



# TrueNoord

Regional Aircraft Leasing



Cloud and Visibility OK

Annual Report 2021-22





**TrueNoord Fleet**

SKY express  
3 ATR 72-600







## Cloud & Visibility OK (CAVOK)

As we navigate an airline industry that continues to experience volatility in demand, TrueNoord is well-placed to help our airline customers balance and right-size their fleets and this has contributed to our consistent performance. Although overall industry growth has been slower than anticipated at the start of the decade, the impact of reduced capacity on global supply chains is boosting domestic markets and in-turn strengthening demand for improved regional connectivity.

TrueNoord is confident about the future and our fleet has been flying or transitioning seamlessly throughout the financial year, supported by our experienced team. Whether it's expanding route networks, providing feeder aircraft for major hubs, or servicing flexible freight solutions, the type of aircraft serving regional networks needs to keep pace with new trends that airlines are experiencing from their passengers' travel decisions. Influencing factors include remote working, travelling responsibly to reduce carbon footprints and a preference for short-haul, rather than long-haul destinations, for health and associated safety reasons.

The retirement of older less efficient jets is also showing signs of acceleration. TrueNoord is ready to support the changing needs of our customers who are under pressure from governments, regulatory organisations and the general public to reduce their CO2 footprint, as well as managing rapidly rising fuel costs. Our investment is increasingly focused on newer, more fuel-efficient turboprops and regional jet aircraft that produce less noise and fewer emissions.

Flying safely and profitably is our customers' route to survival and we are committed to a sustainable future, working closely together with manufacturers and airlines to share new thinking combined with technical innovation. The future promises both exciting and increasingly viable fleet solutions where disruptive technologies can be introduced more quickly to smaller regional aircraft platforms.

Preparation and flexibility are TrueNoord's watch words and we continue to provide stable and fair leasing solutions as market confidence rebuilds.



**TrueNoord Fleet**

AirFrance HOP  
3 Embraer E190



**TrueNoord Fleet**

Amelia  
1 ATR 72-212F



## Our profile



58 

Aircraft in fleet



7.15yrs 

Average age of fleet



4.9yrs 

Average lease term remaining



32 

Employees



9 

Aircraft types



21 

Lessees

Figures accurate up to 31st March 2022

Figures compared with last financial year: Up  Down 



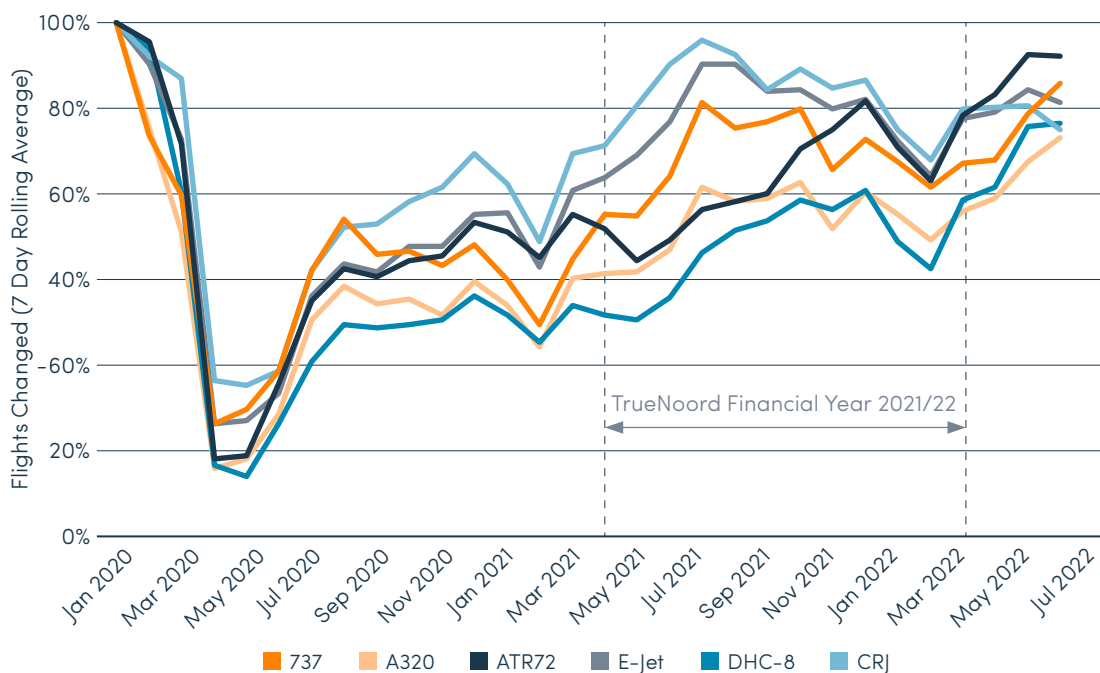
## Our marketplace

Leasing aircraft with a 50 to 150 seat capacity is and will remain our core business over the coming years. Any casual observer of the regional aircraft leasing landscape during the last financial year will have seen major disruption among the leading protagonists. It is a rapidly changing market, the largest lessor is vastly downsizing its exposure to regional aircraft following a protracted reorganisation, whilst other key players have merged or rebranded and a rapidly expanding new name has entered the arena.

In the turbulent COVID-19 induced times when competitors have merged, restructured their obligations or were taken over, TrueNorth has managed to maintain its own autonomous growth strategy on a solid basis of a strong portfolio. Does this suggest that the fundamentals of the regional aircraft market have changed? At TrueNorth, we believe the business case for specialising in this market segment remains as robust as before the pandemic and possibly even stronger.

Both this and the previous financial year have been characterised by the ongoing impact of COVID-19. So, a review of how regional aircraft have fared throughout the period is a strong indicator of how smaller gauge aircraft have performed, compared to other classes of aircraft, including the 737 and A320 families. Throughout the earlier part of the pandemic ATR72 turboprops and regional jets saw higher levels of utilisation, compared to early 2020, than the larger narrowbodies. During the subject financial year, the recovery from the depths of April 2020 shows a more mixed picture with the 737 family in particular seeing a strong rebound. Post the year-end, as passenger demand outstripped supply, narrowbodies continued to recover and are converging with the regional types. In most cases the regional aircraft continue to perform as well as, or better than their single aisle counterparts.

### All Airlines Flight Hour Utilisation January 2020 – June 2022







To appreciate why regional aircraft have performed relatively well throughout the pandemic and the subsequent recovery, we believe that looking at the way such aircraft are deployed in the air transport ecosystem provides most of the explanation.

The smaller capacity of regional aircraft up to 150 seats can be ideal for services between cities where passenger demand does not justify larger aircraft. During the pandemic many such routes emerged that were previously served by larger aircraft and several of our customers used regional jets to replace bigger airliners at the time. Furthermore, if maintaining frequency is important on any given route to serve the needs of high yield business travel, regional aircraft can be deployed to achieve similar available seat capacity as fewer services operated by a larger jet. In the pandemic induced depressed demand, this became common practice for network airlines with regional partners. In some cases, this tactic may also have been deployed to protect airport slots. As airlines emerged from the pandemic, some continued to use regional aircraft to provide off-peak services. This combination of factors ensured that many regional aircraft within the subsidiaries or partners of network airlines saw higher utilisation than their larger aircraft counterparts.

The above deployment rationale also applies in North America where the smaller, up to 76 seat category market, is led by regional jets. Elsewhere turboprops dominate the global landscape where they are typically deployed in a somewhat different role. For short and low volume routes, turboprops are the most economic aircraft on both a per seat and trip cost basis. Typical sectors are around 250nm to small cities in remote locations with poor alternative transport infrastructure. As such they often provide essential connectivity for mail, medical services and other time sensitive items. In many cases such services are central or local government supported under essential public service agreements, which are common in Europe and North America, and increasingly prevalent in Asia. The need for services to remote regions, whether state supported or not, remained during the pandemic and since such flights are almost exclusively domestic, they were less affected by travel restrictions. For this reason, Widerøe in Norway, which specialises in remote connectivity, became the busiest airline in Europe for several months during the pandemic.

While the way regional aircraft are deployed explains why they were relatively resilient throughout the pandemic, the sector is not without its own challenges that have been accelerated by COVID-19. State support has been a feature of pandemic survival for many airlines, but this has disproportionately been provided to established network airlines. While this included those with regional subsidiaries, the more independent regional carriers have been less able to access state support. Furthermore, state support has in some cases come with strings attached. In France, for example, state support was provided with the proviso that short flights should cease if rail transport allows passengers to reach their destination within less than 2 ½ hours. While relatively few routes are affected to date, such regulatory demands are only likely to increase over the coming years as focus on ESG (Environmental, Social, and Governance) issues grows.

From a leasing perspective we see the increased environmental pressure on our industry as both a challenge and an opportunity. The next step change in aircraft technology, whether that is electric, hybrid or hydrogen propulsion, will impact regional aircraft a decade or so before larger aircraft. As a lessor of current generation turboprops and regional jets, our challenge will be to appropriately manage the obsolescence risks associated with widespread adoption of next generation aircraft. At the same time, the need to replace existing aircraft with environmentally efficient new technology, or retrofitted existing airframes when they are available, will provide us with a substantial growth opportunity.

### **70-90 Seat Turboprop Outlook**

The 2021-22 financial year was marked by a gradual and sustained recovery in the turboprop market. The European market recovered faster than the developing world where lockdowns, new COVID-19 variants and a lengthier vaccination programme led to a slower re-opening of short-haul travel. During the period De Havilland delivered its final DHC8-400 aircraft. ATR also successfully placed its last remaining inventory of aircraft that were not delivered earlier in the pandemic and began increasing production rates. This activity has restored new aircraft values to normal pre-pandemic levels and stabilised used pricing albeit at levels that remain lower than 2019.



With continued constrained supply of new aircraft and supply chain related delays, we expect used aircraft lease rates and values to continue the gradual recovery that first became evident in early 2022. Although considerable used turboprop inventory remains, most require substantial return-to-service maintenance inputs so these aircraft may remain significantly discounted.

### **70-150 Seat Jets Outlook**

The smaller capacity regional jet market continues to be largely driven by the fortunes of the US marketplace. The domestic US market recovered much faster during the financial year than elsewhere, so surplus aircraft in the up to 76 seat jet space are increasingly being absorbed and thus concentrated in the USA. Some CRJ900s and E-170s that were previously in Europe have crossed the Atlantic. Subject to how current US crew shortages evolve, we expect this trend to continue over the coming years although a few may find special mission applications elsewhere for fly-in/fly-out operations and, for example, sports team charters. This means that both values and lease rates stabilised during the financial year and in some cases showed modest recovery.

At the larger end of the capacity spectrum, the incumbent fleet is more evenly distributed on a global basis. The 90-120 seat space remains dominated by the current E1 generation. The majority of these, with the remaining exception of JetBlue's E190 fleet, operate outside the US as scope clauses preclude their use by North American regionals. Although a limited number of E190/195s have been placed with Breeze during the pandemic pending delivery of A220s, most E1 jets of this size are scheduled to be phased out over the coming years and are unlikely to remain in the US.

Given the lower passenger volumes during 2021 and a focus on trip cost economics, the financial year saw the placement of a record number of used E190s into the secondary market. Lower values and lease rates compared to 2019 and a benign fuel environment during the year, led to a plethora of transitions to new operators. Several E195s were also placed in Europe. The pandemic driven reduction in ownership cost, whether acquired or leased has meant that the E190/195 offers attractive operating costs. However, the relative success in used placements has led to more stable lease rates and values over the year, with some early indicators suggesting that both are beginning to recover. Where temporarily rising fuel costs may dampen this effect, supply chain difficulties and ongoing next generation engine reliability concerns may potentially affect production levels, which will have a positive impact.

In the larger A220 and E2 segment, the financial year also saw some recovery. This included several forward orders for A220s from lessors and new commitments from Qantas and ITA. However, the A220 order book is now sold out until the end of 2025, which may serve to dampen short-term appetite particularly given the current high price escalation environment. Meanwhile although less active, the E195 E2 also secured substantial success with Porter and a lessor forward order. Embraer's less constrained lead time may offer some benefits over the short-term future.



**TrueNoord Fleet**

CemAir  
2 CRJ900





## Our customers

During the financial year, TrueNoord's customer base achieved complete global coverage in which our geographical footprint added the African continent and Australia for the first time. However, in this period the majority of our customers continued to experience the effects of COVID-19 albeit in different ways according to where they are located. We also added new customers in our existing markets: Europe; North America and Asia.

At the start of the financial year utilisation of TrueNoord's fleet had already recovered almost half the decline experienced in April and May 2020, but this masked considerable geographical variation. North American domestic air travel demand recovered much faster during the year than elsewhere. By contrast in Asia, where a series of new COVID-19 waves caused new stop-start lockdowns and associated travel restrictions at different times in larger more populated countries, including India, Indonesia and the Philippines, traffic levels experienced high volatility and airlines in those regions did not secure the same state support provided in Europe and North America.

Later in the year traffic had further recovered in most regions although a mid-winter Omicron outbreak contributed to a new decline especially in Europe. By the end of the year our customers had restored their schedules to near pre-pandemic levels. Given that global traffic at the end of the year was still significantly below 2019 levels, this was a great achievement for the TrueNoord customer base.

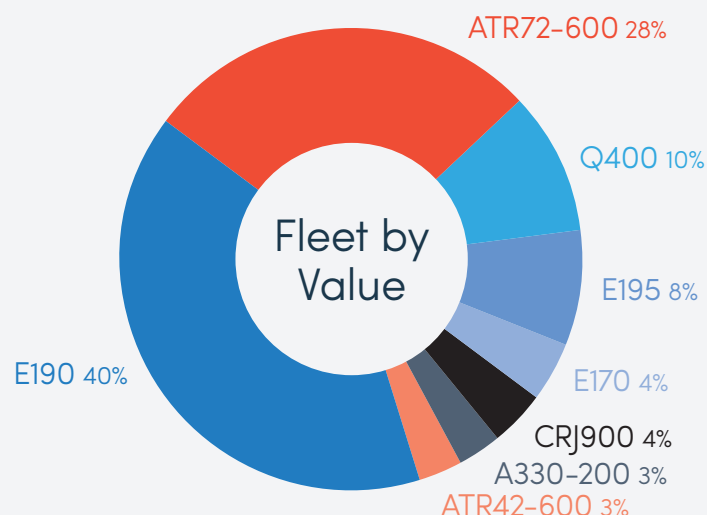
As some of our customers were actively deploying their regional aircraft in place of larger equipment early in the year, the year began with lease extensions at KLM Cityhopper and Republic with Finnair following later in the year.

In parallel, a flurry of remarketing activity in the first half of the year led to placements of off lease aircraft and normal lease returns to Silver Air, Myanmar International, Cobham and Amelia. Consequently, TrueNoord added four new customers further diversifying our operator base.

Throughout the year TrueNoord also delivered a number of factory new aircraft. This comprised three ATR72-600s to SKY express and two ATR42-600 to Silver Airways representing the first aircraft of this smaller type in our portfolio. In addition, we delivered three new Dash 8-400s to Ethiopian marking a strong relationship with Africa's most successful airline.

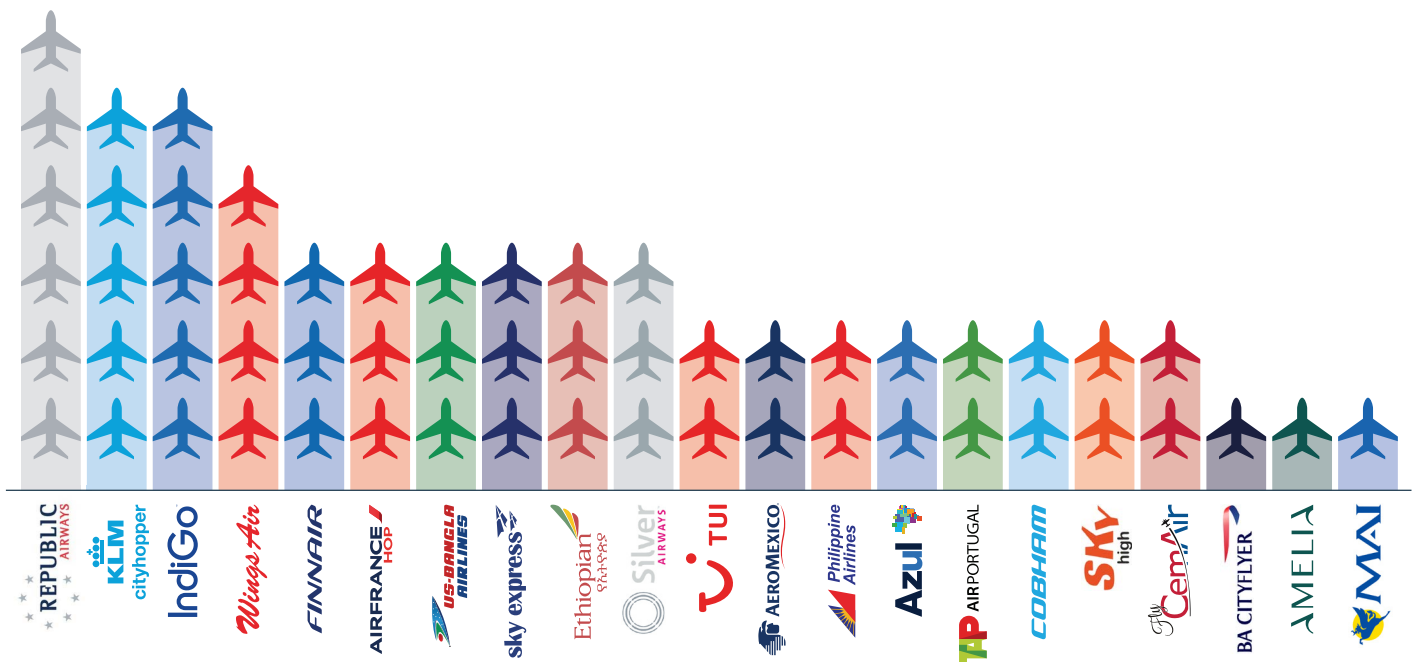
### Subsequent Events

A successful remarketing campaign has also ensured that all our remaining inventory was placed and delivered by July 2022. This includes a second E190 to Cobham Group, two CRJ900s to CemAir marking our second lessee in Africa and two E190s to Sky High in the Dominican Republic.

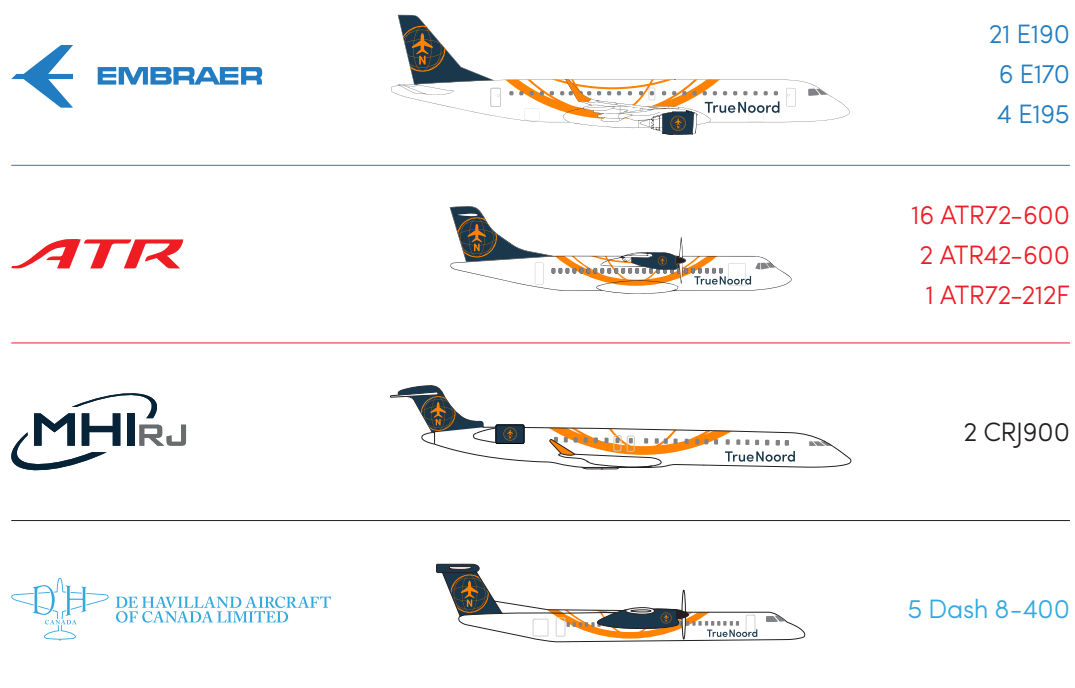




### Our regional aircraft customers as at 31 March 2022



### Our regional aircraft fleet as at 31 March 2022

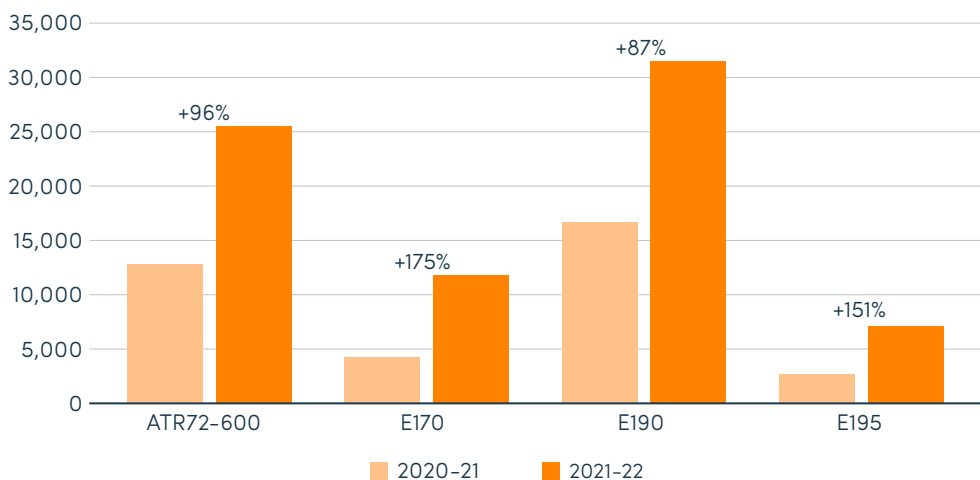


## Challenges of Our Industry

By the end of the 2020/21 financial year the utilisation of TrueNorth's fleet was already underway from the depths of April 2020, but over the course of the year an uneven but continued recovery took place whereby our core ATR72 and E-jet fleets saw utilisation increase by 87-175% compared to March 2021. Our Americas based lessees including Republic and Azul saw the strongest recovery during the year at over 150% reflecting the relative strength of their large domestic markets. In Europe, for those carriers which had suffered extreme downturns in the previous year including Portugalia, the recovery was equally strong, while for those who had successfully continued reduced services during the previous year including KLM Cityhopper and Finnair, the rebound was less at some 85% and 60% respectively. Recovery in Asia occurred later in the year and showed a mixed picture depending on the country.

When comparing the different aircraft types, our ATR72-600 and E-jet fleet showed some differences during the year. ATR72-600 operations grew by 96%. Given the short domestic sectors these aircraft fly (which meant that in some cases the decline in 2020 was less dramatic than for some of the other types) and the ongoing situation in Asia, the year-on-year rebound was less than many of the regional jets. By contrast the E170 rebound reflects the rapid US recovery. The E195 recovery was similarly strong reflecting increased demand for the type in Europe and Latin America. Although the E190 fleet also performed strongly the overall rebound was moderated by the aircraft that were grounded or in transition for part of the year.

### Flight Hour Recovery for selected Aircraft types in TrueNorth Fleet 2020/21-2021/22



As the financial year progressed the rapid recovery brought about certain related challenges. Aircraft that had been out of service for a period required return to service maintenance. Maintenance Repair and Overhaul (MRO) facilities rapidly became fully booked so that the ability to return existing aircraft to service had become constrained.

In addition, the pandemic led to an exodus of experienced crews from the entire airline industry so that both pilot and cabin crew shortages have become acute in the recovery. To a certain degree this has disproportionately affected the regional carriers as some of their crews have been recruited by larger aircraft operators at higher salaries.





## Evolution of ESG

As the impact of COVID-19 continued to decrease over the financial year, our industry's environmental and social impact continued to evolve towards becoming one of its primary challenges. In combination with increased fuel prices, many of our existing and future customers are reviewing their fleet strategies with a view to determining the wisdom of acquiring the latest generation of fuel efficient and therefore emissions friendly aircraft. However, apart from remaining constrained by decimated post pandemic balance sheets, there are technology and therefore aircraft economic life uncertainties that impact regional operators that are absent from mainline carriers.

There is widespread consensus that hydrogen and electric propulsion for large airliners is still a long-term aspiration so that investing in new technology traditional aircraft remains financially and environmentally sensible. Next generation hybrid, electric and hydrogen propulsion looks more achievable for smaller commuter and regional aircraft over the next decade or so up to the 30-50 seat category. Technology readiness levels may also enable hydrogen propulsion retrofits on 70 seat turboprops. This could present an opportunity to refit some of our turboprops with such next generation solutions at the time when costly conventional engine overhauls fall due. In the meantime and throughout the financial year, TrueNoord has continued to support airlines to acquire new generation aircraft. This includes more efficient current generation turboprops and our first commitment for the Embraer E2 Crossover jets. These jets offer a fuel-burn and associated emissions benefit of up to 25% compared to older single aisle aircraft of a similar capacity.

In the meantime, along with more efficient gas turbine propulsion technology, our industry is also focused on increasing the use of sustainable aviation fuels (SAF). Currently SAF can be mixed with conventional fuel up to 50%, but the greater challenge relates to insufficient supply. The small amount of SAF in the market also means its cost is far greater than kerosene. Production is slowly increasing, but it will be many years before sufficient quantities become available and it is likely that much of this will be absorbed to fuel larger aircraft where the impact of doing so will be more significant.

As in the financial year 2020-21, TrueNoord will both continue to report its Scope 1 emissions in relation to our own footprint and the carbon footprint of our fleet. In addition, during the financial year 2021-22, TrueNoord began a wider engagement process with existing and new aircraft manufacturers to better assess the impact and timing of future propulsion systems. We also engaged with Aircraft Leasing Ireland's (ALI) efforts to support Net Zero 2050 with a view to establishing a charter of principles for all its 30+ member lessors.

## Social

Efforts to retain a certain level of connectivity to remote regions in many parts of the world throughout the pandemic demonstrate the importance of such services from both an economic and social perspective. Some of our aircraft continued to operate so that essential services including mail, perishable items and medical services could be maintained in areas where surface transport remains underdeveloped. This social aspect of air transport is critical for regional aviation and thus for TrueNoord.

## Governance

Throughout the financial year, TrueNoord further enhanced its governance procedures to embed the most appropriate way of serving our customers while ensuring the support and well-being of our staff. To that end the small number of deferrals to which we agreed and the restructurings to which we consented have played a role in ensuring the ongoing viability of our affected lessees and therefore the active deployment of our aircraft. This means that these agreements have now largely served their purpose.



To ensure that we serve our customers appropriately, the productivity, diversity and well-being of our employees is of critical importance. Flexible and hybrid working has become a normal modus operandi in many industries as it has at TrueNorth. However, in order for this to be successful, we recognised that substantial time and resources would need to be invested to optimise the infrastructure for remote working. This necessitated both improved and secure IT systems, which have now been successfully implemented. We also continued to add incremental members to the team and are increasingly able to benefit from both the skills and diversity of the 14 nationalities employed by TrueNorth.

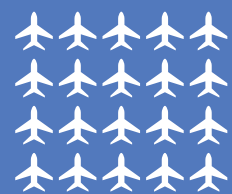
### **TrueNorth Fleet CO2 Footprint Report**

During the 2021-22 financial year, TrueNorth has continued to periodically measure the carbon emissions of its fleet. Similar to the previous year, the utilisation reporting requirements under our leases and the range of available flight statistics and third-party emissions calculators enables sufficiently representative data. However, this should not be interpreted as completely accurate since, for example, no measurement tool can fully account for actual flight paths or weather conditions over the period.

The absolute amount of CO2 emissions of any lessor's fleet is driven by the number of aircraft, the fuel consumption of each type and the utilisation in both flight hours and cycles of every unit. This means that useful trends towards emissions reduction can only be measured in a stable economic period when utilisation and fleet size is consistent. As the COVID-19 pandemic years caused a dramatic reduction in flights to 32,600 in the 2020-21 financial year, comparing emissions to the subject year where 67,000 flights were performed is not meaningful.

Since the highest fuel consumption and associated emissions occurs during the take-off and climb phases of any mission, the flight time has a significant impact on emissions so that shorter flights generate proportionally greater CO2 per km. Unlike other utilisation data, the average flight time for our aircraft has remained at a consistent 1 hour and 10 minutes over the last two financial years. This is slightly shorter than the pre-pandemic 2019-20 financial year.

For the flights performed by TrueNorth's fleet during the financial year the average emissions for the active aircraft stood at 105g per available seat km (ASK). This represents a slight decline over the previous year, but also reflects a marginally different mix of aircraft in the fleet. From an emissions perspective, the most efficient aircraft in our fleet are ATR72-600, Dash 8-400 turboprops and the E195 all of which have emissions per ASK below 100g/ASK. Towards the end of the financial year we added three new ATR72-600 and three Dash 8-400 aircraft to our portfolio, but their associated emissions were only reflected for part of the year. Furthermore, the faster post pandemic recovery in the US market means that the less emissions friendly 70 seat regional jets saw greater utilisation recovery compared to other types in our fleet although the emissions per ASK of these did show a marginal improvement over the previous year.



#### **TrueNoord Fleet**

Cobham  
2 Embraer E190



## Turboprop spotlight

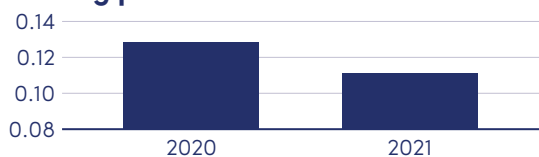


As a nation which includes a plethora of islands, Greece is one of Europe's natural homes for turboprops. Many of the islands have small populations and often their airports can only accommodate aircraft with the short runway performance capability of turboprops. Our valued customer SKY express, which operates three ATR72-600s leased from TrueNoord, is one of the leading providers of connectivity from Athens to island communities and thus the economic and social benefits that consequently flow to the islands. In most cases the alternative would be a time-consuming ferry from Athens. In summer, these services also boost the important tourism sector of the local and national economy.

*"We are very happy and proud to present SKY express' climate achievements, in the Annual Report of TrueNoord. We trust that our collateral steps with TrueNoord pave the path for a more sustainable future in European Aviation. Our Green Fleet serves this vision and proves SKY express' commitment to sustainable growth".* **Xenofon Bakouras | Sustainability Officer, SKY express**

In 2020, SKY express began to implement the highest environmental standards regarding emissions, noise and ground operations into its development strategy. This included fleet modernisation, green operational procedures and aircraft weight reduction initiatives. By mid 2022 the average fleet age had been reduced from 17.5 years to 7.9 years with new technology best-in-class aircraft including the ATR72-600s. Flight procedure changes included optimum take-off configuration and thrust, continuous climb and descent operations and minimising APU usage in favour of greater ground power provision. Weight savings have been achieved with the removal of printed manuals in favour of electronic versions and lighter on-board trolleys and optimised refuelling policies. By the end of 2021 these initiatives led to a CO<sub>2</sub> reduction of 13.2% per ASK.

### CO<sub>2</sub> kg per ASK in 2020 and 2021



### Domestic network 2021-2022



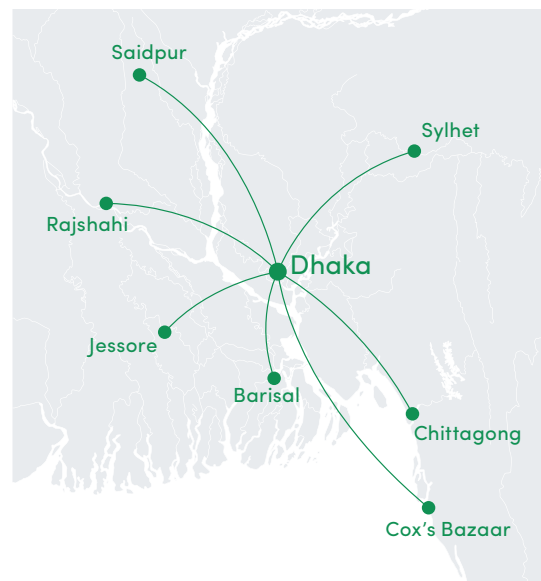


With a growing population in excess of 170 million inhabitants, Bangladesh has been one of the fastest growing economies in Asia over the past decade. As a country where surface based transport remains under developed, air transport is a critical component of domestic infrastructure. At TrueNoord we are proud to have supported this with three ATR72-600 aircraft serving a domestic network of seven destinations from Dhaka by US-Bangla.

Not only are these ATRs the ideal lowest operating cost aircraft for these short sectors ranging from 27 to 58 minutes, their carbon footprint is the least of any aircraft type for these missions. For example, the 40 minute sector from Dhaka to Saidpur is 260km yet the same journey by road takes nearly 8 ½ hours on a route of 330km. This means the flight is not only the fastest mode of transport, but also the most environmentally sustainable of the two options.

From a social perspective, domestic air transport connectivity within the country is a key enabler of economic growth and poverty reduction. US-Bangla not only provides direct employment, but assists the fast growing industries of Bangladesh to develop in a geographically diverse manner across its regions. Indirect spin-off benefits include contributing to an above average female work force participation rate compared to other developing countries and improved education across the population. Furthermore, the group is a direct contributor to the educational advances and healthcare that have and continue to be achieved in Bangladesh through its own US-Bangla Medical College and a new hospital under construction.

Domestic network 2021-2022





## Chairman's statement

So the world has moved on another 12 months and we are all recovering slowly from our relative COVID-19 experiences.

This year has brought us two new challenges. Firstly, a regional war in Europe, the result being that many leases and leasing companies were affected by the de-registration requirements of the competent authorities. This has highlighted a risk we are all aware of but have never had to face on such a scale. The upshot is a protracted ongoing fight between lessors and insurance companies over who has to pay the losses, this battle may go on for years. The good news is no leasing company is over-exposed to Russia and whilst the total losses are getting on for \$10bn, there will not be any corporate casualties within the leasing community. As far as TrueNorth is concerned we have no exposure or aircraft under threat with Russia so no losses will be incurred aside from the inevitable increased insurance premiums which, whilst they will increase several-fold, are a small proportion of our cost base.

The second challenge is the return of inflation which will not fully take hold until the remainder of the financial year ending in March 2023. The resultant increase in the cost base will inevitably hit OEMs badly who have little choice but to pass these on if their margins are to be maintained. Inevitably this will test the ability of the industry to pass these costs on and the elasticity of demand will determine the outcome. It is hard to disagree with the thesis that the era of ultra-cheap air transport is over, although we should not underestimate our ability as an industry to operate efficiently and find productivity savings. Obviously higher inflation will also result in the increased cost of money, so once the backlogs from COVID-19 have evaporated we anticipate much higher lease rates and lease rate factors going forward.

Notwithstanding all these headwinds, TrueNorth is pressing onwards. We had 58 aircraft at the end of the financial year, with significant additional uplift planned for the current year. We continue to operate at low levels of leverage and all our aircraft are flying and earning money. In the macro sense we continue to see strong growth in the regional sector which generally operates on a higher revenue per-seat-mile than our narrow-bodied and wide-bodied contemporaries.

The management and team have once again had their customary good year, we have strengthened that area of the business and we look forward to many more years of growth for both TrueNorth and the industry as a whole.

**Nigel Turner**  
Chairman







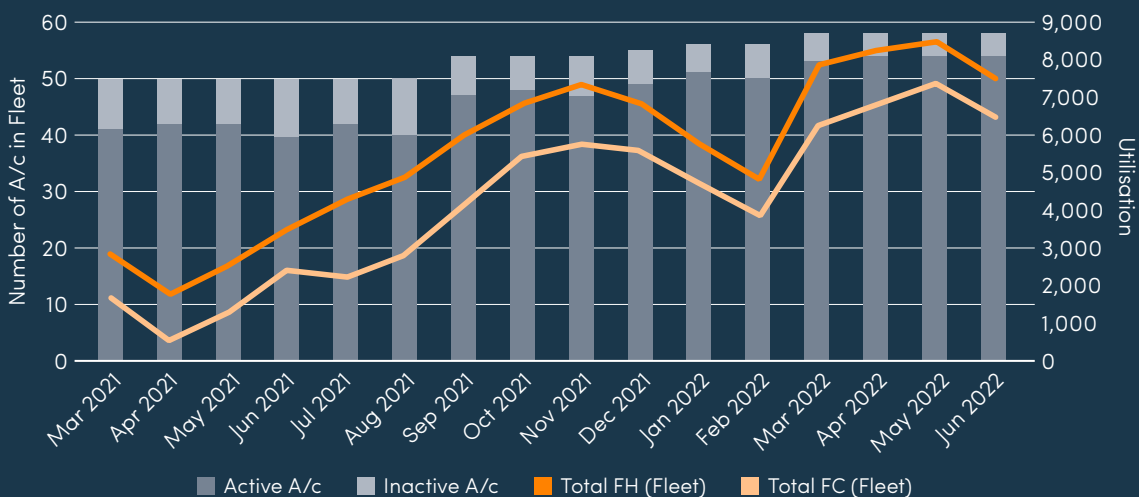
**TrueNoord Fleet**

Ethiopian  
3 Dash 8-400

## CEO's statement

For the second financial year in a row, our industry was impacted by the ongoing COVID-19 pandemic. At the start of the financial year over 75% of our fleet had returned to active service compared to some 40% at the start of the previous year. By year-end, 86% of our fleet was in service, with most of the remainder in preparation for return-to-service. Utilisation, as measured in flight hours and cycles, had also recovered but only to around 50% of pre-pandemic levels in March 2021, reflecting a desire by our customers to ensure that their fleets remained in airworthy condition. However, by year-end of the financial year 2021-22, this had recovered to near pre-pandemic levels. Given the backdrop of continued stop-start travel restrictions throughout the period, especially the Omicron wave in late 2021 and early 2022, this is a testament to the high quality of our customers.

### TrueNorth Fleet Cumulative Monthly Utilisation



Although, our fleet of regional aircraft predominantly serve short-haul domestic networks, which were less affected by travel restrictions, most of our lessees are either part of larger airline groups or operate on their behalf. This means their role as feeder airlines was severely impacted both operationally and financially by continued weak demand at their associated mainline carriers. Travel restrictions remained at their most severe in Asia throughout the financial year.

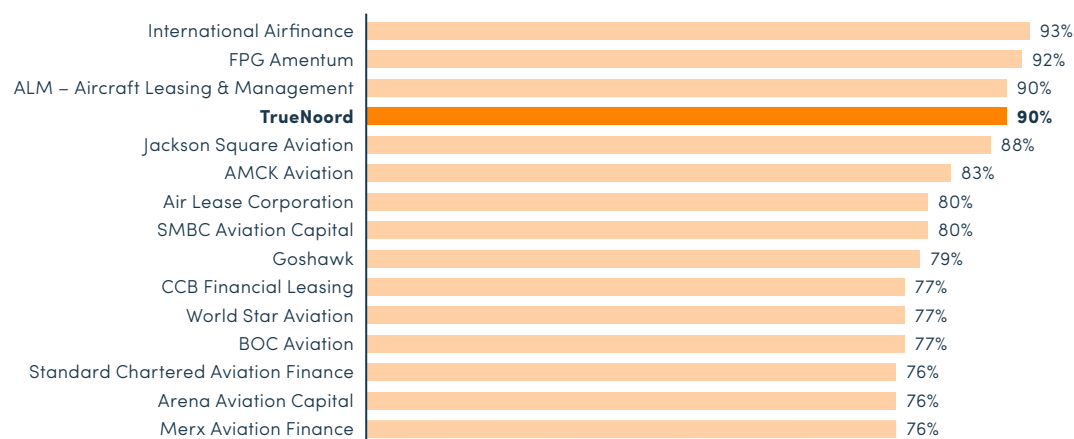
A primary strategic objective for TrueNorth is to support and grow regional connectivity in remote areas. For this reason, we agreed to share some of the short-term losses with our South-East Asian lessees: Philippine Airlines and Lion Air Group subsidiary, Wings Air, both of which serve remote island communities. By consenting to significant rent deferrals, our 2021-2022 lease revenues have been impacted.

Just as most leasing companies have had to redeploy aircraft to new customers during the pandemic, TrueNorth had to place aircraft from existing lessees that were either scheduled to be returned during the period or that were re-delivered early by mutual agreement. Inevitably, this meant there was greater than anticipated non-revenue earning downtime between leases. This also contributed to lower revenues during the financial year.

However, our team performed beyond expectations so that by year-end, all our off-lease aircraft had either returned to revenue service or were contracted to do so over the first quarter of the next financial year. This comprised the placement of two ATR72s, including one freighter with Amelia, and an ATR72-600 with Silver Airways. We also placed our first E190s with fly-in/fly-out (FIFO) operator Cobham Regional Services in Australia and a further E190 at Myanmar International. By the end of the year two CRJ900s were placed with CemAir in South Africa. According to CH-Aviation this success places TrueNorth equal third of all lessors with the most active aircraft and several ranks higher than the already impressive position at the same time in 2021.



## Top 15 lessors with the most active aircraft, April 2022\*



\*with more than 50 aircraft in the fleet

Subsequent to the year-end, our last remaining off-lease E190s were contracted to Sky High in the Dominican Republic. This means that all of TrueNoord's regional aircraft fleet is now in active revenue service.

Throughout the later stages of the pandemic, we continued our focus on existing customer relationships. This led us to successfully conclude lease extensions on seventeen of our E-jets with KLM Cityhopper, Finnair, Air France HOP! and Republic Airways during the year.

Despite the relative lack of demand for new aircraft, we worked with the manufacturer to add five 'factory new' ATRs to our fleet comprising our first two ATR42-600s for Silver Airways and three ATR72-600s for SKY express. In addition, we delivered three new Dash 8-400s to Ethiopian Airlines, growing our portfolio to 58 aircraft by the end of the year.

Notwithstanding the effects of COVID-19, we continued to invest in our team in terms of headcount, staff training and systems to maximise efficiency and well-being. We remain very proud of our human resources retention record, having shed only a single individual who retired during the year. We incrementally added two full-time members to the team during the year and a further two shortly thereafter. We also welcomed a small number of interns who each worked with us for several months. In addition to this, we implemented a hybrid working concept under which all staff were consulted to determine what balance of office-based and remote working best met their needs. This also led to some additional changes to the implementation of our upgraded IT platforms, which had been trialled in the previous year, particularly in relation to security and remote access.

Finally, as the immediate effects of the pandemic ease, our industry will increasingly turn its attention towards both its longer-term economic consequences and the increasingly high-profile global attention to its climate impact. Our existing strategy to focus on the most economically efficient aircraft will serve to mitigate these economic risks for TrueNoord, but cannot eliminate them. From an ESG perspective, we will continue to support and develop 'best in class' emissions reporting standards. Furthermore, TrueNoord became an active participant and committee member of Aircraft Leasing Ireland's initiatives in this area, including the development of a charter for all leasing companies to adhere to with respect to our industry's pathway to 'Net Zero' by 2050. Meanwhile, we continue to monitor the latest developments in electric and hydrogen-based technology as this will impact regional aircraft lessors before those of larger commercial aircraft.

**Anne-Bart Tieleman**  
CEO





## Our people

While our industry is not labour intensive compared to many service industries, people are our most important stakeholder. In the current labour force environment where shortages also affect TrueNoord, we need to attract and retain the best talent to maintain our strategic growth trajectory. During the financial year we can proudly say that TrueNoord has both successfully retained and supported its entire existing team, with the exception of one retirement, and also attracted high quality new talent to the company.

To maintain and achieve continued optimal productivity and employee well-being, we surveyed and sought the views of all our staff in early 2022 to determine the best way of working in the post-pandemic environment. This led to the adoption of a hybrid model of remote and office-based working. Our people now have freedom and autonomy to determine from where they work without compromising effective teamwork and collaboration. We are well advanced in adapting the set-up of our offices to create an attractive workspace and support team welfare. To better facilitate out-of-office working we are implementing improved, and importantly secure, remote integrated working systems.

At TrueNoord, we believe that a strong commitment to inclusion and diversity helps to build a more productive and innovative team. We recognise that we have some way to go, but think that a greater gender balance leads to better cooperation. Nevertheless, we are pleased that our team comprises 14 different nationalities. We strongly believe that the combination of these associated cultures creates the best results and enables us to better appreciate the needs of our diverse customer base.



**Anne-Bart Tieleman**  
Chief Executive Officer



**Nigel Turner**  
Chairman (Non-Executive)



**Richard Jacobs**  
Chief Commercial Officer



**Julien Millet**  
Chief Financial Officer



**Joram Liettaert Peerbolte**  
General Counsel & COO



**Garry Topp**  
Sales Director



**Daniel Vasile**  
Technical Manager



**Carst Lindeboom**  
Sales Director Asia Pacific



**Kavita Jairam**  
Accounting & Control Officer



**Declan Fitzpatrick**  
Director (TrueNoord Ireland)





**Michael Adams**  
Sales Director Europe



**Abhineet Awasthi**  
Transaction Manager



**Ahmed Akhtar Ali**  
Sales Manager Europe

**Lenika Sour**  
Senior Legal Counsel

**Julie Faverie**  
Legal Counsel



**Caroline van der Meij**  
Office Manager

**Maarten Griff**  
Sales Manager – Africa,  
Middle East & CIS



**Bas Gerritsen**  
Technical Director



**Richard Wright**  
Financial Controller



**Stephen Spillane**  
Technical Manager



**Falcon Miao**  
Accounting Officer



**Margriet Nas**  
HR Manager (interim)



**Jack Bos**  
Technical Director



**Hugh Treharne**  
Senior Legal Counsel



**Enrique Wilson-Rae**  
Legal Counsel



**Juan Diego Escartín**  
Contracts Manager



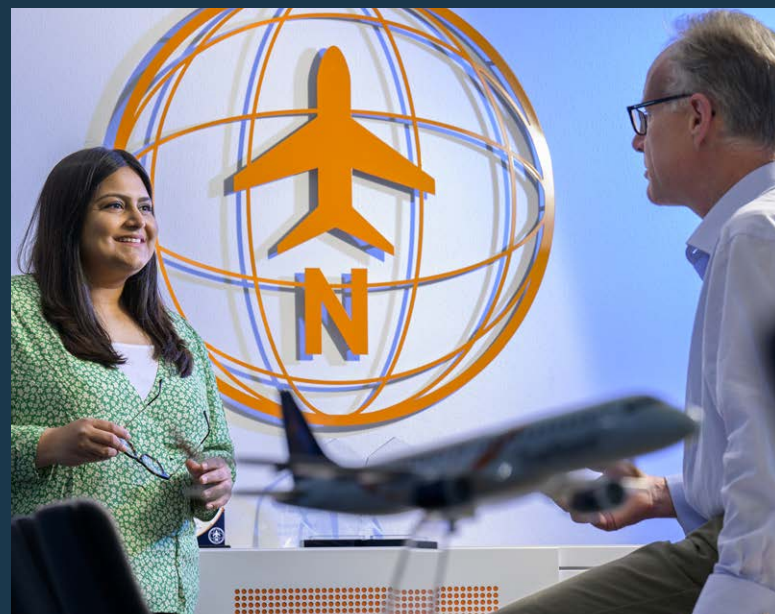
**Willy Smit**  
Accounting Officer

**Cormac Hennessy**  
Tax Manager

**Vinay Kasturi**  
Financial Planning & Pricing Officer

**Pallavi Mund**  
Transaction Manager

**Angus von Schoenberg**  
Industry Officer



## CFO's statement

In the twelve months to March 2022, our industry began to recover from the most severe recession in its history and this had a significant financial impact on every participant in the aviation sector, including TrueNorth.

Given that one of our strategic goals is to support connectivity in remote regions, we considered it important to share some of the financial effects with our lessees providing such services. We therefore deferred a number of lease obligations that contributed to reduced operating lease income for the period. Some such lessees were also under Chapter 11 bankruptcy protection during the year, so we were not able to invoice or collect rentals in the normal way.

However, throughout the period, and during the whole COVID-19 pandemic, we successfully maintained a lease collection rate in excess of 80% of all invoices issued. This was a multiple greater than our competitors and helped to ensure that we remained current under all our debt facilities and other financial obligations.

In addition, following some agreed early terminations and other normal scheduled lease returns, a number of these aircraft were stored for a period without revenue. By the end of the year, all these aircraft had either been delivered to new lessees or contracted, and have entered service following year-end. The rental income for these new leases is lower reflecting not only softer demand during COVID-19 but primarily the older age of the aircraft.

While a combination of the above factors contributed to a reduction of our rent income by US\$31.8m, from US\$116.9m in 2020-21 to US\$85.1m in 2021-2022, we had brought revenues forward in the prior year through early termination agreements, hence, on a normalised level, the reduction in rent income amounts to US\$18.5m. In addition, we had received US\$46.1m of end of lease and maintenance income in 2020-21 compared with only US\$1.2m in 2021-22.

Prudent management of TrueNorth, despite a small increase in headcount, enabled us to generate an operating profit of US\$26m for the year and a net income of US\$10.2.

As at March 2022, the TrueNorth balance sheet reflects its ownership of 58 aircraft. This is primarily visible in both increased property, plant and equipment of US\$961.9m (US\$830.5 in March 2021) and end-of-lease receivables of US\$73.9m (US\$32.0m in March 2021). In terms of liquidity, TrueNorth maintains an extremely strong cash position of US\$97.4m compared to US\$75.6m in the previous year.



**Julien Millet**  
CFO



## Key financial highlights



■ 2022 ■ 2021

Figures as per 31st March 2022 Audited financials, before non-cash mark to market loss on interest rate swap.

Figures compared with last financial year: Up  Down 





#### **TrueNoord Fleet**

Silver Airways  
1 ATR 72-600  
2 ATR 42-600





# Financial statements







# Strategic Report

For the financial year ended 31 March 2022

## Principal activities

TrueNoord Limited ("the Company") is a private company limited by shares incorporated in the United Kingdom. The principal activity of the Company is as a specialised regional aircraft lessor to commercial airlines.

These consolidated financial statements for the financial year ended 31 March 2022 consolidate the individual financial statements of the Company and its subsidiaries (together referred to as "the Group").

The Directors are satisfied with the performance of the business in the financial year ended 31 March 2022, in terms of both growth and profitability from operating activities, and expect the Group to continue to acquire and lease aircraft in the forthcoming year.

## Business review

The Directors recognise that the future success of the business is dependent on securing profitable leases, remaining profitable and effectively managing commercial and financial risks. The Directors have assessed these risks and have taken measures to manage them. Further details are provided under "Principal risks and uncertainties". The Group has available funding from existing loan facilities, and equity financing is available to support the growth of the Group and Company and cover potential working capital requirements. For the year ended 31 March 2022, revenue decreased as a result of some lease contracts expiring during the year and/or being extended at lower lease rates. As at 31 March 2022, the Group owned 58 (2021: 50) aircraft. In addition, as at 31 March 2022, the Group has a significant amount of committed capital available to continue to expand its current fleet.

## Key financial performance indicators

Revenue, profit after tax (before gains/ (losses) on unrealised foreign exchange and fair value movements on interest rate swaps), total loans and borrowings, and non-current assets are key indicators of the performance of the Group.

- Revenue: \$86,481,484 (2021: \$163,582,284)
- Profit or (loss) after tax (before gains/ (losses) on unrealised foreign exchange and fair value movements on interest rate swaps): \$(4,857,993) (2021: \$55,590,539)
- Loans and borrowings: \$599,414,509 (2021: \$475,956,424)
- Non-current assets: \$1,123,754,352 (2021: \$938,555,513)

## Going concern

These consolidated financial statements have been prepared assuming that the Group will be a going concern in the foreseeable future. The management of the Group do not intend to liquidate the Group or discontinue its operations. The Group expects to generate sufficient cash flows from the leases to be able to discharge its liabilities in the ordinary course of business.

During the year, the Group purchased eight additional aircraft, which were leased under operating leases to third party airlines. The Group continues to experience good rental collection from its strong lessee credits post-year-end. The Group expects these lessees to continue to meet their payment obligations for the next twelve months. Several lessees have entered into lease deferral arrangements. The Group continues to monitor the repayment performance of these lessees on an ongoing basis. The directors plan to enter into further agreements to purchase additional aircraft. It is expected that these new aircraft will be leased at a profit and will provide further cash flows to the Group and Company to help support the ongoing operations. The directors believe that the Group and the Company are a going concern and have sufficient resources to meet the day-to-day expenses of the Group and the Company.





The Directors recognise that there is still uncertainty over how the future development of the COVID-19 outbreak and the political and geopolitical situation in Ukraine and Russia will impact the Group and the Company's airline customers and the Group and the Company itself as a consequence. Note that the Group does not lease aircraft into Russia or Ukraine as of 31 March 2022. The Directors continue to monitor and assess the impact of COVID-19 on the activities of the Group and the Company.

The Directors have considered the adequacy of the Group and the Company funding, borrowing facilities, cash flows and profitability for at least the next twelve months from the date of approval these financial statements. As at the date of signing these financial statements, there are sufficient cash flows projected for the next twelve months to enable the Group and Company to repay its debts as they fall due. The sufficiency of financial resources available to the Group and Company are dependent upon continued access to existing credit facilities and availability of equity funding.

The Directors believe that the Group and Company have sufficient financial resources, including shareholders' continued support and commitment to the financial stability of the Group, together with long-term airline lease contracts. On this basis, the Directors have a reasonable expectation that the Group and Company have adequate resources to continue in operational existence for the foreseeable future. Thus, they continue to adopt the going concern basis of accounting in preparing the financial statements.

### **Principal risks and uncertainties**

#### *Risks relating to asset values*

Aircraft and engines are subject to value fluctuations driven by market supply and demand which will have an impact on the assets of the Group. If demand for aircraft and engines decreases, market lease rates may fall. Should this condition continue for an extended period, it could affect the market value of the aircraft and engines and may result in an impairment charge.

#### *Risks relating to exposure to the commercial airline industry*

As a supplier to the airline industry, the Group is exposed to the financial condition of the airline industry as it leases all of its aircraft to commercial airlines. The financial condition of the airline industry is affected by, among other things, geopolitical events, outbreaks of communicable pandemic diseases, natural disasters, fuel costs and the demand for air travel. To the extent that any of these factors adversely affect the airline industry they may result in (i) downward pressure on lease rates and aircraft values, (ii) higher incidences of lessee defaults, restructuring and repossessions and (iii) inability to lease aircraft on commercially acceptable terms.

The outbreak of the COVID-19 virus and the geopolitical situation in Ukraine and Russia has resulted in a reduction in global travel which may impact the activities of the Company and Group as a lessor to airlines. The Directors recognise the uncertainty that exists around the impact of COVID-19 and the geopolitical situation in Ukraine and Russia on the Company and Group, its customers and the airline industry as a whole. The Company continues to work closely with its airline customers and to monitor the impact of the virus on the activities of the Group and Company to ensure appropriate measures are put in place to reduce and mitigate exposure to economic risks.



### *Risks relating to the leasing of aircraft*

In order to continue to generate profits and cash flows, the Group, as an owner and lessor of aircraft, must address risks associated with (i) the releasing of aircraft subject to market and competitive conditions at lease end dates, (ii) funding and performance of maintenance activities, (iii) government and environmental regulations relating to aircraft and their operation, and (iv) ongoing risks relating to finance and ownership of aircraft. Improper management of any of these risks could adversely affect the financial performance, position and growth potential of the Group.

### **Exposure to credit and liquidity cashflow risks**

#### *Credit risk*

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's lease receivables from customers.

The aircraft and engines are leased by the Group to airlines worldwide. The airline industry is cyclical, economically sensitive and highly competitive. A key determinant of the Group's success is the financial strength of its lessees and their ability to react to and cope with the competitive environment in which they operate. If a lessee airline experiences financial difficulties this may result in a default and the early termination of the lease. The Directors mitigate this risk through comprehensive credit reviews of potential customers prior to entering into a new lease and on-going credit monitoring of customer airlines during the course of the leases. Where appropriate, the Group also collects maintenance reserves and security deposits from its lessees.

Some lessee airlines have experienced financial difficulties resulting from the COVID-19 pandemic and the geopolitical situation in Ukraine and Russia. This resulted in a number of lessees making requests for rent deferrals. On-going credit monitoring and negotiation with customer airlines has enabled the Group to stabilise rent collections rates to an acceptable level and at a rate in excess of Group competitors in the marketplace.

#### *Liquidity risk*

The Group's aircraft are financed primarily by debt from third parties, borrowings from related parties, capital contributions, and the Group therefore has commitments to repay interest and principal. The Group is dependent upon the ongoing receipt of operating lease revenues in order to meet these debt servicing obligations. The Group's cash flow risk in respect of suppliers and service providers is also minimal as the Group aims to pay service providers in accordance with the stated terms.

### **Section 172 Statement**

From the perspective of the Directors, the matters for consideration under section 172 of the Companies Act 2006 ("s172") have been considered to an appropriate extent by the Group. Such consideration is included in the statements set out below, noting the Directors' duty under s172 to act in good faith to promote the success of the Group and Company for the benefit of its shareholders but having regard amongst other matters to the following:

- the likely consequences of any decision in the long term;
- the interests of the Group's and Company's employees;
- the need to foster the Group's and Company's business relationships with customers and others;
- the impact of the Group's and Company's operations on the community and the environment;
- the desirability of the Group and Company maintaining a reputation for high standards of business conduct; and
- the need to act fairly as between members of the Group and Company.

For the Group, compliance is one of cornerstone values and forms the basis for all decisions and activities. It is the key to integrity in conducting business and as a global company. The Directors are committed to ensuring that all business is carried out in full accordance with the law as well as internal rules and principles.



The Board of Directors of the Group, both individually and together, confirmed that they have acted in the way they consider, in good faith, would be most likely to promote success of the Group for the benefit of its members as a whole (having regard to the stakeholders and matters set out in Section 172(1) (a-f) of the Act) in the decisions taken during the year ended 31 March 2022. The following paragraphs summarise how the Directors fulfil their duties:

- As the Board of Directors, the Directors' intention is to behave responsibly and ensure that management operate the business in a responsible manner.
- As the Board of Directors, the Directors are committed to openly engage with the Group's shareholders. It is important to the Directors that shareholders understand the Group's strategy and objectives, so these must be clearly communicated, feedback heard and issues or questions raised properly considered.
- As the Group's services provided grow, the Directors' risk environment also becomes more complex. It is therefore, important that the Directors effectively identify, evaluate, manage and mitigate the risks the Group faces. For details of the Group's "Principal risks and uncertainties", please see previous paragraphs of our Group strategic report.
- The Group's employees are vital to the services provided by the Group. The Group aims to be a responsible employer in its approach to the pay and benefits for its employees. For the business to succeed, the Group needs to manage its employees' performance and develop talent while ensuring the Group operates as efficiently as possible. The health and safety of the Group's employees is very important to the Group.
- In order to grow the business, the Group needs to develop and maintain strong business relationships. The Group values all of its suppliers and customers.

### **Future Developments**

For the financial year 2022/2023, the Group expects to continue expanding its fleet and leasing activities.

Notwithstanding the impact of COVID-19, and the political and economic situation in Ukraine on the Group's activities, the Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future.

This report was approved by the board on 21st June 2022 and signed on its behalf.

On behalf of the Board

Anne-Bart Tieleman  
Director

Date: 21st June 2022



# Consolidated statement of comprehensive income

For the year ended 31 March 2022

	2022 US\$	2021 US\$
<b>Revenue</b>	<b>86,481,484</b>	163,582,284
<b>Expenses</b>		
Administrative expense	(16,685,433)	(26,806,060)
Depreciation expense	(43,784,583)	(40,696,312)
<b>Profit from operating activities</b>	<b>26,011,468</b>	96,079,912
<b>Finance income/(expense)</b>		
Interest income	2,001	4,933
Interest expense	(27,155,841)	(26,411,907)
Amortisation of debt issuance costs	(2,461,860)	(2,460,644)
Fair value loss on derivative financial instrument	15,062,270	9,187,392
Loss on disposal of subsidiary	-	(2,600,991)
<b>Profit before tax</b>	<b>11,458,038</b>	73,798,695
Taxation charge	(1,253,761)	(11,621,751)
<b>Profit/(loss) for the financial year</b>	<b>10,204,277</b>	62,176,944
<b>Other comprehensive income for the financial year subsequently reclassified to profit or loss</b>		
Exchange differences on translation of foreign operations	10,856	(1,184,564)
<b>Total comprehensive income for the financial year</b>	<b>10,215,133</b>	60,992,380
<b>Profit for the financial year attributable to:</b>		
Non-controlling interests	-	1,188,972
Owners of the parent	10,215,133	60,987,972
	<b>10,215,133</b>	62,176,944
<b>Total comprehensive income for the financial year attributable to:</b>		
Non-controlling interests	-	1,188,972
Owners of the parent	10,215,133	59,803,408
	<b>10,215,133</b>	60,992,380

Please note: The financial information in this report is extracted from the Group's full financial statements.





# Consolidated statement of financial position

As at 31 March 2022

	2022 US\$	2021 US\$
<b>Non-current assets</b>		
Maintenance assets	64,616,485	64,616,485
Goodwill	11,461,910	11,461,910
Property, plant and equipment	961,854,860	830,465,734
Deferred tax asset	11,877,910	-
End of lease receivables	73,943,187	32,011,384
<b>Total non-current assets</b>	<b>1,123,754,352</b>	<b>938,555,513</b>
<b>Current assets</b>		
End of lease receivables	11,086,011	39,964,939
Cash and cash equivalents	97,403,112	75,594,896
Trade and other receivables	5,922,539	19,991,515
<b>Total current assets</b>	<b>114,411,662</b>	<b>135,551,350</b>
<b>Total assets</b>	<b>1,238,166,014</b>	<b>1,074,106,863</b>
<b>Equity</b>		
Share capital	558,562	555,490
Share premium	384,500,318	379,568,269
Translation reserve	922,289	911,433
Accumulated profit/(loss)	66,989,306	56,785,029
Non-controlling interests	-	-
<b>Total equity</b>	<b>452,970,475</b>	<b>437,820,221</b>
<b>Non-current liabilities</b>		
Security deposits	11,629,530	6,643,520
Maintenance reserves	31,547,949	31,871,793
Loans and borrowings	549,394,032	426,518,777
Lease liabilities	280,264	691,720
Deferred end of lease income	73,943,187	32,011,385
Derivative financial liability	4,964,699	20,026,969
Deferred tax liability	9,012,445	7,871,197
<b>Total non-current liabilities</b>	<b>680,772,106</b>	<b>525,635,361</b>



	2022 US\$	2021 US\$
<b>Current liabilities</b>		
Lease liabilities	485,755	534,684
Deferred end of lease income	11,086,011	39,964,939
Loans and borrowings	50,020,477	49,437,647
Trade and other payables	12,799,973	14,849,791
Corporation tax liability	121,729	1,364,806
Maintenance reserves	27,967,256	4,099,414
Security deposits	1,942,232	400,000
<b>Total current liabilities</b>	<b>104,423,433</b>	<b>110,651,281</b>
<b>Total liabilities</b>	<b>785,195,539</b>	<b>636,286,642</b>
<b>Total equity and liabilities</b>	<b>1,238,166,014</b>	<b>1,074,106,863</b>



# Consolidated statement of cash flows

For the year ended 31 March 2022

	2022 US\$	2021 US\$
<b>Profit/(loss) before tax</b>	<b>11,458,038</b>	73,798,695
Adjustments for:		
Movement in working capital	(4,938,077)	(17,485,288)
Movement in maintenance reserve	23,543,998	7,231,227
Movement in security deposits	(910,288)	(4,547,813)
Loss on disposal of subsidiary	-	2,600,991
Amortisation of debt issuance cost	2,461,860	2,460,644
Depreciation expense	43,784,583	40,696,312
Interest expense	27,155,841	26,411,907
Interest income	(2,001)	(4,933)
Income taxes paid	(1,355,590)	(144,153)
Foreign exchange	10,856	(1,184,564)
Fair value movement on interest rate swap	(15,062,270)	(9,187,392)
Other non-cash items	2,751,004	3,009,485
<b>Net cash from operations</b>	<b>88,897,954</b>	123,655,118
<b>Cash flows from investing activities</b>		
Proceeds from security deposits	7,438,531	798,000
Interest received	2,001	4,933
Addition of fixed assets	(175,622,804)	(51,406,426)
Disposal of fixed assets	449,094	-
Cash flows on disposal of subsidiary	-	(1,500,119)
<b>Net cash used in investing activities</b>	<b>(167,733,178)</b>	(52,103,612)
<b>Cash flows from financing activities</b>		
Interest paid	(24,827,521)	(26,936,550)
Proceeds from issue of share capital	3,072	45,009
Proceeds from issue of share premium	4,932,049	88,354,991
Debt issuance cost paid	(4,916,570)	-
Proceeds from lease liabilities	-	390,547
Payment of lease liabilities	(460,385)	-
Receipt of loan borrowings	181,582,328	93,474,739
Repayment of loan borrowings	(55,669,533)	(182,820,756)
<b>Net cash (used in)/ from financing activities</b>	<b>100,643,440</b>	(27,492,020)
<b>Net increase in cash and cash equivalents</b>	<b>21,808,216</b>	44,059,486
Opening cash and cash equivalents	75,594,896	31,535,410
<b>Cash and cash equivalents at end of financial year</b>	<b>97,403,112</b>	75,594,896

Please note: The financial information in this report is extracted from the Group's full financial statements.



### Reconciliation of liabilities arising from financing activities

	Long term bank loans	Short term bank loans	Lease liabilities	Derivative financial liability	Total
<b>2022</b>					
<b>1 April 2021</b>	<b>426,518,777</b>	<b>49,437,647</b>	<b>1,226,404</b>	<b>20,026,969</b>	<b>497,209,797</b>
<b>Cash flows</b>					
Repayments	-	(55,669,533)	(460,385)	-	(56,129,918)
Proceeds	181,582,328	-	-	-	181,582,328
<b>Non-cash</b>					
Net movement in debt issuance cost		(2,454,462)			(2,454,462)
Fair value adjustment				(15,062,270)	(15,062,270)
Reclassification	(58,706,825)	58,706,825			-
Other adjustment	(248)				(248)
<b>31 March 2022</b>	<b>549,394,032</b>	<b>50,020,477</b>	<b>766,019</b>	<b>4,964,699</b>	<b>605,145,227</b>
<b>2021</b>					
<b>1 April 2020</b>	400,492,872	162,095,416	835,857	29,214,361	592,638,506
<b>Cash flows</b>					
Repayments	-	(182,820,756)	-	-	(182,820,756)
Proceeds	93,474,739	-	390,547	-	93,865,286
<b>Non-cash</b>					
Net movement in debt issuance cost		2,714,153	-	-	2,714,153
Fair value adjustment	-	-	-	(9,187,392)	(9,187,392)
Reclassification	(67,448,834)	67,448,834	-	-	-
<b>31 March 2021</b>	<b>426,518,777</b>	<b>49,437,647</b>	<b>1,226,404</b>	<b>20,026,969</b>	<b>497,209,797</b>

These financial statements were approved by the Board of Directors on 21st June 2022 and were signed on its behalf by:

*Anne-Bart Tieleman, Director*







Apart from the historical safety perception of hydrogen, the conversion of one form of energy to another introduces inefficiencies by consuming power. Thus, in a retrofit, without the benefits of distributed propulsion, the emissions reduction comes with an efficiency loss. However, the main technology challenges relate to storage and heat dissipation.

In gaseous form, hydrogen takes up much more volume than kerosene and therefore has a lower volumetric energy density than Jet-A. To arrive at practical storage volumes for gaseous hydrogen requires the use of significant pressures and so sees high hydrogen tank weights. In liquid form the energy density of hydrogen is much better than kerosene but has a very low boiling point at  $-250^{\circ}\text{C}$ . As such, the storage tanks need to be very well insulated to prevent evaporation. The related expansion also means tanks need a venting mechanism to prevent their explosion. Whether gaseous or liquid, hydrogen leakage from tanks also remains challenging. To minimise these temperature and leakage risks, the tanks need to be cylindrical, which generally precludes in-wing fuel storage so that a portion of the fuselage space is needed instead, although at least one retrofit project deploys underwing pods.

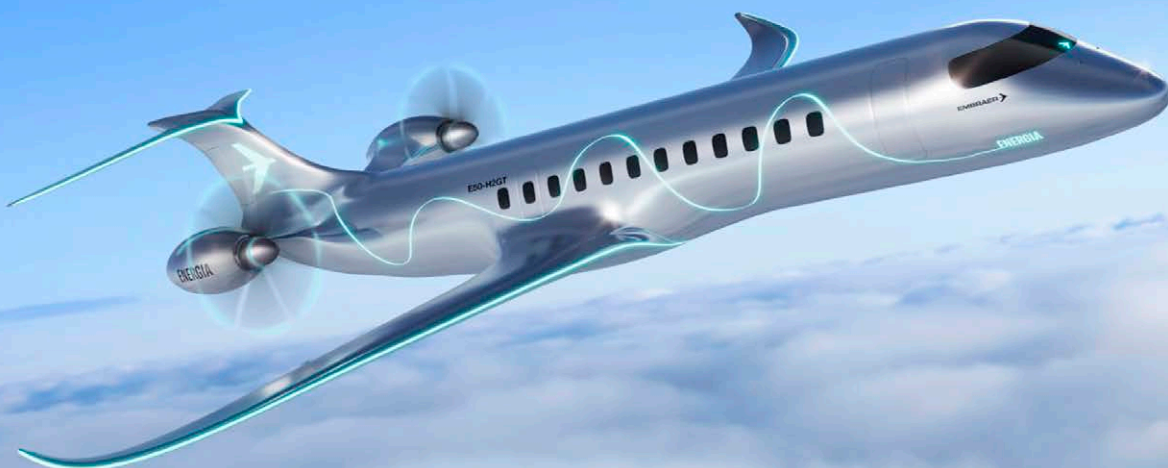
In addition, the process of converting either form of hydrogen into electricity for commuter and regional airliner applications through fuel cells also generates high levels of heat, and current generation fuel cells need to operate at low temperatures. Therefore, thermal management remains a challenge, although higher temperature fuel cells and/or efficient superconductivity may offer a solution but their current technology readiness levels appear insufficiently advanced.

The above aircraft specific technology challenges suggest that commercial entry to service target dates appear somewhat optimistic.

Furthermore, these issues ignore all the infrastructure elements that are required for commercial operations including battery charging, hydrogen manufacture and distribution at, or within a reasonable distance from, airports. They also do not account for certification time, which for a conventional aircraft takes at least two years.

From an environmental perspective, we would be elated if electrically powered aircraft were a reality by 2030, but as an industry there seems to be a risk of over promising and under delivering on this reality. Aviation is a hard sector to abate in a safe manner, but we look forward with excitement to widespread zero emission flight, although this looks more likely during the next decade and beyond, rather than this one.

Embraer's Energia H2 Gas Turbine E50-H2GT



## Inspired by flight

### “It’s an amazing feeling to fly solo”

During the year the TrueNoord team had the pleasure of meeting Travis Ludlow when he visited our Amsterdam office to give a presentation on his record-breaking solo around-the-world flight. Supporting young people in their achievements related to aviation is part of TrueNoord’s developing corporate social policy and it was inspirational for all of the staff to learn about the challenges faced by the intrepid eighteen-year-old.

The gruelling expedition saw the teenager, from Buckinghamshire in the UK, set a new Guinness World Record as the youngest pilot to circumnavigate the globe for the 25,000-mile solo flight. He spent up to eight-hours a day manning his single-engine Cessna 172 N5010 aircraft – sometimes travelling as far as 1,000 miles in a single day without stopping – contending with all weathers including thunderstorms, snow, and dramatic mountain air that caused his plane to plummet over 2,000 feet in just five seconds.

Travis set off on his world record attempt journey from Teuge in the Netherlands on May 29, 2021 after coronavirus delayed his original take-off date in June 2020. His route, which started and finished in the Netherlands, saw him stop in 13 countries, across four continents, around the world – Netherlands, Poland, Russia, USA, Canada, Greenland, Iceland, UK, Ireland, Spain, Morocco, France, and Belgium.

To break the world record, his route had to cover at least 24,520 miles however a total of 24,972 miles was flown overall – which is 71 miles more than the circumference of the Earth at the equator.

And only being able to fly at a maximum altitude of 16,000 feet in his tiny aircraft meant Travis was treated with some spectacular views during his flights. He said: ‘It was amazing. Some of the views I got to see were awesome, particularly the Canadian Rockies.’ It would be fair to say the seasoned TrueNoord team were inspired by his adventures and not a little envious of his courageous flight.

Now, this inspirational young pilot is embarking on a new challenge as he prepares to go to Embry-Riddle Aeronautical University in the USA to study electrical engineering. The first step in realising his ambition to help shape the future of sustainable aviation.



# TRAVIS LUDLOW











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