Frank Brenner has worked in Air Traffic Management for his entire career. He has been Director General of EUROCONTROL since 1 January 2013.

Since taking up his functions at EUROCONTROL, he has initiated the development of a Vision and Strategy, including the development of Centralised Services as part of the SESAR deployment concentrating on how to support controllers with new technology which increases safety.

Before joining EUROCONTROL, Frank Brenner was General Manager Operations for FABEC, Vice Chairman of EUROCONTROL's Performance Review Commission and a member of the Performance Review Body. Trained as an air traffic controller, he has held a number of posts at DFS including Head of ATM Operations, Director of Operations at the Business Unit for Aeronautical Data Management and Director of DFS's Control Centre Business Unit.

Dear Reader,

This edition of Hindsight is on "Safety and Automation" – a subject which I find particularly fascinating as it combines the advance of technology with progress in understanding the human factors that affect our work, whether it is in the air or on the ground.

There is a developing discussion at present on the need for pilots, from time to time, to reduce the level of automation in the cockpit and to practise their flying skills. Of course, this does mean more work for the pilots but, in the long run, safety is enhanced. Some of the very interesting articles in this edition refer to the fact that some airlines encourage their pilots to use automation as much as possible. Yet the same pilots need to be able to take over manually if the need arises.

In the air traffic control centre, the situation is similar but yet different. The extent of automation is clearly less than in the cockpit and controllers still play a very active role in handling traffic. However, this may not always be the case – the vision for the future is for aircraft to fly pre-planned 4D trajectories accurate to just a few seconds. Conflicts will be avoided well in advance; on approach, the aircraft will automatically maintain an optimal separation with the aircraft in front. The controllers, like pilots today, will have much more of a monitoring role. I had the chance to experience all the automation support systems we offer to our controllers recently at a simulator run at the Maastricht Upper Area Control Centre.

What happens when something goes wrong? Only this year we have seen control centres affected by both fire and flood. We as an industry have to be ready to cope with the unexpected. That means being able to shift to manual control and separation smoothly and safely. We have to have clear procedures and, crucially, we have to practise the underlying skills that are central to ATC safety.

I firmly believe that the human being, whether he/she is a pilot or a controller, will be at the heart of safety in aviation for many years to come. That is because people provide the resilience required; they can cope with the unexpected.

Automation is an incredibly valuable tool and it is indispensable to handle today's traffic volumes. It can range from providing information, through analysis all the way to making and executing decisions. The challenge is to use it in such a way that it improves efficiency and safety but not so much that we lose sight of the human being – who is not the weak link in the chain but is rather the most effective form of safety net we know.

Frank Brenner