

# BusinessJet *interiors* INTERNATIONAL

CABIN CONTROL

## Ease of use

Jay Beever of Embraer Executive Jets is keen to emphasize that any change to the HMI in an aircraft must be made very carefully. "There is a conflict where some individuals truly appreciate a traditional switch, especially those who have been flying private aircraft for decades," he says. "Sometimes it's difficult for them to adapt to an era where things are maturing so fast when it comes to gesture, voice and haptic control; we must be sensitive to that."

For example, on the Legacy 500, and now the Phenom 300E, the light controls – which light up when a hand is near but are operated by touch – are

in the same location as traditional light switches would normally be. "The switches are in context," says Beever.

The system is designed to be very intuitive and easy to learn. "You may reach your hand up toward the gasper, and cause the switches to light up," he says. "You may not have known the switches are there, because when not activated you only see the black glass. Very quickly, the technology has taught you how to operate the interior via gesture-based control."

And for those people who really don't want to deal with gesture-based control, the switches can be set to remain illuminated.



technologies to develop, it can take three or four years before IFE manufacturers have a saleable product."

### AVIATION ADVANCES

That's not to say there hasn't been screen-tech trailblazing in the aviation sector. "In 2006 we introduced the first wireless 802.11 touchscreen remote controller, featuring a similar shape to the iPad, but before the iPad was introduced in 2010," says David Crossett, head of sales and marketing at Lufthansa Technik. "We've since introduced controllers with animated GUIs, scroll wheels, swipe screens, and web and native iOS and Android apps."

While it seems the business jet market is making progress on touchscreens, what of gesture and voice

2018. After a single touch, the system will register every hand movement, so you can adjust aspects, including your seat and airflow, just by moving your hand."

### CERTIFICATION CHALLENGES

In most cases, aircraft IFEC and CMS has struggled to keep pace, because of longer lead times, less regularly refreshed electrical architecture, stringent legislation and weak internet options. This is tough to understand for a customer who's used to the latest technology in their home and is spending millions on a new aircraft.

"You never have the latest technology in aircraft, because of the certification required," says Eric Hoegen, AMAC's sales and key account manager for completions and modifications. "Having first identified which

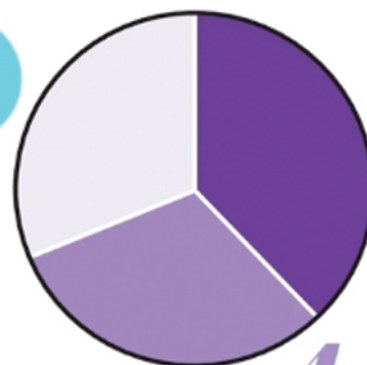
ABOVE: THE CAPACITIVE LIGHT SWITCHES ON EMBRAER'S UPPER TECHNOLOGY PANEL LIGHT UP WHEN A HAND IS NEAR

BELOW: VISION SYSTEMS HAS PROPOSED GESTURE CONTROL FOR ITS NUANCE TOUCHLESS SPD-SMART ELECTRONICALLY DIMMABLE WINDOW



## Readers' poll

Which new control technology will be the most challenging to implement in aircraft? As of publication day, our online readers say...



38% Voice control  
31% Gesture control  
31% Touchscreens with haptic feedback