

BMW Group

U.S. Press Information

Fact Sheet: BMW Team USA Sponsorship:

Driving Athlete Performance

As part of its commitment to Team USA, BMW is applying its resources and technologies to advance the training and performance goals of Team USA athletes and hopefuls.

The following represent projects within BMW's technology transfer initiative that have been developed in response to performance and real-time data needs identified by USA Bobsled and Skeleton Federation, USA Track & Field and USA Swimming.

BMW Bobsled Redevelopment – USA Bobsled and Skeleton Federation

After more than two years in development, BMW, in collaboration with USA Bobsled and Skeleton Federation, has completed its third technology transfer project with the complete redesign and development of a new two-man bobsled. The completion of the project replaces a 20-year-old platform currently in use by the athletes of Team USA, which has not won Olympic gold in the two-man bobsled since 1936.

To help ensure the caliber of Team USA's sleds match the world-class talent of its athletes in the lead up to the Sochi 2014 Olympic Winter Games, BMW has applied a process similar to its vehicle development, most significantly the application of BMW EfficientDynamics, using lightweight materials like carbon fiber to optimize the sled's weight placement to distribute and balance the regulation-required weight.

BMW's approach to this project has centered on delivering a world-class vehicle that reflects the experience and extreme conditions bobsled athletes face. Design inspiration was influenced by a first-hand experience in a bobsled, a reverence for the speed and extreme forces in Olympic bobsledding, and a desire to equip the athletes of Team USA with the very best equipment.

In designing the two-man sled with these objectives in mind, BMW's process reevaluated the complete vehicle system: cowling aerodynamics and construction, chassis and steering geometries, athlete fitment and integration were all critical focal points. Computer aided modeling, computational fluid dynamics (CFD), full size wind tunnel testing, on track testing, and athlete scannings were all tools in BMW's development approach.

BMW Velocity Measurement System – USA Track & Field

BMW's first technology transfer project was a velocity measurement system created in collaboration with sports scientists at the USOC and USA Track & Field. Developed at the BMW Group Technology Office USA in Mountain View, Calif., the system captures an athlete in motion and automatically calculates and delivers performance metrics for coaches to use in training long jumpers. By measuring and providing real-time analysis of three key parameters in the execution of a long jump – horizontal approach velocity, vertical take-off velocity and take-off angle – the system is completely unique in its offering to coaches and athletes in training scenarios.

The technology is currently a permanent fixture at the Olympic Training Center in Chula Vista, Calif.

BMW Motion Tracking System – USA Swimming

BMW has collaborated with the high performance team at USA Swimming on a motion tracking system that analyzes a swimmer's dolphin kick within the allowed 15 meters of underwater swimming and provides quantitative performance data to coaches. Ricky Berens, two-time Olympic gold medalist, tested the system during the development process.

BMW's motion tracking system tracks six points on the swimmer's body – wrists, shoulders, hips, knees, ankles and toes – as well as kick depth and rate, allowing coaches to pinpoint the performance attributes of specific parts of the body and to see how well all parts are working together to increase speed.

This technology is the first of its kind to provide quantitative data analysis of a swimmer's movements in the water, which USA Swimming intends to apply in the evaluation of how major and minor adjustments in form and technique improve a swimmer's dolphin kick at starts and turns, where a race can be won or lost.

The technology is currently a permanent fixture at the Olympic Training Center in Colorado Springs, Colo.

BMW Performance Team

The BMW Performance Team is an elite group of athletes who hope to compete in the Sochi 2014 Olympic and Paralympic Games. Members of the 2014 BMW Performance Team include:

- **Steve Langton** – Bobsled
 - o 2010 Olympian, Four-Time U.S. Push Champion, Two-time World Champion, two-time U.S. National Push gold medalist
- **Elana Meyers** – Bobsled
 - o 2010 Olympic bronze medalist (two-man), four-time U.S. Pilot Push Champion, 2013 World silver medalist, 2012-2013 World Cup bronze medalist
- **Alana Nichols** – Paralympic Alpine Skiing
 - o Three-time Olympic gold medalist (first U.S. woman to win gold in both the summer and winter Paralympic Games), 2011 Paralympic Athlete of the Year, 2011 Colorado Sports Woman of the Year
- **Heather Richardson** – Speedskating
 - o 17-time World Cup 1000m medalist, 12-time World Cup 500m medalist, two-time World Cup overall 1000m champion, World Sprint Champion
- **Evan Strong** – Paralympic Snowboarding
 - o 2011 Winter X-Games gold medalist, eight-time World Cup gold medalist, two-time overall World Cup Champion, reigning WSF World Champion, reigning USASA National Champion
- **Curt Tomasevicz** – Bobsled
 - o 2010 Olympic gold medalist (four-man), 2012-2013, 2007 World Cup gold medalist, 2012 World Champion

BMW Team USA Sponsorship

BMW Group (including BMW, MINI and BMW Motorrad) is the Official Mobility Partner of the United States Olympic Committee (USOC) and the U.S. Olympic and Paralympic Teams through 2016. BMW

Group is also the Official Mobility Partner of four National Governing Bodies (NGBs) – USA Swimming, USA Track & Field, USA Bobsled & Skeleton and US Speedskating.

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