Safran deploys its expertise to help address the COVID-19 emergency

Initiatives to support medical teams have burgeoned since the onset of the COVID-19 pandemic. We take a closer look at how Safran and its employees are harnessing their expertise to tackle this emergency.

Safran is making a concrete contribution to the fight against COVID-19 in several ways: by adapting current products or quickly developing targeted solutions (personal protective equipment such as visors and masks, on-demand medical solutions); by providing access to its production facilities; and by donating emergency equipment.

**Safran marshals its industrial capabilities**

Thanks to Safran's proven know-how in 3D printing and textiles (for aircraft seats and parachutes), staff at different Safran companies are mobilizing to produce personal protective equipment (PPE) for caregivers. A multidisciplinary team has been created to pool the Group's resources so we can turn out large quantities of visors, masks and gowns. Several thousand items have already been delivered to hospitals and other healthcare providers located near Safran companies – Group employees are especially involved in the making of visors.

A team from Safran Aero Boosters, our Belgian subsidiary, has volunteered to use 3D printing machines to make spare parts for ventilators. The main aim is to quickly replace the flow meter in a medical ventilator, a part that must be changed regularly. After initial tests carried out successfully proved conclusive, the first ventilator is now up and running at the large Montlégia hospital complex in Liège. Safran Aero Boosters will shortly produce about a hundred of these flow meters. [Read more on LinkedIn](#)

In the United States, Safran Cabin's 3D printing machines were called on to help Hardy Diagnostics, a medical device manufacturer that recently announced a rapid test for the COVID-19 virus. Faced with a significant test kit production ramp-up, the company could no longer make enough of the metal trays used to store and sterilize its products. Safran Cabin in Santa Maria stepped up by using its expertise in 3D printing and modeling to turn out these trays in record time!
Safran is also repurposing Decathlon's Easybreath snorkeling mask for medical usage. We were part of the team tasked with adapting this mask by adding 3D-printed prototype parts so they could be used by both caregivers (passive protection) and patients on ventilators (oxygen therapy). This revamped mask will be particularly effective in limiting contamination in hospital corridors and exam room. 3D-printing files are also available on an open-access basis on the Safran website.

Learn more
Access 3D-printing files (French version only)

Adapting Safran products for medical use

Safran is working closely with French authorities to adapt various products for medical use – in particular masks and air filters originally intended for totally different uses, such as the protection masks in the FELIN soldier modernization suite. These masks are designed for use by infantry soldiers operating in contaminated environments, especially in the case of biological warfare. Fitted with a stand-alone ventilation system and filter, they are used to protect caregivers for work entailing a high risk of contamination, such as the intubation of patients, for instance. Already deployed in French military hospitals, especially in the “Grand Est” region, one of France’s pandemic hotspots, these parts are extremely useful when caregivers must exert a physical effort in a contaminated area (active ventilation).

At the same time, we are working on a 3D-printed mask offering high-level protection (FFP2), reusable after cleaning and changing the cartridge. Designed for people at risk in the fight against COVID-19, this model will use filtering cartridges that are an integral part of the EROS oxygen masks made by Safran Aerosystems. Once it passes certification tests, Safran will be targeting a production rate of 20,000 filtering cartridges per week.

Airplanes and helicopters fly to the aid of COVID-19 fighters
More than ever, helicopters are playing a critical role in transporting patients to hospitals, and evacuating others to regions where intensive care units are less crowded. In France, as in many other countries around the world, a large majority of these rotorcraft are powered by Safran turbine engines. Our teams remain on alert to ensure the maintenance, repair and overhaul (MRO) of these crucial machines. Safran supplies a number of other products for helicopters (wiring, gyrostabilized reconnaissance pods, flotation devices, wheels and brakes, auxiliary power units, etc.), to ensure their dependability for these critical medical missions.

One of Safran's flagship products plays an essential role in patient evacuation: Helicom, a unit that enables the geolocation via satellite of a helicopter at any given moment. With helicopters flying regular missions to lighten the load on the most heavily impacted regions, this system allows the coordinating doctors to efficiently manage flights into and out of hospitals and track all ongoing flights, especially for cross-border evacuation.

Europe's A400M military transport, powered by our TP400 turboprop engines, has also been deployed on vital humanitarian missions to support this unprecedented combat. Safran's tech teams are on the front lines to make sure these engines keep running.

**Safran's donations to health services**

In addition to the 60,000 masks sent to French authorities on March 23, on April 2 Safran donated another 50,000 masks and 2,000 gowns to APHP, the consortium of Paris public hospitals.