ANS
A race to the bottom?

TOMORROW’S WORLD
A flight of fancy, or aviation reality?

COMPETITION IN ATM
Learning from other industries
**LEADING EDGE**

Passing on the baton

During the 22 years we have led Helios, and the 53 issues of ONAIR! published in that time, the editorial baton has been handed from Mike to Nick and back again. Today, for the first time, we wanted to pen a joint message. As you may already have heard, we are stepping down from our executive positions and are moving to consultancy roles in the business.

Helios is in the strongest position it has ever been, with a solid portfolio of clients globally and brilliant and talented staff. We consider this to be the ideal time to pass the baton of leadership to a new management team led by Dr Claire Davies, and the editorial baton with it.

Having lived and breathed Helios since 1996, in some senses it feels like the end of an era. However, it is also the start of an exciting new period under the direction of a fantastic new leadership team, who are focused on delivering value for clients and stakeholders and supporting employees.

We have been privileged to work alongside such inspiring people and look forward to stepping back from our day-to-day management roles to focus on consulting on major projects.

We wish Claire and the rest of the management team the very best in their new roles and we’re sure that clients and colleagues alike will offer their warm congratulations. Thank you all for your support over the years. As we will now have more time for project work, we hope to see you sometime soon!

With best wishes,

Mike Shattock
Executive Chairman

Nick McFarlane
Managing Director

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**TOMORROW’S WORLD**

The economics

There’s significant capital being invested by new entrants in aviation, so what might this mean for ATM? Read our article ‘Tomorrow’s world – a flight of fancy, or aviation reality?’ over the page to find out.

- **€9.5bn** the total cost of Air Navigation Services (ANS) in 2012
- **$100bn** is predicted to be spent on drones by 2020
- **$10bn** the amount Google predict its internet balloon business (loon) will be worth
- **$50m** the amount UPS predict they could save using last mile drone deliveries
- **$100m+** was invested in German start-up Lilium’s flying taxis in 2017
- **$85m+** of investments have been raised by supersonic jet company BOOM
- **2023** Uber plans to launch its flying taxi service
- **$50m**

Sources: ICAO, Financial Times, Wired, BOOM, Goldman Sachs, Google
Will ANSPs find themselves in years to come in a market filled with competitors offering identical services? Will they have to continuously lower their prices and face a “race to the bottom”? Considering the commodity lifecycle, at the one end there is innovation, a fast-changing market where suppliers of similar services offer very different solutions which continuously evolve to provide the customers with new tailored solutions. At the other extreme is the commodity market, where solutions are identical with very little innovation, suppliers are interchangeable, and the price of the services is low.

ANS has historically been a specialised service and has not really changed significantly over the last decade, but there are signs that it is moving up the commodity lifecycle slope. Indicators of this transition include the increasing competition for terminal services, and the emergence of lower cost suppliers. Of course, there are barriers to the effects of commoditisation such as sovereignty of the state, and protectionism driven by security as well as socio-economic concerns. However, interoperability and standardisation and the increasing push towards competition is moving ANS up the curve towards commoditisation. What’s more, new technological advances are being introduced that support this trend: data centres, virtualisation, remote towers, FDP as a service, to name just a few.

So how can ANSPs escape this “race to the bottom”? The answer is to differentiate themselves and increase innovation, for example through customisation, segmentation and service bundling:

1. Add value to the service through customisation and segmentation

   Focussing on a particular service aspect can make you stand out from the crowd. One energy provider introduced “digital electricity” to big businesses, offering resilience with no fluctuation. This allowed it to target an important sector of its market, differentiate itself from its competitors and charge a higher rate for the services provided. Translated to ANS this could be for example a decision to focus on en-route, providing the capacity, resilience and safety which will attract customers, and leaving airport ANS to others.

2. Bundling

   Offering a variety of services as a bundle can make your offering more attractive to customers. Cable companies commonly bundle highly commoditized landline phones with internet and television services. For ANS this could be a bundling of services provided across several airports or combining different types of services, ie ATC, surveillance etc.

   The biggest impact comes from combining both measures above. Investing in new technology to help this happen can disrupt the market and should be a focus for any supplier trying to reverse the trend towards a commodity service. There are no quick fixes, commoditisation will continue to challenge ANSPs, but to avoid a “race to the bottom” the answer lies in innovation.

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There was once a time when aviation was at the forefront of innovation but in today's high tech, data-centric, rapidly evolving world Air Traffic Management (ATM) is increasingly looking antiquated. In comparison to other industries ATM has been slow to change, let alone innovate. You could conclude that a radical new approach is needed for ATM; but what would this look like and are we able to make it a reality?

In our recent ‘Innovation and Disruption Seminar’ during Farnborough Airshow we endeavoured to answer this question, starting the day by posing a future vision of ATM (see graphic above) where traditional aviation and new airspace users and traffic management solutions merge to form a seamless, integrated European transport system.

We discussed how automation is on the rise across all industries, not just our own. Also, how new players, with big budgets and big ambitions want to make use of airspace and bring with them new aerial systems, new business models and new technology, and most importantly new demands on traffic management. But are we anywhere near this becoming a reality?

The ATM industry has achieved some great success, aviation is safer and more popular than it has ever been with fewer accidents and busier airspace than ever before, but its safety critical and highly regulated nature inevitably makes any radical change difficult. The difference today, which gives me hope for the future, lies in the economics. In 2012 Air Navigation Services (ANS) costs in Europe totalled €9.5bn, a significant figure but not when compared to the predicted spend on drones of $100bn+ by 2020, 10 times the amount of the total ANS spend. This means that there is a market for change, and potentially a business case to support it. New entrants, with significant capital behind them, are trying to build exciting new services (see more examples in the infographic section of ON AIR) and driving the need for innovation.

At our seminar, we heard from ANSPs, airport operators and regulators, all demonstrating an appetite for innovation and evolution. That appetite has probably always existed amongst traditional stakeholders but hasn’t actually created real change in ATM. The difference today is that there is external competitive pressure and new transport technology which wasn’t there before. This time around, the ATM industry must adapt and deliver the change that it has long talked of in order to remain relevant, or risk becoming antiquated.

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Since 2013 the number of competitions that have been run across the EU for ATM services stands at only 36 – which, considering the thousands of airports requiring ATM services, is a staggeringly low number. Regulatory considerations play a part in this, but as the EU is keen to ensure competition, it could mean the landscape is ripe for change. According to Helios’ Garryth Lofthouse, both Sweden and Germany have reported savings of 30-40% following commercialization or privatization of ANS.

As technology becomes an integral part of service delivery, the ATM sector can learn from other industries in how procurements are run (and how suppliers respond to them), and what a ‘win-win’ contract looks like. Lessons can be learnt from industries which are already mature in running competitions and using technology as part of the service, such as nuclear, IT, financial services and PPP/PFI, and from projects within these industries that have both been success stories and those that haven’t.

The best competitions are those where as much preparation goes into the planning of them as their execution and there are a number of factors that will help competition in ATM grow:

• Ensuring best practice in the procurement of ATM services. Some airports are obliged to comply with EU regulations ensuring transparency and equal treatment but even where this is not a legal requirement, there is a real benefit in carrying out such a process; it will demonstrate value for money and give bidders a real sense that they have a chance of winning the contract by submitting their best bid.

• Future-proofing the service as far as possible. As technology becomes an integral part of service delivery, problems can arise if future technological advancements have not been anticipated in the requirements or the solution. As much flexibility as possible should be built in to the procurement and the contract itself to ensure the benefits of any future developments can be realised.

• Getting transition right. New providers can be put off by how entrenched in an organisation an incumbent provider appears to be. Ensuring that incumbents are not given an unfair advantage will have the effect of opening the market up. Including provisions requiring incumbents to provide support at the end of the contract period can help mitigate this risk.

• Identifying the right partner. In many cases, the underlying service is of secondary importance to the overall relationship between airport and ANSP. Ensuring a genuine spirit of partnership, and reflecting this in the contract and working arrangements, will inherently attract the market and have practical operational benefits.

In competitions, there is no one size fits all. The ATM market is at an early stage in its procurement lifecycle and to ensure effective competitions are run, it should take full advantage of the lessons from other industries. But as a first step, airports should assess their current relationship with their ANS provider and their readiness for competitive tendering.

“Helios often need to provide legal expertise to our clients and in such circumstances we often work with law firm Bird & Bird. We recently welcomed Lucy and Chris from Bird & Bird to speak on contracts at a special seminar we held on ‘Competition in ATM’.

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Bird & Bird
New CEO for Helios
Founders move to consultancy roles

After 22 years leading Helios, Nick McFarlane and Mike Shorthose are stepping down from their executive roles as Managing Director and Chairman. They will move to consultancy roles and remain actively involved in major projects across Helios and the wider Egis Aviation business.

Cedric Barbier, Aviation Executive Director at Egis has appointed Helios director, Dr Claire Davies, as CEO of Helios. Claire is joined by a new management team built around the existing directors (Al Corner, Adam Parkinson, James Hanson, Ben Stanley and Mark Scott) all of whom have expanded executive roles.

Claire says: “Nick and Mike’s vision and leadership have grown Helios from a small aviation consultancy, into an industry thought-leader at the heart of Egis’ global aviation business.” I am delighted to have the opportunity to continue their great work and look forward to leading Helios with the same enthusiasm, care and commitment to delivering high quality consultancy for our clients. This will be achieved in partnership with our strong team of directors and world-class consultancy staff.”

Claire joined Helios in 2012 having worked in management consultancy since completing her doctorate in 2005. As well as leading Helios' long-standing work on the Single European Sky with the Industry Consultation Board on behalf of the European Commission, she has advised air navigation service clients globally on governance and strategy. In recent years Claire has combined consultancy work with a significant contribution to company management.

Mike and Nick will continue to deliver consultancy work for clients in their new roles, as will the director team.

Did you know?...
Helios consultants write regular blogs. These are short and topical, covering industry news, insights and conference reviews.

Here’s a selection of our latest:

- Supersonic boom or environmental bust? (Nick Boud)
- London Airspace - what now? (Nick McFarlane)
- How adaptable do ANSPs need to be? (Ben Stanley)
- The links in the law: a necessary burden? (Fiona Ribbons)
- Assuring navigation in an integrated world - how brave are you? (Andrew Burrage)
- A standards-led approach to aviation cybersecurity (Matt Shreeve)

Go to www.askhelios.com/blog to read them and follow us on LinkedIn, Twitter and Facebook to get notifications.

Members only
A man wanted to enter an exclusive airport lounge but did not know the password that was required. He waited by the door and listened. A member knocked on the door and the hostess said, “twelve.” The member replied, “six” and was let in.

A second member came to the door and the hostess said “six.” The member replied, “three” and was let in. The man thought he had heard enough and walked up to the door. The hostess said, “ten” and the man replied, “five.” But he was not let in.

What should he have said?

The answer will be published in the next edition of ON AIR. Please send your solutions to onair@askhelios.com. All entries must be received by 12 October 2018. The first correct answer drawn at random after this date will win a pair of Helios noise-cancelling headphones. Good luck!

And the winner is...
The answer to the puzzle “Pilots in a pickle” is too long to include here! So, for the full solution visit www.askhelios.com/resources/issue-2-2018-off-air. Congratulations to Bill Booth of Eurocontrol who sent the correct answer and came first in the draw.

Helios is an aviation consultancy, delivering management consultancy, strategy, investment and technical advice across the globe. Combining analytical rigour, strategic context and creativity, we bring independence and insight to every opportunity we address.

Our parent company, Egis, is an international group headquartered in Europe, with over 14,000 employees and a turnover of $1bn.

Please send change-of-address notifications to onair@askhelios.com; by post to Helios, 29 Hercules Way, Aerospace Boulevard, AeroPark, Farnborough, Hampshire, GU14 6UU, UK; or call us on +44 1252 451 651.

This newsletter has been written for the interest of our clients and colleagues. We believe the facts are correct at the time of printing, but cannot be held responsible for any errors or omissions.

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