

**INTERNATIONAL SKI FEDERATION**

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**FOR IMMEDIATE RELEASE****FIS MEDIA INFO****Making progress for safety in ski racing - FIS ISS with University of Salzburg:  
Focus on course setting, snow conditions and ski equipment**

As part of FIS's long-term Injury Surveillance System launched in January 2006, a research project is in progress under the direction of the University of Salzburg (AUT). This research builds on a qualitative interview survey with 63 World Cup experts last season, which identified five main injury risk factors for Alpine ski racing.<sup>1</sup> The current project is focused on three of the five: course setting/speed, snow conditions and equipment (combination of ski, binding, plate and boot).

To assess course setting and snow conditions, specific bio-mechanical measurements have been conducted at ten Audi FIS Ski World Cup events so far. Forerunners equipped with sensors and GPS devices have evaluated course setting's impact on speed, energy and forces affecting the athletes. Additionally, the Institute for Snow and Avalanche Research (SLF) from Davos (SUI) has measured snow conditions along the race courses to assess their impact on speed and the various forces impacting the racers.

Simultaneously, an equipment project involving development of special ski prototypes is underway through the support of the ski manufacturers. FIS, the ski industry and the University of Salzburg defined the specifications last summer and a number of prototype skis have been built for downhill and giant slalom. Recently retired World Cup racers have started testing these prototypes this season.

"The goal of producing these prototypes was, first of all, to gain more safety. The ski industry is ready to invest in the safety of the athletes. A key problem seems to be the combination of aggressive snow and aggressive skiing. To make the skis less aggressive, the new prototypes are experimental in terms of radius, length, standing height and ski plates," noted Dr Michael Schineis, Chairman of the Ski Racing Suppliers' (SRS) Association.

"This is a very interesting project. Due to the geometrical changes, these prototype skis were clearly different to ski on and require changes to the ski technique. But they are definitely skiable. Although there still needs to be more testing, I am very optimistic about the direction this is taking," said Peter Struger (AUT), one of the former racers testing the prototypes along with Marco Büchel (LIE), Thomas Graggaber (AUT) and Christoph Gruber (AUT).

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<sup>1</sup> The 5 high loading key risk factors are `system ski, binding, plate, boot, `changing snow conditions`, `physical aspects of the athlete`, `speed and course setting aspects` and `fatigue (World Cup schedule)`.

“This project represents a three-year engagement with the goal of creating a scientifically researched and practically-founded basis for any next steps towards enhanced injury prevention in top level Alpine Skiing. Beginning with the expert interviews last season, the real-time measurements in race conditions and prototype testing are providing ample data, which will help set the direction for the FIS decision-makers when it comes to rules and regulations,” explained Dr. Erich Müller from the University of Salzburg.

Atle Skaardal, FIS Chief Race Director for ladies’ Alpine Skiing commented: “The bottom line is that Alpine ski racing involves speed and courage, therefore also some residual risk. However, we are doing our utmost to create the safest possible frames for our sport and the current projects are a strong demonstration of hard work in many different key areas. They are all designed to provide clear information for adapting new rules and procedures in order to avoid as many injuries as possible in the future.”

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### **About FIS**

Founded in 1924 during the first Olympic Games in Chamonix, France, the International Ski Federation (FIS) aims to promote the sport of skiing and snowboarding and directs the development of all ski and snowboarding activities world-wide.

FIS administers the Olympic disciplines of Alpine Skiing, Cross-Country Skiing, Ski Jumping, Nordic Combined, Freestyle Skiing and Snowboarding, including setting the international competition rules. With the help of its 112 member nations (one currently suspended), it stages more than 6’000 ski and snowboard competitions annually. FIS also makes recommendations for recreational skiing and snowboarding in the interest of all and promotes play in the snow as a healthy leisure activity for children and the youth. For more information, please visit [www.fis-ski.com](http://www.fis-ski.com).

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