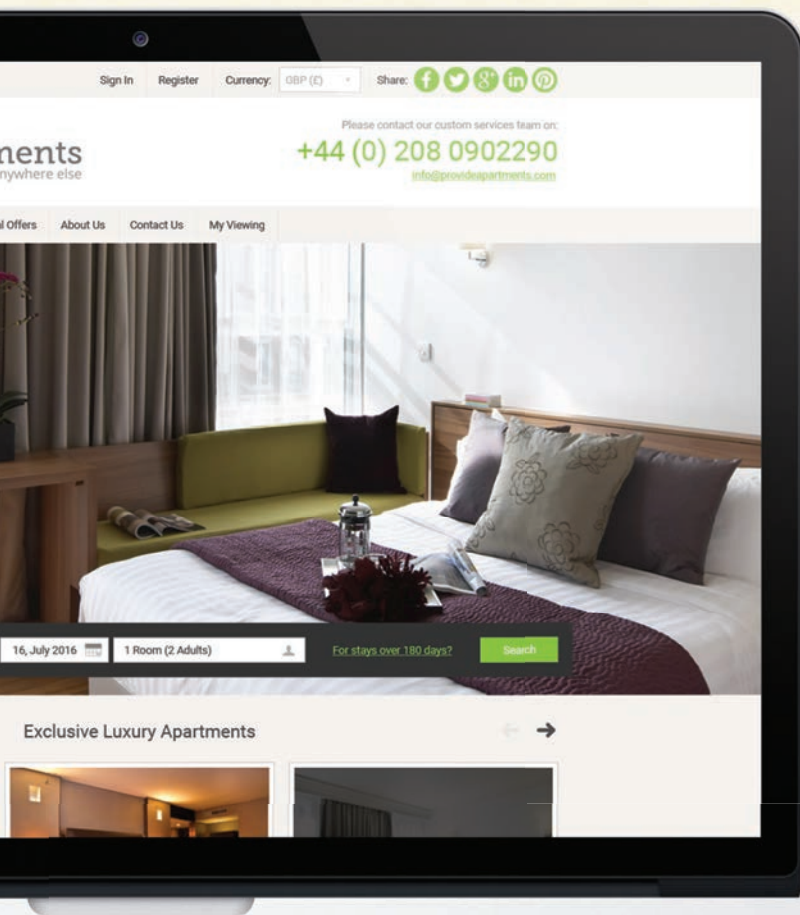
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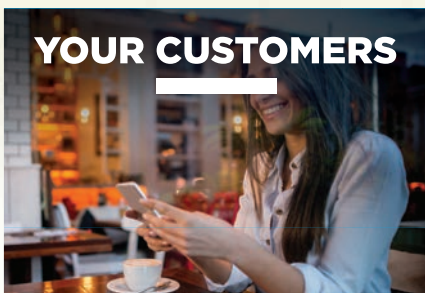
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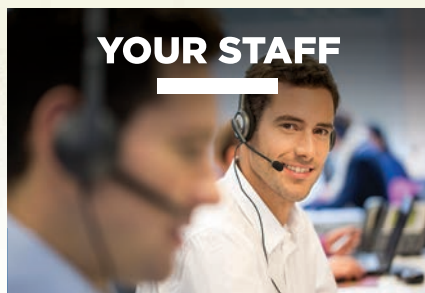


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 THE TRAVEL TECHNOLOGY EXPERTS

ABOUT THE REPORT DATA

YOUR GUIDE TO THE SOURCES, SURVEYS AND METHODOLOGY BEHIND THE FIGURES IN THIS REPORT

This is the fifth **Travolution Innovation Report** analysing technology (IT and telecom spend) in the UK travel industry. The analysis has been produced by Kew Associates for *Travolution*.

It covers five travel sectors' expenditure on hardware, software, computer services, telecom services, and IT and telecom staff, from 2010 to 2015 and a prediction for 2016. The data also allows us to analyse spend in five company-size bands and to benchmark it against metrics such as turnover, employment and passenger numbers.

METHODOLOGY

Historical data

Historical IT and telecom expenditure is based on the series of government surveys outlined in the Glossary (page 46).

The five spend components are split into industry sectors and size of enterprise, with data going back to 2006.

Any adjustments to cover gaps in the government data are reconciled with various sanity checks, such as spend per employee and spend as a percentage of turnover.

The final historical analysis provides a matrix covering five industry sectors with five spend categories across five employee bands.



It also reflects the demographic structure of each of the five travel sectors as provided by the Inter-Departmental Business Register (IDBR).

Spend Forecast

Our projection of expenditure in 2016 is calculated using the following processes:

1. Historical spend data is used in conjunction with growth in the number of employees to forecast future expenditure. Justification for this approach is based on the strong relationship found between total IT spend and all employment. Appendix 1 (page 46) shows these alignments. Both data sets are from government sources and cover the whole UK economy. Unfortunately,

there is insufficient data to carry out the same assessment by travel sector but it is assumed the alignment holds at this sector level.

2. Employment forecasts for each sector are based on historical trends and on how each sector's data relates to the whole economy. To obtain the whole economy growth, use is made of the Office for Budget Responsibility employment projections. The historical and the resulting projected employment numbers for each sector are used with the corresponding historical overall IT and telecom services spend to forecast each sectors' future outlay.
3. The historical and projected total IT and telecom services spend for each of the five travel sectors is disaggregated to produce a final matrix of five spend categories by five employee bands in five sectors for 2010 to 2016. Projections are made by using the disaggregated historical data and forecasting each elemental data series using Excel's Forecast function and ensuring the already derived overall spend totals are matched. Finally, sanity checks are made using spend per employee and spend as a share of turnover. **T**



PEOPLE AND TECH IN STEP

BY SIMON FERGUSON, VICE-PRESIDENT AND MANAGING DIRECTOR, NORTHERN EUROPE, TRAVELPORT

This year's *Travolution* Innovation Report may mark 2016 as being a sea change year in the travel industry.

With this year also marking the 10th anniversary of *Travolution*, it would be remiss not to look at the trajectory of innovation over the decade during which these annual reports have been produced.

Many of the earlier *Travolution* reports indicated that our industry was focused on automation rather than innovation. Our legacy-intensive systems, combined with the fact that travel is essentially a service sector with product sector margins, meant travel firms simply automated multi-vendor people-intensive processes, often based on decades-old proprietary platforms.

The key findings of this year's report look decidedly different. The big growth in software-related spend, combined, critically, with an increase in spend on IT staff, indicate something fundamental.

The software spend indicates a growth in support for mobile and this in turn indicates an emphasis on the whole-travel lifecycle as opposed to just the booking and pre-trip phases.

Expedia has noted that two-thirds of the total cost of a trip (including excursions and meals etc) occur in destination. Travel brands have been notoriously bad at tapping into this, and the predominance of mobile has unlocked this potential, as well as opening huge opportunities in CRM, customer service, and

revolutionising the potential for personalisation and ancillary sales.

Look at WeChat, the Chinese mobile-messaging service. It indicates the power of a truly integrated mobile experience, with flight booking, reviews, hotel room service – even in-room air conditioning – all controlled from one app.

WeChat has some 500 million subscribers, 70 million of them outside China. Travelport's acquisition of Dublin-based Mobile Travel Technologies last year was made with this revolution in mind. Mobile is now much more than just app development, or mobile-enabling a website.

The growth in software spend also indicates a move away from the proprietary past towards flexible open-platforms. At Travelport, we have created a Travel Commerce platform, based on open-APIs, capable of integrating low-cost airlines, unbundled airline ancillary products, new forms of accommodation and ground transport service, which can be flexibly accessed depending on a travel brand's business model.

The 10% growth in IT staff spend is similarly significant, as it indicates that growth in spend on software and IT services is not coming at the expense of staff.

With all the talk of driverless cars, and avatars replacing travel sales consultants, it is easy to envisage a future where software replaces people. Although the figures do not tell us if this is an actual numerical increase, at Travelport we certainly see

investment in innovation accompanied by investment in high-quality IT staff.

The CIA famously conducts an aptitude task for applicants, involving having to complete a jigsaw of a complex IT or process diagram in a minute. However, lateral-thinking applicants turn the jigsaw pieces over, where the picture is that of a person's face which can be slotted together with ease.

There is a metaphor here: it is the people that make the technology come together.

As *Travolution* enters its second decade, this relationship between people and technology is likely to become more symbiotic, more sophisticated and more provoking than ever before. **T**



SIMON FERGUSON



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IT'S TIME TO GET MOVING ON MOBILE

MOBILE IS REGARDED AS A GAME CHANGER IN TRAVEL AND TIPPED TO DRIVE MUCH OF THE INNOVATION THE SECTOR WILL SEE IN THE COMING YEARS

While the travel industry is often accused of not being innately innovative enough, it certainly seeks to seize on technological advances that arise from outside the sector.

Whether it's search engine or social advertising platforms, web e-tailing and distribution, data-driven programmatic marketing, virtual payments or cloud computing, there's invariably a travel firm looking to gain early-mover advantage.

One such key area is mobile, which is now firmly established as an e-tailing channel, even if some travel companies continue to grapple with what it means for their business.

Described as a potential "game changer", mobile is likely to mean different things to different companies, depending on where they sit in travel's long and convoluted buying funnel.

What is indisputable is the take-up and use of mobile by the consumers that travel companies need to attract.

In the third quarter of last year, Criteo declared that mobile had "gone mainstream" (graph, page 15) in its latest *Travel*



Flash Report, which analysed a billion bookings generated by hundreds of suppliers and agents worldwide.

MOBILE BOOKINGS HIT 22%

Mobile transactions were found to account for a fifth of UK travel bookings (22%). This made the UK a mid-ranking country, although even in Japan and the US, where mobile contributed the highest proportion of bookings, desktop sales still represented 70% of the total.

Tablets accounted for just 13% of overall bookings in the UK, but the average sales value was 92% that of desktop sales, compared with 57% for smartphones.

Only in Italy has the average booking value on mobile devices exceeded that of desktop, with tablet sales values 101% of those on conventional computers.

Last-minute sales are ideal for mobile-only players such as HotelTonight and for a plethora of super-functional apps from both suppliers and intermediaries offering on-demand services.

The Criteo study found that the smartphone had made greater headway in the hospitality sector, accounting for 14% of hotel bookings compared with 10% via tablet. This trend is reversed in the air and package holiday sectors.

But the industry cannot sustain itself on late, more compulsive sales alone, and fundamentally, mobile is not optimal for lower-frequency higher-value, and therefore higher-margin, more-considered holiday purchases.

So cross-device is more important in this particular sector of the industry as the customer journey becomes ever more complex and fragmented across



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SHARE OF TRAVEL BOOKINGS BY DEVICE IN SELECTED COUNTRIES, 2015

COUNTRY GROUP	SMARTPHONE	TABLET	TOTAL MOBILE	DESKTOP
JAPAN	24%	6%	30%	70%
UNITED STATES	20%	10%	30%	70%
SWEDEN	14%	14%	28%	72%
CANADA	15%	11%	26%	74%
DENMARK	8%	17%	25%	75%
TURKEY	21%	4%	25%	75%
AUSTRALIA	12%	13%	25%	75%
SPAIN	12%	11%	23%	77%
SOUTH KOREA	21%	2%	23%	77%
UNITED KINGDOM	9%	13%	22%	78%
NETHERLANDS	6%	16%	22%	78%
ITALY	11%	10%	21%	79%
FRANCE	10%	11%	21%	79%
GERMANY	6%	9%	15%	85%
AUSTRIA	6%	9%	15%	85%
BELGIUM	5%	9%	14%	86%
BRAZIL	8%	5%	13%	87%
AMERICAS	18%	9%	27%	73%
APAC	19%	8%	27%	73%
EMEA	10%	11%	21%	79%

MOBILE'S SHARE OF WORLDWIDE BOOKINGS BY CATEGORY, 2015



SOURCE: CRITEO
TRAVEL FLASH REPORT,
SEPTEMBER 2015

multiple online sessions and devices.

The Criteo report detailed how sales of travel products on mobile were related to device type, time of day, day of the week and the season in which a booking is made, as well as the duration of stay and proximity to travel date.

It found smartphones were often preferred for simpler bookings, such as short hotel stays, with desktop still favoured during the earlier comparison and research phase, and for more complex purchases.

The report stated: "Among bookings preceded by fewer than five page views, more than 18% are made from smartphones. But for bookings preceded by more than 100 page views, smartphones account for only 7%."

IT CHALLENGES

Monitoring and making sense of this insight into customer behaviour on mobile brings with it complex IT challenges, particularly in an era when companies' marketing is expected to become more relevant, more personalised and less intrusive.

"MANY OF THE BIG OTAS CAN'T AFFORD TO PAY FOR TRAFFIC"

In a recent report on digital marketing trends in travel this year, UK agency Melt Content picked out cross-device tracking as one of four to watch. Aligned to this was social media insight and commerce, due to the amount of time people on mobile spend on social networks. Video – content consumption of which is also aligned closely to mobile use – was also considered to be a promising area in which to innovate.

The report stated: "We are already seeing an appetite for using diverse datasets to underpin creative digital marketing campaigns. The four key trends we've described for this year all orbit around that key concept.

"From a sophisticated video

marketing strategy to cross-device tracking and new approaches to social media, 2016's trends will be underpinned by the use of technology to capture the expectations, opinions and experiences of customers.

"Those insights then become a starting point for personalising and enhancing the digital experience, creating rich customer-centred content strategies and ultimately driving online revenue."

Most OTAs are reporting rapidly rising mobile traffic, but this is not being matched by increased conversions, and without the loyalty of a regular-use app, mobile's value as a sales channel remains in doubt.

However Steve Endacott, non-executive chairman of OTA Teletext Holidays, said the shift to mobile could be a game changer in the online travel agency sector, as a result of the changing customer behaviour it will drive.

"We get good responses on mobile – we probably punch above our weight," he said. "The thing with mobile is that many of the big OTAs cannot afford to

pay for traffic because it does not convert as well.

“Our business is really a call-generation business. If I’m competing against an OTA, their phone number is not prominent on the website because it wants people to book online. On mobile, that’s tricky, and a lot of customers are happy to call to book.

“We believe the shift to mobile should facilitate more mobile booking, but we are also looking at how we change our booking process. You may want to book over the phone, but not give your credit card details, for instance. Mobile will change the whole booking process. The shift to mobile has been so rapid, people are playing catch-up, and that could change who the market leader is.”

IMPROVING THE EXPERIENCE

The age-old battle for prominence between intermediaries and product owners on mobile comes down to working out how they can increase the utility and value of their mobile experience for the customer.

For product owners looking to drive up loyalty in the direct-sell channel, a mobile app that provides lots of exclusive pre-booking offers and useful in-transit, in-resort and post-trip services is regarded as potentially the most effective.

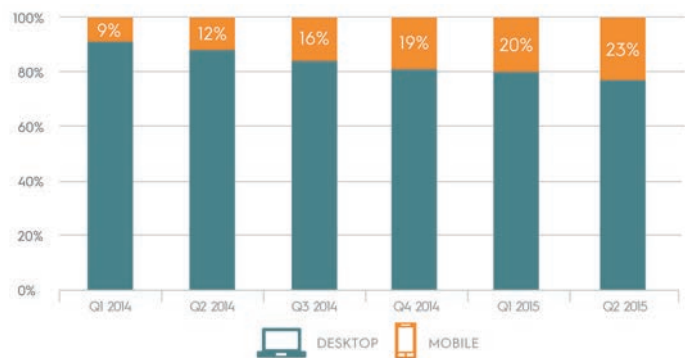
Jean-Francois Hector, user experience strategist at mobile consultancy The App Business, said: “The biggest opportunity to reclaim this direct relationship lies in mobile.

“We are in an unprecedented new era: a programmable world where new customer behaviours and disruptive business models are emerging at light speed.

“At the core of this disruption is the new reality that people turn to mobile to interact with everyone and everything around them, every minute of every day.

“Some 88% of 15 to 35-year-olds in

MOBILE AND DESKTOP’S SHARE OF WORLDWIDE TRAVEL BOOKINGS



MELT CONTENT IDENTIFIES FOUR TRENDS IN ITS DIGITAL MARKETING REPORT

the UK own a smartphone, and 33% see it as the most important device for going online. Their smartphone is always with them and always on; it is the most personal device they own.

“For the first time in history, a business can deliver a highly personal direct service with each of their customers at remarkable scale.

“The idea that they need mobile isn’t a new one to the travel industry or indeed airlines, largely because at a top level, the benefits are plain and clear.

“But ultimately, so many miss the mark. To really seize the mobile opportunity, travel companies need to do more than just build an app.

“For each step of their customer’s journey, they need to ask themselves religiously what outcomes customers are trying to achieve right now. What pain points and problems are getting in the way? How can we make it easier?”

Ultimately, however, any smartphone user is going to have the capacity to download and use only a limited number of apps, only one or two of which will be travel specific.

So the answer could be to get your app integrated into someone else’s multi-functional app.

Travelzoo Europe managing director Richard Singer said most of its mobile development in China was focused on working with the widely used WeChat app.

“You can market your app, but it’s so expensive and personal to get in to people’s phones,” he said. “You have to think about how you can build partnerships and how you can get in someone else’s app.

“It’s a more-considered decision to be in someone’s phone. It makes you think about your value proposition.”

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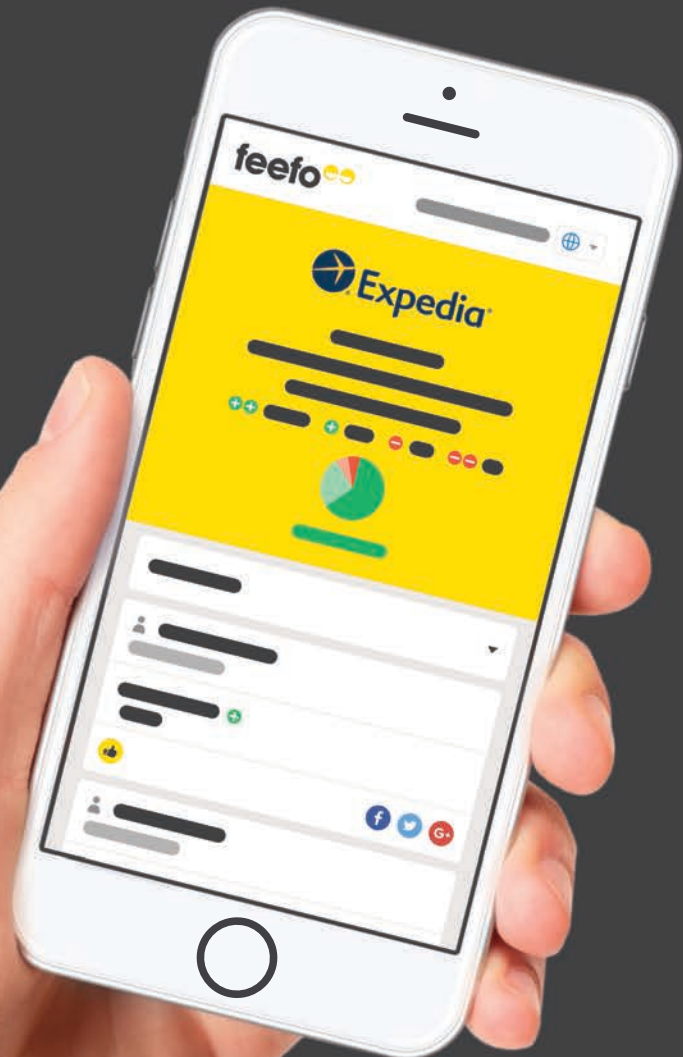
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Business Insights



49% increase in mobile search for hotels and cruises in 2016

- Hospitality.net



24% of travellers use their mobile to read reviews

- Redzy.com



46% rise in mobile bookings for attractions and tours in 2016

- Hospitality.net

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SUDDEN SURGE IN SOFTWARE SPENDING

OPERATORS AND AGENTS SPEARHEAD UPTURN IN INVESTMENT, ATTRIBUTED IN PART TO MOBILE'S GROWING INFLUENCE

A sudden spurt in travel sector spending on software saw the industry outpace overall growth in technology spend among UK businesses by threefold last year (*Chart 4, page 21*).

This year's figures chart a dramatic upturn in spending by enterprises in both the travel agent and tour operator sectors as spending on travel technology leapt 12% (*Chart 1, page 21*).

All five travel sectors grew their IT spend in 2015, and are predicted to again in 2016, but it is the travel agent and tour operating sectors that have seen the most dynamic change.

Evidence of increased software spend surfaced in the fourth quarter of 2014 among mid-sized agents and operators and was sustained into 2015 by large enterprises (1,000+ staff).

Software expenditure growth in travel was almost 50% in 2015, whereas across all UK industries no increase was seen in this category of IT spend.

This surge in software spending in the UK travel industry was first seen in the air transport sector in 2013 when the sector saw a 64% hike (*Chart 1, page 19*). This took overall software spend in aviation to above £90 million, a level that was sustained although growth rates tailed off in 2014 and 2015.



In 2014, the trend shifted to mid-sized agents which more than doubled software spend year on year to £21 million, before 2015 saw large operator and agents get in on the act.

In 2015, travel agents took the lead, spending an additional £70 million on software while in the same year tour operators upped their outlay by £30 million.

This fed into an overall IT spend growth rate among travel agents of 25%, and among tour operators of 28%, the two sectors growing way ahead of travel's three other sub-sectors.

Ian Richardson, chief executive of technology consultancy ICE ICT, said: "For the last 10 years the travel industry has spent its efforts concentrating on the pre-booking process.

"With the advent of mobile smartphones and apps, and the customer always online, there has been a shift to interacting with the customer throughout the whole booking cycle.

"With this in mind the big increase in software spend is likely to be attributed to mobile applications and mobile-friendly web services.

"Another consideration could be that a lot of companies have probably limited investment in technology since the crash in 2008.

"The jump in the last year could be because the need for investment has become critical or unavoidable due to platforms becoming unsupported without further investment.

"A number of our clients last year were forced by their software vendors to upgrade several versions or fear being unsupported." >

INNOVATION REPORT 2016:
HEADLINE FINDINGS

1.2%
TRAVEL SECTOR'S
SPEND ON IT AS
PROPORTION OF
ALL UK INDUSTRY
SPEND ON IT

12%
GROWTH IN
TURNOVER FOR TOUR
OPERATORS AND
TRAVEL AGENTS
IN 2015

Chart 1: Dramatic spike in travel software spend

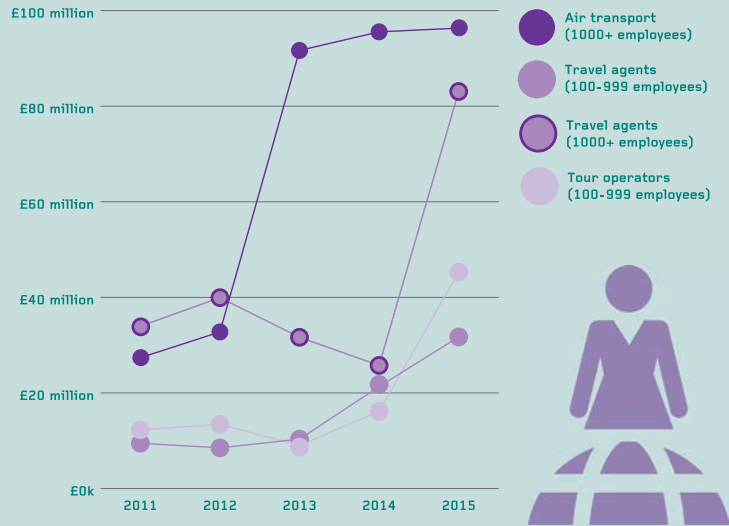


Chart 2: Total travel IT spend per category v total IT spend all UK industries

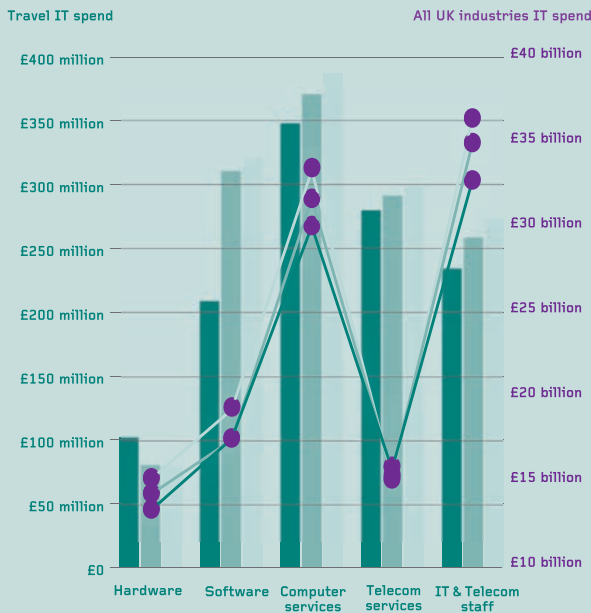


Chart 3: Total travel IT spend by company size



› **TECHNOLOGY SPENDING BY TRAVEL SECTOR**

While the air transport sector remains the heaviest IT spender despite having the smallest number of enterprises, travel agents have closed the gap (£421 million versus £437 million) (Chart 2, page 21).

Tour operators continue to trail hotels in fourth (£159 million v £247 million) while water transport remains the sector that employs fewest people and spends the least (£48 million).

When ranked in terms of IT spend per employee, tour operators come out on top (£7,169), followed by travel agents (£6,350) (Chart 3, page 21). All sectors bar hotels are way above the national average of £3,870, underlining travel's heavy reliance on technology.

With the 2015 IT spend figures being so heavily influenced by spend among the largest agents and operators, market leader Tui Group will have had a significant impact.

Europe's largest travel group completed a merger between Tui Travel German parent Tui AG within the timescale of this report and has been investing heavily in its Phoenix Project. This is a long-term transformation programme aimed at placing all of the firm's channels, including online and offline, on a single integrated technology platform.

A Tui Group presentation to investors in May last year listed an IBM central multi-channel CRM strategic marketing platform and SAP central customer platform as new projects. ›

SPENDING ON TR

UK IT SPEND

£ **112** bn

ALL UK INDUSTRIES

£ **1.31** bn

UK TRAVEL INDUSTRY

Biggest travel sector increase



FORECAST IT SPEND, 2016

UK TRAVEL INDUSTRY

£ **1.36** bn

UK TRAVEL INDUSTRY GROWTH

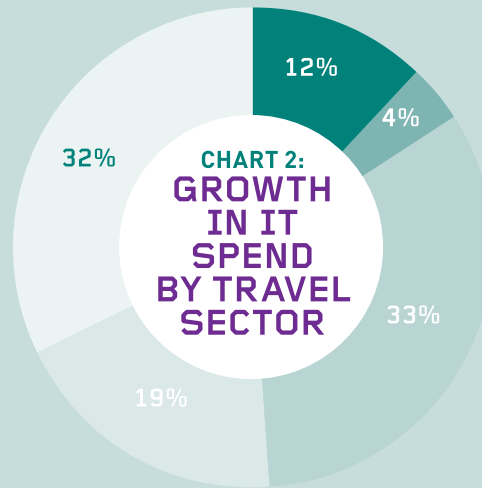
ALL UK INDUSTRIES

£ **117.9** bn



TRAVEL TECHNOLOGY IN 2015

CHART 1: CHANGE IN IT SPEND BY YEAR



- Tour operators
- Passenger water transport
- Passenger air transport
- Hotels
- Travel agents

CHART 3: AVERAGE IT SPEND PER EMPLOYEE

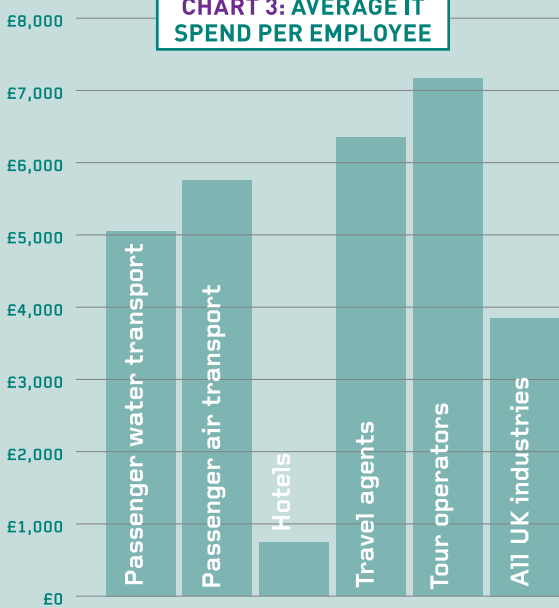
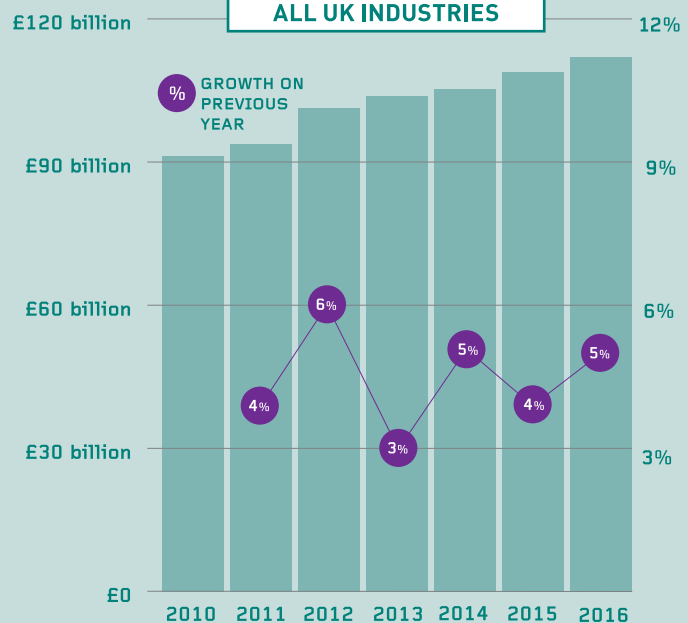


CHART 4: TOTAL IT SPEND, ALL UK INDUSTRIES



› TECHNOLOGY SPENDING BY IT CATEGORY

While software was travel’s rising tech star in 2015, spending on hardware headed in the opposite direction, seeing a 21% decline (*Charts, page 23*).

As this report noted last year this trend reflects a general move away from in-house hardware investment as new cloud-based software-as-a-service (SaaS) technologies start to dominate.

These have found particular traction in travel due to the seasonal nature of the industry, which means firms can save considerable costs by scaling up and down their technology requirements.

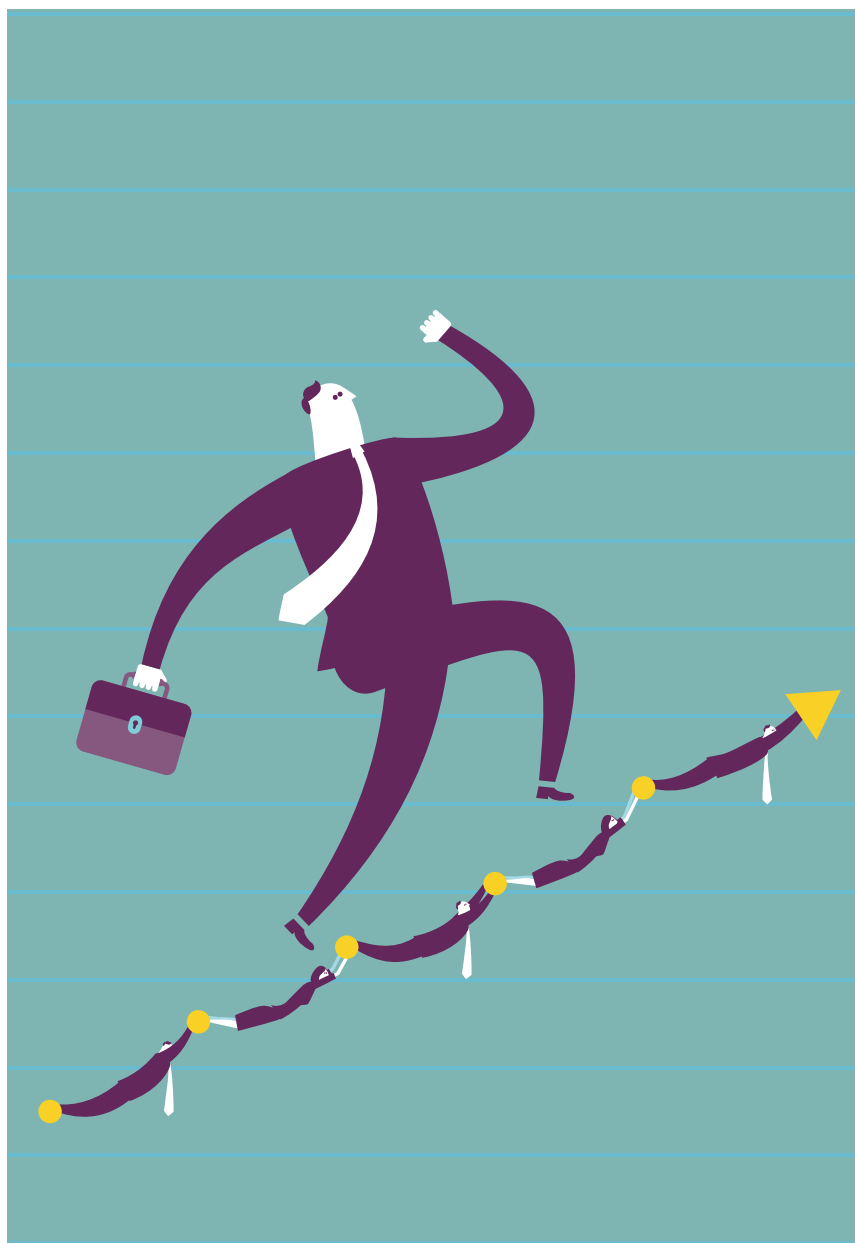
The largest spend category in the travel industry in 2015 was computer services, with 28% of the total technology expenditure.

Next highest was software with just under a quarter of the outlay, a figure which contrasts with the 15% share for all UK industries.

Next year, hardware expenditure is predicted to be flat, while software is predicted to rise by 3%, below the average 4% technology spend growth for the sector as a whole.

Staff expenditure was the next highest IT growth area in travel (10%) while telecom services continues to rise (4% in 2015 and predicted 3% in 2016) bucking the national trend.

Spending on telecom services in UK industry as a whole continued to fall in 2015, by 1%, with a 2% drop predicted in 2016.



ICE ICT’s Richardson said: “Hardware spend has not really increased, which would seem to be in line with the shift to cloud-based services such as SaaS reservations systems, CRM systems like Salesforce and Office 365.

“However, this would possibly account for the slight increase in telecoms spend, which has by and large become less expensive but is being utilised more.

“Computer services being the largest spend category could be

attributed to a shift towards outsourcing consulting and specialist IT services. Travel companies are realising that it becomes sub-optimal to keep reinvesting in internal project teams when they can focus investment on their core business.

“Of course, the large increase in software spend would include a lot of migrations to SaaS and cloud, which would require external specialist IT services companies to support these transitions.” ›

WHO'S INVESTING IN WHAT TYPE OF TECHNOLOGY?

Total IT spend by all travel sectors



Software



Telecom services



Hardware



Computer services



IT and telecom staff



2014

2015

2016 FORECAST



> IT SPENDING BY TRAVEL COMPANY SIZE

Organisations with more than 1,000 employees account for 56% of the IT expenditure in travel (*Charts, page 25*). In 2015 there were some 50 companies of that size out of a total of 16,500.

Medium-sized companies (100-999 employees) grew their IT outlay by 20% in 2015 while large and small (50-99 employees) organisations recorded half that spending growth.

More modest increases are forecast for 2016, with small enterprises expected to be the fastest-growing.

Large travel companies record the highest IT investment in terms of spend per employee. This is especially the case for Passenger Air Transport where the big firms outspend the medium by a factor of three.

In 2014 medium-sized travel agents spent more on IT per employee than their larger counterparts. However, the latter caught up in 2015, edging ahead.

Another noteworthy change was an uplift in 2015 spend per employee by mid-sized tour operators (which government data combines with large enterprises due their small number).

How factors such as company size, IT budget and spend per employee impact on companies' ability to innovate can only be guessed at.

But Andy Owen-Jones, founder and chief executive of bd4travel, winner of last year's Travolution Start-up of the Year award, said travel's historically tight margins are the main issue, particularly among larger firms.

"A healthy margin is often the



biggest handicap for innovation," he said. "If you can only embark on a new project if you can guarantee a 30% return in the next two years, most innovations would never be allowed through a budget committee.

"But that is often the budget process at large companies. Fortunately, with technology being so accessible, you can innovate with a much lower budget than even five years ago. But you do need some money to innovate."

THE FUTURE FOR TRAVEL TECH AND INNOVATION

With continued investment in technology in travel predicted in 2016, although not at the rate seen in 2015, what can we expect this report to be focusing on next year?

Owen-Jones said: "Leading companies will continue transitioning from being aggregators and agents to being retailers.

"Those that don't will be less relevant. Not a revolution, but an evolution that will start to see who is really in control of their systems, their data and their customers and who has just cobbled things together.

"Of course, data will be at the heart of it. Good companies will know exactly what their positioning is and will be ruthless about pursuing that positioning. It's not a time to be stuck in the middle."

And Owen-Jones believes that the firms leading in terms of innovation are unlikely to be the most well-known, despite their obvious financial clout.

"In most industries, innovation that causes a widespread reallocation of capital does not come from the main profitable players.

"So I suspect it is most likely to come from new thinking, whether small, fast-growing companies in travel or new entrants. It is always harder to be a both an incumbent and an innovator."

IT SPENDING PER EMPLOYEE IN 2015

BY SIZE OF TRAVEL COMPANY

Travel Agents



Tour Operators

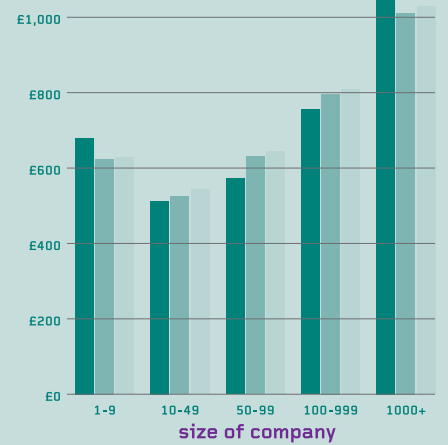


*Due to the small number of enterprises in the 1,000+ category, figures are included with the 100-999 category

Passenger Air Transport



Hotels



Passenger Water Transport



Total spending on IT by all travel sectors



AIRLINES READY FOR INNOVATION TAKE-OFF

A COLLISION OF TRENDS SUGGESTS THE SCENE IS SET FOR A TRANSFORMATION IN THE WAY AIRLINES, INTERMEDIARIES AND CONSUMERS DO BUSINESS IN 2016, WRITES MARTIN FERGUSON



PICTURE: ISTOCK



Predictions might be a fool's game but a number of usually cautious characters are putting money on the next 12 months being game-changing for airline distribution.

They say a year of genuine innovation is finally upon us. No one has yet offered to eat their hat if they're wrong, but indicators suggest we could be in for an exciting year.

A coalescence of trends has created the perfect environment for rapid change. Technology, both for consumers and businesses, is faster, cheaper, more powerful and more accessible than ever. Consumers now expect suppliers to target them with relevant offers. And, perhaps most significant, there is an acceptance across the industry that real change is inevitable.

That's not to say the present travel eco-system will be torn up and replaced over night. The incumbent structure may prevail; business just won't be conducted in the same way.

Airlines are working hard to take back control of the traveller from intermediaries. Disintermediation is a trend gathering momentum across the supply chain.

But as much as they are inspired by Amazon and John Lewis, airlines know they are not operating in the same marketplace. They understand that boosting website traffic is not enough to succeed on the global stage.

The global distribution systems and online travel agencies will remain key partners and revenue streams. Equally, the GDSs and OTAs also acknowledge they have work to do. The right technology standards must be adopted or developed to display air fares, products and services in a way that lets airlines maximise selling opportunities.

Moreover, modern consumers now expect sales and marketing strategies to be multi-channel and tailored to them individually. This is, according to many people, where the International Air Transport Association's New Distribution Capability (NDC) will provide the impetus for change.

THE [STILL] NEW DISTRIBUTION CAPABILITY

NDC is a travel industry-supported programme for the development and market adoption of a new, XML-based data transmission standard intended to enhance communications between airlines and travel agents. It should enable the travel industry to transform the way air products are retailed.

Yanik Hoyles, Iata's director for the NDC programme, says travel management companies (TMCs) and online travel sites will have access to the same products and services available on airline websites.

"Consumers will benefit from greater transparency and access to all of an airline's offerings when shopping via a travel agent or online travel site, which is not the situation today," he says.

With NDC, airlines are moving beyond mostly commoditised displays of fares and schedules in the travel agent channel, to present products in a more attractive, personalised and competitive manner. Hoyles said 12 airlines have already gone live with NDC pilots, and at least 15 more were expected to do so over the coming year.

Ian Heywood, global head of product, marketing and air commerce at Travelport, says any project that delivers genuine flexibility and increased personalisation in travel booking will have a big impact over the next year.

But he warns that timings around NDC implementation are not clear. He says: "There still needs to be investment in infrastructure and processes from the airlines before we see meaningful, positive change."

That may to some sound like something a traditional GDS executive would be bound to say. However, Heywood vehemently believes that pursuing NDC projects, or open API platforms, is the future.

"Being able to price more dynamically, or push more-personalised offers and products to travellers, will lead to greater revenues opportunities for airlines," he says. "It's the only way to get information about travellers when they book through third parties. This is crucial to build up an overall picture of travellers' habits and preferences."

Skyscanner director Filip Filipov believes NDC will enable carriers to go directly to distributors with a full set of merchandising and upselling options.

"All channels will be used. NDC will help airlines decide how to optimise their inventory according to the channel that is most relevant," he says.

As GDSs also invest in NDC, Filipov predicts carriers will look for a balance between the channels that are the most economically viable and those that provide access to the largest marketplace of consumers.

The industry also finds itself in a new era of content, according to Farelogix chief executive Jim Davidson. He believes airlines are focused on taking back control of their inventory.

"NDC has helped legitimise the technical aspect of the new content era by providing technology standards for delivering and transacting this new content," he says. ➤

➤ “Airlines will now wrestle back control of how products and services are offered, displayed and sold. This will be achieved by pricing, merchandising and distribution technology that suits and is controlled by the airline.”

Davidson flags up the \$50 billion airlines collectively made selling ancillary services last year as a sign of what’s to come.

“Channel targeting will become a real conversation within the halls of airline distribution departments,” he says. “And the focus for each channel will be on delivering content – customised, personalised and just when you need it.”

BLURRING OF BUSINESS AND LEISURE TRAVEL

NDC may have a slightly different impact on the corporate managed travel sector.

Airlines and travel management companies want to tailor offers and upsell where possible. However, many business travellers must book within the parameters of a travel policy. After all, it’s the company’s money they are spending.

Christophe Peymirat, a senior vice-president for Egencia, says choice, security and fast, reliable booking technology are now seen as necessities not luxuries for business travellers.

“Companies have duty-of-care obligations that are best served when booking and trip management are all done in one place,” he says. “This also helps with consolidating travel spend and monitoring policy compliance.”

This means business travellers are less likely to shop and book travel on their favourite websites. Instead, they are obligated to use the company’s preferred booking channel.

However, according to Expedia (which owns Egencia), there

“WHETHER IT’S BUSINESS OR PLEASURE, CUSTOMERS SAY THEY WANT THE SAME EXPERIENCE”

is a trend towards corporate travellers booking a leisure element to business trips (often referred to as ‘bleisure’ travel). Kristy Nicholas, the company’s spokeswoman for global tour and transport, says customers don’t want to book travel differently based on the type of trip.

“Whether it’s business or pleasure, customers continue to tell us they want the same experience,” she says.

Egencia’s Peymirat says this is particularly true for mobile booking, with business travellers demanding the same level and range of services that leisure travellers get from their devices.

“This is why it is important for us to have mobile technology that allows us to quickly build deep integrations



AIRLINES ARE STRIVING TO TAKE CONTROL OF THE CUSTOMER

with the apps and services travellers use most,” he says.

“Connecting with popular apps from the leisure market makes sense. For example, we have recently joined with Routehappy and partnered with Delta to allow a seamless check-in experience.” He said the holy grail was to integrate mobile technology so that agents and travellers could work from the same booking platform.

Paul Tilstone, partner and founder of business travel consultancy Festive Road, believes the mobile channel in the business travel sector still lags behind the leisure market.

He says a travel management mobile strategy at present consists of a wallet of apps best suited to a traveller, and little more. “The self-booking tools and TMCs have an opportunity to own the servicing relationship with the traveller before, during and post-trip for most, if not all, of the traveller’s needs.

“The question is whether those already in the business travel space recognise this and are prepared to invest, or whether new-entrant mobile providers can create platforms which will do this better. Someone like RoadMap is a good example of a company which is approaching this with the ambition to own the traveller experience throughout the trip.”

DOOR-TO-DOOR BOOKING

KDS has pioneered the door-to-door booking technology in the corporate travel space. Its Neo product is, according to marketing director Stanislas Bertiloot, having a major impact.

“In a few clicks you have booked all segments of your trip, door to door. The traveller and the company have access to a fully trackable itinerary, all booked within policy,” he says.

KDS is often asked whether it will extend Neo to the leisure sector. The answer: it’s unlikely to in the short term. However, the concept is inspiring others in the marketplace.

Skyscanner’s Filipov says door-to-door services are on the rise. “There’s a certain segment [of travellers] that prefers the end-to-end experience,” he says.

Beyond corporate products like KDS Neo, other sites offering this functionality include Rome2Rio, FromAtoB and GoEuro.

Airlines in general see the development of door-to-door booking methods as a positive addition to the distribution landscape. However, it is not as yet a strategy being adopted or pushed by any carrier. The short-term money-making opportunities are in harnessing the mobile channel and improving the way offers are tailored to individual travellers.

Business intelligence technology company Guestlogix presented this precise vision in a white paper setting out retailing opportunities for airlines in 2016. Its authors, executive vice-president for business development Chris Gardner and senior vice-president for platform Craig Proud,

“AIRLINES WILL EMBRACE NEW WAYS OF SELLING TO, SERVING AND TRANSACTING WITH PASSENGERS”

concluded that the flight experience in terms of retail opportunities would be radically different for passengers and crew. They predict airline staff will gain new tools, equipment and technologies to learn and use on the job, all of which will be focused on enabling the sale of more products and services.

In theory, this should allow airlines to stake a claim in the fully mobile, internet-connected, customer-focused market.

“Underlying many of the changes will be airlines’ greater adoption of Wi-Fi connectivity, a technical feat that will alter air travel as profoundly as it has shaped and reshaped other aspects of modern life,” they said. “Combined with passengers’ heavy reliance on mobile devices for all aspects of travel, airlines will phase out old ways of doing business and embrace new ways of identifying, selling to, serving, communicating with and transacting with their passengers.”

The report said retailing would, therefore, become an intrinsic part of the travel experience, from fare shopping through to the completion of a journey and at all the touchpoints in between.

The overarching point: airlines, and all travel retailers, have to be ready to proactively provide customers with what they want at the time of need.

Chris Juneau, senior vice-president of global marketing for Concur, says that while APIs remain at the backbone of many progressive technology firms, a further step forward must be taken in 2016.

“We already have the Internet of Things (IoT). All sorts of devices, machines, apps and systems are connected to the internet and APIs deliver live connectivity,” Juneau says. “Now, with this new era, comes another acronym: Live and Always Aware (LAA). Better than real time, it is a seamless, superior experience across multiple apps and platforms.

“My thermostat knows when I walk in the room, so it adjusts the temperature. My fridge recognises when I’m running low on milk, so places an order for more.

“This is the mindset into which we need to transform.”

LAA, Juneau insists, will become the new standard. **T**



THE FUTURE'S DYNAMIC

LEE HAYHURST SPOKE TO TWO FIRMS TAKING DIFFERENT APPROACHES TO CONVINCING HOTELS THE FUTURE OF DISTRIBUTION IS DYNAMIC RATES

Last year's Innovation Report noted how hotels, like cruise operators, are investing in technology hardware to modernise the guest experience.

Within weeks of publication, Starwood's W Hotel in Leicester Square showcased its new keyless door-entry technology on the day Apple Watch launched.

While this was certainly pioneering, budget hotel chain Premier Inn has taken the concept a stage further with the opening of its Hub range of boutique hotels.

With two open in London and a third on the way, as well as a property in Edinburgh, the physical design of these properties has been determined by the digital experience.

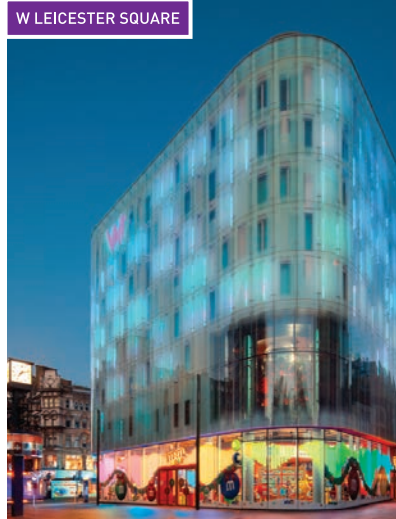
The Hub app allows guests to check availability and book. And once in their hotel, it pairs their device with their room, allowing them to control almost every aspect of their stay.

Innovations like this could help hotels offer guests the sort of more personalised service they believe will stimulate more direct bookings and increased loyalty.

But hotels are facing significant disruption by hospitality sharing sites, such as Airbnb, that are enabling the sort of personal interaction between host and guest that few hotels can offer.

At the same time, the dominance of the major OTAs – blamed for distribution costs rising at twice the rate of revenues in the past six years – shows little sign of abating.

So could taking an innovative approach to distribution, rates and



revenue management be the answer for hotels? Las Vegas firm Duetto believes so.

It claims hotels can fight back by exploiting new big data analytics to drive more of their business through dynamic revenue optimisation rather than traditional fixed contracts.

Michael McCartan, managing director for the EMEA region, said: "This concept of open pricing, where you allow the market to determine price, flies in the face of fixed contract negotiations. Historically, hotels would price their Best Available Rate (BAR) and push that into the Property Management System (PMS) and every other rate would cascade from that.

"But each room type has its own demand and should have its own price.

"Revenue management structures were built to support the way PMSs were built. They look back to predict the future. It's like driving a car forward just using the rear view mirror."

According to Duetto, this approach

brings potentially a number of upsides for hotels.

Moving away from BAR could see price parity agreements become less of an issue. And with more-intelligent, forward-looking data determining price, hotels can take a sophisticated approach to the distribution partners they choose and the specific inventory they target at them.

Airbnb, therefore, becomes a viable channel for room types many hotels have that can compete with apartments and homes but which are difficult to find online.

Duetto is not alone in pushing the virtues of dynamic pricing.

Fastpayhotels, a start-up launched by former Lowcost Travel Group chief operating officer Alex Gisbert, is introducing a new model for B2B distribution. It distributes best-in-market, non-refundable rates and passes the money on to hotels within 24 hours of a booking.

As customers become increasingly comfortable with non-refundable prices, agents can benefit from this trend while hotels are guaranteed to get their money upfront. Gisbert said the cashflow advantage means Fastpayhotels is like a "Wonga for hotels". He said: "If you're a hotel looking to refurbish, expand or make an investment, we are a very obvious partner."

Agents relying on fixed rates from suppliers risk being frozen out of the best prices and availability.

Whether distributing direct or through the trade, new more-powerful technologies are leading hotels into a more dynamic future. **T**



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KEEP CLIENTS CONNECTED

LAST YEAR AZAMARA CLUB CRUISES WON THE TRAVOLUTION AWARD FOR BEST TECHNOLOGICAL INNOVATION FOR ITS OCULUS RIFT VIRTUAL REALITY SYSTEM. MD RICHARD TWYMAN EXPLAINS WHY INNOVATION IN CRUISE IS VITAL

Technology advances are something that the cruise industry should embrace.

The landscape of travel is changing; travellers want to be connected and use technological advances to enhance their experience rather than hinder it.

While it's important to relax and recharge on holiday and make the most of your time spent off-the-grid, the reality for many is that staying connected is essential both professionally and personally.

From capturing special moments to upload to Instagram or keeping up to date with business deals back home, the modern traveller expects to be able to use their personal technology whenever and wherever they are.

When planning the major upgrades for both of Azamara Club Cruises' 686-passenger ships, we recognised that technology upgrades were just as important as the cosmetic ones.

By integrating technological innovations into the customer journey, the industry can personalise and enhance the guest's experience not only during their cruise but before and after too.

Azamara is constantly looking at the way our guests use technology to allow us to engage with them in a way that is appealing and showcases the best we have to offer in a really immersive and engaging way.

Take virtual reality as an example. It is a fantastic, immersive tool that we can use to help guests in their decision-making process; it



INSPIRATION CENTER ON AZAMARA'S SHIPS

can revolutionise the type of interaction brands have with their customers; and it means that cruise lines can move away from the soon-to-be-outdated brochures.

Last year, we launched Azamara 3DI – a series of 360-degree videos that can be viewed with our Oculus Rift headsets.

The technology gives our guests insights into our experiences, showcases our destinations and demonstrates the onboard experience and unique activities. It's one of my favourite new developments.

But perhaps the most important trend being followed by cruise lines is the introduction of powerful internet connections to provide better links at faster speeds. Expanded Wi-Fi signal beacons allow guests to stay connected anywhere on the ship.

Improved connectivity allows for higher forms of personalisation. Interactive TVs in each stateroom serve as connection hubs that let guests plan and book their activities, and electronic

tabletops in public spaces allow for social media surfing, enabling guests to share their experiences via digital postcards and creative doodles in real time.

Our new onboard Inspiration Center has an interactive 100-inch touchscreen that features a world map. It encourages guests to swipe the touch tiles underneath to view videos, photographs, destination information and day-by-day itineraries for voyages.

Guests can use this resource to delve deeper by viewing the Land Discoveries and Destination Immersion experiences we offer to learn more about specific ports as well as plan their next voyage.

As new technologies emerge, we will constantly review what we have on board our ships. This will ensure we stay relevant to both our current guests as well as appeal to those new to cruising and those who hadn't considered a sailing before. **T**

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TRAVEL SUBSECTORS TECHNOLOGY SPENDING

2015 BENCHMARK

Over the next 10 pages we set out the 2015 technology spending figures in each of the five travel subsectors in detail.

This allows you to benchmark your spending against your peers. So, for instance, if you are a travel agent which employs between 50 and 99 staff, you can see what firms of a comparable size spent on hardware in 2015 and the outlay per staff member.

The following pages also contain some key statistics to show the comparative size of each of the travel sectors we analyse in this report. >



TRAVEL AGENCY page 36



OPERATOR page 38



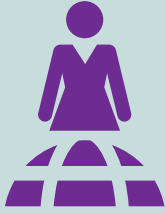
AIR TRANSPORT page 40



WATER TRANSPORT page 42



HOTELS page 44

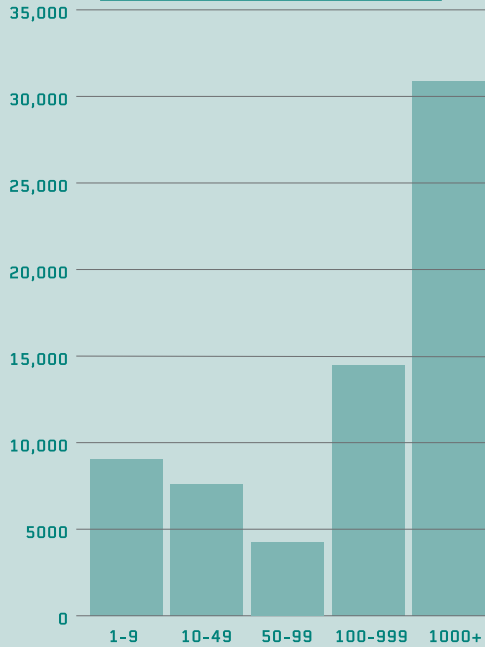


IT SPENDING BY TR

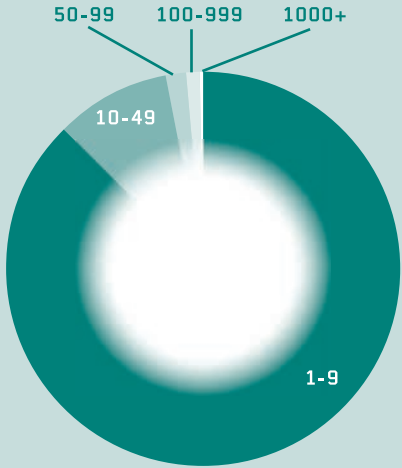
66,224
TOTAL AGENCY
EMPLOYEES

4,080
NUMBER OF
ENTERPRISES

NUMBER OF EMPLOYEES
By size of agency



SPLIT OF AGENCY SIZES
By number of employees



HARDWARE SPEND
By size of agency



SOFTWARE SPEND
By size of agency



TRAVEL AGENCIES IN 2015

TELECOM SERVICES SPEND

By size of agency



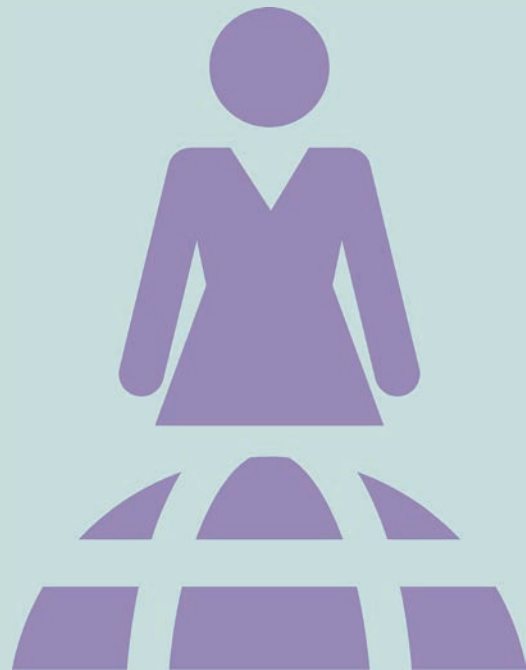
IT AND TELECOM STAFF COST

By size of agency



COMPUTER SERVICES SPEND

By size of agency



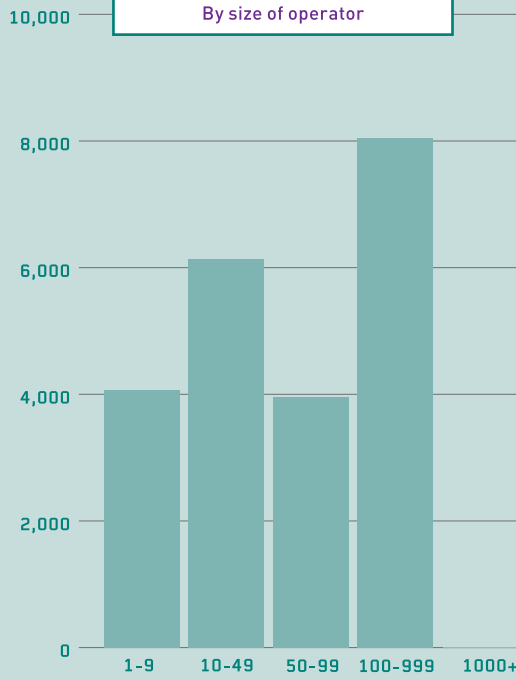


IT SPENDING BY TOUR OPERATOR

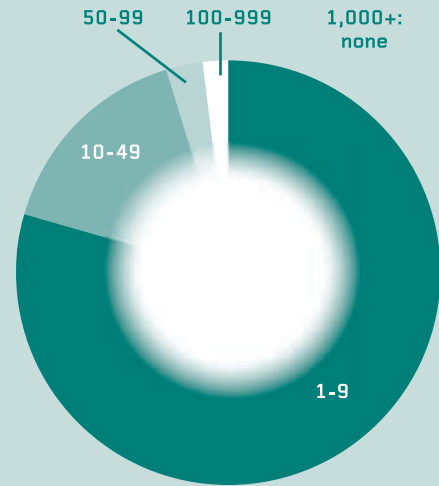
22,215
NUMBER OF EMPLOYEES

1,920
NUMBER OF OPERATORS

NUMBER OF EMPLOYEES
By size of operator



SPLIT OF OPERATOR SIZES
By number of employees



HARDWARE SPEND
By size of operator



SOFTWARE SPEND
By size of operator



R OPERATORS IN 2015

TELECOM SERVICES SPEND

By size of operator



IT AND TELECOM STAFF COST

By size of operator



COMPUTER SERVICES SPEND

By size of operator



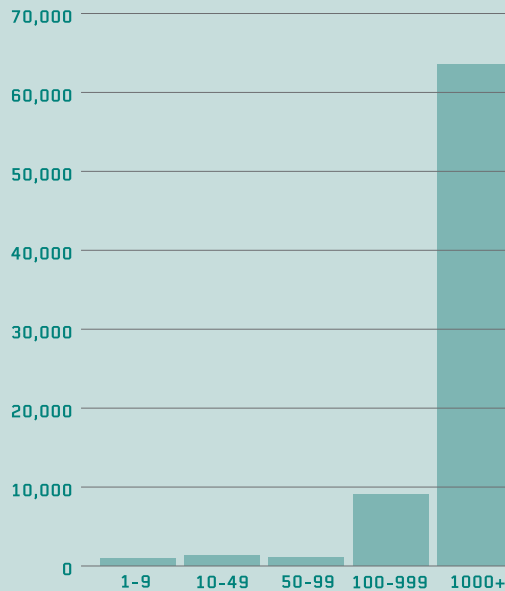


IT SPENDING BY AIR

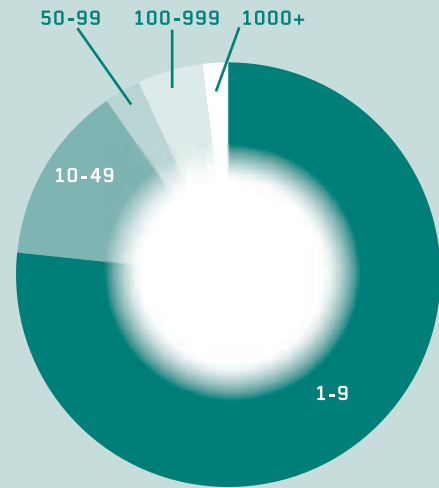
76,011
NUMBER OF
EMPLOYEES

520
NUMBER OF
ENTERPRISES

NUMBER OF EMPLOYEES
By size of company



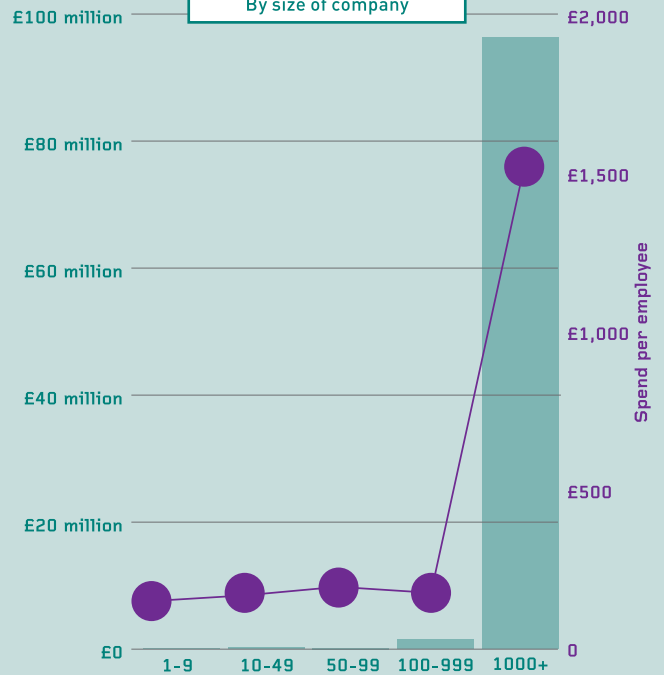
NUMBER OF ENTERPRISES
By number of employees



HARDWARE SPEND
By size of company



SOFTWARE SPEND
By size of company



TRANSPORT IN 2015

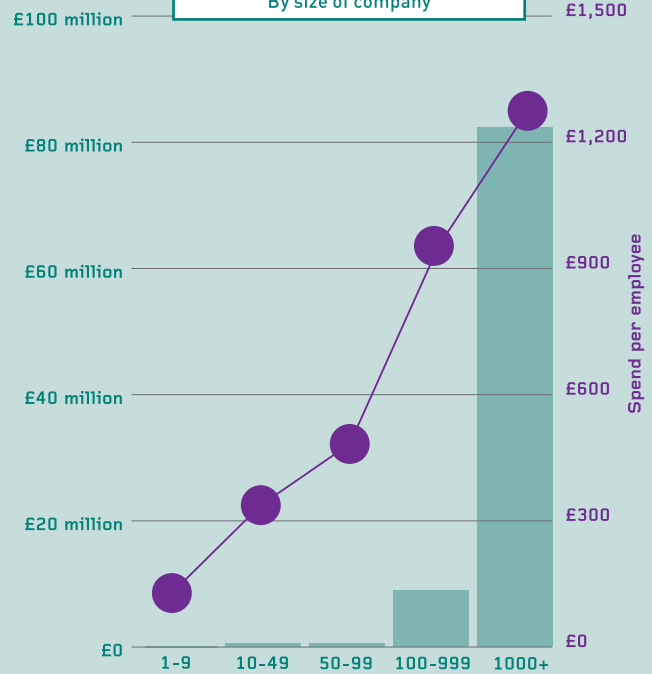
TELECOM SERVICES SPEND

By size of company



IT AND TELECOM STAFF COST

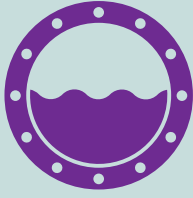
By size of company



COMPUTER SERVICES SPEND

By size of company



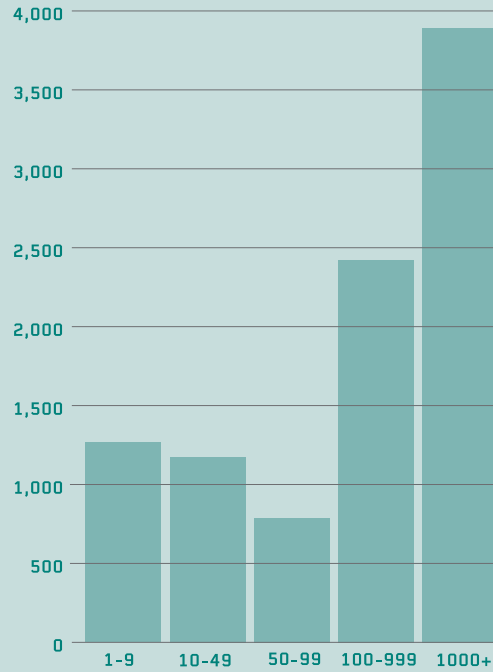


IT SPENDING BY WA

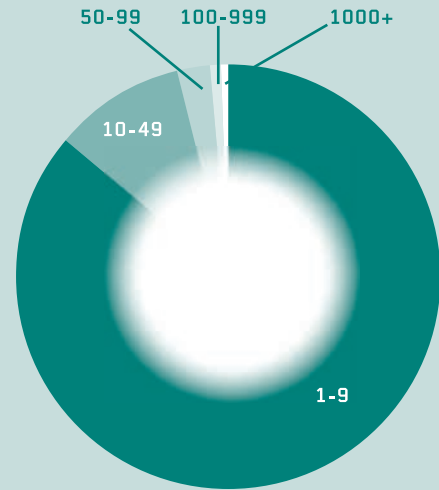
9,539
NUMBER OF
EMPLOYEES

592
NUMBER OF
ENTERPRISES

NUMBER OF EMPLOYEES
By size of business



NUMBER OF ENTERPRISES
By number of employees



HARDWARE SPEND
By size of agency



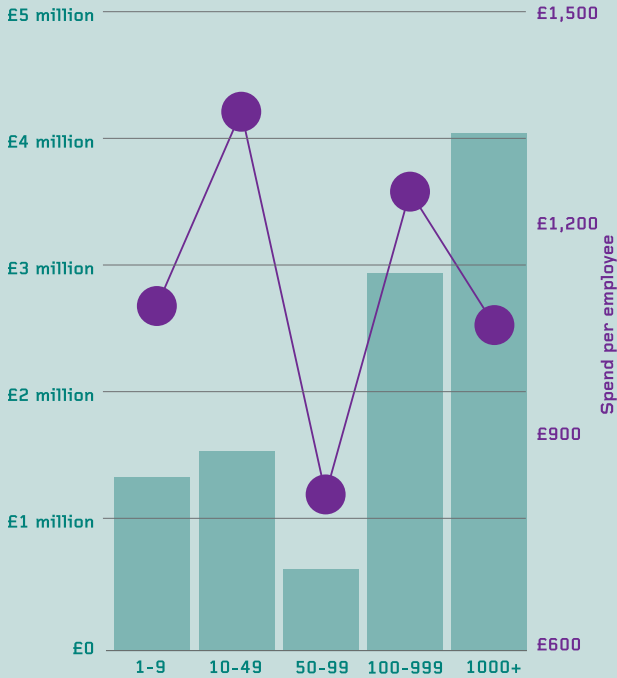
SOFTWARE SPEND
By size of agency



TRAVEL TRANSPORT IN 2015

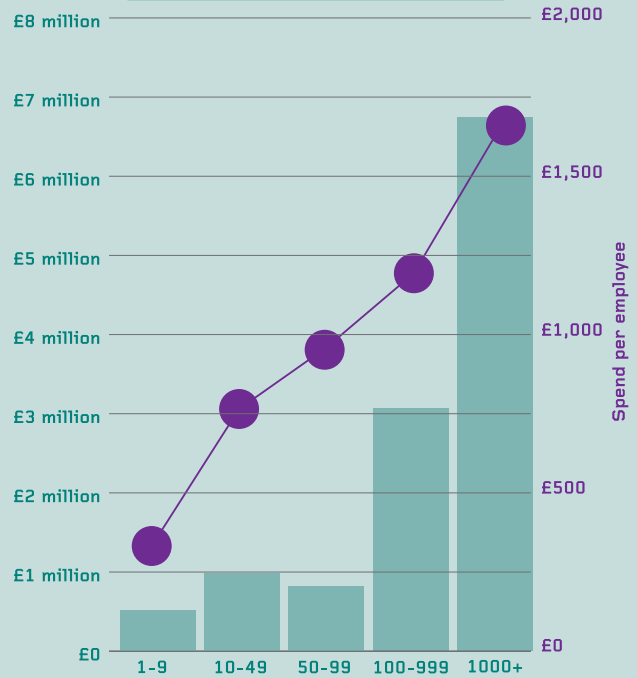
TELECOM SERVICES SPEND

By size of agency



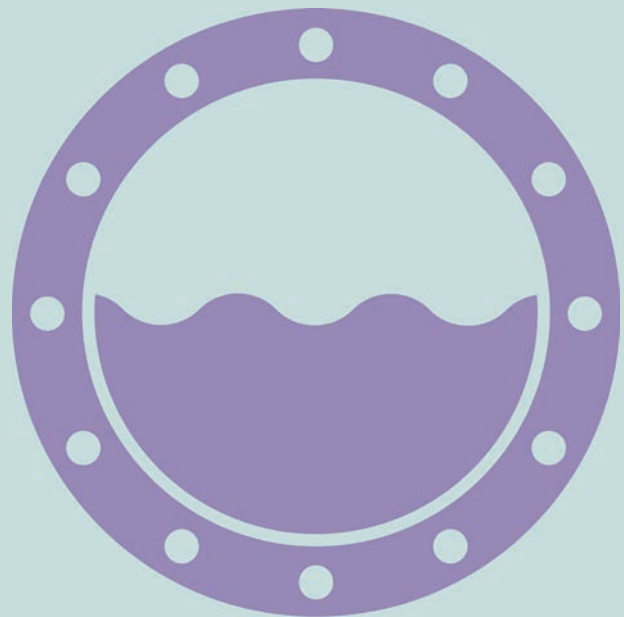
IT AND TELECOM STAFF COST

By size of company



COMPUTER SERVICES SPEND

By size of agency



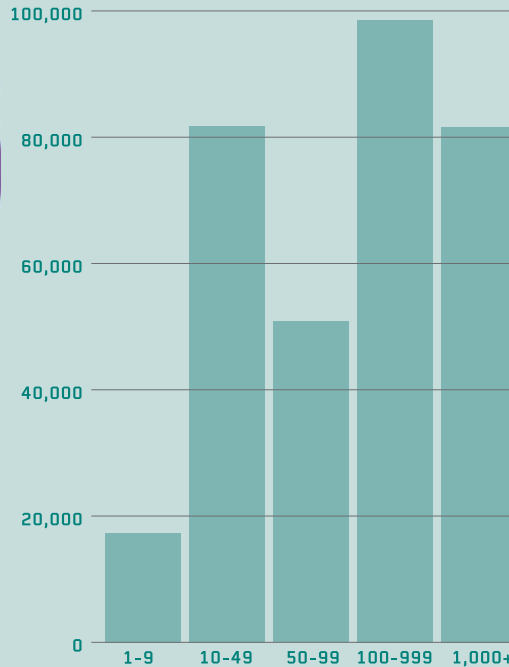


IT SPENDING BY

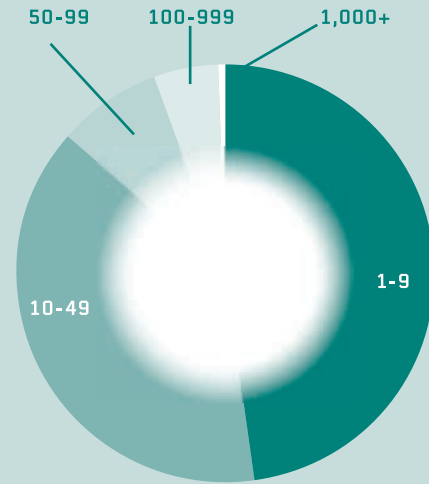
330,017
NUMBER OF
EMPLOYEES

9,340
NUMBER OF
ENTERPRISES

NUMBER OF EMPLOYEES
By size of hotel company



SPLIT OF HOTEL BUSINESSES
By number of employees



HARDWARE SPEND
By size of hotel company



SOFTWARE SPEND
By size of hotel company



HOTELS IN 2015

TELECOM SERVICES SPEND

By size of hotel company



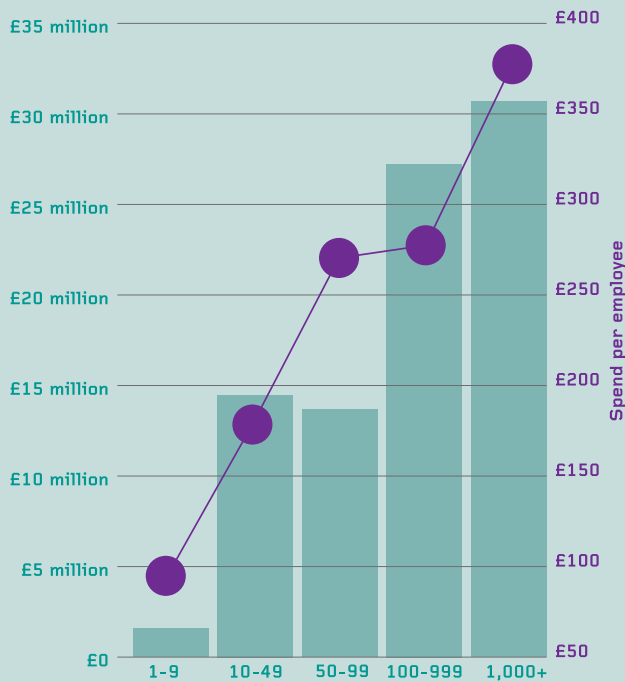
IT AND TELECOM STAFF COST

By size of hotel company



COMPUTER SERVICES SPEND

By size of hotel company





GLOSSARY

DEFINITIONS

Hardware – includes both computers and peripherals.

Software – covers custom software, application packages, development tools and system software.

Computer services – covers consultancy, training, outsourcing, contract staff, software support and hardware support.

Telecom services – rental charges on telephone services including mobile phone services and the cost of telephone calls, faxes, internet services and data transmission.

IT and telecom staff – covers gross pay including benefits.

Enterprise – is a business unit that is defined as a legal unit, person or group of people producing goods or services under their own control and with their own legal identity. A branch or office of a larger concern is not in itself an enterprise.

Rounding – the number of enterprises is rounded to the nearest 5. Where the number of enterprises is rounded to 0, the associated IT expenditure values are included in the nearest adjacent employee band with non-zero enterprise entry. This is to ensure confidentiality to survey respondents.

DATA SOURCES

The historical technology expenditure is based on a series of government surveys. These collect data by industry and size of enterprise. The industry data is disaggregated to cover the five travel subsectors. There are four major UK government sources used, each providing size of enterprise data for each subsector on a quarterly/annual basis.

1. Quarterly Survey of Capital Expenditure

This survey collects expenditure data on hardware and software. It has a sample size of 27,000 per quarter, requesting information from private enterprises.

2. Annual Business Survey

This survey is the key resource for understanding the detailed structure and performance of enterprises across the UK. Part of the data gathered is spend on software, computer services and telecom services. The sample size is 73,000.

3. Annual Population Survey

This survey is a continuous household survey providing

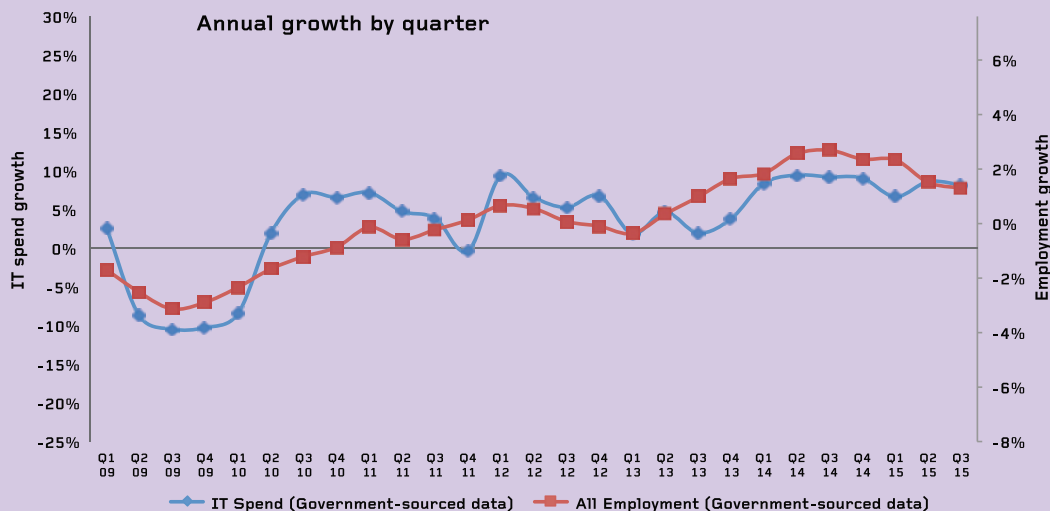
social and labour market variables. It also uses data from the Labour Force Survey. Data collected includes occupation and pay, thereby enabling IT and telecom staff costs to be determined. The achieved sample size is 320,000 respondents per annum.

4. Inter-Departmental Business Register (IDBR)

This register is a comprehensive list of UK businesses that provides the main sampling frame for surveys of businesses carried out by government departments. It is also a key data source for analyses of business activity. The IDBR covers more than 2.1 million enterprises in all sectors of the UK economy. It is used to provide the demographic structure of the five travel industry subsectors. This includes number of enterprises, employment and turnover.

In addition, other government sources are used for passenger numbers and economic forecasts. The latter is sourced from the Office for Budget Responsibility.

APPENDIX 1: UK IT spend and employment, 2009-14





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