

DISTRIBUTION OF PPE IN BRAZIL

Rienk Ate Bijlsma

Systems Navigator
Delftechpark 38
Delft, 2628 XH, NETHERLANDS

ABSTRACT

Brazil imports PPE consumables from China into Sao Paulo airport, from where it is distributed to hospitals across the country. With the COVID-19 pandemic, getting these materials on the right location has become a mission-critical exercise that can save lives of both patients and medical staff. An online planning solution assists the Brazilian government in making the right decisions on which shipments go where. Using advanced data analytics & simulation, stock levels across the country are predicted into the future, ensuring the best distribution strategy is chosen and materials are always available when they are required. Using Scenario Navigator's advanced scenario management, planners can easily create alternative plans in order to mitigate any unforeseen material shortages.

1 DISTRIBUTION OF PPE IN BRAZIL

Brazil is importing the majority of its PPE consumables from China into the Sao Paulo airport. From there it needs to be distributed across the country while ensuring that all hospitals carry sufficient stock into the future so that treatments can continue as planned while hospital staff is well protected. With increased demand related to COVID-19 outbreaks, and limited PPE availability, distribution becomes a mission-critical exercise that can save the lives of patients and medical personnel.

2 CLOUD BASED PLANNING

An online planning solution was built in record time by Paragon & Systems Navigator to help the Brazilian government to distribute the materials to where they are needed most. The solution is a combination of a mathematical model that is hosted in the cloud with an easy to use user interface in Scenario Navigator software, allowing planners to create plans that result in the best spread of PPE across Brazil. With the advanced scenario management, many alternative future plans can be tested before finalizing the distribution plans per week.

3 PREPARING FOR THE FUTURE

In order to be prepared for the future, policy makers & healthcare professionals need to plan for a 2nd or 3rd wave of the virus, ensuring that enough PPE materials are purchased ahead of time to guarantee the safety of hospital employees all over the country while they are the frontline workers that are dealing with patients who are already contracted the virus. The solution allows for extensive what-if analysis that can then be shared across all the stakeholders who all have access to the model, and who are able to create additional alternative plans. This not only results in a better understanding of the challenges that are faced, but also leads to better decision making that is supported by all the stakeholders. Having a web based platform where all the potential future scenarios are available for analysis is key to a common understanding of how to ensure the distribution of sufficient PPE in Brazil.

4 CREDIT & KUDOS

The Ministry of Infrastructure thanks both companies for “their demonstrated commitment to Brazilian society, technical excellence, and the innovative character of the product developed. The speed and availability of all employees involved in meeting the demands of the Ministry of Infrastructure are very much worth mentioning”.

“Once again, we are very pleased to collaborate with Systems Navigator and with their quick answer to help Brazil in this difficult moment. Scenario Navigator was the tool chosen to study & compare the different scenarios and we couldn’t be happier with the results.” – stated Luiz Augusto Franzese, CEO Paragon.

“Systems Navigator is very happy that our technology can help the Brazilian Ministry of Health to distribute sufficient PPE to its Hospitals during the COVID19 pandemic. By deploying the distribution model on Scenario Navigator, Brazilian planners can easily access the solution and create plans while working from home!” – stated Rienk Bijlsma, Systems Navigator Founder & CEO.

5 ABOUT PARAGON

Paragon is a Decision Science consulting company from Sao Paulo, Brazil, and a partner from Systems Navigator since 2003. With more than 20 years of experience in Decision Support Services & Technology transfers, they provide consulting services, training, and software to over 800 customers in Brazil and Latin America. Paragon focuses on 3D simulation and optimization.

6 ABOUT SYSTEMS NAVIGATOR

Systems Navigator is a global leader in advanced and predictive decision support technology. Since 2003, our employees are working around the globe for a wide range of customers on the most challenging projects. We assist our customers in making better decisions on where to spend their capital by demonstrating the impact of change through simulation modelling. Our Dropboard platform for planning & scheduling helps companies optimize their operations, improve customer service and maximize the use of their assets.