

reTHiNCaviation

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Insight and analysis to help create sustainable value from aviation assets

In this edition:

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- Smartgate – the quiet revolution
- Flying projects into to the ground



Welcome to our first edition of ReThink Aviation, where we share the latest insight, trends and analysis from the sector to help you create sustainable value from your aviation assets.

In this edition we consider the rapid growth of China's upper middle-class, the impact their increasing appetite for air travel will have on the industry, and how Australian operators can prepare to capitalise on the major growth opportunities.

We then look at the positives from the ACCI's recent Airport Monitoring Report, which above all highlights the significant growth we are seeing in air travel across Australia.

We then analyse how innovative operators are using SmartGate technology strategically to: reduce passenger congestion; improve border security; and optimise commercial revenues.

Our final article looks at why projects fail, considers the importance of relationships to successful outcomes and proposes a new four point plan to create high performance project team environments to ensure aviation projects don't fly into the ground.

You will notice that our first article is written with Caspar Baum from EC Harris and I am delighted to announce that Thinc and EC Harris have entered into a strategic alliance to deliver better outcomes for their clients across Asia Pacific.

EC Harris is a global built asset consultancy that specialises in helping clients in a broad range of market sectors to maximise the return they see from their investment and expenditure on real estate and infrastructure assets. Operating as part of the ARCADIS group, they have access to approximately 22,000 professionals worldwide, including 4,000 people within the Asia-Pacific market based in almost 50 offices across the wider region.

To date, more than one billion passengers have passed through airports that EC Harris is working with. This relationship is particularly exciting as our aviation clients can now access a wide range of sector experts with skills at all stages of the asset lifecycle.

Finally, I am pleased to introduce Paul Byrne to the team. Paul has landmark, international aviation and rail sector experience, having previously worked for the Hong Kong Airport Authority on the planning, design and construction of the New Hong Kong International Airport. He also led consultancy Louis Berger Group's aviation subsidiary and has worked on some of the world's most iconic airport and rail projects, including John F Kennedy International Airport and the rebuilding of the World Trade Centre in New York.

I hope you enjoy this edition and if you have any questions or comments then please do not hesitate to contact me.

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Preparing for China

“China’s growing appetite for travel as a result of the accumulation of wealth on the mainland will be one of the biggest game-changers for the aviation industry in the coming years. Just 15 million outbound trips are made from the mainland every year now, that figure will grow to 200 million by 2030.” John Slosar, Chief Executive at Cathay Pacific

China’s middle class is currently estimated to be anywhere from 300 million to 400 million people. The upper-middle class segment – seen as the main driver of future economic growth – is growing rapidly, with a recent McKinsey¹ report predicting that it will account for circa 54 percent of urban households by 2022, up from just 14 percent in 2012.

The emergence of a rapidly growing upper middle-class with aspirations to travel, record levels of urbanisation, and continued growth in business and trade activity is creating a pressing need for better aviation infrastructure across China and presents major opportunities for international airport operators.

Whilst ‘luxury’ European cities typically top the most desirable destinations list for Chinese travellers, Australia is also a major draw. Its relative proximity to China and a weakening dollar mean that it is becoming increasingly attractive.

This emerging trend is supported by Deloitte’s recent *Australian Tourism and Hotel Market Outlook*², which shows that international visitor arrivals grew 4.9% over the year to March, largely led by the emerging Asian economies and in particular China, which accounted for more than a third of total growth in visitor arrival. The report also predicts that more than two thirds of growth in the next three years will come from Asia, mostly from China.

The Chinese Five-Year Plan

The Chinese government has recognised this trend and within its twelfth Five-Year Plan has made a commitment to further developing core international hub airports, with trunk routes and secondary regional airports across the country. In total, China’s Civil Aviation Authority is expected to commit around \$4.25 trillion within this Five-Year Plan, an increase of 50% compared with the previous one.

However, as we approach the mid-point of the current Five-Year Plan, relatively little of this development has taken place. This means that over the next three years, there needs to be a significant acceleration in terms of developing new airports if the government wishes to deliver on the vision it set out within the manifesto.

The Australian response

As the Chinese Government starts to ramp up its aviation capacity, Australian airport operators also need to act quickly to prepare for the likely increase in Chinese travellers and ensure their airports are attractive propositions for Chinese airlines and travellers alike.

We recommend that operators focus on the following key areas to enable them to capitalise on the significant growth opportunities:

1. Develop a relationship with a second or even third tier city airport

Following the explosive growth of China's 'tier one' cities over the last decade or so, the new growth areas are the major cities in China's west and north, the so called 'second and third tier' cities like Chongqing and Chengdu. These cities are still massive on a global scale, for example the population of Chongqing is circa 30 million, comfortably more than the entire population of Australia.

McKinsey's recent research highlights the shifting wealth from the tier one cities: *"In 2002, 40 percent of China's relatively small urban middle class lived in the four Tier-one cities: Beijing, Shanghai, Guangzhou, and Shenzhen. By 2022, the share of those megacities will probably fall to about 16 percent."*

These second and third cities typically have major airports, rising demand for air travel and a regional airline. We recommend that Australian airport operators quickly seek to partner with a regional Chinese airport (or airports) to take advantage of the predicted economic growth and associated growth in air travel.

These relationships should also help Australian firms access and feel more comfortable dealing with some of the lesser known markets in China, as there increasingly business opportunities with these cities. For example, we understand that Nanning in the Guanxi province is increasingly looking to trade in metals, mining and minerals with some of Australia's biggest businesses.

2. Collaborate effectively with airlines

Once a successful alliance has been agreed with a growth airport, significant time and resource should be invested in developing an effective working relationship with the airport's respective airline. We have seen the rapid growth of China Southern in recent times and this is likely to be replicated with other Chinese airlines.

In an excellent article, Teo Chin Leong, Assistant Vice President at Changi Airports International, recently identified the top things that airlines want

from airports, which operators have a strong influence over.³ These were considered to be:

- Security and safety
- Network planning support – business case, planning support etc.
- Reasonable airport-related operating costs
- Support to lobby governments for sufficient traffic rights to fly economically viable services

This last point is crucially important and will require significant effort from operators. Sydney Airport faces major challenges around its curfew for example.

3. Know your customer

"By 2015, barring unforeseen events, more than one-third of the money spent around the world on high-end bags, shoes, watches, jewellery, and ready-to-wear clothing will come from Chinese consumers." McKinsey & Company (2013).

Optimising the retail mix to meet the growing demand for luxury products amongst China's middle class is now key. It might sound obvious but understanding what makes Chinese consumers tick before you design and build or redevelop an asset, is crucial.

A key first step is to identify who the key target consumer groups will be, and ensure they are placed at the heart of the asset development and asset management strategies. Any assumptions made around what those consumers want from a retail experience must also be underpinned by hard data that pinpoints what their key drivers are in terms of attracting them and convincing them to spend once there.

The importance of applying data-driven assumptions cannot be underestimated; these allow operators to limit conjecture and be more confident in their ability to maximise income streams. It also enables operators to make smarter decisions around tenant mix, asset design, marketing strategy and sales performance.

Securing access to the right type and quality of data can be a challenge as many of the usual indicators quickly become dated due to the pace of evolution.

However, if you know where to look there is still sufficient information available both within the wider market and the retail environment itself. The biggest challenge often comes in interpreting it correctly and building a strategy that can deliver a commercially successful asset.



If you get it right, the opportunities are significant in the micro-economies generated. London's Heathrow Airport, for example, grossed over €2 billion in sales for 2011, an 8.8% increase from the year before. During this same time, British high street shops revenue increased by only 1.3%.

4. Address the communications challenge

Perhaps the most obvious but the most important issue to get right is to communicate effectively with Chinese consumers when they arrive and depart from terminals.

A recent study has shown that the biggest segment of the travel market in China will soon be self-organised travel, rather than tour groups. When this trend is combined with the fact that the level of English of travellers from Tier 2 and Tier 3 cities is typically slightly lower than people who live on the East Coast or Beijing, the need becomes even greater.

Signage, announcements, and adverts in Mandarin should all be considered. However, care is needed. The growth in the number of Chinese travellers to Europe over the last decade has shown that some typical phrases and terms do not translate directly into Mandarin. Unless operators successfully address this issue, it can only serve to increase the cultural gap even further.

We have already seen an increasing number of Mandarin speaking retail assistants across the Australian airport network and this is a good initial step, but we predict operators will need to start working more closely with advertisers, airlines and retailers to get increasingly sophisticated to meet Chinese consumer communication needs.

An exciting outlook

Whether it's building a new airport or expanding an existing asset, operators need to have absolute clarity on the type of airport they need to create. This vision must be based on robust business planning that is anchored around concrete evidence on the flight mix and the type and volume of passengers the airport will serve.

Insight is crucial, as it impacts so many other elements of the airport's overall business strategy, including stakeholder modelling and the approach taken with regards to concessions, retail, airline mix, routes served and the future expansion strategy.

It is also vital to ensuring the asset can respond to predicted future growth. With increased numbers of travellers both in Australia and abroad, the demand being placed on all types of infrastructure will continue to rise. This is true in particular for new-build assets, which means optimising the design so that phased expansion can take place within a fully functioning asset as and when demand rises.

To get this right, operators need a long-term master-plan based on robust traffic forecasting that details when exactly interventions will be required and the flight type and profile of passenger that will need to be served.

The range of issues that are likely to play out within China's aviation sector over the next decade and their impact on international airport hubs, make it a fascinating arena. By proactively managing the development and expansion plans of Australian airports and acting on insight, there will be sufficient opportunity to capitalise on China's growing aviation needs.



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David has over 16 years' industry experience planning and implementing complicated works including over seven years' specialising in the delivery of aviation infrastructure. He has worked closely with Brisbane Airport Corporation for a number of years, leading a team on its major infrastructure upgrade program. He is currently working with Virgin Australia on its lounge refurbishment program and is also leading the commission to redevelop the international terminal at Nadi Airport in Fiji.



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Caspar is a senior airport developer with over 23 years' experience in the industry, encompassing a range of projects from new build airport facilities, optimising existing facilities and operations as well as preparing airports for special events such as the Olympic Games. Educated as a professional architect his focus is on airport terminal facilities including master planning, sizing, facility space programs, processing and performance requirements. He currently leads EC Harris' aviation sector in Asia Pacific and has worked with clients including: Suvarnabhumi Airport Bangkok, Singapore's Changi Airport, Subang Airport Kuala Lumpur and Dubai International Airport.



¹ Mapping China's middle class, McKinsey Quarterly, June 2013, Dominic Barton, Yougang Chen, and Amy Jin

² Half yearly update, Tourism and Hotel Market Outlook, Deloitte, July 2013

³ Fostering Airline – Airport Collaboration to grow aviation traffic, Changi World, Issue 1 – 2013, Teo Chin Leong

The Positives from the Airport Monitoring Report



The Australian Competition and Consumer Commission (ACCC) recently released its Airport Monitoring Report for 2011-12. The annual report analyses the performance of Adelaide, Brisbane, Melbourne, Perth and Sydney Airports and provides information on:

- Price changes for services provided to airlines (aeronautical charges such as aircraft landing and parking charges) and to consumers (car parking charges)
- Revenues, costs and profits, and
- Quality of service indicators derived from airlines, passengers and border agencies' qualitative surveys and other indicators from quantitative measures.



For those outside the industry, the headlines from the ACCC's report were fairly shocking: service quality across all airports decreased in 2011-12 and no airport achieved an overall rating of at least 'good' for the first time since 2007-08. The media pounced on these negative findings, but there is a silver-lining to the report.

The main reason service quality has fallen is due to the increasing number of people who are flying. We have seen strong domestic demand, particularly from 'fly in fly out' passengers and increased international passengers, as Australia remains an attractive tourist destination.

Capacity is the root cause of the service quality problems and the report – whilst clearly challenging the industry to invest – also shows that aviation is a growth sector and one that is crucial to Australia's economy.

A 'good' problem to have

In many respects capacity is a 'good' problem to have. In simple economic terms, supply is struggling to keep up with demand and that is a situation that many industries around the world would love to have, especially in this day and age.

What's more, the report shows that aeronautical revenues

grew at all monitored airports (except for Adelaide) and there is no doubt that the industry has the skills to solve the current capacity problems and thereby improve service quality. The solution is in our hands.

What is clear, is that we need to move quickly as Australian airports are not keeping up with their international rivals. The recent World Airport Awards ranks the top 100 global airports. The awards are voted for by airport customers from around the world and this year the survey garnered 12.1 million responses. Australia doesn't have an airport in the top 20, with Brisbane the highest at 21, rising from 34th place the previous year.

Clearly something needs to be done to gain ground on international rivals and improve service quality to serve an increasingly mobile and growing population.

The solution

In most cases, robust asset management plans and clear programs of work are already in place. The simple answer is therefore to bring capital investment programs forward and work collaboratively to share best practice and explore innovative ways to create additional capacity.

It is also vital that operators and airlines alike now ensure every



As an industry we need to work collaboratively and rapidly to tackle the capacity challenge head on.

dollar spent on airport infrastructure delivers tangible benefits to the passenger. Far greater emphasis should be placed on business cases and it is essential that clear asset strategies are in place to ensure that the infrastructure and systems that are being developed are managed efficiently and effectively. Focusing on the initial investment without looking at the long term cost of preventative and corrective maintenance is no longer viable.

Innovative operators across the country are also looking at adopting approaches to improve efficiency, optimise assets, maximise retail space and create sustainable value over the medium to long term for their stakeholders.

The big three

The three biggest airports in terms of passenger numbers are Sydney, Melbourne and Brisbane. If we look at these airports individually, it is positive that Melbourne has ambitious expansion plans in place, which should dramatically improve capacity and service quality.

We are working closely with Brisbane Airport Corporation, which remains the highest ranking monitored airport, on its major investment program and there is no doubt the investment will help it to become one of the world's best. The airport with the biggest challenges remains Sydney Airport.

Commenting on the report, ACCC Chairman Rod Sims said: "overall, Sydney Airport is perhaps of greatest concern given the pattern of price and earnings increases, lower service standards and low investment levels compared with other airports."

It is concerning that Sydney Airport has been consistently rated lowest among the monitored airports for overall quality of service since 2006/07 and with other airports looking to quickly expand, there is every chance that Sydney will lose ground to its rivals.

The debate about the second airport in Sydney rumbles on but could be the catalyst needed to increase capacity and encourage competition to improve service quality. However, politicians

cannot make up their minds and are continually dodging the real issue about adding capacity quickly. It is encouraging that our industry is having a genuine debate on the matter. Airlines, operators, trade associations, economic institutions and consultants have all pitched into the discussion which can only be healthy, but what is missing is real leadership and direction from a political party to grasp the opportunity and make aviation a policy centrepiece to provide a route to economic growth.

Opposition to a second airport in Sydney is partly built around environmental concerns that come undone under closer examination. Aircraft today can travel an additional 20km circling in the skies above waiting for a landing slot to become available. Expanding capacity will reduce this congestion and the time spent taxiing on the ground, enabling airlines to operate more efficiently and to drastically reduce associated noise and air emission levels.

Local politics have also had a disproportionately negative impact on the debate particularly when it comes to noise pollution. In reality greater capacity will allow Sydney to minimise noise levels by offering greater flexibility to use airspace to mitigate these issues. We wait with baited breath for the outcome of this debate.

The time to act

As an industry we need to work collaboratively and rapidly to tackle the capacity challenge head on. Aviation is a driver of economic growth, so we need to share best practice and innovate to improve service quality to meet future growth. The time to act, is now.



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SMARTGATE

The Quiet Revolution



SmartGate is an Automated Border Control (ABC) system that uses facial recognition technology to verify identity. The initial prototype was designed in 2002 by the Australian Customs and Border Protection Service (ACBPS) in conjunction with its technology partners. Following significant testing, the first units were installed in Brisbane Airport in 2007. Since then SmartGate has been rolled out to all other major Australian International Airports.

SmartGate is a two-step process. Firstly, a traveller inserts an ePassport into a kiosk and makes some simple declarations. A ticket is produced, collected by the traveller who then proceeds to a gate where they insert the ticket into the gate. The system then compares the passenger's face with their ePassport photo (using biometric algorithms) and if there is a match they can pass through to the baggage hall.

The benefits of SmartGate are significant and since their introduction, they have been widely embraced by airport operators across the country. The major benefits include:

1. Reduced passenger congestion

The latest figures from the Australian Competition and Consumer Commission's annual Airport Monitoring Report for 2011-12 showed growth in passenger numbers across all major airports.

Tourism Research Australia forecasts show that by 2020 international traveller numbers are expected to grow to over 8 million, up from circa 6 million in 2012/13. With more A380 aircraft coming on stream every day, and total volume of travellers predicted to hit 40 million per year by 2018,

processing the increasing number of people who will be arriving and departing will be crucial to providing a quality service and creating value for all stakeholders involved.

The major airports have significant development and expansion plans in place to try and meet the expected growth and these programs will be crucial to meeting the capacity challenge. The strategic use of SmartGate is another part of the puzzle and represents a cost-effective tool to streamline throughput and effectively manage passenger flows to reduce congestion.

2. Improving border security

With an increasingly global economy and the ever-present threat of terrorism, enhanced border protection is crucial. The SmartGate ABC system maintains the existing high standard of border protection, whilst freeing up personnel to focus on high-risk travellers and enhance border protection.

Identity fraud is a growing trend and to combat it countries around the world are increasingly moving towards ePassports with microchips. Using ePassports, SmartGate improves identity verification and therefore represents a significant deterrent to using forged or stolen passports.

3. Optimise commercial revenues

The more people who pass through an airport, the greater the opportunity for commercial partners. Innovative airports are progressively embracing the use of SmartGate to optimise commercial revenues for their partners by maximising traveller time in retail areas and smoothing transition times.

The future of SmartGate

Thinc has been working with the Australian Customs and Border Protection Service (ACBPS) to install SmartGates across Australia's airports since 2007. We have seen the transition from trials in quiet corners of the Immigration Customs Hall to their strategic development as an integral component of airport operations.

From our unique experience, we recommend that airport operators:

- Look at the medium to long term horizon – the better integrated SmartGate precincts are with your master plan, the more effective they will be as a value-adding capability.
- Work in partnership with ACBPS to create the optimum solution for your customers and commercial partners – this may include providing additional functional areas or joint funding arrangements to maximise development outputs.

- Think strategically about the positioning of SmartGate precincts - although the units are extremely high-tech, they don't require high-tech supporting systems - the technology is self-contained and require only the footprint, data and power on installation.
- Consider the benefits from a marketing and branding perspective – generation Y increasingly expect technology to improve their customer experience and look favourably where it does.

When compared with typical aviation projects, the installation of SmartGate requires minimal investment, but can have a massive impact, improving outcomes for all stakeholders.

Airlines strongly support SmartGate as they help speed up the passenger process and therefore reduce turn-around times; retailers strongly support SmartGate as they maximise traveller time in lounges; airport operators strongly support SmartGate as they improve the passenger experience, and provide benefits to other stakeholders; and ACBPS support SmartGate as they offer a secure, efficient and fast way to pass through border control.

Above all, they ensure travellers spend less time queuing and therefore help improve the perception of service quality – a key area for improvement, as highlighted in the Airport Monitoring Report. SmartGate is starting a quiet revolution across our airports and operators should use them strategically to create sustainable value for all stakeholders.



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David is a Senior Consultant with significant aviation sector experience. He has worked with Australian Customs and Border Protection Services since 2007 to install, improve and expand SmartGate banks. Most recently he has been working on strategic SmartGate projects in Sydney and Melbourne. His particular areas of expertise include: developing funding models, business case development, stakeholder management, design co-ordination and works co-ordination.





Flying projects into the ground

Megaprojects worth more than \$1 billion are failing at a staggering rate of 65% and projects worth less than \$500 million are failing at a rate of 35%⁴. A project has considered to have 'failed' if:

- The schedule slips, costs are overrun, or the project overspends by more than 25%
- The project is delayed by more than 50%
- There are severe and continuing operational problems into year two of the project

Construction disputes are also on the increase, with the direct cost of resolving disputes in Australia high and rising. Recent estimates suggest disputes cost the industry between \$560 and \$840 million per year. These are worrying trends for the industry, but what's at their root cause?

There are a number of contributing factors - not least the global economic slowdown and more confrontational tendering practices - but we believe there is something deeper that the industry has not effectively managed for too long, the impact of human relationships on project success.

Why do projects fail?

It almost sounds too simple, but it is widely recognised that projects generally fail because of human behaviours, not technical issues:

*"By and large projects are not driven to failure by a lack of technical knowledge but by project behaviours that may be reasonably anticipated. Project failure to meet objectives can be prevented by elimination or mitigation of the root causes. These causes are non-technical in nature."*⁵

However, unlike other industries that have realised the contribution of human factors in relation to team performance, safety and success, the construction industry still has not achieved this realisation with respect to team performance in project delivery. Take the airline industry for example. Following a spate of fatal accidents in the 80s and

90s, research showed that the majority of accidents were ultimately caused by a lack of communication or negative team dynamics in the cockpit. In response, the industry embraced a concept called Crew Resource Management (CRM) and has subsequently undergone a major transformation.

Crew Resource Management emerged from a workshop at NASA in 1979, when it found that the primary cause of most aviation accidents was human error. CRM is not concerned with the technical knowledge and skills required to operate equipment, but rather with the cognitive and interpersonal skills needed to manage resources within an organised system. CRM aims to foster a culture where the freedom to respectfully question authority is encouraged and communication and relationships are proactively managed. In the airline industry, air crew are now checked on their ability to apply CRM principles, just as they are in the ability to manage an aircraft.

The construction industry needs to finally recognise the importance of non-technical factors on project success and effectively manage them to reduce project failure and improve outcomes.

The field of forces:

In any endeavour there are dynamics that impact outcomes - Kurt Lewin referred to these factors as a 'field of forces.' A crucial aspect is how the dynamics impact and interact with each other and how this 'chain reaction' impacts performance.

In the project context, we believe there are three dominant groups of 'forces' that interact with the project environment and influence project deliverables and outcomes – technical, sociological and psychological forces (see figure one).

Project forces - the team dynamics process model

The existence of these dynamics and their interaction can be a serious risk to project delivery. Just as risks in technical areas of a project lie dormant and are effectively managed through planning, sociological and psychological (or relationship) risks also have the potential to impact project success - often with devastating results – and should be planned for. Understanding these dimensions, how they interact in the project environment context and adopting a planned approach to mitigate them, will dramatically reduce project risk. However, despite the evidence, relationship risks are rarely managed as: they are outside the gambit of 'hard engineering'; they are misunderstood by technical specialists; and traditional processes adopted previously have been unstructured and ineffective.

A four point plan to create a high performance team

To overcome these common myths, and create a collaborative, high performance environment, we recommend adopting a structured approach to manage relationship risks and create high performing teams. The plan should be grounded in project reality, with a scope, schedule, budget, defined objectives, risks and key performance indicators (KPIs). This is particularly important for aviation sector projects, which typically have a high number of stakeholders. We suggest a simple but robust four point plan:

1. **Plan for success** – create a project vision and agree objectives; define roles and responsibilities; create governance and decision-making structures; identify the cultures & values of your team; and define the most appropriate procurement model.
2. **Team Building/Development** – undertake a planned, risk-based, collaborative approach to preparing a relationship management plan that identifies relational risks. Build and agree processes around different leadership abilities and communication styles within the team.

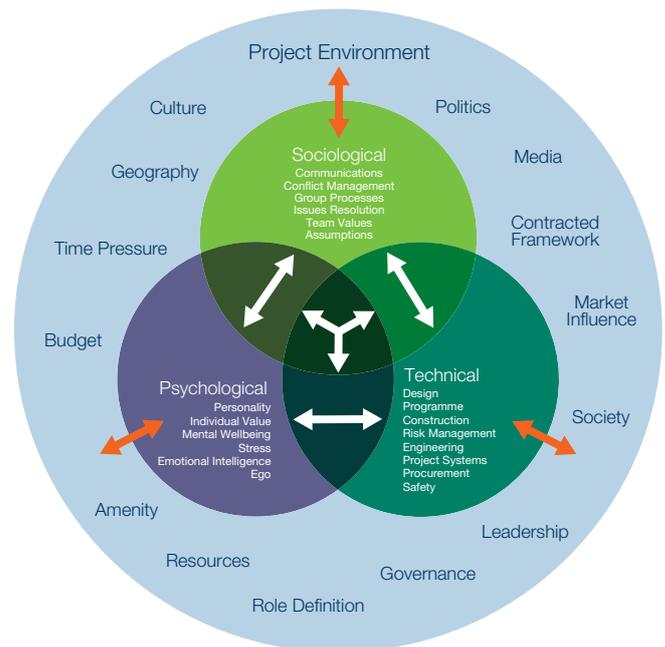


Figure one: Project forces - the team dynamics process model

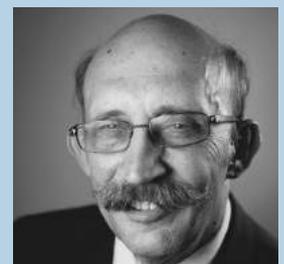
3. **Coaching & control** – follow a structured process to ensure performance against relationship management plan KPIs and use coaching to maintain team motivation, promote effective communication and to eradicate inappropriate behaviours, such as intimidation.
4. **Close out** – conduct a 'lessons learned' workshop to assess the team's performance; evaluate the processes followed; identify positive and negative attributes and implement an action plan to improve future project performance.

Conclusion

Communication, effective relationships and team work have a major impact on project success and can be quantified, qualified, monitored and controlled. The medical and shipping industries are adopting similar approaches to CRM in aviation and the construction sector needs to follow suit – particularly on complex projects – to create high performance, collaborative teams and improve project outcomes.

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⁴ Klaver, Ali. December/January 2012. Speed Kills. *Project Manager Magazine* (AIPM).

⁵ Hayden W. April 2004, 4 – 61 – 71 Human systems Engineering, A Trilogy, Part 1. Elephant in the Living Room. *Leadership and Management in Engineering*.

About Us



Our aviation team has a proven track record of successfully advising on and delivering major aviation, infrastructure and commercial fit-out projects across Australia.

We are regarded as trusted advisers, having delivered numerous world-class projects for repeat clients including the Australian Defence Force, Brisbane Airport Corporation, the Australian Customs and Border Protection Service and the Department of Foreign Affairs and Trade.

Our lasting relationships with these, and other major clients, have been forged through consistent delivery of quality facilities on time and on budget, and the rigorous management of risk and safety.

We provide high-performance specialist aviation teams, wherever they are needed to address our client's specific project requirements. Our team boasts an extensive skill set derived from experience on diverse multi-disciplinary aviation projects.

A particular strength is tackling the complex challenges associated with the planning and delivery of large-scale airport redevelopments, where many of our personnel bring international experience.

With our global aviation partner, EC Harris, we are uniquely positioned to advise clients on how to best create sustainable value around all aspects of the aviation asset lifecycle.

THINC

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