



6 steps to the perfect flight

How to reduce departure delays and improve throughput with airport collaborative decision making.

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It's time to collaborate

Customer satisfaction for airlines and airports often pivots on 'on-time departure' performance. How can airports proactively ensure punctuality and smooth the guest travel experience?

Punctuality is a key factor for travellers when choosing both an airline and an airport. A recent survey by Ipsos MORI, on behalf of NATS, the UK's Air Navigation Service Provider, confirmed that operational performance is influencing travel decisions for a majority of passengers.

However, as passenger numbers reach record levels and capacity is stretched to the limits, achieving on-time performance is becoming increasingly difficult.

In a study by the U.S. Department of Transportation's Bureau of Transportation Statistics involving 50 of the busiest airports in the U.S., more than half had worse on-time arrival rates in 2017 than they did over the previous 10 years.

Delays are the biggest throttle to airport throughput

The system isn't broken, it's just squeezed. Although 80 percent of US flights are on time at 8am, small delays create congestion, leading to more delays, with the result that only 50 percent of flights are on time at 6pm. As airlines extend buffers to compensate for growing delay, throughput drops further, compounding the problem.

Early efforts to address turnaround delays focused on improving aircraft traffic information flow between airports and network operators. But sizeable information gaps remain. Too often, wider airport teams work in isolation, focused on their own outcomes. With limited availability of real-time, accurate data, airports and their aviation partners find it difficult to adapt quickly enough to handle changes in the schedule.

It's more than just about collecting data

The only way to create a seamless airport ecosystem is by tackling problems as a single team, united by common objectives.

By sharing operational data across the airport, and using it to create tailored, predictive insight, each stakeholder can make the best possible decisions to improve turnaround efficiency, limit delays and boost throughput.

It's time to take the steps towards a holistic, performance-driven ecosystem. It's time to collaborate.



The potential of predictability

Know their next move so you can plan your own.

A major benefit in collaborating with airport partners is the predictability of their actions in unexpected circumstances.

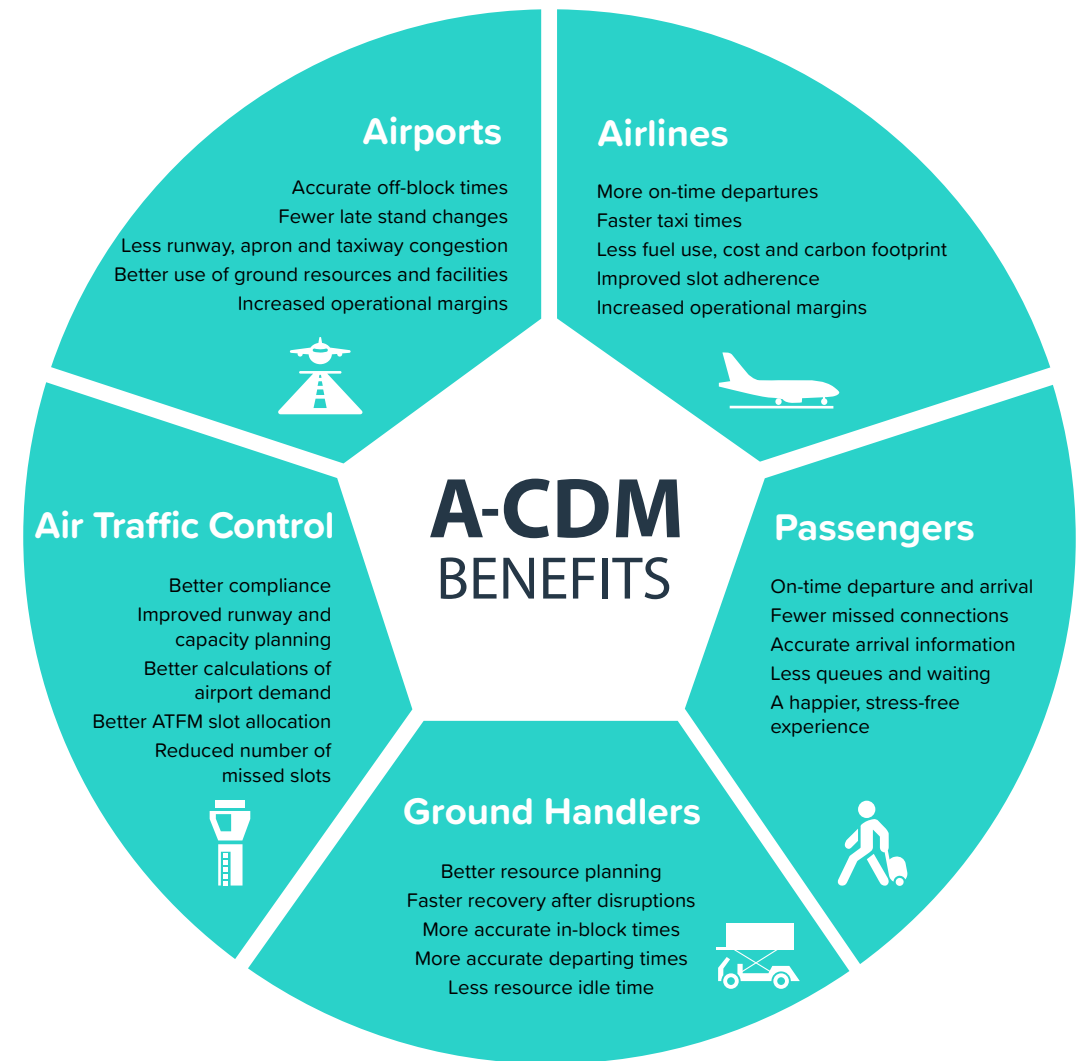
It's why many airports are turning towards Airport Collaborative Decision Making (A-CDM) — an operating method which allows all airport stakeholders to address turnaround challenges collaboratively.

A-CDM is making a major impact in Europe, it is now used by more than 35 airports in the region for over a third of all departures. As a result, these airports are able to reduce push-back delays, speed up taxi-out times and minimise last minute gate changes, all while improving the efficiency of ground-handling resources

A common data framework bridges critical information gaps

With A-CDM systems linking all relevant airport partners, airports and airlines can achieve far greater transparency, bridging critical information gaps for the benefit of all stakeholders.

Collecting, collating and analysing airport data, and serving up predictive insight in a meaningful way to each airport partner, can significantly improve aircraft turnaround.



6 steps to the perfect flight

#1 Activate the ecosystem

A-CDM is not an airport operation project, but a completely new way of working for all airport stakeholders — and most airlines.

Collaborative decision making will only succeed if everyone is engaged with a ‘no blame’ attitude. Unfortunately, engagement is often the most overlooked element of the A-CDM project.

Here are seven ways you can get all stakeholders and their teams on board from the outset.

TOP TIPS

Start with a MoU

Any concerns around data sharing can be tackled up front by creating a Memorandum of Understand. Establish firm rules around the quality of data required and how data will be shared.

Secure the commitment of your home airline

Active, early participation in the project by your home airline is critical in helping to bring on board other stakeholders.

Insist on strong governance

You will need an enthusiastic visionary to be project sponsor, as well as a project steering group made up of senior executives from the airport, home airline and air services.

Identify key stakeholders and data owners

Map out the key stakeholders and data owners of each process within a flight turnaround. Highlight the value of sharing specific data and how it will benefit the group.

Build a multi-faceted project team

Create a team of subject matter experts — those with a broader understanding of turnaround and pre-departure processes from each company. Don’t just rely on IT specialists.

Create a culture of collaboration

Recognise the cultural challenges with the new operating model. Any change to process can give rise to suspicion and caution. Work with unions from the outset and prepare a communications plan.

Establish metrics for success

Agree up front the key performance indicators consistent with your objectives. Include measures such as fuel saved or reduced apron congestion.

“Projects of such complexity require the building of expectations for a culture of continuous improvement amongst all stakeholders, from the outset.”

IATA



#2 Define your critical milestones

While every airport has unique operating conditions and different goals, studies show that an A-CDM implementation generally always focuses on three initial areas.

1. Start by prioritising target off-block times (TOBT).
2. Consider variable taxi time next. This ensures scheduled take-off times are more transparent.
3. Finally, with full pre-departure sequencing, the target start-up approval time (TSAT) can be calculated, and a full off block sequence initiated.

Defining the events that impact your specific turnaround process is crucial. This is likely to include catering, fuel, baggage and boarding, but could also be widened to include de-icing the plane, or capturing the percentage of passengers through security.

TOP TIPS

Ask your team for their input

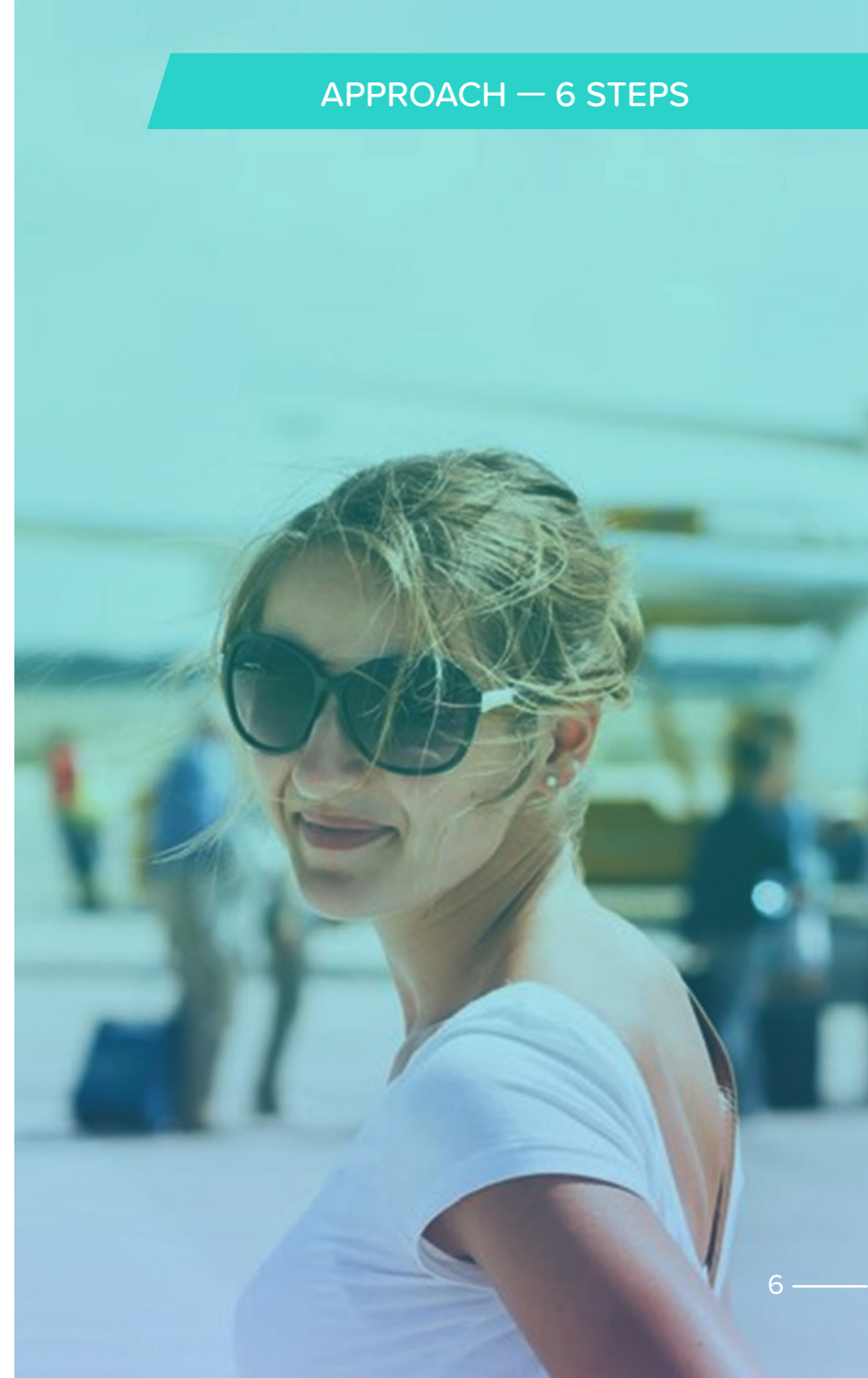
A great way to kick this off is by auditing the airport's current internal process as a team. Not only does it help you develop a wider understanding of each process, it can lead to the identification of further efficiency gains.

Agree on steps and parameters with all stakeholders

Benchmark base line performance and don't under estimate reporting requirements for both pre and post go-live.

Be sure to communicate successes

Celebrating quick wins and identifying tangible benefits will help you bring the ecosystem on your journey with you.



#3 Create your collaboration framework

With outcomes agreed, you can then focus on what data is important to feed your prediction engine.

The better your data, the more accurate your target off-block time estimates. Map touch points, identify what data sources are the most trustworthy and what data is most relevant at each stage of the turnaround process.

TOP TIPS

Use an open architecture

While your existing operational database doesn't need to be replaced, you should use an open architecture that can support multiple protocols, robust data validation and conflict handling.

Curate your data into one easy-to-read view

Keep it simple and visual, allowing for access and views to be tailored according to role. Dynamic status icons can help the user understand at a glance which point of the turn the aircraft is in.

Move beyond insight to intelligence

Distinguish between factors that have negligible influence and those that will throw your turnaround off track. Ensure your A-CDM system can accurately predict the impact for the most accurate TOBT.

Use mobile devices to collaborate

Update data in real-time — at the gate, on the apron and in the control room. Use alerts to quickly notify ground crew and ops staff of issues and disruptions as they happen.

#4 Train, train and train some more

Investing in proper training is the fastest and most effective route to widespread A-CDM adoption.

Don't make training an afterthought. For any new process, and software system roll out, training the users is a priority investment.

TOP TIPS

Consider your timing

Address any logistical and practical considerations that arise, for example, seasonal peaks and troughs could affect staff availability for training, in readiness for the system go-live.

Appreciate A-CDM is a big change for some

Focusing on ground handlers in particular is time well spent, as the shift from updates using two way radio to tablet based, real time data entry can be a change management hurdle.

Continually monitor engagement

Re-think the approach if take-up is not universal. Your A-CDM rollout will not be successful unless all stakeholders embrace the new process and are willing to update data in a timely manner.



#5 Expand your planning boundaries — from A-CDM to TAM

Post go-live is a time for reporting, reflection and recalibration.

A-CDM go live is just the start. The real work comes afterwards — supporting users, training, ongoing communication and looking towards the next phase.

Elicit feedback from our partners. Are KPIs tracking to initial predictions? Identify day-to-day issues on the apron and highlight how operating under A-CDM conditions would have enabled a resolution.

It's now time to improve efficiencies even further by including data on weather forecasts, flight prioritisation, traffic between runway stands, baggage and passenger flow.

Keflavik Airport, recently rolled out a door-to-gate passenger flow view, with a detailed view of passenger movement patterns from the moment they arrive until boarding the plane.

TOP TIPS

Consider passenger behaviour

Leverage passenger flow analytics to accurately predict passenger gate arrival times and the impact on your operational performance — don't forget to include transfer passengers and Passengers with Reduced Mobility (PRM).

Predict the entire home-to-gate journey

Expand passenger flow insight by layering traffic analytics with passenger movements to more accurately predict the entire home to gate journey time. Identify any potential impacts to a timely gate arrival and adjust resources accordingly.

Extend to the airside

Could you offer more accurate aircraft flow estimates to the turnaround process? Examples include:

- integrating with your various airside safety systems, for increased predictability around apron movements, reducing risk
- connecting to a pre-departure sequencer (PDS) system to allow ATC to view A-CDM information and availability.



#6 Implement a continual cycle of improvement

Predictive collaboration offers airports a way to make sense of data to make better decisions in real-time and in long-term planning.

Tap into historical trends and feedback in a cycle of plan, do and review to improve decision making in future.

With root cause analysis, you can plan for the long term, predict what short term adjustments will yield most benefit and perfect your strategy with measurement and continual feedback.

TOP TIPS

Use 'What if' scenarios

“What if” scenarios allow airports to evaluate the impact of options on airport performance and propose actions to stakeholders.

Blend data for more accurate aircraft arrival times

Opportunities to blend historical air traffic data, apron congestion and aircraft towing times could be used to predict a slip to a flight’s Target on Block Time (TOBT). The flight could then be recommended to be reallocated to a stand more suitable for a fast turnaround, and the planning model refreshed in a continuous cycle of improvement.

For many successful airports, A-CDM go-live is merely the start of a new airport modus operandi — better together.



Auckland Airport — A-CDM at work

Auckland International Airport is one of the busiest airports in Australasia handling over 20 million travellers in 2018.

New Zealand's Auckland Airport was one of the first airports in Australasia to use A-CDM to share flight-related information in real time to its airport stakeholders.

By enhancing their use of data and sharing it across their airport partners, Auckland Airport has been able to improve the operation of the airfield and terminals as well as the on-time performance of airlines.

With a more accurate pre-departure sequence, air traffic control is able to reduce runway congestion. Ground handlers can update target off-block times including boarding start and finish times from virtually any location and airport partners can deploy resources with greater efficiency. Arriving flights now spend less time waiting on the tarmac, resulting in fuel savings for airlines and a reduced carbon footprint.

“The sharing of real time operation information across all CDM partners has created efficiencies throughout our business, leading to more effective and smart decision making.”

Mark Wilson, Service Delivery Manager, Operations

-12% 

Average decrease in arrivals taxi time.

+5% 

More international flights getting pushback approval within 60 seconds of request.

-23% 

Average decrease in international arrivals apron congestion.

+2.3% 

Increase in international departure on time performance.

International flight movements also increased 8% during this time.



A | Auckland
Airport

Let brilliant take flight

Passengers should not have to accept that delays are inevitable.

With soaring passenger numbers and evermore flights to manage, aircraft turnaround needs a new approach.

To reduce delays and improve throughput, airport teams must work together focused on joint outcomes. With ecosystem collaboration, airports can not only improve operational performance, but successfully compete for, and retain the loyalty of guests and airlines alike.

Improving aircraft turnaround with A-CDM requires both a digital transformation — the use of predictive analytics and intelligent automation to gain real-time insights from data — and a cultural transformation — through effective people engagement, change management, training and by building a culture of continuous improvement.

For busy airports tackling myriad events in the day of operations, this approach to A-CDM will help you see ahead to predict changes to the plan — and get back on track fast.



About Veovo

Veovo enables airports around the world to make the right operational, capacity and commercial decisions, at pace.

The Veovo Predictive Collaboration Platform connects, automates and optimises processes, predictions and plans against real-time events across landside and airside operations. By generating a role specific, business oriented answer to the challenge being faced, Veovo helps airports improve passenger flow, aircraft turnarounds and revenue management.

Veovo developed the first Eurocontrol compliant CDM platform in Australasia which was subsequently rolled out in the region. Today, Veovo is creating the next generation of airport management systems and standards compliance including Total Airport Management.

Over 115 airports trust Veovo to plan, predict, and perfect their guest experiences and operations.

When you must go brilliantly: Go Veovo.





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