



Audi Stiftung für Umwelt GmbH (Audi Environmental Foundation)

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Audi Environmental Foundation: starting signal for “Smart HOBOS” high-tech beehive

- **Joint research station with Würzburg University at Audi’s production site in Münchsmünster**
- **Prof. Dr. Hubert Walzl, Audi Board of Management Member and Chairman of the Board of Trustees of the Audi Environmental Foundation: “Unique cooperation project for scientific and educational purposes”**
- **New insights into the honey-bee superorganism**

Ingolstadt, April 26, 2016 – Bees pollinate about 80 percent of our agricultural plants and wild vegetation, so life without bees is almost impossible. Too little pollination would have severe consequences – both environmental and economic. With the worldwide unique “Smart HOBOS” (HoneyBee Online Studies) project, the Audi Stiftung für Umwelt GmbH (Audi Environmental Foundation) and the Julius Maximilians University of Würzburg are working to protect these vital and fascinating insects. On Tuesday, Prof. Dr. Hubert Walzl, Board of Management Member for Production at AUDI AG and Chairman of the Board of Trustees of the Audi Environmental Foundation; Christoph Hillenbrand, District President of Upper Bavaria; Prof. Dr. Barbara Sponholz, Vice President of Julius Maximilians University of Würzburg; and bee expert Prof. Dr. Jürgen Tautz opened the research station at Audi’s production site in Münchsmünster. The first bees will soon move into their new home.

The world’s first Smart HOBOS high-tech beehive adopts a completely new approach to research into the behavior of honey bees, which are increasingly in need of protection. The beehive is situated in a wooden cabin on Audi’s production site in Münchsmünster. There, the insects have a fairly natural environment and can thus freely build their home – as in a fully natural environment. A special trick is that a robot arm with 360 degrees of swivel movement is installed in the same space. It is fitted with infrared and heat-sensitive cameras as well as 3D sensors to record the activity in and around the beehive, day and night. This will offer observers unprecedented insights onto and into the honeycombs without disturbing the bees. Thanks to state-of-the-art technology, thermographic images can also be captured, allowing new perspectives of individual bees and the entire bee colony. In addition, ultramodern equipment will monitor external influences such as humidity,



temperature and light exposure. This will facilitate valuable conclusions about bees' behavior. Prof. Dr. Hubert Waltl, Chairman of the Board of Trustees of the Audi Environmental Foundation and Board of Management Member for Production at AUDI AG: "The Audi Environmental Foundation has been working on the protection of the endangered honey bee for many years. The Smart HOBOS research station will now allow access to the phenomenon of the honey bee, also to school students with an affinity to technology, and will raise their awareness of the subject."

The high-tech beehive is a further development of the interactive HOBOS project of Würzburg bee expert Prof. Dr. Jürgen Tautz. School students, university students of biology, research scientists and interested persons worldwide will be able to observe a real beehive at any time via livestream, and will have access to the recorded data. This offers many possibilities for interactive learning for educational institutions.

The Audi production site in Münchsmünster is an ideal location for the Smart HOBOS high-tech beehive, because Audi is making particular efforts there for biological diversity. For example, the company has made open spaces on the plant site into near-natural habitats for numerous species of plants and animals. This has resulted in meadows with a large variety of flowers and other species, thus providing optimal feeding grounds for honey bees and wild bees.

The Audi Environmental Foundation helps to promote the diversity of nature and species and has supported various bee projects since 2011. Its goal is to raise awareness of and stimulate interest in environmental issues, especially among children and young people.

- Last year, the Audi Environmental Foundation and Würzburg bee expert Prof. Dr. Jürgen Tautz published the book "Research into the World of Bees" and the teaching material "Bee Research for Teaching MINT Subjects."
- Also last year, 26 schools in Bavaria were provided with kits for starting bee study groups – a joint action of the Foundation together with the Bavarian Regional Office for Viniculture and Horticulture.
- In the direct vicinity of the Audi plant in Ingolstadt, a home for eight bee colonies was established in the Max Emanuel Park in cooperation with two beekeeper associations. Two Audi employees and hobby beekeepers are taking care of more than 400,000 honey bees there.



Notes:

Further information on the HOBOS project is available online at www.hobos.de. As of early summer 2016, interested persons will be able to observe the bees in the Smart HOBOS beehive, also at www.hobos.de.

Photographs of the opening event are available as of 4 p.m. at www.audi-mediacycenter.com/de.

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The non-profit-making Audi Environmental Foundation was founded in 2009 as a 100-percent subsidiary of AUDI AG and part of its environmental commitment. Audi lives up to its social responsibility at many levels – for the sake of a viable future for future generations. The goal of the charitable foundation is to promote the protection of nature and the environment and to advance science and research. Its main areas of activity are protecting the natural basis for life of humans, animals and plants, promoting scientific work that contributes towards a sustainable human-environment-system, promoting the development of environmentally compatible technologies, and supporting measures and activities for environmental education.