CORAC: working together to prepare the future of the aerospace industry

For the past 10 years, the Civil Aviation Research Council (CORAC) has led all of France’s air transport stakeholders in an endeavor to develop the technologies necessary to improve its environmental footprint and boost competitiveness. We look back over its missions and achievements with Stéphane Cueille, Chairman of the CORAC Steering Committee and Safran Senior Executive Vice President, R&T and Innovation.

What are the CORAC’s missions?

The group was set up to coordinate French aerospace research for greater efficiency. Its main strength is that all of the industry stakeholders are working hand-in-hand: aircraft manufacturers, engine manufacturers, systems and equipment suppliers, government departments, etc. France is one of the only countries to have an organization such as this. Sharing the same vision and working together on technologies that will shape the future gives each member a lead when a new program emerges. Take, for instance, the Airbus A350 or, more recently, Airbus Helicopters’ H160. Moreover, this overlap of interests gives governments an indication of what the major issues will be tomorrow and encourages them to support our initiatives.

What are its focus areas?

The main focus area is environmental protection, with the goal being to reduce fuel consumption, polluting emissions and noise. This can be achieved directly through technical improvements to aircraft and their equipment, or indirectly, essentially by optimizing aircraft route management. We are also working on other focus areas, such as industrial competitiveness, the passenger experience, the economic efficiency of airlines’ operation of the aircraft, etc.

What is the state of play at this point?

The first projects conducted since the CORAC’s inception are now finished and a number of major programs are reaping the benefits, such as the LEAP engine, the Airbus A350-1000 or the H160 helicopter. Safran is very involved in these last two programs. As I see it, the main challenge for the Future is to pursue this research drive. We have already remodeled our roadmap to incorporate emerging subjects such as hybrid propulsion, single-pilot aircraft, new applications of drones for passenger transport, etc. Now we have to investigate them, which means kicking off projects this year. We are on the brink of a new cycle of research and innovation.
What role does Safran play in the CORAC?

Safran is one of the CORAC's leading members in terms of research budget and application portfolio, and generally an important player on the aerospace market. This gives it a major role to play, especially when it comes to drawing up the technology roadmap, because of its foresight and future planning vision. This position also made it possible to back CORAC's claim when the government's investment plan for 2018-2021 was being drawn up, since it contains an annual budget earmarked for research projects. And during Safran's two-year* chairmanship of the Steering Committee, its role also included organizing and coordinating the Committee's work.

*2017-2019

An ambitious roadmap

The CORAC was established in 2008 with members representing the entire French aerospace industry. Its Steering Committee is chaired by a manufacturer elected for two years. Safran's current term runs to September 2019. The CORAC's roadmap revolves around three strategic focus areas: the optimized-energy aircraft, autonomy and connection, and new development and production methods. Its deliverables take the form of demonstrators aimed at hastening the incorporation of the technology advances of the aerospace of the future.