Volvo Cars reveals safe and seamless user interface for self-driving cars

Volvo Cars has revealed one of the industry’s most advanced and easy-to-use interfaces to oversee how drivers will transfer control to a car’s autonomous driving (AD) mode in its forthcoming cars.

The advent of autonomous driving technology means that the relationship between a driver and a car’s user interface is of crucial significance. A safe and seamless handover of control is the cornerstone of any new trustworthy AD technology.

Volvo Cars has designed its IntelliSafe Auto Pilot to be simple and intuitive. The autonomous mode is activated and deactivated with specially-designed paddles on the steering wheel.

When entering a route where autonomous driving is available, the car gives the driver a message that the Auto Pilot is ready. At the same time, lights on the steering-wheel paddles start flashing.

The driver pulls both paddles simultaneously to activate autonomous mode. The lights on the paddles then change to constant green and Auto Pilot confirms that the driving and the supervision has been delegated to the car.

When autonomous driving is no longer available, the driver is prompted to take over again. A sixty-second countdown is displayed.

If the driver, for any reason, doesn’t use the paddles to regain control within this minute, the car will bring itself to a safe stop.

Thomas Ingenlath, SVP Design at Volvo Cars, said: “We have designed a user interface that is safe and seamless
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Volvo's new IntelliSafe Auto Pilot will be available for the first time on the 100 XC90's it is making available for the Drive Me project in Gothenburg in 2017, the world's most ambitious AD project.

Drive Me will make 100 self-driving Volvos available to families and commuters around Gothenburg for use in everyday driving conditions. The cars will be driven autonomously on approximately 50 kilometres of selected roads.

Following its use in Drive Me, the IntelliSafe Auto Pilot will then be introduced to the general public.

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**Volvo Car Group in 2014**

For the 2014 financial year, Volvo Car Group recorded an operating profit of 2,252 MSEK (1,919 MSEK in 2013). Revenue over the period amounted to 129,959 MSEK (122,245 MSEK). For the full year 2014, global sales reached a record 465,866 cars, an increase of 8.9 per cent versus 2013. The record sales and operating profit cleared the way for Volvo Car Group to continue investing in its global transformation plan.

**About Volvo Car Group**

Volvo has been in operation since 1927. Today, Volvo Cars is one of the most well-known and respected car brands in the world with sales of 465,866 in 2014 in about 100 countries. Volvo Cars has been under the ownership of the Zhejiang Geely Holding (Geely Holding) of China since 2010. It formed part of the Swedish Volvo Group until 1999, when the company was bought by Ford Motor Company of the US. In 2010, Volvo Cars was acquired by Geely Holding.

As of December 2014, Volvo Cars had over 26,000 employees worldwide. Volvo Cars head office, product development, marketing and administration functions are mainly located in Gothenburg, Sweden. Volvo Cars head office for China is located in Shanghai. The company’s main car production plants are located in Gothenburg (Sweden), Ghent (Belgium) and Chengdu (China), while engines are manufactured in Skövde (Sweden) and Zhangjiakou (China) and body components in Olofström (Sweden).

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