

February 16, 2018

**Dear clients and colleagues,**

This week, we look into the future of the passenger transportation industry. Earlier this year we attended the ODDO investor conference in Lyon, France. Central France remains a key global region for the aerospace industry — it's the home of Airbus. With so much technology on the horizon, the passenger transportation industry continues to be a fascinating area to follow.

In the past we have written about the automotive sector, where cars are becoming electrified, autonomous, shared, connected and constantly updated. These trends are clearly underway. Major investments in electric vehicle technologies have been announced by car manufacturers, exceeding \$200 billion over the next five years. This represents 1% of a \$4 trillion per year industry. Toyota, Volvo and Mercedes will all have electrified versions of most models within the next 3-6 years.

In short-distance transportation, competition is accelerating as well, and this excludes developments in drones, hyperloops and other innovations. In China the cost of building high-speed railways has been reduced to \$17M per kilometre (km) from \$25M per km due to economies of scale. In late December, France's SNCF announced plans to reduce the operating costs of its high-speed rail system by 25% in an effort to compete with air and bus travel. There are over 32,000 km of high-speed rail lines in the world, with an additional 52,000 km either under construction or planned, including 40,000 km in China alone. Global Alpha owned Faiveley Transport, an international manufacturer of equipment for the railway industry based in France and founded in 1919. The company was acquired by Wabtec in 2016. At \$250 B, the rail transportation industry remains modest compared to the automotive industry.

Aerospace technology is also advancing. In late January this year, Qantas performed a trans-pacific flight using industrial mustard seeds as fuel. These seeds are normally used as fallow crop.

Overcrowded and simply painful for business travellers, airports probably offer one of the best opportunities for growth in the travel industry. Airports will also need to adapt to upcoming generations of travellers, or as the industry calls them, "globalisters". By 2025, globalisters will be the mainstream across all travel markets. They travel far, requiring long-haul flights, therefore airlines and airports will continue to capture more of the tourism dollar. They're drawn to trusted brands with ethical purposes. Engaging globalisters will be essential for airports and travel organizations.

Asia will be the new battleground for airlines and transportation companies. The global middle class is projected to increase to 3.2 billion by 2020 and to 4.9 billion by 2030. The majority of the growth will come from Asia, which will account for an astonishing 66% of the global middle class and 59% of middle-class consumption by 2030.

Technology will help airports and airlines transform the station-to-station experience. Facial recognition, social media, digital interfaces and artificial intelligence will help make transiting through airports as seamless as possible. Globally, commercial airlines will generate combined revenue of US\$850 billion in 2018.

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In 2016, Atlanta and Beijing were the busiest airports in the world, with 106 million and 104 million passengers respectively. Growth rates for airports generally exceed GDP rates, and in China growth rates for airports are above 8%. To remediate airport overcrowding, Airbus is studying a new concept called Link and Fly. For this, they have engaged AKKA Technologies, a company that is held in the Global Alpha micro-cap strategy. AKKA is a technological engineering and design group based in France. It provides innovative designs and implementations for the transportation industry. We were able to meet with the company during the conference. Airbus seems serious about improving air travel, perhaps because they see trains and automobiles as a real threat in the short-haul transportation area. AKKA management was excited, but realistic, about the plan, giving no time frame for the project.

You can watch the AKKA Link and Fly video we saw at the conference on YouTube.

[https://www.youtube.com/watch?v=oBK\\_I0hLqmE](https://www.youtube.com/watch?v=oBK_I0hLqmE)

While we wait to see how some of these big disruptive technologies pan out, Global Alpha is exposed to passenger traffic through its investment in Autogrill, a company that benefits from the current airport bottleneck. The company is a multinational catering company with over 90% of its business in airport terminals and motorway service areas. Autogrill operates in 40 different countries with over 250 licensed and proprietary brands.

Have a great weekend.

The Global Alpha Team

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