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**FOR IMMEDIATE RELEASE**

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**FIS & DAINESE MEDIA INFO****Great progress towards applying air bag technology to ski racing**

The International Ski Federation (FIS) and Dainese confirm their commitment to researching safety in skiing and are pleased to present in Kitzbühel the initial results of the D-air® Ski project, which is based on a memorandum of understanding signed between the two organizations a year ago.

The aim of the cooperation is to investigate the potential application of air bag technology to top-level Alpine Skiing. Specifically the current project seeks to improve the protection of athletes by applying D-air® technologies (the air bag designed around the human body). The timeframe of the feasibility study extends until the 2014 Olympic Winter Games in Sochi.

The project, which also benefits from various studies performed within the scope of the FIS Injury Surveillance System (FIS ISS) project, is currently in the data collection phase which involves 16 World Cup athletes, including Aksel Lund Svindal (NOR), and incorporates 12 inertial platforms (sets of sensors fully integrated into the back guard).

Aksel Lund Svindal and Kristian Ghedina also serve as special athlete testimonies for the project. Ghedina is, in fact, the first skier to have used the back guard during World Cup events, while Svindal has been helping Dainese with research and development for some time.

Günther Hujara, FIS Chief Race Director for the men's Alpine Skiing, noted: "Thanks to the close cooperation with Dainese that began three years ago, we have already seen many improvements in the protection of ski racers. Our latest project, the development of an air bag system for Alpine Skiing, is the most extensive of all and relies on Dainese's long-term experience in motor racing." He added: "Research is well under way since last season, seeking to define the exact point at which the racer is no longer in control and a fall becomes inevitable. Since this is such a complex matter, whilst much data has already been gathered, further information is still needed. We look forward to continuing this excellent cooperation with Dainese into the future."

Vittorio Cafaggi, Strategic Development Manager with Dainese commented: "D-air Ski is a project on which Dainese is working with enthusiasm and conviction, and we intend to tackle all the obstacles that will inevitably arise with great motivation knowing that we can rely on the valuable support of top athletes and the great sensitivity shown by FIS with regard to safety."

Aksel Lund Svindal stated: "I'm honored to be part of this high-level project. Protection is extremely important for us athletes and the development of an air bag for ski racing can increase the level of our safety. I'm happy to give my contribution for the data collection and to transfer my feedback. I hope that very soon all my colleagues will be able to use this outstanding device."

Kristian Ghedina concluded: "It is a pleasure for me to be here today to testify to the importance of protecting athletes because I was the first to wear a Dainese back protector. I am also pleased to continue working with Dainese, which has transferred protective technologies from the motorcycling world to other sports. The D-air Ski project is a further example of this commitment to research and testing."

The 2012 program envisages the continuation of data collection to define the activation algorithm, as well as further tests with the athletes for the fine-tuning of the pneumatic part, with the aim of having a prototype for use on the slopes by the end of the year. 2013 will be dedicated to the fine-tuning of the final prototype for Sochi 2014.

### **Initial prototype based on ample collection of detailed data**

The ergonomic tests with participating athletes began with the definition of precise instructions concerning the shape of the bag and the positioning of the gas generators. More than 70 descents have been monitored so far, the details of which have already been used to develop the electronic and pneumatic sections simultaneously and in close involvement with the athletes.

The first prototype of the D-air Ski defined during this phase envisages an electronic section consisting of the activation algorithm, the "brain" of the system, which decides when to activate the system, and the operating hardware equipped with a sophisticated set of sensors (see enclosed data sheet).

The pneumatic part, inflated by dedicated gas generators, is equipped with a special bag conceived and patented by Dainese, which is characterized by a high capacity to absorb the forces generated by the impact, despite not being very thick (see enclosed data sheet). The current design of the bag represents the first step towards the final configuration, which envisages the coverage of a broader area of the chest.

The D-air Ski covers shoulders, collarbone, back (the chest will be considered in the next development step) and limits the movement of the neck during a fall. The special bag opens in about 50 milliseconds, reaches maximum protection in less than 100 milliseconds and reduces the force transmitted to the shoulders and back by up to 85%.

The current algorithm activation strategy is based upon prudence, allowing activation only in situations in which it is clear that the athlete has lost control of the skis, such as in the case

of Brander's fall in Bormio or in the case of a back flip. With additional data, it will be possible to make a reliable shift of the activation threshold to cover a wider range of falls.

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Our most sincere thanks belong to the Kitzbüheler Ski Club for their hospitality and support with the project.

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### **About FIS**

FIS is the governing body for international skiing and snowboarding, founded in 1924 during the first Olympic Games in Chamonix, France. Recognized by the International Olympic Committee (IOC), FIS manages the Olympic disciplines of Alpine Skiing, Cross-Country Skiing, Ski Jumping, Nordic Combined, Freestyle Skiing and Snowboarding, including setting the international competition rules. Through its 112 member nations, more than 6'000 FIS ski and snowboard competitions are staged annually. Specific initiatives are undertaken by FIS to promote snow activities as a healthy leisure recreation, notably for the young.

For more information, please visit [www.fis-ski.com](http://www.fis-ski.com).

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