Translation of an article which appeared in “The Wirtschaftswoche” (German equivalent of “The Economist” dtd. 19.01.08

Second Places

A step to the podium

More about a magnificent success story

“Blitz”-Cure for the Engine

A Nano coating form Rewitec protects propulsion engines and reduces emissions. The VW Touran had been running for 160,218 kilometres when it received a special treatment on May 31st 2007. Scientists from the University of Frankfurt poured M2, which was developed by Rewitec in Lahnau, near Giessen, Germany into the engine oil. Within a few days the Nano-particles, which make up the treatment, coated the engine areas most exposed to wear with a protective cover while repairing tiny damages.

The scientists were very surprised when thoroughly examining the vehicle with special equipment two weeks later. The Diesel engine emitted about 64 percent fewer soot particles and fuel consumption was reduced by more than four percent. A five year old Passat showed roughly eleven percent fuel reduction. The reason: During operation of the vehicle the particles contained in the oil had reacted with the surface metal, creating a resilient metal silicate coat – this is a chemical compound made up of various types of silicates. The particles are evenly distributed in the engine oil. Reaction sets in at temperatures up to 1000 degrees Celsius – which occur in engine areas subject to heavy friction.

The phenomenon was originally observed by drilling technicians in Russia during operations in the seventies. While chisels had penetrated formations of unusually hard rock they were covered by a mysterious protective coating, which considerably prolonged the life of the tools. Analysis showed that silicates had formed during the drilling process. Rewitec has successfully recreated these subterranean events in their coating compounds. It costs about 80.00 Euros to rejuvenate a two litre car engine. This cure is considerably more expensive for ship engines or wind generators. Savings, on the other hand, are also considerably higher.