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# The Travel Industry After COVID-19

What will the industry look like  
after the pandemic?



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The travel and tourism industry represents more than 10% of the global GDP, accounting for more than \$8.9 trillion in 2019 and 330 million jobs worldwide. COVID-19 has had a catastrophic effect on many industries, but travel-related business have been hit the hardest by far. According to the World Travel & Tourism Council, [more than 100 million travel and tourism jobs are expected to be lost in 2020](#). The total contribution of the industry in the world's GDP is expected to shrink by 30%, meaning \$2.7 trillion will be lost in 2020, making it five times worse than the 2008 global financial crisis.

In the travel industry, digital transformation is vital for companies to be able to build brand loyalty, increase operational efficiency, and to improve passenger and customer experience. Nowadays, hotels, airlines, and cruise lines should focus on customer relationships, which will be a key factor moving forward.

The travel industry has been ripe for innovation and disruption for

a number of years now and [according to Skift](#), in 2019, the travel industry received \$9.2B in venture capital across 578 deals.

At Plug and Play, we believe that innovation will be key to overcoming this pandemic. Cleanliness, sanitization, contactless solutions and improving travelers' communication are some priorities that multiple stakeholders including airports, airlines, hotels, OTA's, governments should prioritize in order to reassure travelers' trust and stimulate demand. •







## Airlines

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The aviation industry supports [more than 65 million jobs around the world](#) and [\\$2.7 trillion in world economic activity](#) (3.6% of global gross domestic product), providing an immeasurable contribution to global trade, business, and economic development. The global airline industry is facing an unprecedented challenge due to the wide spread of COVID-19, with many areas of the passenger journey expected to change and multiple touch points to be transformed as we know it. Below is our guess of how the passenger journey will look like after the pandemic:

- **During the online check-in process**, airlines will request travelers to provide an immunity certificate, health, and wellness declaration.
- **At the airport**, touchless check-in counters, health screening measures and contactless solutions are some examples of what is expected. Social distancing will be required in check-in areas, gates, jet bridges and on the airplane.
- **Boarding processes** will be different, with increased social distancing measures and touchless boarding.

- **Increased aircraft cleaning** and sanitizing will be done before every flight and during the turnaround.
- Most airlines [have mandated passengers and crew to wear personal protective equipment](#) (face masks and gloves) during flight, with sanitizing services and products being offered as well.
- **Enhancing sanitation and hygiene** will be a priority for travelers. Airlines will continue to tailor sanitizing procedures and hygiene measures in order to ensure the safety of passengers and stimulate confidence in travel again.

While many new measures will be put in place to stop the spread of COVID-19, airlines are also seeking to be as cost efficient as possible. Companies and solutions that allow airlines to reduce their costs, automate processes, increase operational efficiency and improve travelers' communication/relationships will experience a significant interest from the stakeholders.



# The Startups

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## Customer Support Automation



RubiQ's solution automatically identifies a cancellation, sends emails/SMS to all affected passengers, and allows them to rebook/claim a refund through an AI assistant, while sharing with them any required information.



Mindsay's platform enables companies to reduce costs by automating recurring requests, enhance customer experience by bringing relevant assistance, and boost sales by pushing ancillaries at the right time.

## Improving Traveler Communication



Sherpa aggregates data from multiple sources and allows travel companies to keep their customers informed at each stage of their journey as travel begins to open again.



It protects people around the world from infectious diseases, leveraging human and AI. The startup has developed a patented global early warning system to track and predict the spread of dangerous infectious diseases.



Pilota offers a service that enables Travel Management Companies (TMCs) to manage disruptions ahead of time. They can proactively, automatically, and instantaneously rebook their customers on a new flight for free in the event of a delay or cancellation. Pilota also recently launched a new product called "Fly Safe", to keep travelers safe and traveling within policy, providing them with everything they need to know about the safety of their upcoming journey and compliance with company travel policy.



## Risk Assessment



Medicus.ai is an AI-based platform that explains and interprets blood tests and medical reports. Medicus.ai partnered with Etihad Airways to launch a COVID-19 risk-assessment tool that will empower guests to make informed decisions about traveling. With this risk-assessment tool, guests will understand their individual probability of having contracted the virus alongside advisories and recommendations, allowing them to make informed decisions about traveling.

## Cost Reduction Technologies



They have built an intelligent process automation platform, that combines RPA, embedded AI and Big Data. By automating repetitive tasks, they improve worker productivity and drive more successful, optimized business outcomes.



A web-based AI-enabled intelligent RPA platform that can process unformatted/unstructured data with ease. With its codeless data ingestion, model training, and model improvement, Jiffy.ai gets work done smarter and faster.

## Dynamic Pricing

### MIGACORE

Captures online signals via news, social media, and many other sources to gauge travel intent before it materializes. These sources enable Migacore to identify specific things that impact travel demand and learn how these things are evolving over time, allowing incredibly accurate demand forecasting that is being leveraged to move revenue management from a reactive system to a proactive one.





## Hotels

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2019 marked the end of an incredible decade in which the travel industry emerged from the economic recession and the hospitality industry approached ten straight years of growth. In 2009, the first hotel and airline apps were just hitting the market, and soon we saw social media platforms such as Facebook and Instagram, fuel the growth of travel to heightened levels, with hotels coming online as well. This led to average occupancy rates peaking at 65.5% in 2015 in the US, holding relatively steady while revenue grew annually to reach a peak of \$189.5 billion in 2019.

It's becoming increasingly clear that COVID-19 is having a profoundly negative impact on the hospitality industry, as forecasted occupancy rates for 2020 are hitting record lows, even worse than Great Depression's figures. Many hotels are still temporarily closed due to travel restrictions and shelter in place orders, but countries in the APAC region, like China, are beginning to relax restrictions. **The survival of many hotels, just like airlines, will depend on where**

**they're located, various strategies to stimulate the market, and how much government assistance they can receive.**

Technologies that can help hotels deal with the COVID and post-COVID world will be prioritized and we see this happening in three different categories: cleaning and sanitation, contactless solutions, and ancillary services.

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## The Startups

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### Cleaning and Sanitation



Built on NLP and AI, Lua whispers voice-guidance and on-demand expertise into workers' ears to guide them through their jobs. With Lua's newest product, Covid Clean, you can implement and monitor CDC guidelines for combatting the virus in your business. Checklists created on the web are delivered to workers, such as housekeepers, via an app once you register. It will work on any Android or iOS device they have. You'll then have a realtime dashboard showing all locations across your premises turning Covid Clean.

### Touchless Solutions



Staymyway is a mobile key and digital check-in solution for hospitality to provide guests' the ability to go directly to their rooms, skipping the line at the reception desk, access the hotel, spa, and other hotel services from their mobile device.



Oloid offers a secure privacy-forward software solution for smart access and clock-in into buildings and workspace to improve identity assurance and worker productivity.



## Ancillary Revenues

### PORTIER

Portier revolutionizes the way in which hotels generate incremental revenue from their guests, via an all-in-one 4G-connected device that is placed in hotel rooms. Guests staying at a Portier partner hotels have access to all amenities with one simple click, and take advantage of city-related experiences that are current, exclusive, and available at the push of a button. The Portier Platform is designed to promote 'contactless engagement', making hotel staff available at all times, without the need for face-to-face interactions.

### daycation

Daycation is an online booking platform and marketing tool for hotel amenity day access. It allows anyone to enjoy a curated network of on-demand hotel amenities that one can reserve and unlock via the platform.

### BUTLER

This New York-based company is a "ghost kitchen" operator, by taking over a hotel kitchen on one property and using it to provide meal delivery services to in-house guests there and in nearby hotels.





## Airports

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The operations of airports significantly depend on the activity of airlines working with them. In terms of air travel, between 2009 - 2019, air passenger revenue in the global aviation industry grew from around \$374 billion to about \$561 billion respectively. However, as of May 2020, the Airports Council International estimates an overall reduction of 4.6 billion passengers during the year and a decline in airport revenues to reach more than \$97 billion because of pandemics.

During and after the pandemic, cost reduction and operational efficiency will be one of the main priorities along with improved standards for safety and disinfection. The travel of the future is going to be as seamless and contactless as possible, with possibilities of biometric check-in and contactless luggage drop-off that require UV disinfection, thermal scanning and disinfection tunnels.

Medium-term solutions we believe to stay in airports are related to increased sanitization such as solutions for air purification, filtering and disinfection using LED and UV lights, ozone and sterilization; advanced surface coating technologies such as

nanocoatings and nanoparticles, self-cleaning materials, and autonomous cleaning robots.

Additionally, contactless solutions using biometrics and thermal sensing; and digital identity proving the immunization of travelers through the connection with electronic health records will also be increasingly implemented.



## The Startups

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### Cleanliness and Disinfection

#### EVRI

Evri.ai has come up with the world's first self-roaming hand sanitizer that is also able to screen the temperature of travelers. Government buildings, hospitals, airports, hotels, office buildings and malls can use their solution to reduce the spread of virus and increase the frequency of hand sanitizing in high-density venues.

#### Aidbots

Aidbots provides purpose-built robots that integrate sensor technology, using lasers and 3D cameras, with AI navigation and innovative product design, ensuring cleanliness at airports.

#### Meró

Mero's sensors retrofit into any building's soap, sanitizer and paper dispensers, providing real-time low supply alerts and analytics on building usage. They also reduce crowding in commercial spaces with traffic sensing, using infrared technology.



## Health Identification and Risk Monitoring



Vanityantiq and Amorph Systems have created a collaborative platform for real-time infection detection and containment for airports, called IDCS (Infection Detection and Containment System). It combines thermal cameras, flight information, passenger flows and real-time communication to instantly detect passengers with high temperatures and alert airport operations control to identify potential contaminated areas.



Yoti's core product includes an app that allows users to create a digitized version of their ID and share the verified attributes with organizations that participate on the platform. They also offer a range of B2B SaaS products from embedded digital identity verification to predictive AI-powered technology. In the light of COVID-19, Yoti has introduced a solution for secure and digital COVID-19 Immunity Certificates.



Bleenco detects your temperature from under the tongue with a quick 3-second scan using a standard RGB camera and a thermal camera with an API.

## Contactless Solutions



Elenium has created the world-first touchless triage kiosk that allows quickly and effortlessly self-assess vital health signs, including temperature, respiratory and heart rates at a safe distance. Elenium's solutions are implemented in various airports, such as Hong Kong International Airport, Sydney Airport, Delhi Airport and others.





## Alternative Accommodation

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Prior to the pandemic, the alternative accommodation market had been steadily growing, taking away the market share of traditional accommodation providers, such as hotels and hostels. The sector in Europe and the US was maturing, and real growth was observed to come from emerging markets.

While alternative accommodations initially saw a decline in bookings much like the rest of the industry, there has been a steady rise with domestic travel picking up and, of course, ensuring the cleanliness of accommodations is key to maintain this.

Due to COVID-19, alternative accommodations will naturally host longer-term stays as remote work has proved to be successful and efficient for many businesses. In order to eliminate face-to-face interactions as much as possible, hosts are increasingly implementing contactless check-in and check-out solutions for their guests, as well as timely communication via digital channels.



## The Startups

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### Contactless solutions

#### operto

Operto Technologies enables keyless check-in, as well as other solutions aimed to achieve a more efficient stay of guests, such as automated guest entry, PMS Integration, cleaner & service alerts, check in/out alerts, intercom, shared access doors and multi-entry possibilities. Their software ensures guest comfort and helps save energy costs as it integrates with energy devices for an intelligent control.

#### CheKin

CheKin is a software solution for guest registration that automates guest identification and legal obligations to provide a frictionless check-in experience for alternative accommodation providers. CheKin offers a web dashboard and mobile APP to register guests online and on-site, thus providing a better and more seamless guest experience.



## Cleanliness and Guest Experience

### WISHBOX

Wishbox is a guest experience platform for end to end guest communication, allowing hoteliers, hostels and vacation rentals to digitize the guest experience and generate more revenue by up-selling services. In response to COVID-19, Wishbox has created a set of tools that will help hosts mitigate challenges and seize opportunities.

### doinn<sup>co</sup>

Doinn offers professional hospitality cleaning companies to its customers. They allow property owners and managers to schedule cleaning, coordinate laundry and final inspection services.

### neu

Neu is a marketplace that streamlines hotel-style cleaning services for short-term lodging. Neu minimizes the time-consuming process of selecting, scheduling, managing, and paying for cleaning service.

## Outdoor Accommodation

### GlampingHub

Glamping Hub is a booking platform dedicated to unique accommodations in nature. With more than 29,000 listings, Glamping Hub provides its customers access to nature and truly inspiring rentals with all the comforts one would find in a hotel.





## Tours and Activities

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According to Arival, the Tours and Activities industry was valued at \$254 billion in 2019, with an estimation of one million operators worldwide. This sub-industry has been growing at about 9% year over year, becoming the third-largest travel sub-industry, only after flights and hotels.

The majority of travelers have booked travel online for years. However, tours, activities, and attractions continue to be largely booked offline, either in person at a ticket office or over the phone. In 2019, operators sold just 17% of tours, activities, and attractions through their websites and through OTAs.

We believe that tours and activities will see a higher demand by locals rather than traditional tourists. Also, we expect to see an increasing demand in rural destinations over urban ones. Travelers will prefer less crowded cities and places, until social distancing phases out. They'll also choose outdoor experiences, walking tours, open-air activities, as well as virtual tours.

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## The Startups

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### Local Experiences

#### **fever**

Fever is an entertainment discovery platform, with a mission to inspire people through experiences. The company has more than 10,000 available experiences and reaches more than 12M people each week. Recently, Fever launched “experiences from home” which allow people to book virtual tours, cooking classes, live streams and many more.

### City Exploration

#### **secretcitytrails**

Secret City Trails are self-guided city discovery games for locals and travelers to fall in love with any city. The traveller follows the footsteps of the local creator, solving the riddles and unlocking the stories. Their games are unlike traditional walking tours, their 120+ instantly bookable games in 50 European cities takes the people truly off the beaten path.



## B2B Aggregators

### holibob

Holibob provides a B2B gateway for tours and experiences globally, enabling airlines and travel partners access to unique products and incremental revenue via a wide variety of technology solutions. They also ensure that thorough due diligence is carried out on the suppliers that they work with.

### TripAdmit.

Trip Admit, has developed an end-to-end solution for activity providers to sell online via their own website and distribute their activities via local and international distribution partners. Their solution allows the majority of the activity providers (almost 80%) to sell via their websites as well as distribution partners such as hotels and airlines.

### Tickitto

Tickitto provides an easy-to-use API for the integration of ticket selling software onto any platform, allowing partners to access inventory, pricing and availability in one place. Tickitto is on a mission to make sports, music, festivals, theatre, attractions and experiences tickets easily accessible to travel retailers through one intuitive API connection.





## Meetings and Events

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The global events industry was valued at more than \$1.1B in 2018 and was expected to grow at a Compound Annual Growth Rate of 10.3%, to reach \$2.3B in 2026 - clearly those projections have changed. The most popular events include conferences and exhibitions, corporate events and seminars, promotion and fundraising, trade shows, and music and art performances. In 2018, based on type, corporate events and seminars accounted for the majority of events in industry share. In terms of revenue, the sponsorship category generated the highest share in 2018, with 21-40 also being the most active age group to attend.

**Events and meetings were already using increasing amounts of technology**, with the addition of digital marketing for promotions. Startups that can help event organizers have a more seamless experience, as well as those offering solutions in the virtual reality space, will generate more attraction and gain recognition.

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## The Startups

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They aggregate thousands of data points, enabling corporate travel managers and meeting planners to select event destinations based on big data, thus allowing corporations to optimize meetings and event planning. Troop Travel has added a COVID-19 data layer that filters destinations based on daily-updated infection rates and travel restrictions. It has also added functionality for hybrid meetings, where there is a need to select multiple destinations for small groups of people to gather and connect all via technology.



A digital event platform that is designed to host all types of events and that features every functionality that a conference organizer might need in a time of a pandemic and even afterward. This nine-year-old startup has seen consumer-adoption soar since February 2020.



An online events platform aiming to replicate the experience and benefits of attending an in-person conference. Their key differentiating feature is that 100,000 people can tune in to presentations happening live on stage.



Plug and Play is a global corporate innovation platform which helps to connect corporate partners to startups in order to help solve their greatest challenges. We also operate as a venture fund and startup ecosystem. To date, we have helped over 3,000 early-to-growth stage startups raise over \$3.5 billion. Plug and Play is consistently ranked among the most active VCs in Silicon Valley.

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