ACI EUROPE

AIRPORTS COUNCIL INTERNATIONAL

PERFORMANCE MANAGEMENT AT EUROPEAN AIRPORTS



*Cover image appears courtesy of Aéroports de Paris.

FOREWORD

One of the exciting parts of working in the aviation sector is its fast-paced dynamic. Ours is a still a relatively young industry sensitive to sudden disruptions - for example new security requirements or volcanic eruptions - and more medium and longer-term shifts in technology and market structures all coming together to create a working environment where change is a daily constant.

Historically it was the airline industry which had all the fun, with airports seen as staid, unchanging bureaucratic organisations. Of course in recent times this has completely changed, as airport management has adapted to a more competitive and commercial world, leading to a continuous process of business transformation within the industry. It's no surprise, for example, that we find airport CEOs increasingly coming from a diverse range of business sectors, as airports seek to incorporate wider professional excellence into their operations, and to emulate best practice from other disciplines.

Airport performance management is increasingly a central component of this shift, and an area in which ACI has some useful tools for members. Given how internal importance of this discipline is gaining momentum at European airports, we decided to look the issue in close-up, to better understand the discipline itself, as well as the status quo at European airports. This Analysis Paper pursues 4 main lines of inquiry, and we have therefore structured it accordingly:

SECTION 1

➔ WHAT IS PERFORMANCE MANAGEMENT & HOW DOES IT APPLY TO THE AIRPORT INDUSTRY?

While there is a lot of talk about performance management, it remains a broad topic, with its definition in practical day-to-day terms remaining unclear for many non-practitioners. This section gives an introduction to performance management, explains some of the issues specific to the airport industry, and explores how performance management should work with the wider regulatory frameworks that many individual airports operate within.

SECTION 2

➔ WHAT IS THE CURRENT STATE OF PLAY AT EUROPEAN AIRPORTS?

What is actually happening on the ground within European airports? Are there any common trends, and if so what are they? To answer these questions ACI EUROPE collaborated with the University of Maastricht to survey member airports on their performance management activities, and this section presents the aggregate results.

SECTION 3

➔ HOW IS AIRPORT PERFORMANCE MANAGEMENT PRACTICED IN REAL LIFE?

Different airports are at different stages in the development of their own performance management frameworks. This section highlights a range of different best practices adopted by airports across Europe, to give some insight and inspiration to those airports wishing to advance their own performance management efforts.

SECTION 4

➔ WHAT TOOLS ARE AVAILABLE FOR AIRPORTS?

ACI has a range of tools and resources on offer. This section describes these, and provides information on next steps for those that want to take advantage of these services.

We hope this Analysis Paper proves useful, and encourage you to explore the range of ACI resources available, to better equip your own airport to improve its own performance management framework.

SUMMARY POINTS

- The liberalisation of the aviation sector in Europe has led to the commercialisation of airports and the unleashing of competitive pressures amongst operators. To survive and prosper in this new commercial environment, European airports are increasingly adopting performance management techniques as a means of reducing costs, optimising levels of service delivery and maximising available margins.

- No two airports are the same as each other – they have different infrastructure, different internal strengths, different markets and different airline and passenger demands. Consequently, while there are commonalities amongst the various approaches employed by different airports, there is no 'one size fits all' approach to airport performance management.

- Economic regulation of airports, where it is necessary, should focus on outputs, and not become involved in detailed performance management. Benchmarking is a key component of performance management, but is also counterproductive in situations where it is not used objectively. Economic regulation creates incentives for all parties to game the system and to take extreme positions. In this context, benchmarking is unlikely to be used constructively.

- Larger airports tend to have higher confidence in both the design and outcome of their performance management frameworks. Professionals at larger airports generally consider KPI categories to be more useful, compared to their counterparts at smaller airports. This in part, reflects the wider and deeper resources available to them, compared to their smaller counterparts, but it may also reflect the fact that larger and more complex organisations derive proportionately greater benefits from performance management techniques.

- Business areas where there are the greatest number of Key Performance Indicators (KPIs) include *'Productivity & Cost Effectiveness'* and *'Financial & Commercial'.* Conversely, these are the areas where airport professionals consider KPIs to be least useful, with new KPIs anticipated in particular in the '*Productivity & Cost Effectiveness'* field.

- Airports as a whole use a variety of different approaches to performance management; however those airports which cited a wide range of different approaches tended to have lower confidence in both the design and outcome of their efforts. Airports with clear and focused approaches benefit accordingly.

- In contrast, those airports which had access to a broad range of different performance data sources were more empowered and therefore more confident in the design and outcome of their performance management systems.

- Benchmarking is a key component of performance management – those airports which combined internal and external benchmarking reported higher confidence. While most airports combined approaches, smaller airports were more likely to benchmark internally, and larger airports to benchmark externally.

- The more Full Time Equivalents (FTEs) that an airport devotes to performance management, the higher are confidence levels in its performance management efforts. However this need not be a limiting factor – airports with 2-5 performance management FTEs reported similar levels of confidence to those airports with 6-10 equivalent FTEs.

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1

PERFORMANCE MANAGEMENT AND HOW IT APPLIES TO THE AIRPORT INDUSTRY

1.1 WHAT IS PERFORMANCE MANAGEMENT?

Good management matters. Better management has been shown to be associated with better performance, in terms of increased profitability, stock market value, sales per employee and other measures[1].

While the science of 'management' came into its own from the early days of the 20th century, the specific set of activities known as 'performance management' began to emerge from the 1970s. More recently, these have been increasingly applied at European airports.

But what exactly is performance management? Essentially it is about making sure that an organisation is using the right resources in the right way to produce the right product or service. It's about ensuring that an organisation is consistently achieving specific objectives in an efficient and effective manner. This is essential for a company to satisfy existing and new customers, to maintain and improve its competitive position, and to deliver an optimal rate of return to shareholders.

Performance management is composed of two key elements – **strategic planning** and **performance measurement**. **Strategic planning** sets out a company's core objectives (e.g. a % increase in profitability, a certain increase in market share, etc.), taking into account the internal strengths and weaknesses of the company, as well as the threats and opportunities being faced in the external environment. It sets out sub-objectives required to achieve these core objectives (e.g. an increase in sales, a lowering of unit costs, etc.) and identifies the resources required to achieve these goals.

In parallel, **performance measurement** identifies specific metrics or indicators which match up to these objectives, and consistently and rigorously collects data related to these metrics. These metrics can be operational, financial, compliance or quality-related, but all must relate to the core objectives, and should give clear evidence as to whether the objectives have been met or not.

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1 *'Why Do Management Practices Differ across Firms and Countries?',* Bloom, N. & Van Reehan, J. published in Journal of Economic Perspectives, Vol 24, Number 1, Winter 2010. Available at http://web.stanford.edu/~nbloom/JEP.pdf

Various management techniques, such as the use of Balanced Scorecards or Value Based Management, link the strategic planning with the measurement of performance, allowing an objective assessment of the company's overall achievements and facilitating reviews which empower the company to identify weak spots, introduce changes, modify the overall plan, or update either the specific metrics and/or targets associated with individual areas of activity.

1.2 THE EUROPEAN AIRPORT CONTEXT

The growth in the extent and sophistication of performance management at European airports is part of a wider fundamental shift within the sector, which has seen airport operators no longer acting as providers and administrators of public infrastructure, but instead transforming themselves into commercial, profit-oriented and competitive entities.

These developments initially began with the arrival of private sector involvement, and continued on as public owners increasingly behaved as normal shareholders, expecting their airport or airports to deliver an appropriate rate of return on investment, and to achieve this by operating in an efficient and commercially effective manner.

In a separate but very closely related development, the liberalisation of the European aviation sector has led to the emergence of significant competitive pressures on airports. Responding to their own cost pressures, airlines have been putting increasing pressure on their suppliers, including airports. And either via their ability to redeploy their fleet of aircraft at a range of different airports at short notice, or by leveraging their position of buyer power vis-à-vis the airport, airlines can indeed place substantial pressures on airports. These pressures are only reinforced by the ability of many passengers to pick and choose their airports also[2].

It has been established that there is a positive relationship between the degree of competition within an industry and the quality of its management – the more intense competition is within an industry, the better the management working within the industry[3]. Airports in Europe appear to be no different, with ample anecdotal evidence of a substantial rise in the professionalism and capability of airport operating companies in recent years.

This is also borne out by the much greater emphasis being placed internally on performance management. Airport operators will simply not be in a position to deliver competitive prices and services, if their organisations do not have the tools to ensure that they are fulfilling their key strategic objectives in the most efficient way possible.

1.3 ONCE YOU'VE SEEN AN AIRPORT, YOU'VE SEEN AN AIRPORT

No two airport operators are the same. Different operators will face their own unique blend of different markets and customers, and will have their own unique different strengths, weaknesses, opportunities and threats. It therefore logically follows that they will need their own specific optimal business strategies.

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[2] *'Airport Competition in Europe'*, Copenhagen Economics, June 2011

[3] *'Why Do Management Practices Differ across Firms and Countries?'* in Journal of Economic Perspectives, Bloom, N & Van Reenan, J, 2010 – available at: http://web.stanford.edu/~nbloom/JEP.pdf

What this means in practice is that no airport is going to have the exact same approach to performance management. There is no template which can be applied to all airports, nor should there be. This has been recognized, with the Airport Cooperative Research Program (ACRP) noting that *"It is unlikely that the performance measures adopted by any specific airport will mirror another in exact detail. In fact, while benchmarking efficiency and operational performance against similar organisations is a positive attribute of any performance system, this should not be confused with the exact duplication of another entity's entire framework."*[4]

This is also reflected in the results of the recent ACI EUROPE Performance Management Survey (see Section 2), which showed that there is a wide range of approaches to performance management amongst European airports, with diversity being the common theme.

When it comes to performance management, airport operators need to adopt a holistic approach, and assemble a system of performance management which reflects their own individual business needs in a balanced and sustainable way. While best practices can be borrowed, ultimately an operator will have to build a unique system which reflects a unique business context, with a mix of performance indicators which best suits the specific business strategy being pursued.

1.4 THE REGULATORY CHALLENGE

Performance management is first and foremost a commercially-driven tool to improve performance in response to competitive pressures.

However the reality is that many European airports remain subject to economic regulation, with all airports with greater than 5 million passengers per annum and the largest airports in each EU Member State subject to the provisions of the EU Airport Charges Directive. In addition many larger individual airports face more intrusive regulation at a national level.

Beyond national and EU-level, the International Civil Aviation Organization (ICAO) has also become involved specifically in the area of airport performance management. Both its *'Airport Economics Manual'* (Document 9562) and its *'Policies on Charges for Airports and Air Navigation Services'* (Document 9082) provide broad outlines of ICAO views on airport performance management, with Document 9562 also providing an Appendix with quite detailed instructions as to how airports should measure performance.

The results of the study in Section 2 show that European airports have adopted a wide range of different approaches to performance management, well beyond any binding regulatory requirements. This has been a commercially-driven response to the pressures of operating in competitive environments. Yet these positive developments would be threatened, if additional regulatory requirements concerning internal measures of performance were introduced. Such a step would undermine the continued application of more modern and fit-for-purpose performance management techniques.

More generally, it is a fact that a 'one size fits all' approach is never completely avoidable in regulation, and that regulatory change struggles to keep pace with commercial and market evolutions. As a result

[4] *'Developing an Airport Performance-Management System',* Airport Cooperative Research Programme, 2010, page 11. Available at: http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_019.pdf

any attempts to regulate what is a varied and ever-evolving discipline would inevitably lead to the imposition of out-dated and ill-fitting regulatory requirements upon individual airports.

More specifically, it is widely recognised that benchmarking (a cornerstone of performance management) only adds value when it is performed in an objective manner. When Key Performance Indicators are cherry-picked or presented without explanation of the wider context, to prove pre-determined positions, performance is ultimately undermined rather than improved. For example, personnel costs on a per passenger basis is not an appropriate indicator when comparing an airport which outsources all its labour, to an airport which performs the same activities in house. Equally an airport which has just opened a new terminal will inevitably have higher per-passenger capital costs, and possibly higher per-passenger operating costs. If the airport's stage in the investment cycle is not made clear and the implications of this explained in a transparent manner, inaccurate conclusions may be drawn.

It is equally widely recognized that intrusive economic regulation impacts the incentives and consequently the objectivity of all parties involved. Where airport charges are decided or influenced by a third party, both airport and airlines will be incentivized to adapt their behaviour accordingly.

To ensure that this does not unduly undermine internal performance management systems and use of KPIs and benchmarking, regulatory involvement in this field should remain as limited as is possible. Where economic regulation of airports is deemed necessary, and irrespective of its intensity, the focus should be on outputs and not upon how these outputs are realised.

2

THE CURRENT STATE OF PLAY AT EUROPEAN AIRPORTS

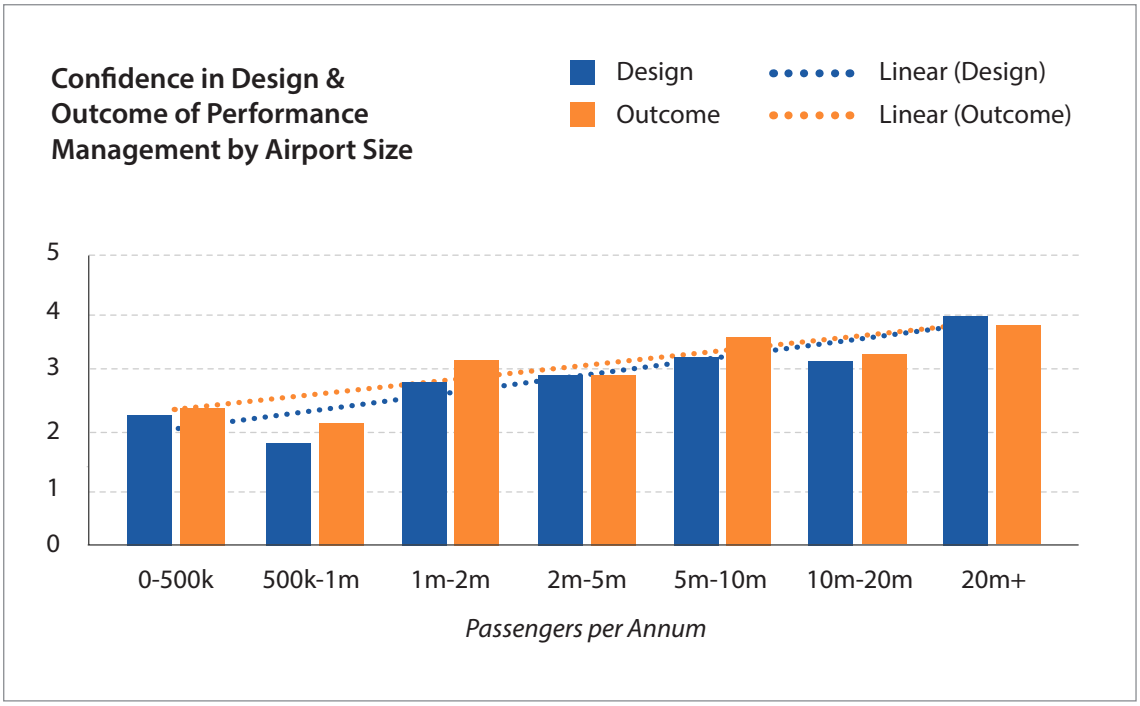
2.1 APPROACH

ACI EUROPE, in cooperation with the University of Maastricht, undertook a survey to gain a better understanding of the state of play of performance management at European airports. A questionnaire was sent to all airport operator CEOs, with responses received from airport professionals from 50 airports representing over 30% of European passenger traffic.

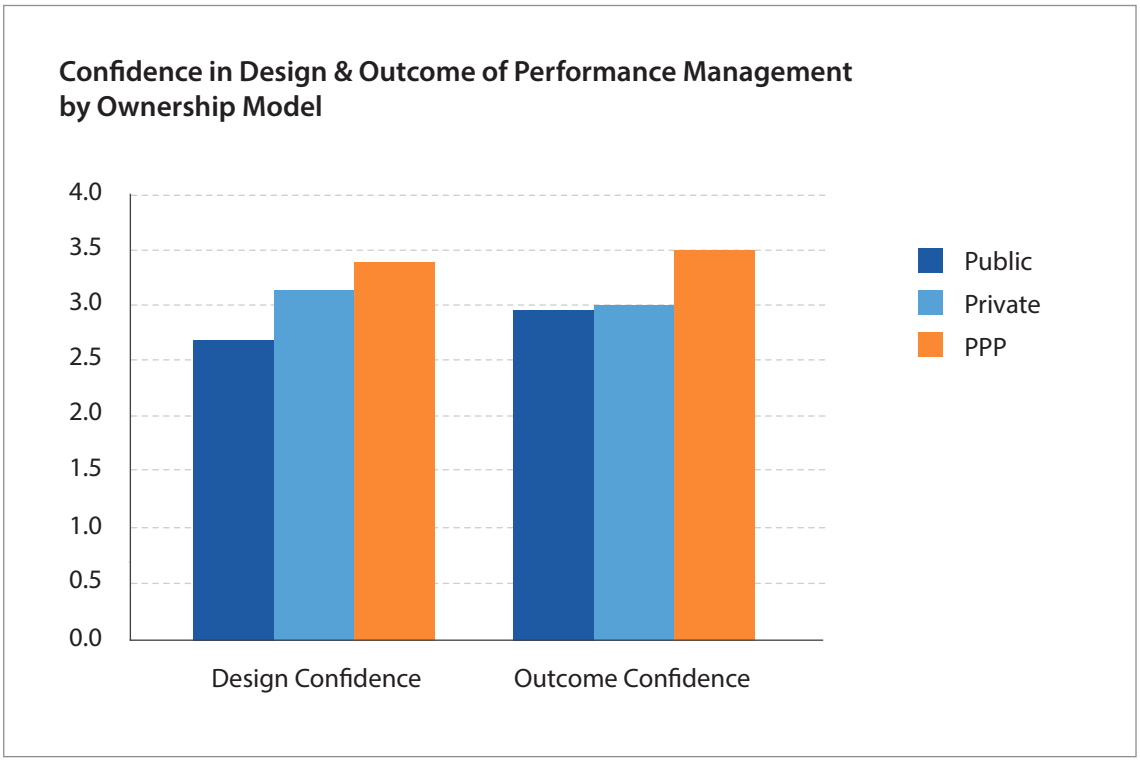
Responses came from a range of different professionals within airport operator organisational structures, representing the diverse approaches to performance management within the industry. This diversity was reinforced by the significant percentage of respondents who considered themselves as working in another professional field, beyond the proposed selection of fields provided in the survey questionnaire. The majority of these respondents indicated that they worked in fields concerning quality control, although retail and aviation marketing (involving responsibility for attracting and retaining airline clients) were also referenced.

Operations	Finance	Planning/ Strategy	Other	Multiple Fields
15%	17%	24%	37%	7%

As well as standard questions concerning the approaches and techniques adopted, the survey also asked these airport professionals to rank their perception of the **usefulness** of the individual performance indicators employed, as well as their **confidence** with the **design** and **outcome** of their airport's overall approach to performance management. This gave some valuable insight as to how different approaches to performance management led to different levels of satisfaction within airport organisations, and in turn gave some high-level indications as to what approaches yielded the best outcomes.



It can be seen that in general the larger the airport, the more confident it is both in the overall design and the outcome of its performance management framework. There seems to be a number of reasons for this, reflecting the resources available to the larger airports, and the corresponding different approaches and techniques which can be adopted as a result. It is also likely to be the case that larger airports, with larger and more complex organisational structures, benefit proportionately more from good systems of performance management.

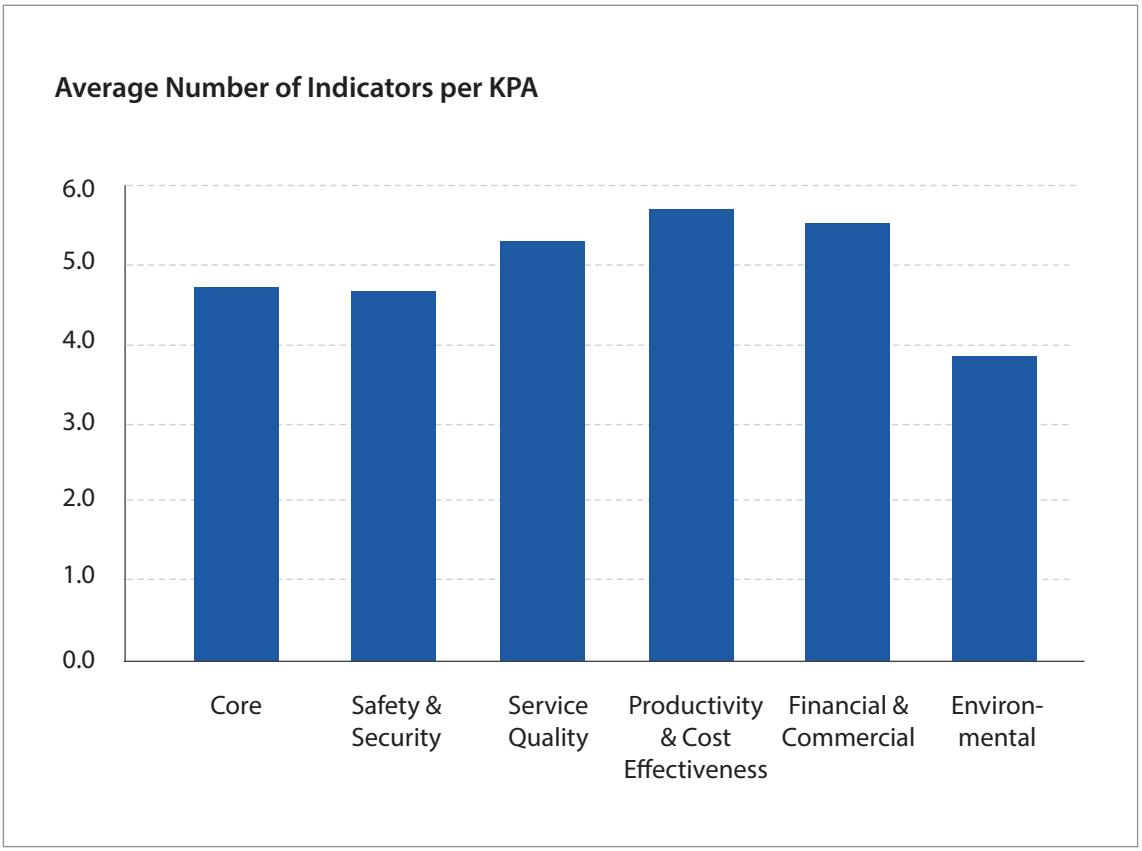


Airports with private involvement tend to be more confident in their performance management framework, in terms of both design and outcomes. Interestingly those airports which have a mixture of public and private ownership tend to be considerably more confident in their performance management activities than their fully publically or fully privately owned counterparts. This may partly reflect the need for clear corporate governance structures in such organisations, to reassure private investors that the public involvement will not undermine the commercial nature of the airport operator.

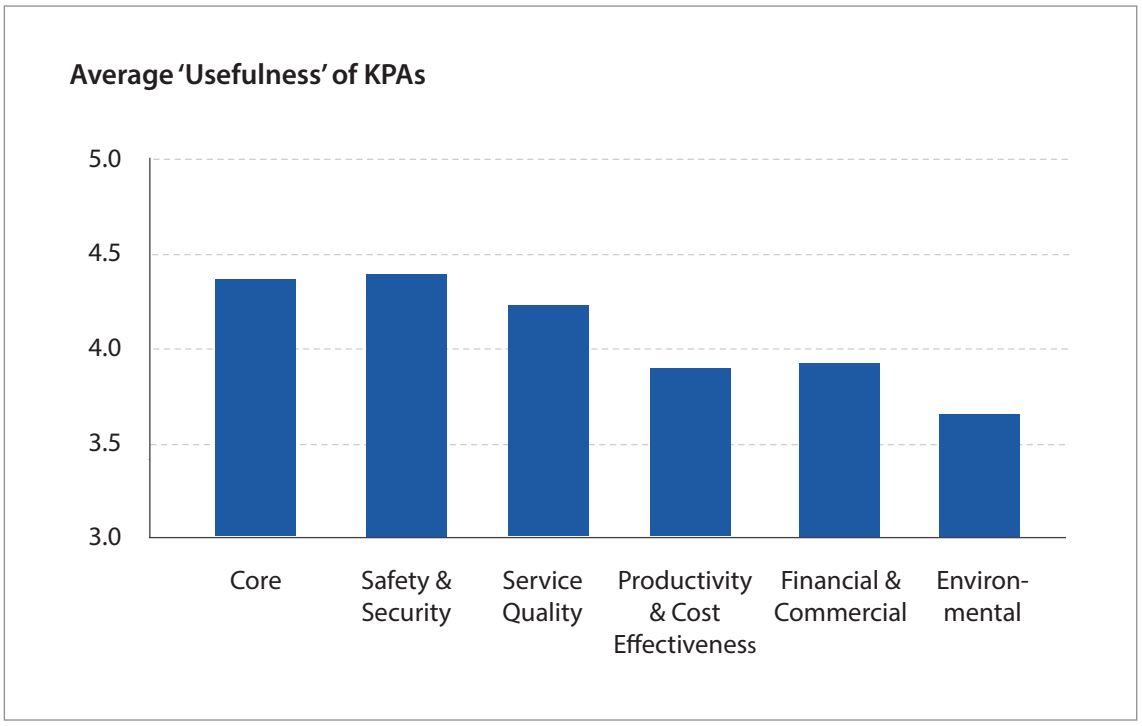
These results also reflect the fact that the average publicly owned airports is much smaller than airports with full or partial private ownership, and so these airports will automatically have lower average levels of confidence, as detailed above. Interestingly however, the average size of both fully private and PPP airports is broadly similar, and so size does not seem to be a contributing factor towards the different confidence levels of these airport categories.

2.2 KEY PERFORMANCE AREAS

Airports were also asked about the different key performance areas (KPAs) they focused on – i.e. where within the business are performance indicators (e.g. operating cost per passenger, Debt to EBIDTA, runway incursions, etc.) established and measured? These were based upon the KPAs identified within the *ACI Guide to Performance Measures* (See Section 4)



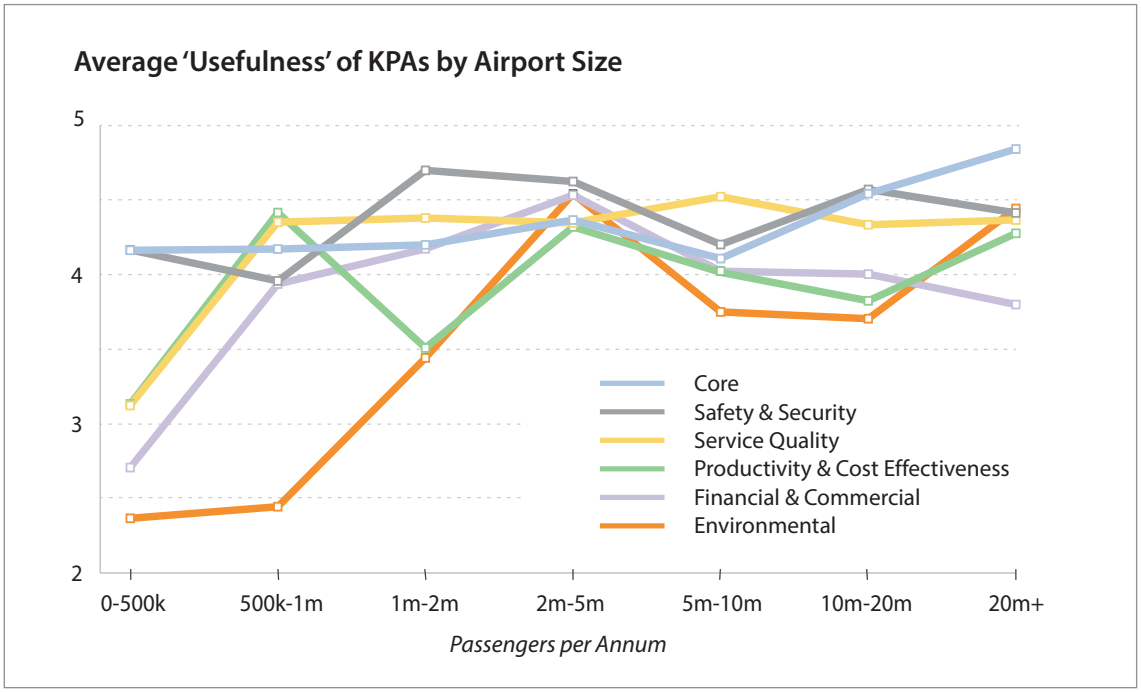
Airports typically did not restrict themselves, and used performance indicators from a range of KPAs, reflecting the need for management of performance across the business as a whole. However within the individual KPAs, airports were more likely to choose a higher number of indicators with the KPAs concerning productivity/cost effectiveness, as well as financial and commercial performance. This reflects the range of cost pressures, customer demands and shareholder expectations which all European airports face to varying degrees. Following closely afterwards was the KPA of service quality, again reflecting the overarching business need to satisfy the demands of both airline and passenger customers, and the increasing emphasis being placed on quality as a means of maintaining a competitive position.



Airport professionals were asked to rate how useful they considered individual performance indicators to be. The ranking subsequently given by respondents to individual indicators were aggregated within their KPA category, to give an average 'Usefulness' score.

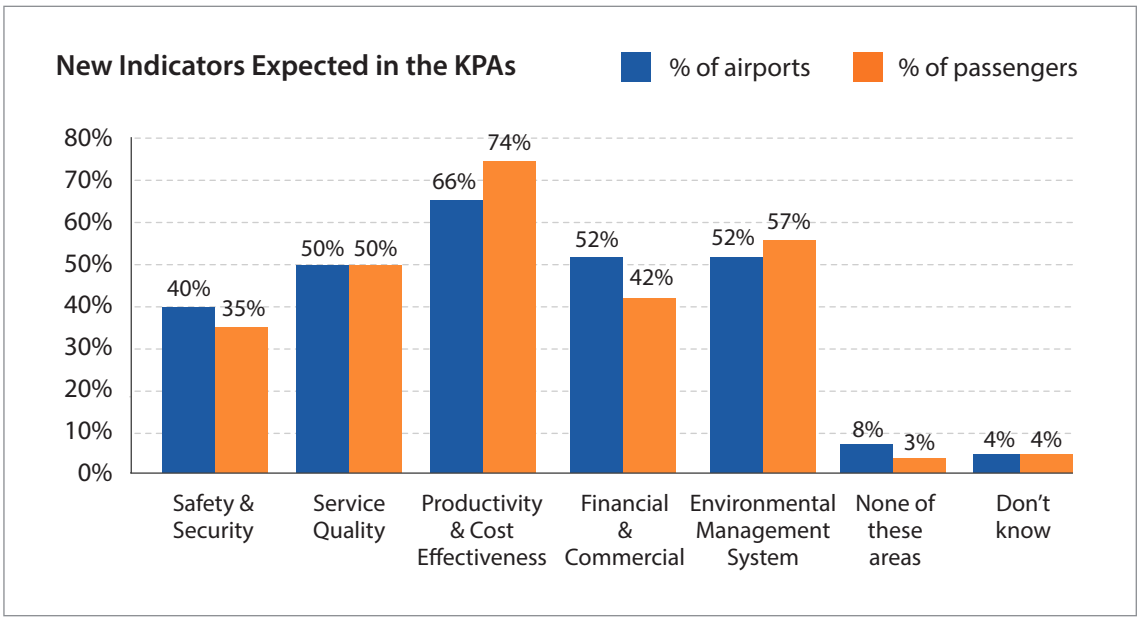
Indicators used to manage safety & security performance, as well as 'core' indicators (e.g. number of passengers, direct destinations served, etc.) ranked as the most useful. This may reflect the fact that safety & security metrics have been longer established, as safety and security operations are subject to a high degree of longstanding regulation, with a reasonably standardized approach across the industry, relative to other fields. For all intents and purposes, safety and security metrics effectively are 'core' metrics also, with the guaranteeing of a safe and secure environment for passengers and others being a founding pillar of the business of operating an airport.

Indicators for productivity, cost effectiveness, and financial and commercial performance scored relatively lower in terms of their usefulness. This was in spite of the fact that airports typically have a larger number of indicators for these areas compared to other areas. It may be the case that a more limited number of more useful indicators would better serve airports in their performance management efforts in the future.



With a few exceptions there was little variation in terms of how airports of different sizes ranked the aggregate usefulness of the various KPAs, with both larger and smaller airports considering the various KPAs of equivalent usefulness, although across the spectrum larger airports were slightly more likely to find KPA indicators to be of greater use. This may reflect the greater confidence that larger airports have in their performance management activities more generally, or it may be a reflection of the increased usefulness of performance management and key performance indicators in larger and more complex organisations which are inherently more challenging to manage.

One obvious outlier is the category of the smallest airports, which reported quite low feedback on indicators concerning the environment, as well as financial and commercial performance. This may reflect their limited impact on the environment in terms of issues such as aircraft noise, as well as the absence of the same opportunities to increase commercial revenues that their larger counterparts have.



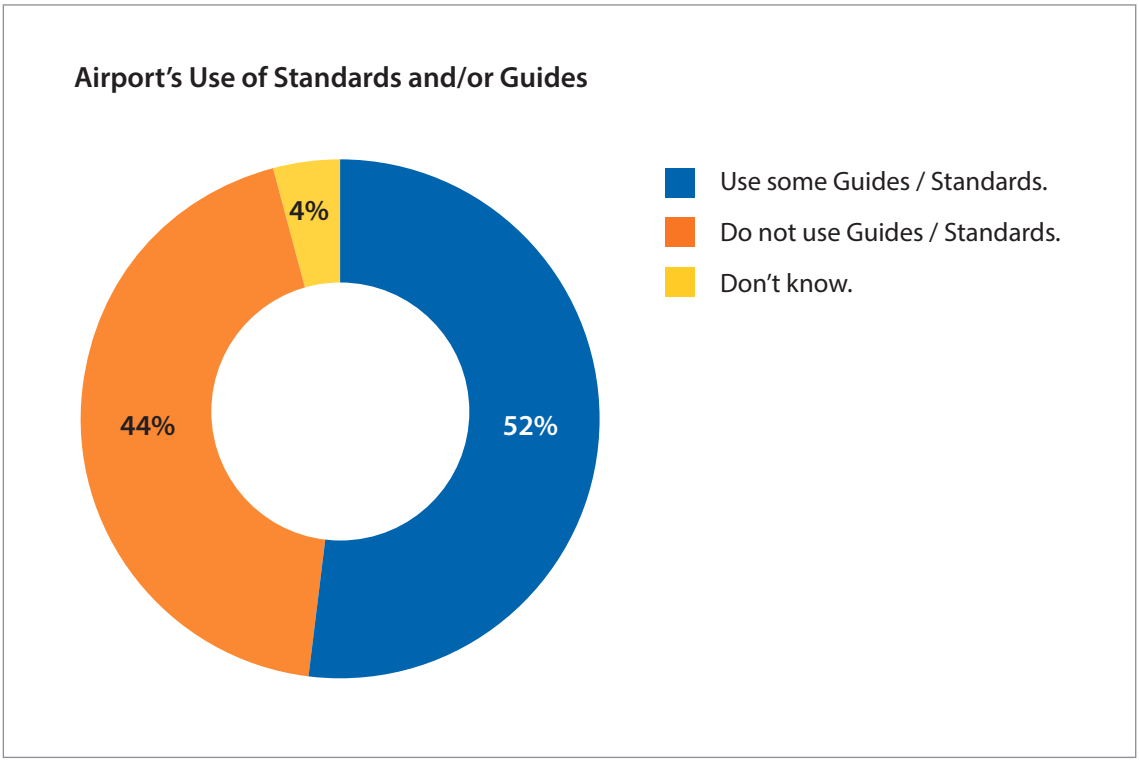
The survey also asked airport professionals within which KPAs did they envisage new performance indicators to be developed. Productivity and cost efficiency indicators were considered by the majority of airports to be the next big area of development, and when considered alongside the percentage of passenger traffic that these airports represent, it becomes clear that it is the larger airports in particular which will be focusing on this field. This is unsurprising, given the current relatively low degree of satisfaction with the usability of such metrics.

Environmental performance indicators were also high on the list of future developments, and again with larger airports in particular interested in this area, reflecting the greater and more immediate environmental challenges they face.

Interestingly, the area of 'financial and commercial' was seen by relatively fewer airports as being a future area of development, with larger airports in particular placing less emphasis on this field. This may reflect the relative maturity of airports' commercial revenue activities such as retail and car parking, which have been subject to continuous improvement and refinement for quite some time in Europe[5]. However, digitally connected passengers are ensuring that airports are effectively now competing against the internet for their custom, which means that a paradigm shift is underway in these competencies. A renewed focus on relevant metrics may well become necessary.

Finally, relatively few airports envisaged the development of more indicators in the 'safety & security' KPA, again reflecting the already high degree of confidence in existing indicators.

2.3 FRAMEWORK

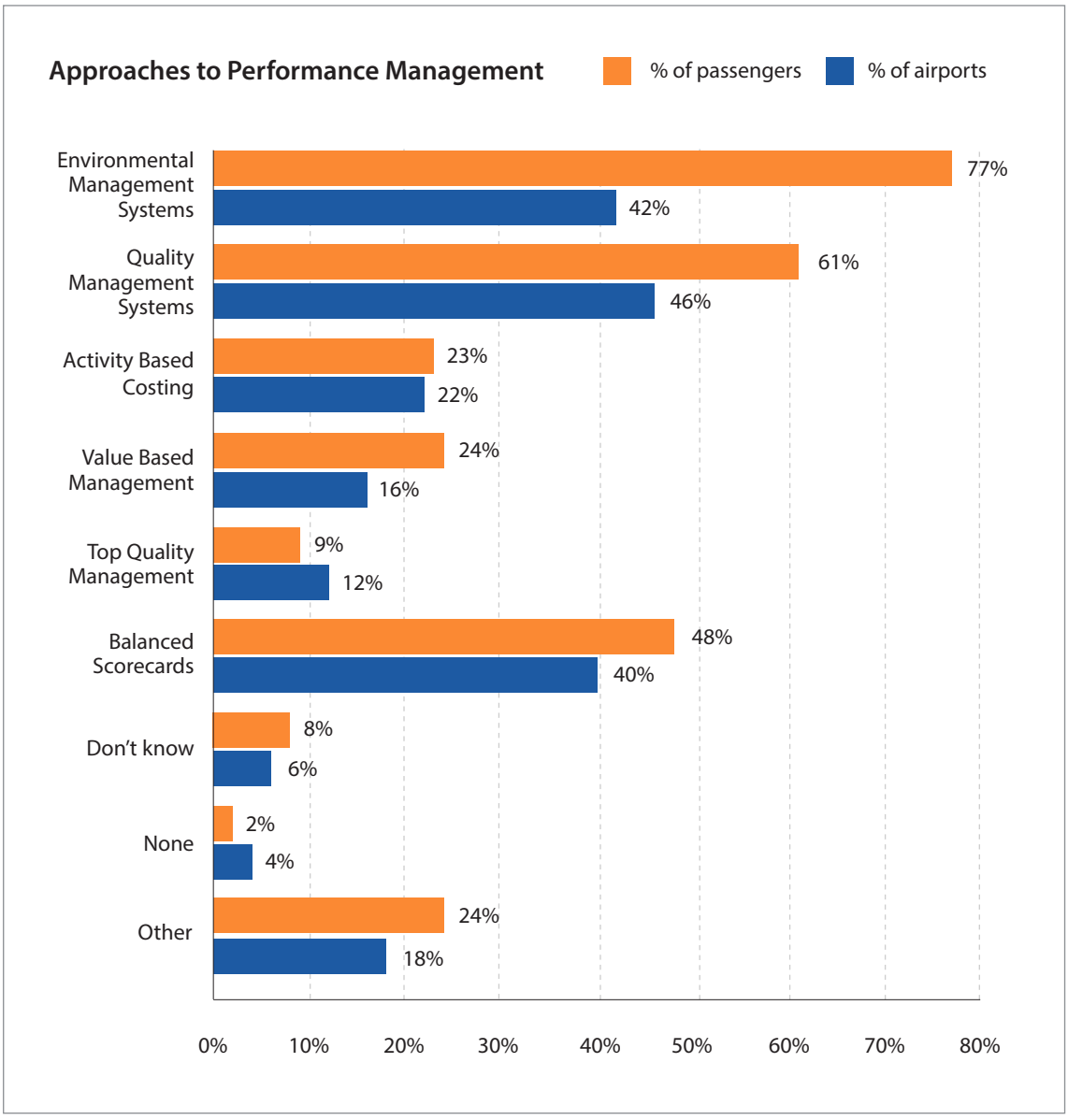


[5] *'ACI EUROPE Economics Report 2013',* ACI EUROPE, June 2013, page 18 – available at: http://www.aci-europe.org/component/downloads/downloads/3950.html

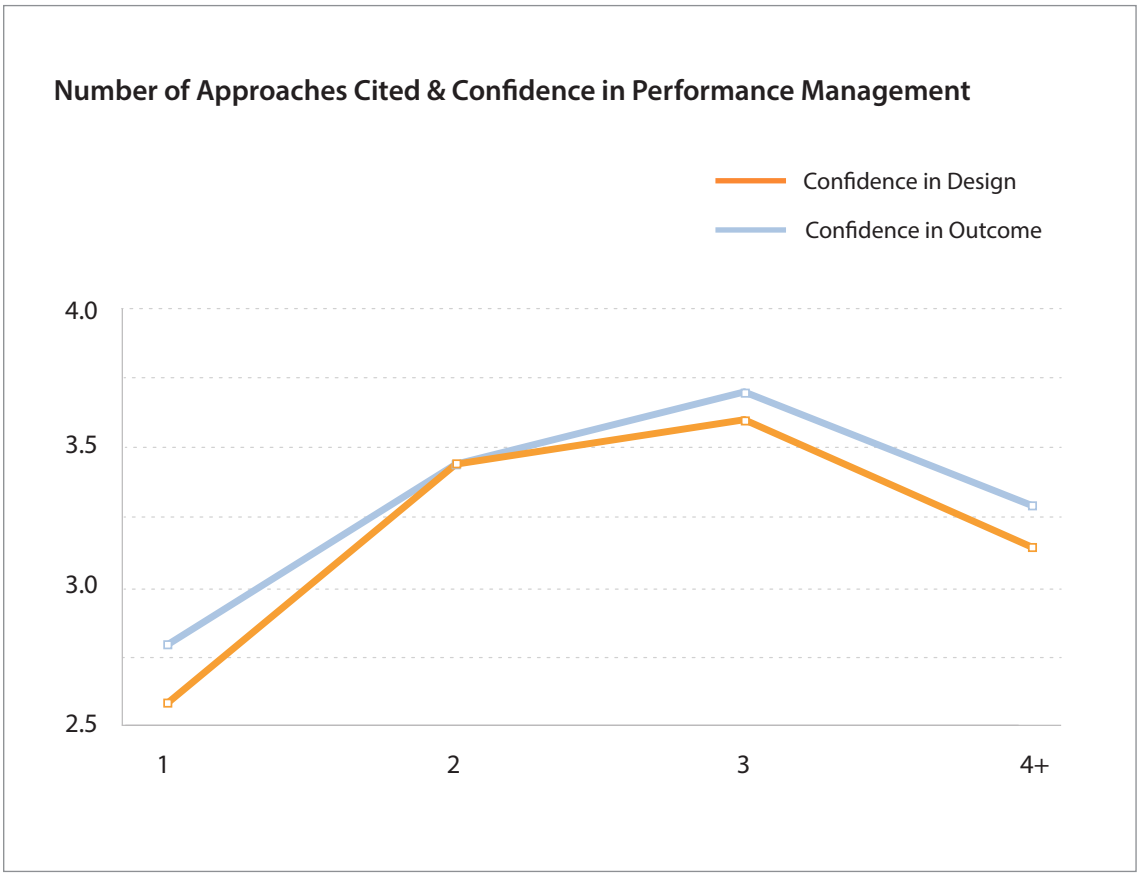
Just over half of airports reported using some form of formal performance management guide, or some formal set of standards, and of those that responded positively, just over half within this confirmed that they use the *ACI Guide to Performance Measurement*. Other formal approaches cited included ICAO standards, the use of value based management and reliance upon the *ACI Airport Service Quality programme*.

Many airports which indicated that they used formal standards also reported that they used internally developed frameworks, which built upon external approaches and standards, and customized them to the specific circumstances. Indeed, as shall be seen, a wide range of approaches are used amongst European airports, allowing a reflection of their individual business contexts, in line with recommended best practice.

Therefore it appears that in practice those airports which claimed not to use a formal standard or Guide are likely to be using one or more pre-defined approach to performance management which is well established but not formally branded or qualified. Responses to subsequent survey questions concerning the specific approaches used by airports confirm this.



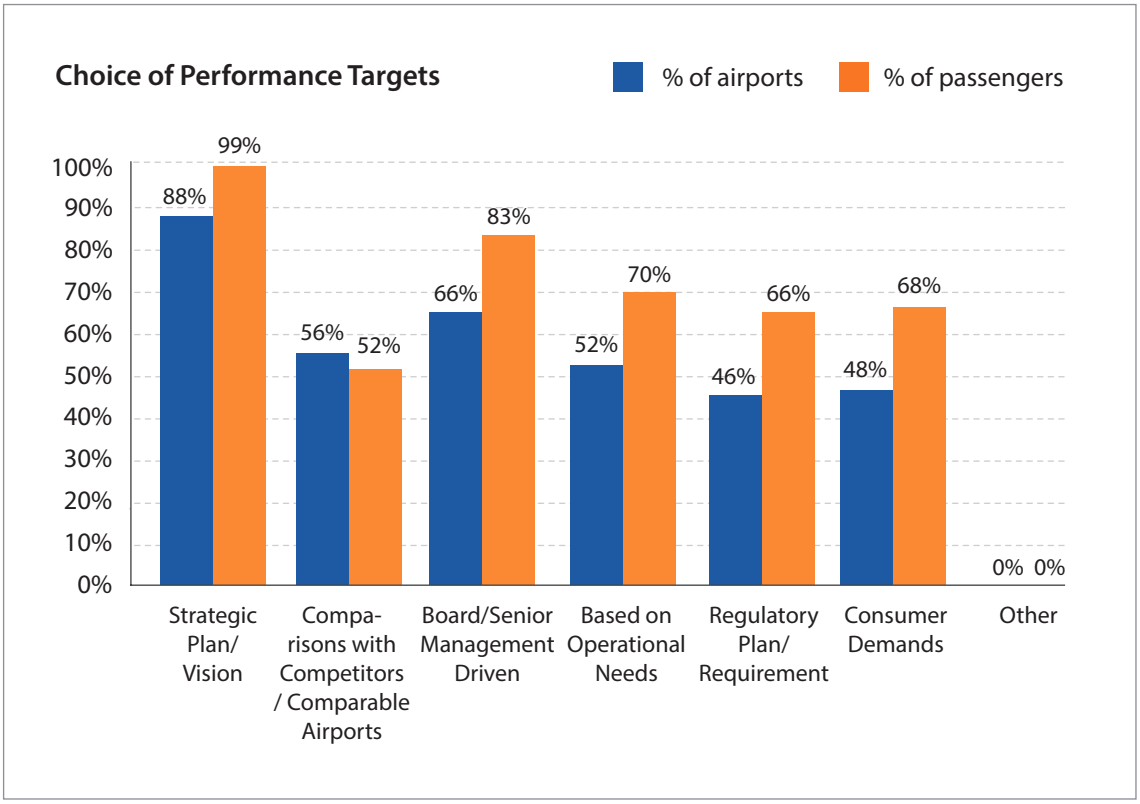
Airports report using a variety of different approaches to performance management, with environment and quality management systems (such as ISO standards) and use of balanced scorecards rating amongst the highest. Such approaches were also more favoured by the larger airports, reflecting the costs inherent in the implementation of such systems, as well as the greater benefits associated with their implementation in larger organisations.



The results suggest that while the use of a combination of different approaches to performance management can be beneficial, those airports which rely upon too wide a variety of performance management techniques are in fact less satisfied both with the design and outcome of their performance management framework.

It would appear that a combination of a reasonable number of approaches gives airport operators the scope and perspective necessary to successfully manage performance, but reliance on too many approaches may indicate a poorly defined and non-streamlined strategy, with the associated problems of a lack of focus, too much resources concentrated on measuring non-essential metrics, contradictory objectives being provided to business units, and so on. Within the discipline of performance management, 'keep it simple' is an often cited maxim – it would appear that this applies equally to the specific discipline of airport performance management.

2.4 TARGETS

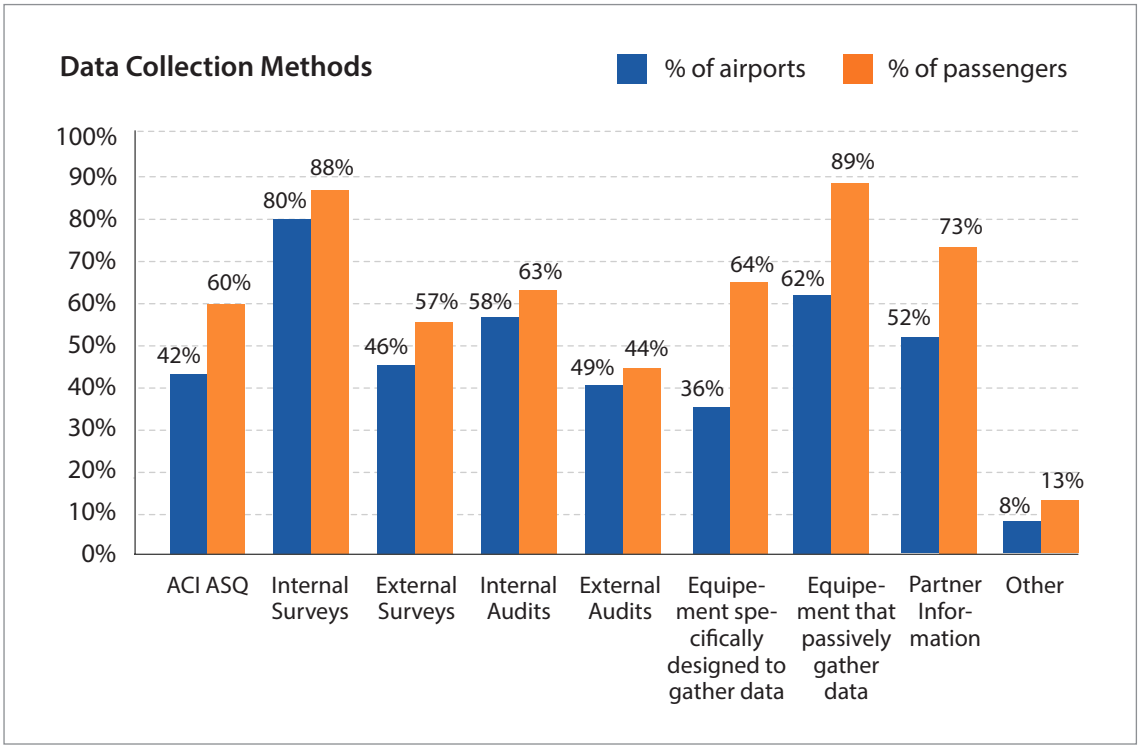


As with general approaches, airports tend to use a variety of considerations when identifying individual performance targets to set themselves. On average an airport will have 3.5 different basis upon which targets are selected, although the larger the airport the more inclined the operator is to cite a wider range of considerations when picking targets – reflecting increased organisational complexity and perhaps a wider range of internal and external stakeholders to satisfy.

There are no clear factors which drive target choices – a wide range of considerations are brought to bear. Top-down decisions from the Board, senior management, and from strategic plans figure most prominently, particularly at the larger airports, as key factors in determining targets. Interestingly, it is smaller airports which are more likely to consider comparisons with their competitors as being a basis for setting targets. For such airports, there is less of a commercial reward associated with improving service quality to differentiate themselves from their competitors. Constant price pressures mean that standing out from the crowd is rarely a winning strategy.

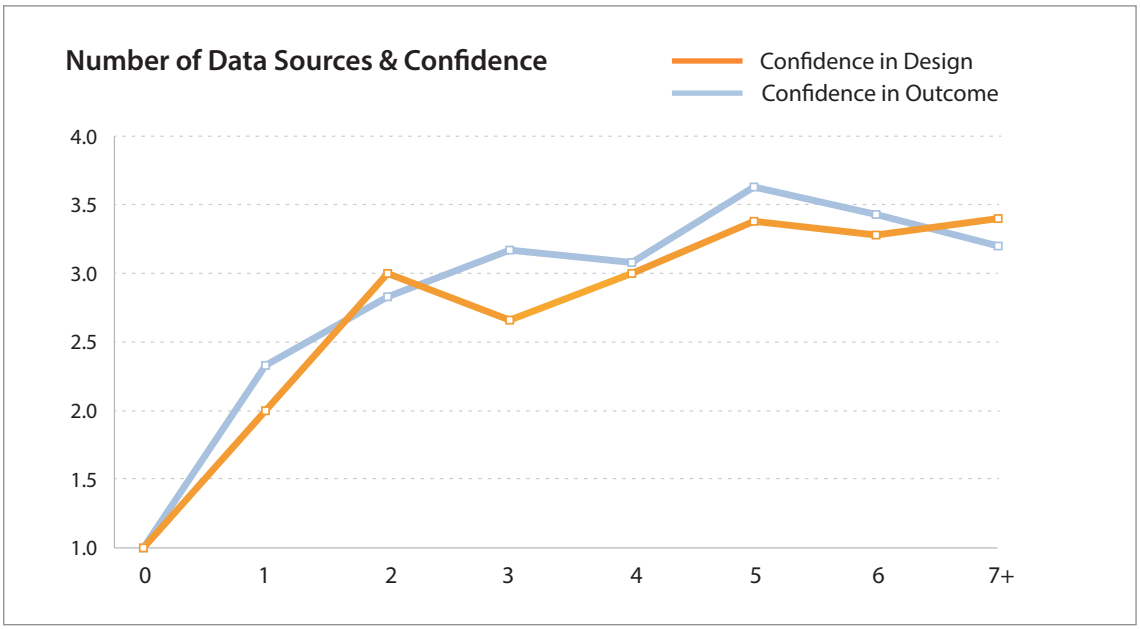
2.5 DATA COLLECTION

Airports were also asked about their methods of gathering the data necessary to measure and assess performance. A wide variety of methods were identified, with a typical airport on average identifying just over four data collection methods. Again, larger airports were far more inclined to employ a wide range of approaches than their smaller counterparts.



Almost all airports (86%) used surveys of some form, either internal or external. Equipment to automatically measure indicators in some way also proved popular, with 66% of airports using some form of equipment – however these were overwhelmingly larger airports, reflecting the expense inherent in the acquisition of these resources. Airports with no such equipment had an average size of 1.7 million passengers per annum (mppa) against a sample average of 10.3mppa.

Notably, information provided via partners was cited as the third most common method of collecting data. This reflects the interdependent nature of airport services, with the airport, airlines, ground handlers, state services and others all obliged to work together if a high quality experience is to be delivered to the passenger in an efficient manner.

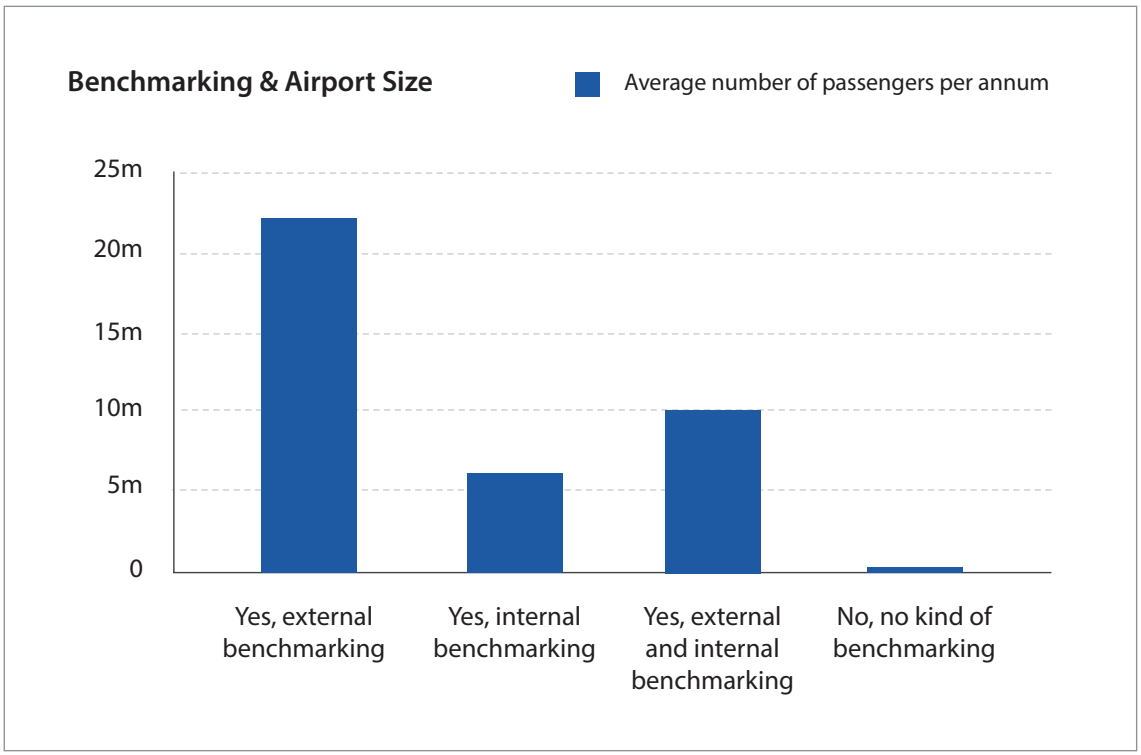


In contrast with the number of performance management approaches used, airports which used a higher number of data sources generally tended to be more confident both in the design and the outcome of their performance management system. Even though every additional data source provides less additional satisfaction, it does appear to be the case that you can never have enough information – as well as allowing a more sophisticated metric system, multiple data sources allows cross-checks to ensure the quality of the data being collected.

2.6 BENCHMARKING

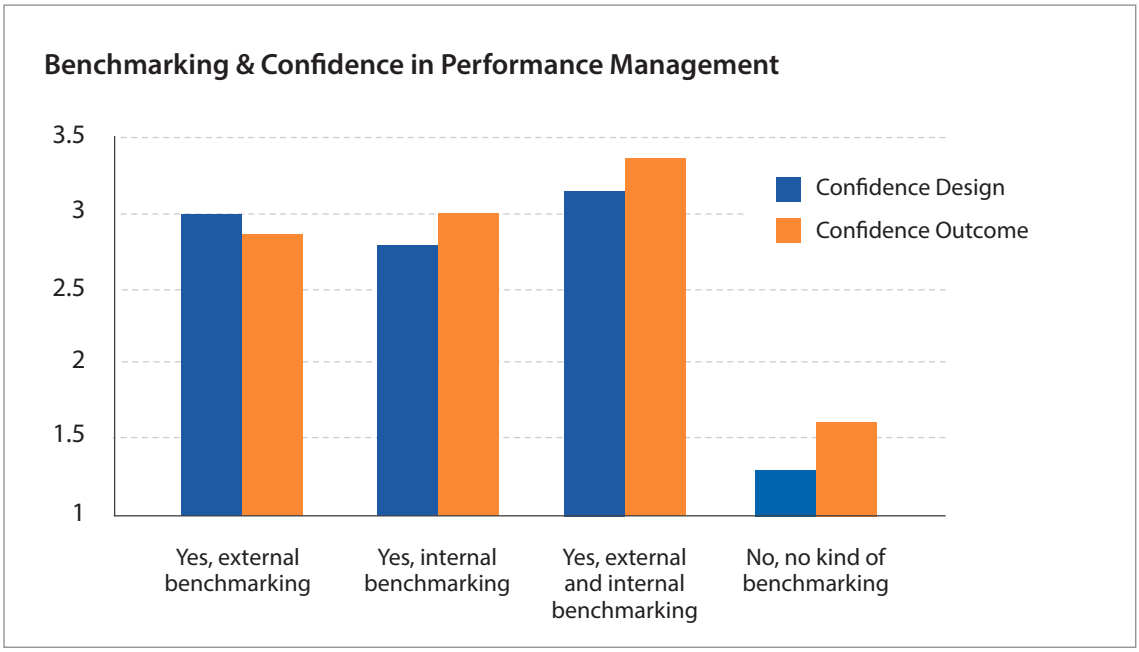
Incidence of Benchmarking at European Airports				
Internal Benchmarking Only	External Benchmarking Only	Both Internal & External Benchmarking	No Benchmarking	Unsure/ No Answer
18%	14%	60%	6%	2%

Benchmarking is a distinct but inherent component of performance management. Absolute measurement values of performance are irrelevant if not compared, either to the historical performance of the airport (internal benchmarking – in effect continuous improvement) or else to the performance of competitor airports (external benchmarking). It is no surprise therefore that the vast majority of European airports do indeed benchmark. While some focus exclusively on internal or external benchmarking, by far the largest group of airports employ a mix of both approaches.



When airports' choice of benchmarking are examined in more detail, it becomes clear that larger airports are more inclined to focus on external benchmarking. This reflects the fact that larger airports – and in particular hub airports – tend to face a more specific and concentrated market, and therefore have a smaller group of specific airports with which to compare themselves against. In contrast, smaller airports in Europe operate in an environment where they face competition from a wide range of airports, which are less distinguishable from each other. This makes it more difficult, and less useful, to identify specific competitors to benchmark against. Instead smaller airports are instead more inclined to focus on internal benchmarking, relying on a culture of continuous improvement to help them retain their market position in an extremely competitive landscape.

Those very few airports that reported that they did not benchmark are very small in size, with an average annual passenger throughput of only circa 370,000. Airports of this size are often structurally unable to cover even their operating costs, and are eligible for public financing under current EC State Aid rules[6]. The restrictive nature of these rules is aimed at placing increased financial pressure on these airports in the years ahead, by limiting available funding and more tightly controlling that funding which does remain available. For those airports that survive, some form of benchmarking is likely to become the norm in the near future.

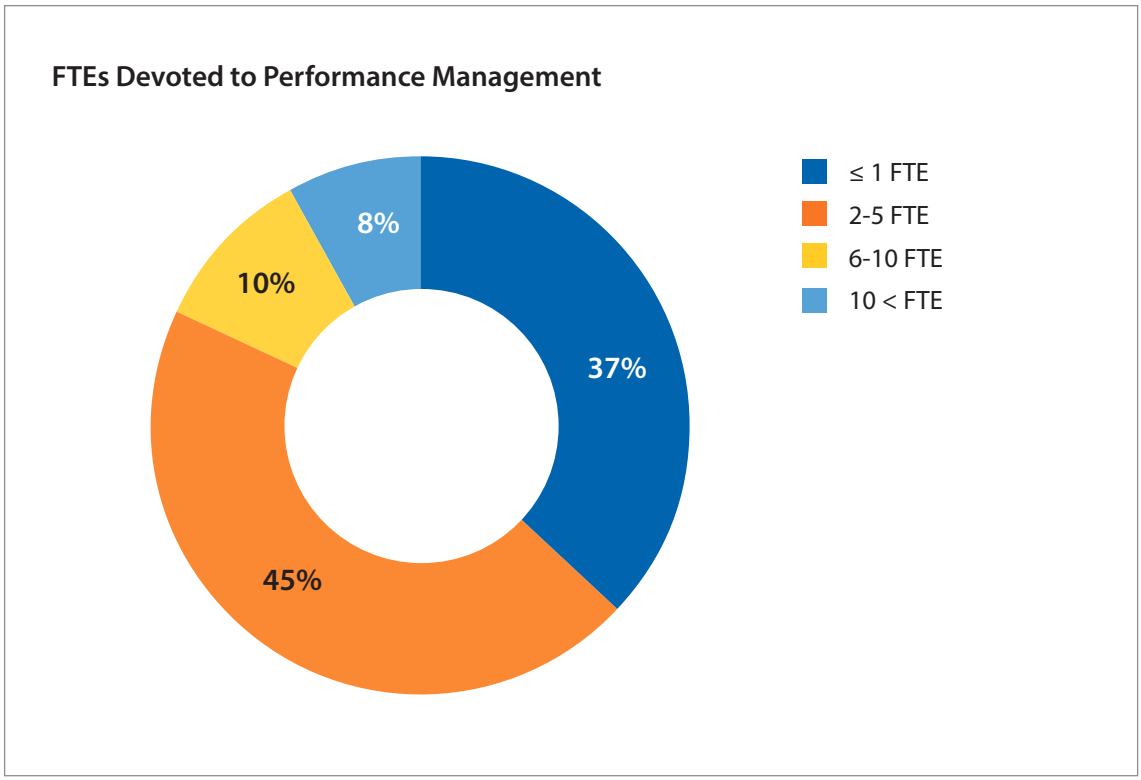


Airports which benchmark either exclusively internally or externally report similar levels of confidence in the design and outcome of their system. However airports which benchmark externally –and which perhaps as a result have a greater sense of perspective- are more confident in the design of their system, but correspondingly less sure of the outcome. In contrast, those airports which look only look inwards report a higher confidence in the outcome of their system, despite being less sure of the framework they are using.

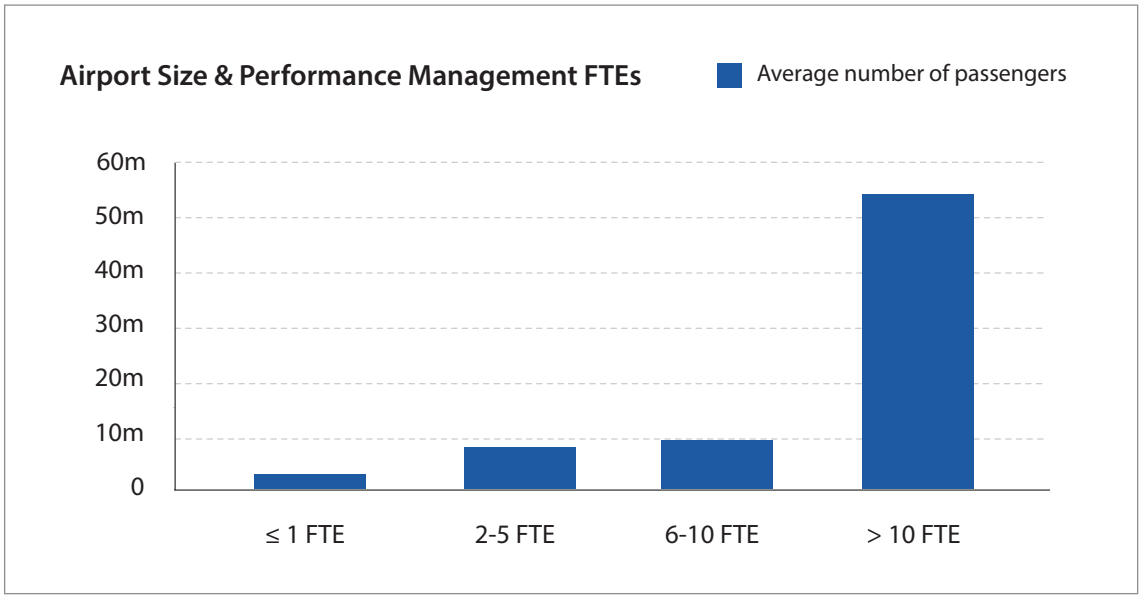
Airports which employed both approaches reported a higher confidence in both aspects of their performance management, while tellingly those airports which spurned benchmarking reported very low levels of confidence.

[6] *'State aid: Commission adopts new guidelines for state aid to airports and airlines',* European Commission press release, February 2014 – available at: http://europa.eu/rapid/press-release_IP-14-172_en.htm

2.7 RESOURCES

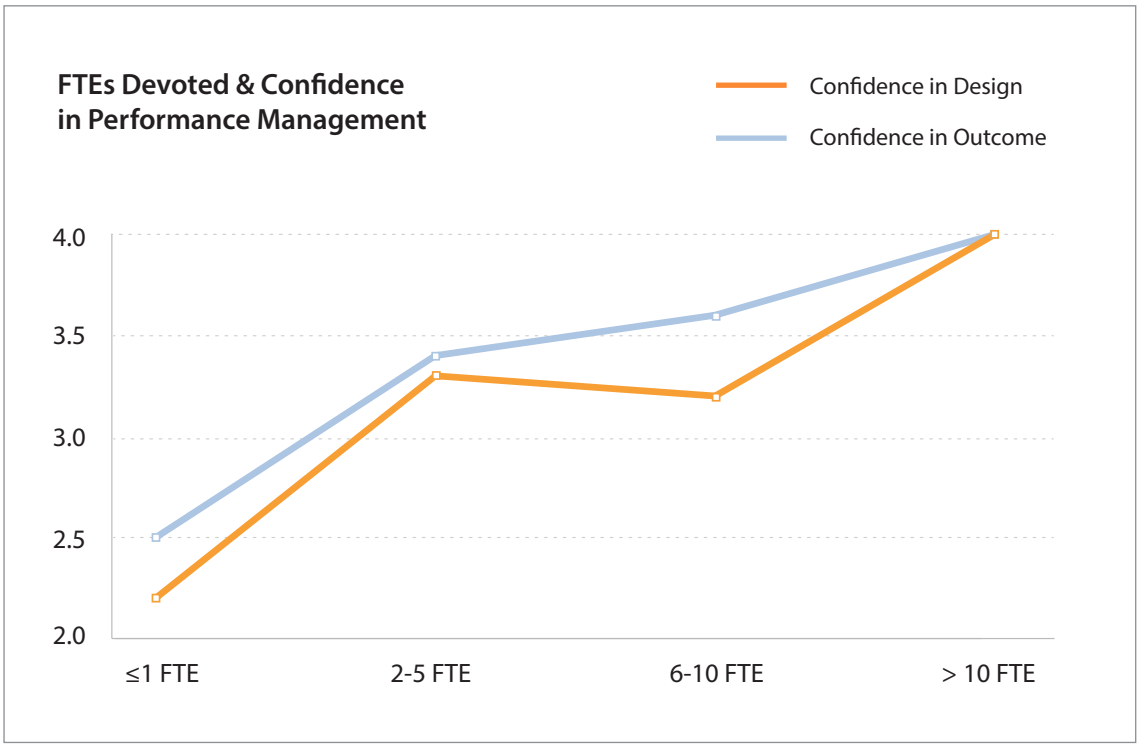


Within European airports, there is a wide variety in the levels of resources devoted to performance management, with the bulk of airports reporting that five or less Full Time Equivalents (FTEs) are directed towards performance management. Unsurprisingly, the number of FTEs is closely linked to the size of the airport in question. However apart from the very big and the very small, airport size on its own seems to be a weak predictor of the number of FTEs allocated to performance management.



Unsurprisingly, smaller airports tend to have less than or just one Full Time Equivalent (FTE) devoted to performance management. On the other end of the spectrum it was only the larger European hubs which reported having more than 10 FTEs.

For airports in between however, there is no clear sign that this relationship maintains. It may well be that, for these mid-sized airports, the level of resources allocated to performance management is driven by other local factors – for example the intensity of competitive pressures being faced by individual airports, the degree of outsourcing of activities, etc.



The divergence in the number of performance-management FTEs between very big and very small airports is clearly reflected in correspondingly different levels of reported confidence, with more FTEs clearly being associated with much higher confidence.

However the relationship is not so clear for the airports in the middle – will no obvious advantage accruing to those mid-sized airports which have between 6 and 10 FTEs, rather than between 2 and 5. This suggests that while additional human resources of course helps, it does not have to be a limiting factor for mid-sized airports. A lot can be done with even a smaller team of personnel.

3

CASE STUDIES: HOW AIRPORT PERFORMANCE MANAGEMENT WORKS IN PRACTICE

Performance management techniques can be used to ensure the proper management of an airport's overall operations, or it can be used to focus on specific areas which require improvements. Below we have examples of both. Bologna and daa's case studies focus on managing overall airport performance, while Fraport and AdP's consider more specific interventions.

3.1 AEROPORTO DI BOLOGNA

THE CONTEXT

With a dense network of individually owned airports, often substantially or fully in private hands, and a geography which lends itself well to high speed rail, the Italian airport market is a highly competitive one. These pressures were of course magnified with the arrival of the economic recession, the crisis of the national flag carrier and the subsequent severe downturn in traffic. Structurally, domestic demand slumped and airports became more dependent not only upon inbound tourists, who have a wide choice of holiday destinations both within Italy and indeed further afield, but also upon low cost carriers, which can pick and choose from a wide range of airports across Europe.

Increased competition in the airline market, together with more commercially focused airports, has created a more competitive and dynamic airport market. The freedoms and operational flexibilities that airlines now have, alongside the information and enhanced choice available to passengers, means that airports are increasingly subject to competition from other airports in particular when it comes to attract new traffic. This meant that Italian airports have had to significantly improve their price and product offering to retain business and to ensure a profitable business.

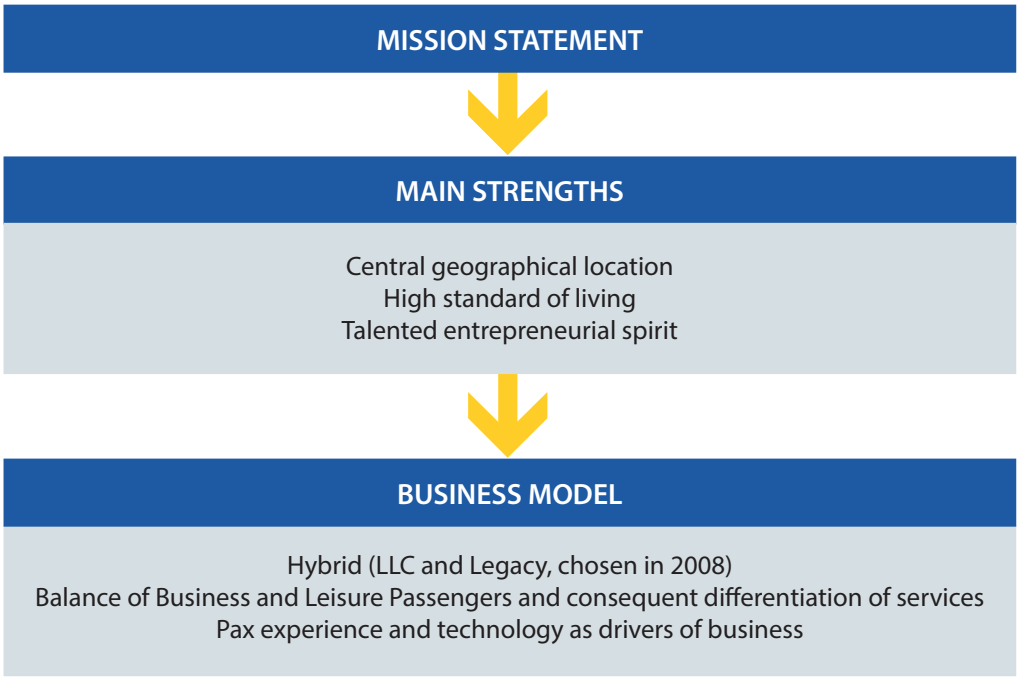
However in parallel, the regulatory process for airports has been challenging and often driven by uncertainty as to whether airport charges will even cover costs. As a result, airports have been unable to tailor charges to prevailing market conditions, and so have been limited in their ability to make the investments necessary to keep facilities up to date. In this context, continuous management control over all areas of operations is a prerequisite for Italian airports, to support the existing business, to develop new business, and to make and successfully implement key strategic decisions – in particular where once-off necessary projects and capital investments are concerned.

BOLOGNA AIRPORT WITHIN THE ITALIAN MARKET

Bologna is the 4th most connected airport in Italy and ranks 7th in terms of passenger volumes[7]. In the last 5 years, even during the toughest years of the economic recession, traffic figures recorded positive trends, above the industry average. These strong results in part reflect the airport's healthy mix of business and leisure passengers, which is itself the outcome of a hybrid business strategy which accommodates the needs of both low cost and legacy carriers.

BOLOGNA'S STRATEGIC MANAGEMENT

At its core, Bologna Airport has a **Mission Statement** – *"To promote international connectivity for people and businesses through the development and management of facilities that aim at the highest levels of quality and safety"*- which closely builds upon the company's strengths. From this core mission, a wide range of activities flow to ensure that it is achieved.



The Mission Statement is also reflected in the **'Bologna Master and Capacity Plan'** which aims to sustainably and efficiently process 10 million passengers through the airport each year by 2033, with a high level of passenger experience, all underpinned by quality of service and efficient IT-supported processes. In addition the Plan seeks to integrate elements of the airport operation with characteristics and values of the surrounding territory, not least of which include the famous culture, art and cuisine of the city of Bologna.

[7] Source: Aeroporto di Bologna

The framework to ensure that the mission statement is achieved, and that the contributing actions efficiently support its achievement, is a **Corporate Performance Management System** (CPM). This system selects the key goals required for the organisation to achieve its Mission, and identifies the metrics required to track these goals. It ensures that performance is measured and managed with these goals in mind, and structures the mechanisms by which countermeasures will be put in place, if there is a risk that individual goals will not be realized.

Within the CPM, key objectives are defined within the three areas of traffic development, service quality and financial performance. These key objectives are measured and achieved via a rigorous focus on quantitative analysis, a commitment to transparency, and a willingness to engage with and adopt international best practices. This philosophy can be seen within Bologna's approach to all three of these areas:



In the core objective of **Traffic Development**, Bologna has a very clear quantitative understanding of its performance, with specified goals and continuous monitoring. Important information, such as the passenger split into low cost, traditional scheduled and transfer, or the profile of these passengers, is shared within the organisation. The airport is well aware of and constantly monitors its connectivity status within the wider market, as well as its position within its catchment area.

Within the field of **Service Quality**, Bologna has a list of 33 tightly defined performance indicators across 8 different categories. These indicators are either quantitative or qualitative, and are monitored across 12 week-long sessions throughout the year, as well as via 4 annual focus groups which are concerned with passenger satisfaction.

Bologna Airport's Service Charter lists the unit of measurement and annual objective for each of these 33 indicators, and the airport is transparent about its performance in achieving these indicators. Maintaining excellent levels of service quality is seen as a key component of the sustainability of the business, and so the airport's annual Sustainability Report provides additional information, including the typical wait times at the ticket office, check in, baggage scan as well as the time it takes for the first passenger to disembark from an arriving aircraft.

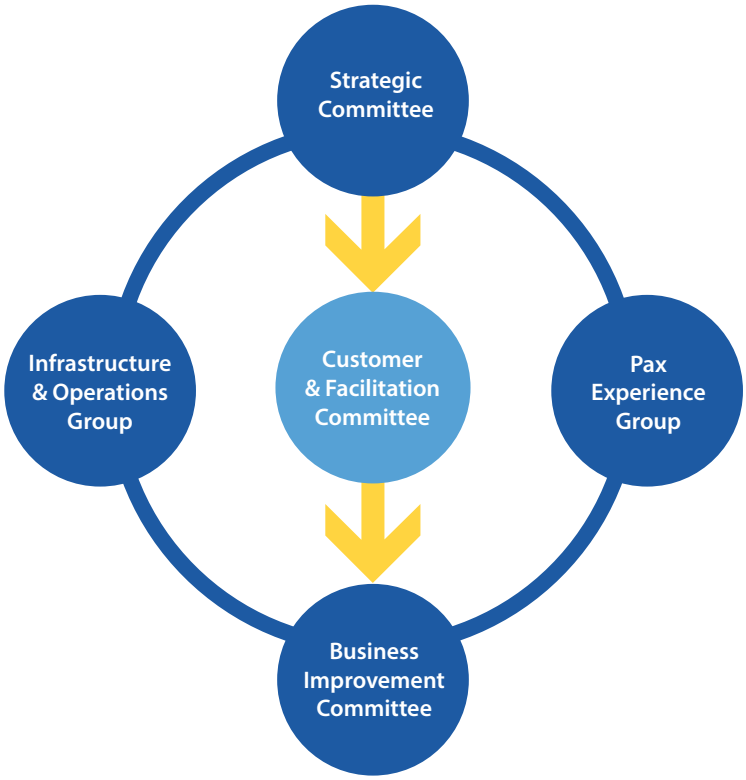
Bologna follows international best practice also, applying ISO 9001:2008 concerning quality management (the first airport in Italy to be ISO9001 certified), and taking part in ACI's *Airport Service Quality programme*.

In terms of **Financial Results**, as well as a range of internal metrics, Bologna also manages the headline targets such as the profitability of each strategic area of the business model (i.e. aviation and commercial activities) and the key factors underlying this performance, as well as operating costs and return on capital invested of individual business units.

The **Bologna CPM** system also seeks to better understand the interrelation between different indicators, in particular the interaction between the attainment of quality indicators and the corresponding impact upon financial results. An example of this would be a better understanding of how check-in or security queues impact passenger airport shopping behaviour. This is in order to better understand the business, and to allow for additional sophistication within the system.

To mitigate the risk of 'silo thinking' and to makes sure the organisation is working together as efficiently and effectively as possible, Bologna assembles four inter-functional working groups within the company. These groups focus on KPIs monitoring and analysis, but from separate perspectives. This allows strategy to be communicated both down and across organisation, ensures that the process of transforming these strategies into actionable metrics is coherent and consistent, and enables insights gained from analytics to be shared across all areas of the business.

Given the central role of quality in the Mission Statement, these 4 groups are coordinated by a central 'Customer and Facilitation Committee'.



This approach ensures that as well as managing existing performance, the CPM system can also identify and present new opportunities which shift the company towards positive and sustainable business results, while all the time supporting leadership in the implementation and execution of business improvement initiatives.

3.2 daa

daa operates and manages Dublin and Cork Airport in Ireland and has a subsidiary Aer Rianta International (ARI) which is involved in global airport retailing.

Trading conditions within the Irish market have been particularly challenging in recent years. After years of unprecedented growth the financial crisis and economic recession led to a severe decrease in passenger numbers. This occurred just as a major capacity expansion project was being finalised at Dublin Airport. Although traffic has since began to recover, this still created major financial challenges for daa.

In parallel, Dublin Airport has two major airline customers which together account for over 80% of traffic, with one carrier in particular having a pan-European network of other airport bases to which it can easily redeploy aircraft at very short notice. In addition Dublin operates within a very tight framework of economic regulation, with Heathrow Airport being the only airport in the region subject to the same degree of intervention.

With this limited room for manoeuvre, and given daa's obligation to deliver an optimal return to its shareholder, the company has no choice but to operate to a very high standard. As a result a sophisticated strategic performance management system has been developed within the company.

daa's approach is focussed on aligning its entire operation towards the delivery of the group's overarching vision (*"To be airport industry leaders, growing our business by delivering great service and value for airlines, passengers and business partners"*), its purpose (*"To connect Ireland with the world"*) and its strategic goals - the stretch targets that the company needs to achieve to make its vision and purpose a reality.

The first step in aligning the company with these strategic aspirations is the development of its 4 year strategic plan, setting out the detailed objectives, initiatives, and targets that the company will deliver over the period – in essence, setting out the detailed roadmap that will enable the company to achieve its defined vision and goals.

With this strategic roadmap in place, the focus then switches to bringing the strategy to life at each different level of the organisation - to ensure the company as a whole is working towards the same objectives in a coordinated way . As outlined overleaf, the process of cascading/implementing the 5 year strategic plan consists of three distinct stages:

1. **Milestone Plans**
2. **Scorecards**
3. **Departmental/Personal Objectives**

1. OUR PURPOSE & VISION	OUR REASON FOR BEING & WHERE WE WANT TO GET TO...	
2. OUR GUIDING DIRECTION & PRINCIPLES	OUR GOALS	Our stretch targets to achieve our vision / fulfil our purpose
	OUR STRATEGY	The detailed roadmap of what we will do to deliver our goals
	OUR VALUES	Our DNA - How we behave and work together
3. HOW WE WILL MAKE OUR STRATEGY HAPPEN	MILESTONE PLANS	Key outputs & actions (by unit) to deliver strategy & goals out to 2017
	SCORECARDS	Current year targets & actions (by unit) to deliver the strategy
	PERSONAL OBJECTIVES	Personal performance deliverables in service of all the above

1. MILESTONE PLANS

daa consists of a number of distinct Business Units (i.e. Dublin Airport, Cork Airport & International Businesses) and 'Central Functions' (e.g. Human Resources, Communications, IT&T etc.).
In order to ensure that the work of the Business Units and Central Functions is fully aligned with daa's overall strategy, each area develops a detailed 'strategy milestone plan' for the period of the strategic plan.

How It Works

START WITH THE STRATEGY

This sets out daa's high-level company goals and roadmap to deliver its Vision & Purpose over the 4 periods ahead

DEVELOP MILESTONE PLANS

Each of daa's Business Units/Central Functions develop detailed 4 year plans that set out the key milestones and actions that they will deliver to drive/enable the achievement of the company's overall strategy over the period

2. SCORECARDS

With 4 year strategy milestone plans developed for each Unit and Central Function (setting out how each will deliver the strategy over the period), the next step for each area is to set out a more detailed plan for how they will drive the delivery of the strategy in the current year.

*Balanced scorecards set out the key objectives, actions, metrics and targets for each Unit/Function for the **current** year – that support the delivery of the Unit's 4 year milestone plan (and thereby drive delivery of the overall strategy)*

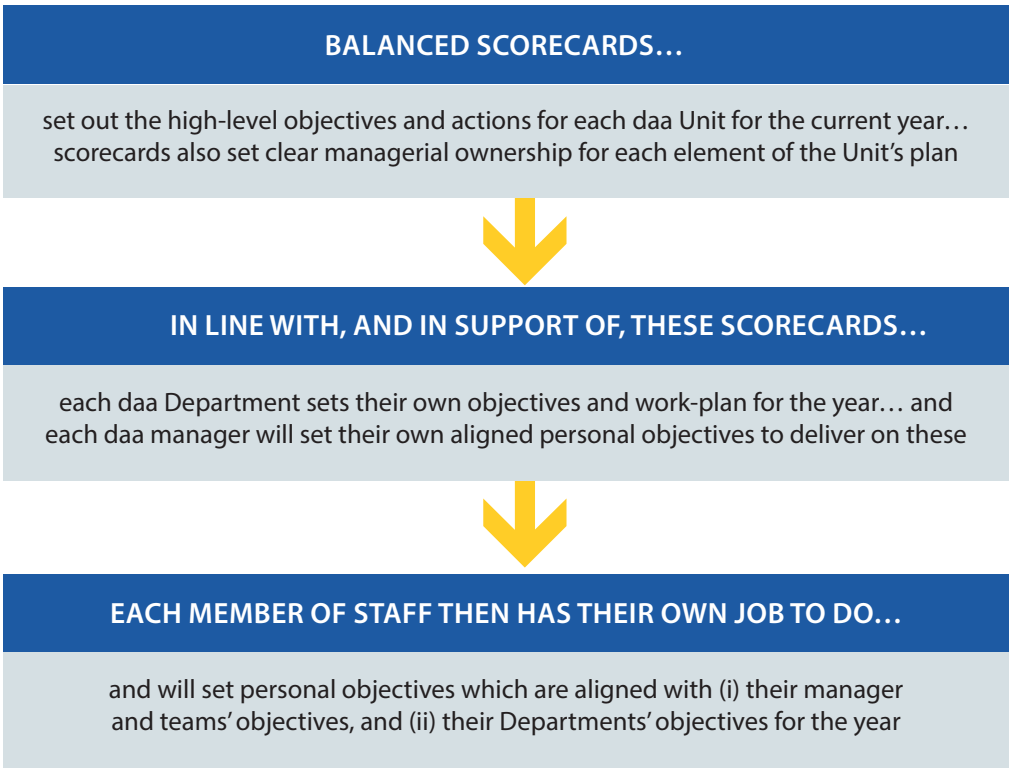
A balanced scorecard is essentially an annual work-plan for each Unit in the company - where the plan in question i.e. the unit's annual objectives and actions, are 'balanced' across 4 strategic perspectives (to ensure adequate focus on all areas of strategic importance for the company). daa's four strategic or scorecard perspectives are outlined below.

	In order to achieve our Vision/Strategy, each Unit develops objectives/actions that will enable us to...
CUSTOMER	... engage with, understand, and consistently exceed the expectations of our internal and external customers - and deliver customer focussed products and service attributes
OPTIMUM RETURN	... deliver shareholder value - by growing revenue and contribution, keeping costs under control and paying down debt
STRATEGIC FOCUS	... seek out growth opportunities, shape our operating environment, chart a course to deliver optimal outcomes and position the company for the achivement of its strategy in the longer-term
PEOPLE & PROCESSES	... achieve high performance - by engaging with and developing our people, and ensuring consistently high standards in, and the continual improvement of, our core activities and processes

3. DEPARTMENTAL/PERSONAL OBJECTIVES

With the scorecards developed, the high-level objectives and actions contained within are then cascaded into the work of Departments, Managers, Teams – and every individual – at each level of the company.

How It Works



By adopting this process, the company ensures a clear connection between every level of its operation, and that the entire company is aligned to the strategy and is pulling in the same direction. Individual objectives drive the achievement of departmental objectives, which are linked to and drive the delivery of unit/functional scorecards, which in turn drive the delivery of 4 year milestone plans for each area, which contribute directly to the achievement of the company's vision, purpose and strategy.

Managing the Work Plans

As with all approaches to performance management, once the framework and plans are in place, the challenge is to ensure that they are being 'lived' and actively managed on an ongoing basis. With this in mind, daa has a system of continuous review/reporting in place. This includes annual reviews of its strategic plan, quarterly reviews of implementation plans and scorecards within units/functions, and a rigourous system of individual performance management. These review processes ensure that the company remains strategically focussed at every level, and allows continuous learning and improvements to be actioned on an ongoing basis.

daa's strategic performance management process is also supported with internal communications efforts to ensure that the nature of the company Vision and the importance of the Strategic Plan are fully understood and appreciated across the organisation.

3.3 AÉROPORTS DE PARIS

Since its creation in 1945, through to and since 2005 when it was converted into a public limited company, Aéroports de Paris (AdP) has continued to develop into one of the three largest international airport groups[8]. Providing a gateway to France, the world's premier tourist destination, Paris is a key connection point for international air transport. Thanks to their geographical location as well as state-of-the-art infrastructure, Paris' airports are ideally positioned to take full advantage of the expected increase in global air traffic in the medium and long term.

Aéroports de Paris has been putting the passenger experience at the core of its business in recent years. This has been formalised with the 'Horizons 2018' initiative which includes, for example, a €450m transformation of Paris Orly, as well as the founding of a Customer Service Academy and a 'lab' to research and explore new services to improve the passenger journey.

However while investment and specific customer service initiatives can deliver significant results, a more holistic means of improving performance across the board was deemed necessary. It was considered important that service quality and process improvement be integrated into the fabric of the organisation. With this in mind, Aéroports de Paris introduced a process of 'experimentation', with a subsequent follow-up process to ensure that any operational improvements were sustained, beyond the initial experimentation phase.

The initial experimentation consisted of a series of individual projects, each with the aim of empowering staff to take over responsibility for the solving of specific operational problems. The solutions proposed by these staff members were put in place and tested over a set timeframe, with a focus on measurement of the actual impact on customer satisfaction. At the end of the allocated time, management then made decisions as to whether to continue with tested solutions, and whether to implement more generally within the company.

This process was found to be extremely successful. It encouraged cooperation amongst staff, both within and beyond the airport operating company. It promoted accountability within teams, allowing staff to use their own initiative in a coherent way, fostering increased self-confidence and pride in their work. First and foremost though, it allowed the development of initiatives which quantifiably boosted the customer experience – typically 80-90% of tested solutions were subsequently approved for full implementation by management.

[8] Source: AdP

While this success was apparent and immediate, AdP were not satisfied with resting on their laurels. Within the company it was determined that the process of experimentation must continue, but ideally in a more structured and integrated manner. It was also felt that there was room for further improvement in the process, in areas where responsibility was shared amongst a number of different groups.

With this in mind, approaches from the 'LEAN Metholodology' were employed. LEAN methodology originated in the Japanese automobile industry, and as a central philosophy has the belief that any expenditure of resources which does not directly create value for the end consumer is wasteful, and should therefore be eliminated.

In particular the '5S Method' was used, which lists 5 actions which, if followed, allow practitioners to better organise a workspace (in this case a passenger terminal) via the elimination of congestion to deliver efficiency and effectiveness. This is achieved by identifying and storing the necessary work items, considering how to maintain the area and these work items, and subsequently maintaining the newly defined arrangements.

The 5S method (for reduction of congestion) is made up of five steps:



While originally applied in a production environment, this approach can also be invaluable in an airport terminal – capacity constraints mean that congestion can be a major challenge at certain points of the day. In addition the resulting improved visual appearance considerably improve the passenger satisfaction.

These 5 actions maintain the philosophical approach underlying the earlier experimentation phase – so staff were handed responsibility to come up with proposals to improve the situation, and these ideas were tested with a focus on the impact on the passenger experience.

When looking at how to better organise the existing terminal space, any solutions proposed had to meet a number of criteria:

- Solutions had to be simple – they shouldn't generate additional work nor require radical overhauls of existing work practices;
- Solutions had to have immediate benefits for line managers – so those implementing the changes would see the benefits of change and therefore be supportive;
- Solutions had to be intuitive – those not involved in creating the solution should still be able to naturally understand the process.

To focus efforts, it was decided to target a specific area – The Check In area of the South Terminal at Paris-Orly. The central focus of the project was *'to simplify a complex zone by making it less congested, by making it neater and more comprehensible for customers and all other persons circulating there, by organising flows and processes'.* In line with LEAN philosophy, equal importance was placed upon ensuring that improvements were durable and permanent, and additional objectives were defined to reflect this, such as *'to establish rules that are simple and applied to all parties who participated in the process' and 'to make operational parties aware of the customer perspective principle'.*

Reflecting the shared responsibilities involved in caring for passengers, a range of different stakeholders were involved. As well as the airport operator staff, airlines, sub-contractors and retail operators were all engaged in the project.

Over 10 weeks, a team of staff from these stakeholders went through the five stages of the '5S Method'. After an initial preparatory phase, the project was launched with a 'Diagnostic Phase'. To better understand the current situation in the Check In area, data was collected, supervisors and managers were interviewed, and the different existing processes were charted. Once the issues to resolve had been compiled, a subsequent 6 week phase was launched, to determine and implement remedies, including testing and validation on the terminal floor. A 'Follow Up' phase finalised the process, ensuring that future management of the area will truly be a shared responsibility.

The result of the project saw considerable benefits for all parties. Airlines could point to an improved and more attractive check in process. The airport saw better flows through congested areas. Staff gained improved and less stressful working conditions. But most importantly of all, the end customer – the passenger- benefited significantly via higher satisfaction, as they could enjoy a less cluttered, less stressful and more aesthetically pleasing airport environment.

However the experimentation phase represented only the first phase of the process. In the absence of specific processes, the improvements achieved during the experimentation would inevitably fade away despite best intentions, as staff would be replaced, as people shifted attention to other areas and as new issues emerged which would not be dealt with.

To avoid this, AdP turned again to precedence in the Japanese automotive industry, and employed another LEAN technique – the practice of 'Obeya'. Simple but effective, the practice of Obeya is again based upon the principles of staff engagement and the belief in relying where possible upon 'bottoms-up solutions' that come from staff working on the ground.

In practice Obeya at Orly consisted of staff representatives from all companies at the check in area place coming together every morning for a 15 minutes session. Meeting in the actual check in area, and working together around a whiteboard, the staff discussed incidences where the airport experience could have been better for passengers. The discussion focused on producing solutions to identified problems.

Most, but not all problems could be resolved at a local level. Where immediate solutions could not be found, issues were escalated to a weekly meeting of management, specifically convened to consider these items. Beyond this, monthly meetings of directors tackled any outstanding problems which management were not in a position to resolve.

In practice, issues could typically be addressed at an early stage. 74% of problems identified were resolved at a local level, by staff on the ground. For those problems which were escalated, solutions to 68% of these were found by management-level meetings.

As well as safe-guarding already-realised gains, the Obeya process also allowed further improvements to the passenger experience and operational environment.

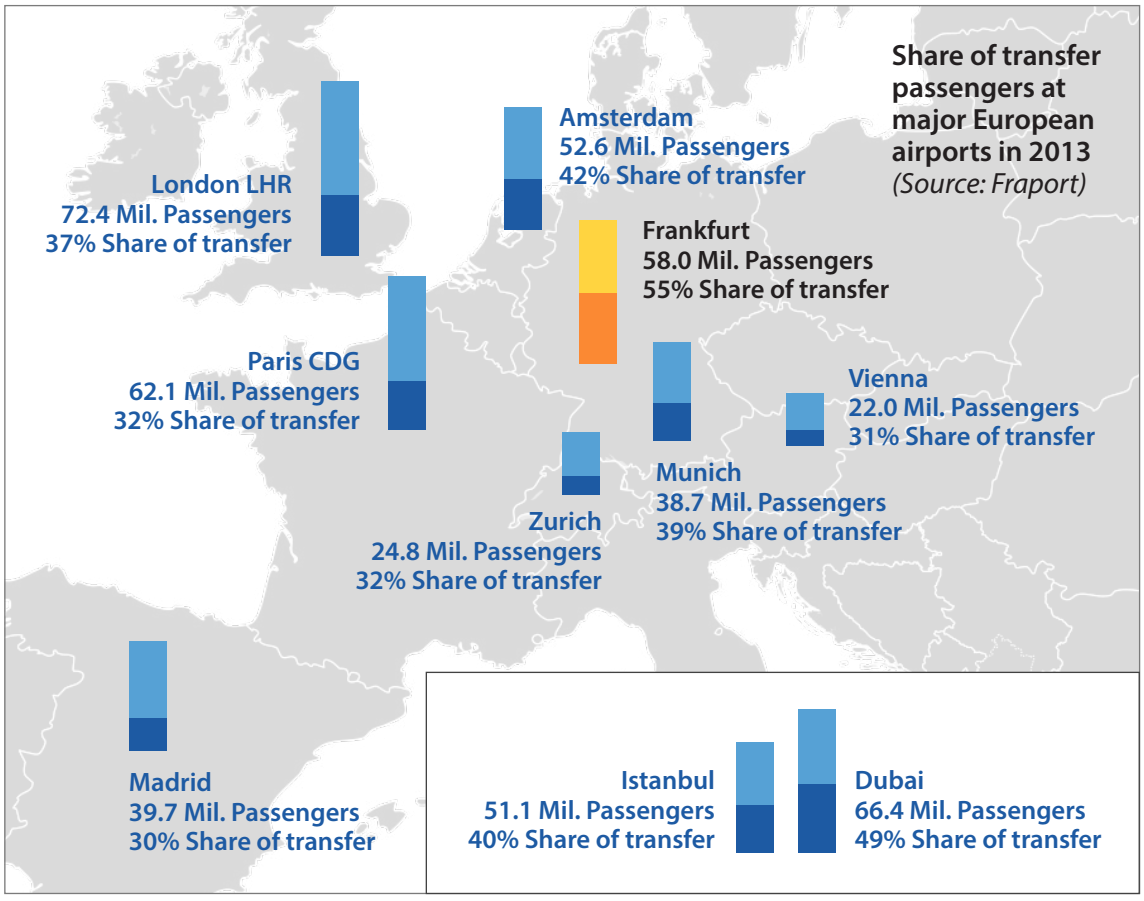
For example, based on the feedback from the Obeya sessions, a new plan was drawn up to improve the layout of tensa barriers and welcome desks in the check in hall. On 3 operational days dedicated to test the new organisational plans, the new layout was found to be a significant improvement in operational effectiveness, requiring significantly less reorganisation during the day. The number of necessary movements of tensa barrier was reduced by -78%, while the number of changes to the welcome desk layout was slashed by -57%.

3.4 FRAPORT

FRAMEWORK

With over 59.5 million passengers handled in 2014, Frankfurt Airport is ranked as the third largest airport in Europe[9]. Since 2003, passenger traffic grew by nearly 20%. Serving over 100 airlines, Frankfurt Airport offers both wide and deep connectivity, with nearly 300 destinations in 100 countries worldwide[10].

A core component of Frankfurt Airport's business is its transfer product – in 2013, 55% of its passengers were transfer guests – a key factor in Frankfurt's position as the airport with the highest measure of hub connectivity in Europe in 2014[11].



[9] *'ACI EUROPE Airport Traffic Report – December, Q4 & Full Year 2014',* ACI EUROPE, February 2015
[10] Source: Fraport
[11] See Appendix F of ACI EUROPE's *'Airport Industry Connectivity Report'* – available at: https://www.aci-europe.org/component/downloads/downloads/3981.html

As this is a very dynamic competitive market – transfer passengers are extremely flexible with a range of transfer options available to them both in Europe and further afield in the Middle East – hub airports in Europe have realised that service quality is a key determinant of transfer passengers' choice of airport. Transferring can be a stressful experience, and can require either a very short connecting time or longer stays at the airport, depending on the connection in question. Hub airports have therefore been extremely focused on the passenger experience and overall service quality in recent years, to protect and where possible expand their market share, and Frankfurt is no exception.

Within this competitive environment, Frankfurt faces its own additional pressures, as its main tenant airline operates a multi-hub system, and so can easily shift aircraft (and associated transfer passengers) to competitor airports at short notice. Additionally Frankfurt Airport has to face a strictly maintained night flight ban (from 23.00 to 05.00) which creates additional operational and commercial challenges.

AIRPORT SERVICE QUALITY AND PERFORMANCE MANAGEMENT

Passenger satisfaction is strategically anchored in the overall company vision of Frankfurt Airport. For this reason high service quality standards are a core focus of the airport, with a performance management system in place specifically targeted at maintaining and improving the passenger experience.

The system begins with four core strategic objectives to be achieved by 2016:

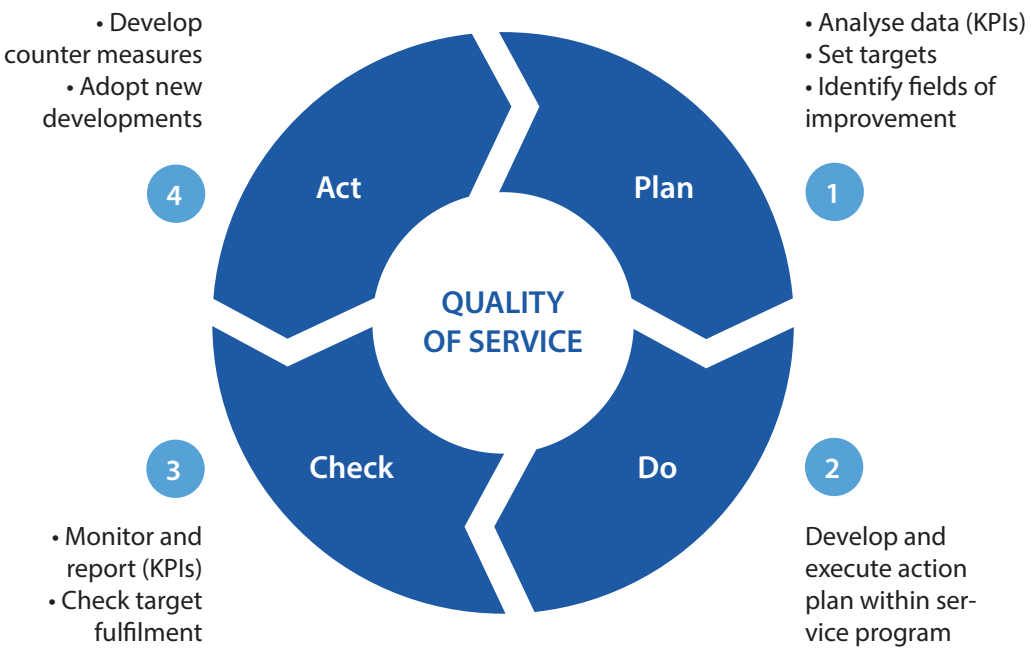
- To achieve a top-competitive position, and reach at least 80% passenger satisfaction;
- To increase long-term passenger retention;
- To maintain and increase the number of transfer passengers by providing them with the best services possible;
- To have a clear and noticeable service profile in the airport world.

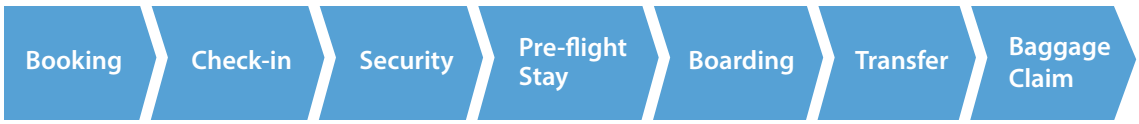
To reach these objectives Frankfurt Airport implemented the company-wide service program *"Great to have you here"* in 2010, bringing together all internal and external (e.g. airlines, authorities) players that together shape the overall passenger experience. All measures within this program target increasing passenger satisfaction and loyalty, with a view to ultimately generating increased revenues. An entirely coordinated management of quality, performance and service underpins the customer-centric strategy of Frankfurt Airport.



To achieve this, a systematic coordination, definition and monitoring of service and quality indicators is essential. Data to inform these indicators is regularly and consistently collected via four main channels – passenger surveys, performance measurements, ACI's *Airport Service Quality programme*, and Skytrax audits and survey results. Within the overall service quality management system of Frankfurt Airport, a set of core quality indicators has been established, tailored to ensure that every stage of the passenger journey is covered. More than 100 single criteria are in place, covering check in, security, pre-flight stay, boarding, transfer and baggage claim. As well as specific process-related indicators, global quality criterias have been implemented to assess and manage the overall passenger impression and experience at Frankfurt Airport, e.g. the overall passenger satisfaction. Within an eye to Frankfurt's immediate competitors for transfer traffic, ACI's *Airport Service Quality* scores as well as on Skytrax service quality audit reports are compared against equivalent results for a defined peer group. In parallel, internal passenger satisfaction survey supports the strategic management and operational steering of service quality and the passenger experience.

CIP - Continuous Improvement Process





A **continuous improvement process** *'Plan-Do-Check-Act'* is in place, ensuring that the knowledge and insight gained by internal survey and performance measurement is translated into tangible actions and measures within the overall service program of Frankfurt Airport, from specific process-related actions to overall staff trainings. This contributes towards getting the airport closer to its overall strategic objectives. In line with these objectives, overall service quality targets are set on a yearly timeframe, taking into account all relevant sources of information and ultimately being determined by the managing board. Circa 20 individual criteria are set every year.

Internal communication of results is a key component of this cycle, and so Frankfurt Airport has a systematic approach to reporting outcomes to the Executive Board, unit managers and the wider staff. Data analysis and updates on results take place on a monthly, quarterly and yearly basis. The reported indicators are mainly based on passenger satisfaction surveys. As a general approach regarding the data analysis, airport management is mostly concerned with the frequency distribution, rather than average scores. This means that the focus is on the % of satisfied passengers, rather than any average level of satisfaction scores of all passengers. This avoids situations where averages scores mask a mixture of very high and very low individual scores. Based on the analysis of these results, potential service quality gaps are identified, which then allows subsequent counter measures to be developed and implemented.

This approach ensures a customer service management system which is continuously passenger-focused, integrating passenger´s individual feedback (customer survey) and performance measurement (e.g. waiting times) with the strategic management of the overall service program. This in turn drives the development and improvement of new and existing products and services respectively.

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WHAT TOOLS ARE AVAILABLE FOR AIRPORTS?

ACI RESOURCES

➔ ACI'S AIRPORT SERVICE QUALITY SURVEY

ACI's Airport Service Quality (ASQ) Survey is the world's leading airport customer satisfaction benchmark programme with over 200 airports in more than 50 countries surveying their passengers every month of the year. All airports use the same questionnaire and follow the same methodology.

The main programme is designed for all airports which require regularly updated information on their service performance for operational and strategic decision-making. Every year, over 400,000 passengers are interviewed as part of the data collection. The main ASQ Survey programme is tailored for airports of all sizes, from 0.5 million passengers to 85 million. The wide range of ASQ participants allows each airport to select an appropriate benchmarking panel. Participating airports have access to all other participating airport's results.

For more information, see **www.aci.aero/Services/Airport-Service-Quality-Programme**

➔ ACI EUROPE'S KEY PERFORMANCE INDICATORS PROJECT

External benchmarking is a core component of performance management for many businesses, but comes with challenges of its own. What peers should an airport compare itself against? And how do you access data of sufficient quality and coverage to make these comparisons?

ACI EUROPE's Key Performance Indicators (KPI) Project addresses some of these issues.

33 airports are involved in the project, and on an annual basis submit detailed financial data across a number of field. Given this financial focus, indicators available within the KPI project are primarily within the 'productivity and cost effectiveness' and 'financial and commercial' KPAs.

In light of the sensitive nature of the data, confidentiality is of paramount importance, with airports only able to view the data of airports if they themselves have submitted their own data for that particular year.

Participating airports therefore have access to performance data for a wide range of different European airports. As individual airports can face very specific circumstances and have different business strategies, sometime direct comparisons are not valid. For example it is not helpful to compare employee numbers between an airport which in-sources its activities and an airport which does a lot of out-sourcing. To guard against this the data is also informed by explanatory commentary, so participating airports have all the information they need to construct and benchmark in a detailed and objective way against relevant peer groups.

In addition stand-alone studies within the Project examine in greater detail areas of specific interest to the business, such as car parking, energy costs and retail.

For more information, or to join the KPI Project, contact **Teresa Ziober**, Research Analyst ACI EUROPE at **teresa.ziober@aci-europe.org**.

➔ ACI EUROPE INTERNAL AUDIT EXPERT GROUP

Recently established, the ACI EUROPE Internal Audit Group brings together internal auditors from a range of larger European airports, with a mission *'to promote communication, coordination and co-operation amongst airport internal auditors to promote the sharing of audit knowledge, experience and best practice'.* Meeting twice a year, the Group is also committed in its Charter to producing output. So alongside the benefits for airports directly participting, with wider airport community should benefit from the activities of the Group.

If you would like the Internal Audit function from your organisation to become involved with the Group, please get in touch with Group Chair **Lila Tsakiri** of Athens International Airport at **TsakiriV@aia.gr**.

➔ ACI'S 'GUIDE TO PERFORMANCE MEASURES' [12]

ACI's 'Guide to Performance Measures' was designed to help airports around the world in their performance management efforts by providing a useful set of performance measures across a number of categories. In total there are 42 indicators suggested, across the categories of safety & security, service quality, productivity/efficiency, financial/commercial, and environmental. Also considered are indicators for a 'core' category.

As well as listing the various indicators, the Guide also gives a definition of each measure, considers the possible strength and weaknesses, suggests airport types where each indicator might be most valid and references some of the drivers which might influence individual results.

Respecting the need for individual airports to build their own tailored system of performance management, the Guide is not prescriptive and instead offers a suite of prepared indicators, each of which airports may or may not find valid to their own specific circumstances. The Guide also cautions against abuse when benchmarking between airports. In particular it is noted that *"when used carefully, benchmarking is a powerful analytical tool. When used carelessly, benchmarking results are very much like tabloid headlines—making very strong claims that upon further analysis turn out to be far from the truth".*

[12] *'Guide to Airport Performance Measures',* Airports Council International, February 2012

An ACI EUROPE survey found that 64% of European airports were aware of the Guide, with just under half of these actually using it to inform their own performance management work. This is a very positive result quite soon after publication of the resource, particularly in a region where airport operators are already quite sophisticated relative to their international peers. This suggests that the Guide is well on its way to becoming established as a standard industry reference in the near future.

The Guide is available at **www.aci.aero/Media/aci/downloads/ACI_APM_Guidebook_2_2012.pdf**

CONCLUSIONS

The commercialisation of the European airport industry, as well as the emergence of increased competitive pressures, has fundamentally changed the nature of the airport business. That business transformation has visibly manifested itself in a wide variety of different ways, from higher service quality, to more intense route marketing to the embrace of new digital tools. This study shows that equally significant changes are being embraced behind the scenes also. Indeed, some of these more tangible improvements could not have been achieved without boosting the management ability of those airport operators in the first place.

As well as revealing the extent of play of performance management within European airports, this study has also shown that it is a discipline which is defined by its heterogeneity. The results of the survey but also the variety of different approaches highlighted in the various case studies demonstrates that there is clearly no question of a 'one size fits all' approach to managing performance.

This is not new. Concluding on a similar study back in 2001, the authors noted *'a rich picture of different practices'* [13] with only general trends being observable. In this context there does appear today to be a divergence between smaller and larger airports, with the latter gaining proportionately larger benefits, given their more complex organisational structures, and so being also more willing to invest more in staff and data collection resources.

However despite all this variety, the fundamental purpose of performance management remains the same for all airports, as does the core business. So while performance management activities can be approached from different directions, and can be scaled up or down, there are core standardized tools which can be used as a basis for a range of different approaches. The ACI EUROPE *Key Performance Indicators project*, and the ACI *Airport Service Quality programme* both offer relevant and reliable internal and external data – the basic cornerstone of any performance management work. Similarly the ACI *Guide to Performance Measures* lays out a standard set of verified and widely-known key performance indicators which can each be adopted, left to one side, or even modified, according to the specific circumstances of the individual airport. Put together, these tools can be mixed and matched and used to support wider tailored approaches to performance management, such as the use of Balanced Scorecards, strategic plans or LEAN techniques.

The recent transformation of the European airport industry is an ongoing process, and within this context performance management approaches and techniques can be expected to continue to evolve in parallel. This constant evolution of the discipline of airport performance management, combined with the sheer variety of approaches adopted, means that it is difficult to get anything other than broad indications as to what is happening on the ground. ACI's performance management tools can only be improved and refined if member airports not only use the services available, but also subsequently get in touch and let us know what works and what does not.

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[13] *'An international survey of performance measurement in airports',* Francis G, Fry J, Humphreys I, September 2001 – available at: http://www.open.ac.uk/business-school/sites/www.open.ac.uk.business-school/files/file/publications/research/WP01_4.pdf

METHODOLOGY & SOURCES

The analysis presented in Section 2 was compiled via a survey distributed to European airports in late 2013. The survey was first circulated by ACI EUROPE to airport CEOs and Managing Directors. The University of Maastricht followed up by contacting individual airport operators, to improve the response rate. A copy of the survey is available upon request.

AIRPORTS COUNCIL INTERNATIONAL

The past 20 years have brought tremendous changes to the European air transport sector, not least in the airport industry. The fruits of these changes are clear for all to see and manifest at European airports of all shapes and sizes. A more corporate, brand-aware, service-oriented and proactive business culture is now evident across the European airport network, with airports competing on many levels with their rivals in size, passenger focus, proximity and traffic mix.

However, operating an airport remains a complex, capital-intensive, shock-sensitive activity, requiring a keen eye on the potential implications that a change to one part of the operation can have on the others. For these reasons, it's vital to have an aligned, internal company culture built around bringing the people and processes together, in a way that best fits the premises and circumstances of the airport. The emergence of airport performance management is a key driver in allowing airports to learn, develop and optimise the changes inherent in the fast-moving, commoditised world of the European airport industry.

In preparing this ACI EUROPE Analysis Paper, we collaborated with the University of Maastricht to survey our member airports on their performance management activities. In presenting the results of that survey, this Paper is aimed at revealing some of the ongoing work airport are doing to stay ahead.

For more information, contact donagh.cagney@aci-europe.org

ACI EUROPE is the European region of Airports Council International, the only worldwide professional association of airport operators. ACI EUROPE represents over 450 airports in 45 European countries. Our member airports handle over 90% of commercial air traffic in Europe, welcoming more than 1.7 billion passengers, 16.8 million tonnes of freight and 20.8 million aircraft movements a year. Based in Brussels, we lead and serve the European airport industry and maintain strong links with ACI World and other ACI regions throughout the world.

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