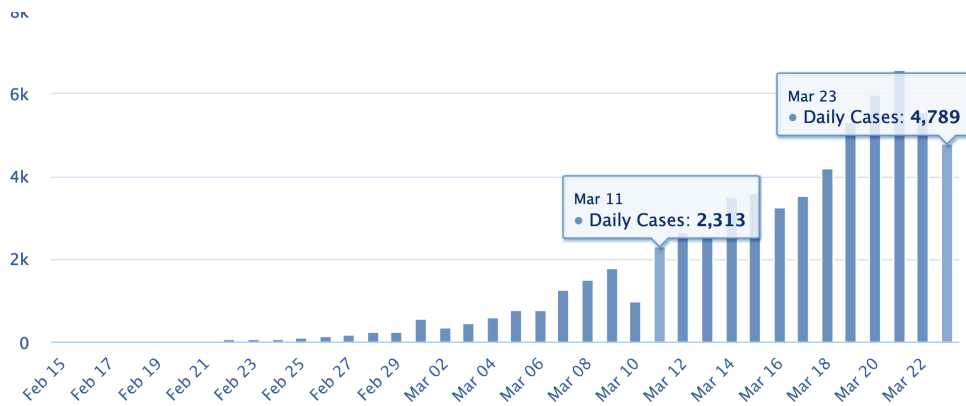
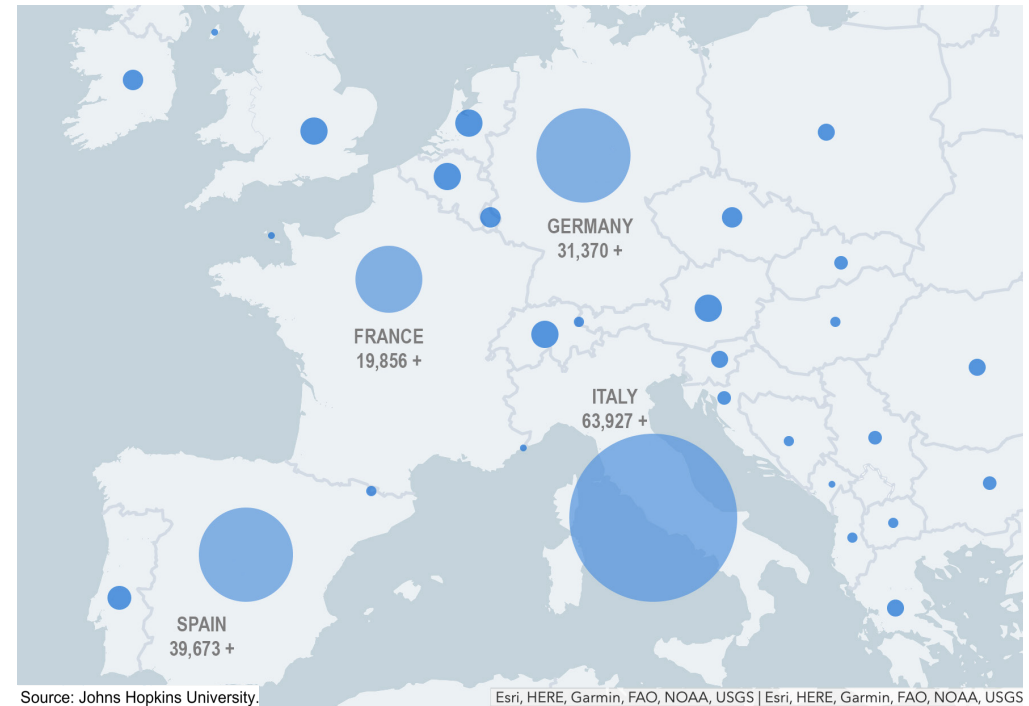


Global Overview of the impact of Coronavirus



Source : Wordmeters.info - March 25, 2020



AIR TRAFFIC

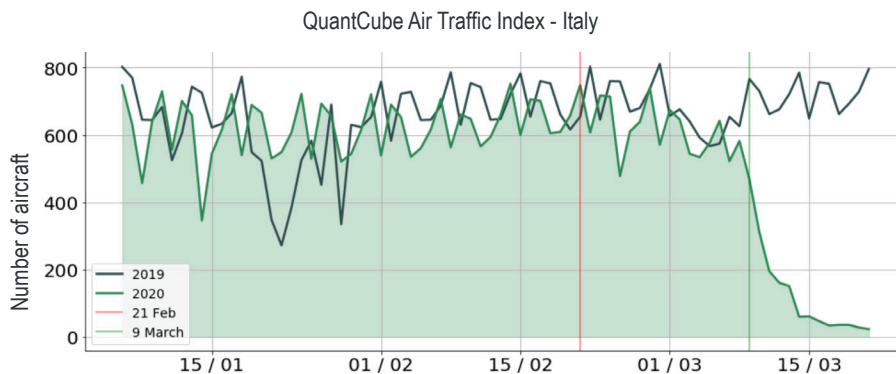
At QuantCube Technology we track air traffic in real time around the globe. This analytics enables to create air traffic index by airport and by country, used as an estimation of level of activity in specific sectors of the economy. Since the Covid-19 sanitary crisis, we have observed in countries such as China, Italy and more recently the US, a significant drop in this index. As we notice in the graph below, there is a sharp drop in the air traffic index in Italy due to the recent lockdown of the country. This index is directly linked to the touristic activity of the country and brings us quantitative information of the impact of the virus by comparing it from last year.



Italy's lockdown will have to be extended beyond the current end-date of April 3



Giuseppe Conte, Prime Minister of Italy



INDUSTRY

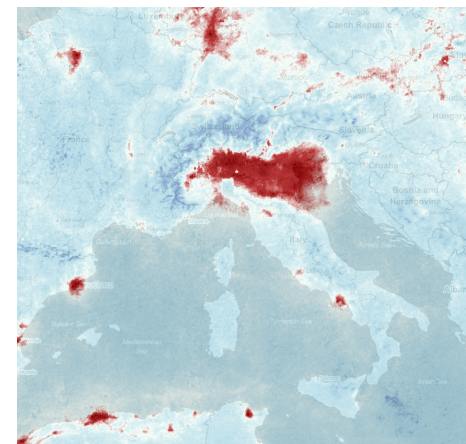
QuantCube Technology tracks different levels of pollution, especially emissions from nitrogen dioxide, ozone, sulphur dioxide, methane, carbon monoxide and aerosols provided by Tropomi, a spectrometer instrument from the satellite Sentinel 5P. Tropomi maps the global atmosphere every day with a resolution as high as 7 km x 3.5 km. At this resolution, air pollution over cities can be detected. The analysis of these data allows us to follow human activities by comparing the total average of produced NO2 over given periods in time. In Italy, NO2 is primarily emitted from cars (traffic) and combustion of fossil fuels in industrial processes. In this case, two periods are presented:

Italy before the propagation of Covid-19 and Italy during the two weeks following the confinement of the Italian population ordered on March 9, 2020 by the Italian government.

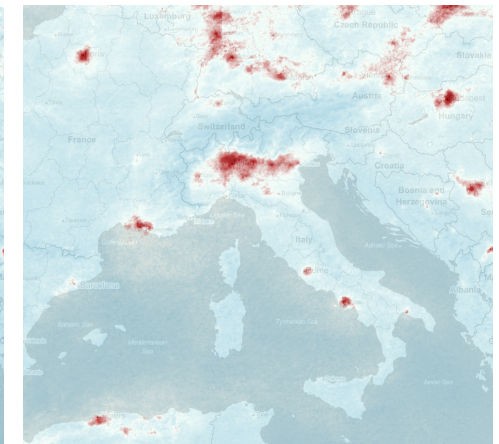
Total emissions of NO2 growth is down 30% over those two periods because of traffic reduction and the closure of production facilities, especially in the Northern part of Italy with the largest textile and manufacturing facilities. At the port of Genoa, low emissions from cities as Florence, Rome and Naples tell us about the drop in tourists related to the drop in energy production for public transport, taxis and air flights.

QuantCube Industrial activity index - Italy

Italy '2020-02-04' : '2020-02-11'



Italy '2020-03-17' : '2020-03-24'



TOURISM

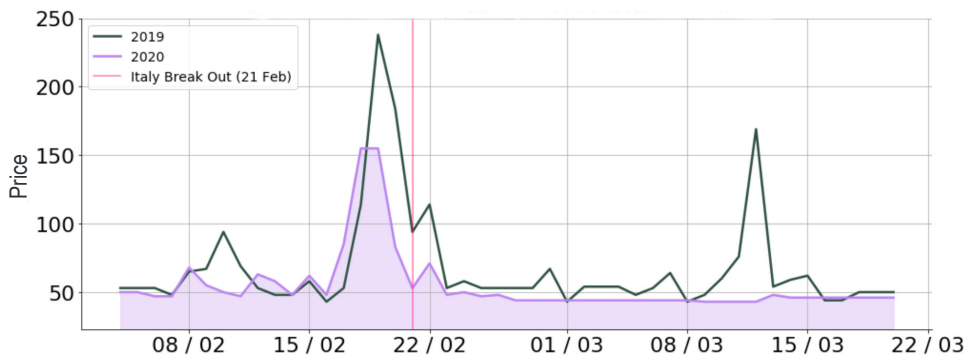
The outbreak started on 21 Feb 2020 with 16 confirmed cases in Lombardy, and 60 additional cases and first deaths on 22 February. By the beginning of March, the virus had spread to all regions of Italy. QuantCube Technology tracks hotel prices in touristic cities around the world in real time.

In particular, the analysis of hotel prices in Italy directly highlights the impact of the Covid-19 on the hospitality industry in Italy for the coming weeks. The fact that pricing is at its lowest level reflects that there is no activity within the hospitality industry.



International medias and Italian citizens reacting on italian touristic destinations situation after the Lockdown on Twitter

QuantCube Hospitality Price index in Milan

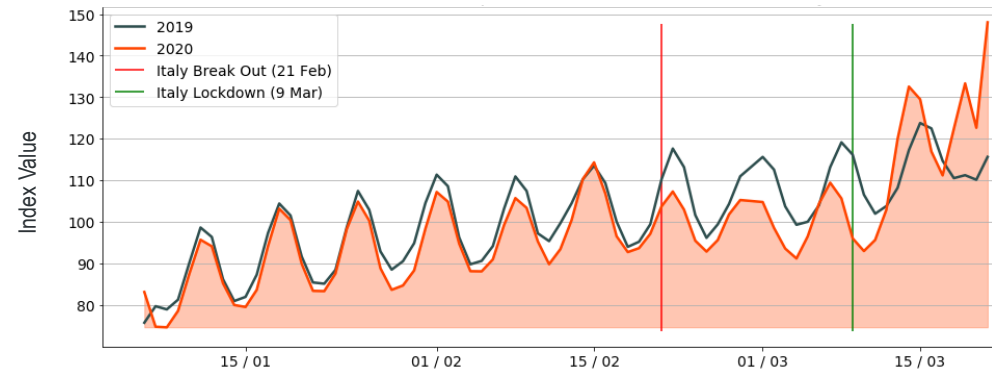


CONSUMPTION

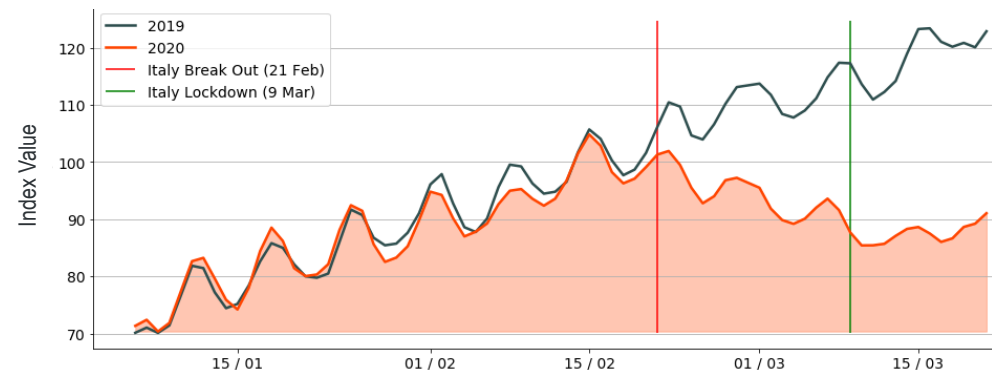
QuantCube Technology tracks consumption on a daily basis. Since the Covid-19 crisis, we detect a peak concerning food basic products consumption in Italy, especially since the announcement of the lock down all over the country on March 9th. Since this date, people try to store a significant quantity of food for the lockdown period.

On the other side, the discretionary leisure component has dropped significantly and will have a long-term impact on the economic growth.

QuantCube Consumption Index - Basic Foods



QuantCube Consumption Index - Leisure



Company Background

Founded in 2013, QuantCube Technology is a fintech startup specialized in **Alternative Data Analytics for Economic Intelligence**. QuantCube Technology aims to provide to financial institutions actionable global macro smart data through its economic intelligence platform. Our focus is especially on real-time predictive analytics, commonly called Macroeconomic Nowcast.

QuantCube has built up one of the largest datalake in the financial industry. Relying on the most advanced AI techniques and high performing computing machines, we are able to **estimate in real time major macroeconomic variables** such as economic growth, employment market, inflation, international trade or consumer expenses with very high correlation with official numbers.

Our team has proven expertise on AI analytics such as multilingual Natural Language Processing to analyze different economic and financial texts, Deep Learning for Satellite data analytics or machine learning techniques on structured data such as maritime traffic, meteorological data, and other numerous data sources.

QuantCube is also involved in **advanced scientific publications with governmental agencies, academic institutions and major leading corporates** in different sectors of the economy.

QuantCube Technology is backed by two major institutional investors : **Moody's Investor Services** and **Five Capital** -a joint venture between CDC International (Caisse des Dépôts) and Kingdom Holdings.

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