



PRESS RELEASE

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Lightweight Forging III: International Lightweight Forging Initiative Meets in Aachen for Hands-On Workshops

The Lightweight Forging Initiative was founded in 2013. During its first phase, it achieved a weight-saving potential of 42 kg in a medium-sized passenger car. The second phase identified a lightweight design potential of 99 kg in a light commercial vehicle.

Phase III kicked off in 2017. 39 steel manufacturers and forging companies from Europe, Japan and the US have come together to uncover the lightweighting potential in a hybrid split-axle four-wheel drive vehicle as well as in parts of a conventional truck powertrain.

With this, a project consortium has been set up that is unparalleled in the forging world. With 39 participating companies from three continents, it exceeds the size of all joint forging projects to date including, incidentally, the influential ULSAx projects, which analyzed ultra light steel in the chassis approx. 20 years ago. With eight companies from Japan and one from the US, a global network has been generated in which the level of cooperation is likewise unprecedented among forging companies.



The third phase was launched in July 2017. A vehicle was procured and disassembled at the automotive research company fka of RWTH Aachen University. In addition, the individual parts of a truck transmission, propeller shaft and rear axle were bought used and then documented. Following months of preparation, the project consortium met for three days in Aachen during the fourth week of January, 2018. The program included presentations on electrification trends in the automotive industry, the design of transmission systems and on the potential lightweighting effect of high-strength steel. There was also plenty of scope for suggestions and discussions regarding the technical marketing of new steel developments.

However, the heart of the event was formed by the hands-on sessions, during which the 80 participants were able to inspect and discuss 4,200 parts before going on to develop several hundred lightweighting ideas during the workshop itself. The discussions took place in a very open atmosphere. It was interesting to see how, over the course of the three days, new contacts and even friendships were made, thereby rendering the technical information exchange even more open.

Over the next few weeks, the lightweighting ideas will be refined by the participants, so that the overall results can be revealed to the customers in summer 2018 in the customary form of presentations at automotive conferences, publications in automotive magazines as well as downloadable documentation at www.massiverLEICHTBAU.de. The aim is to promote communication about lightweighting along the entire supply chain (steel manufacture – forging – component manufacture – automotive application) in order to implement feasible lightweight forging design solutions.

Image: 80 experts from the US, Japan and Europe from steel manufacturers and forging companies are developing potential lightweighting ideas using a hybrid vehicle and truck powertrain.



The Hirschvogel Automotive Group

The Hirschvogel Automotive Group is among the most successful manufacturers of forged parts made of steel and aluminum. As a development partner to the automotive industry and a production specialist in forging and machining, the core competencies of Hirschvogel lie in the application areas of gas and diesel injection, the engine, electric drives as well as the transmission, powertrain and chassis in passenger cars and commercial vehicles. Another key focus is on parts for off-highway applications.

Hirschvogel is an independent family company and has approx. 5,300 employees worldwide. Total sales in 2017 amounted to 1.167 billion euros. The headquarters of the Group are located in Denklingen, Upper Bavaria. Likewise located there are Hirschvogel Umformtechnik GmbH and its parent company Hirschvogel Holding GmbH. The Group is also represented in Germany with three other plants based in Schongau and in Marksuhl, near Eisenach. Internationally, the Hirschvogel Automotive Group is present on three continents: in Pinghu near Shanghai (China), in Columbus/Ohio (USA), in San Juan del Río/Querétaro (Mexico), in Gliwice (Poland) and in Sanaswadi (India).

More information on the company, products, service spectrum and career at Hirschvogel may be found at www.hirschvogel.com.