KEY MISSIONS, KEY TECHNOLOGIES, KEY TALENTS
EXPERIENCE THE FUTURE OF FLIGHT!

**Active Side Stick Unit**

Sagem’s new active side stick unit (SSU), designed for civil and military fixed and rotary-wing aircraft, incorporates a number of patented innovations.

It features a simple, compact design, with force feedback adjustable in real time according to the flight envelope or mission. Extensively tested in conjunction with seasoned pilots, it offers a high degree of flexibility during the ergonomics development and validation process, starting early in aircraft development and continuing all the way up to certification. Synchronized side stick units, combined with a number of advanced features (hard/soft stops, stick shaker, stick pusher/puller, auto-trim, etc.), guarantee enhanced coordination between pilot and copilot, better crew training and improved flight safety.

**Control panels**

With the recent acquisition of Eaton’s Integrated Cockpit Solutions business, Sagem extends its offering to encompass instrument panels and displays, including illuminated switches and cockpit controls, all based on globally recognized expertise. Sagem is the only company capable of not just producing the pilot control unit, but also designing and manufacturing the specific light plates and indicators required for each aircraft. Sagem provides instrument panels for the ARJ21 regional jet, as well as the Embraer Phenom 100 and Phenom 300.

**Force feel law configuration tool**

We have developed a special tool to configure and evaluate the force feel laws. Using an iterative approach, we can define operational needs, then apply and validate the force applied on the side stick unit, all in virtually real time.

**Throttle Control Assembly**

Sagem’s automated throttle control assembly (TCA) is an innovative hybrid magnetic-mechanical friction device, already certified on the Airbus A350. It is electrically and mechanically segregated. It is also highly resistant to jamming, thanks to dual motion paths. With its reverse mode (piggy-back), it can be used on all types of turbofan-powered aircraft.

**Flight deck simulator**

We have developed a dedicated flight deck simulator, integrating two active SSU prototypes and an A350 throttle control assembly (TCA), along with a flight simulation loop. A flight control computer simulates the flight control laws between these units and the aircraft environment.