

## Double Success for Schweinfurt: Alexander-von-Humboldt High School Sets National Standards in STEM Education

- **With 140 participants, the Alexander von Humboldt High School in Schweinfurt won first place in the nationwide INVENT a CHIP School Award and received 750 euros.**
- **In addition, the school took third place in the category for schools with the highest scores, averaging 15.7 out of 20 points, and received an additional 350 euros for this achievement.**
- **The high school also impressed at LABS for CHIPS with its electronics project “LEDs, Transistors, and More.” The Schweinfurt Knowledge Workshop was also honored for its “Solar Vehicles” project.**

(Frankfurt am Main/Schweinfurt, July 31, 2026) When classroom instruction, student academies, and hands-on electronics projects come together, they produce extraordinary achievements and a passion for technology. The Alexander von Humboldt High School in Schweinfurt proves exactly that in the anniversary year of the nationwide INVENT a CHIP (IaC) competition: With 140 participants, the school wins first place in the INVENT a CHIP School Award for the highest participation rate. At the same time, with an average score of 15.7 out of 20 points, it took third place in the category for schools with the highest scores, behind the Schloss Hansenberg Boarding School in Geisenheim (1st place with 19.5 points) and the Leibniz High School in Dormagen (2nd place with 17.3 points). This makes the Alexander-von-Humboldt High School Schweinfurt the only school in Germany to be honored in both categories during the competition’s anniversary year.

For 25 years, INVENT a CHIP—a competition organized by the technology organization VDE and sponsored by the Federal Ministry of Research, Technology, and Space—has been inspiring young people to take an interest in microelectronics: a key technology that is shaping medicine, artificial intelligence, mobility, and the energy transition in equal measure. A total of

1,154 students from 140 schools answered the 20 challenging quiz questions about microchips and their applications.

### **Microelectronics Is Part of Everyday School Life**

This success, unique in Germany, is no coincidence. As a MINT-EC school and a science-focused high school, fostering skills in mathematics, natural sciences, and technology has been an integral part of the school's profile for many years. Classes, elective courses, and projects are closely intertwined, providing students with diverse avenues to explore electronics and microelectronics.

Benedikt Friedrich, a member of the extended school administration, has been using the laC quiz for years in the Junior Engineer Academy and in physics classes. Friedrich: "INVENT a CHIP is an accessible yet motivating introduction to the world of microelectronics. Our students tackle real-world technical problems and experience just how exciting chip technology can be. This fits perfectly with our STEM profile."

### **From Theory to Enthusiasm**

The successful LABS for CHIPS project "LEDs, Transistors, and More" also demonstrates that microelectronics is not taught solely in theory at the Alexander-von-Humboldt High School. Through the LABS for CHIPS initiative, the VDE provides financial support to schools, student labs, and educational institutions nationwide to inspire young people's interest in microelectronics through hands-on electronics projects. In the cross-school courses at the Schweinfurt high school, students learn about analog and digital electronic components in eight modules, build their own circuits, and gain hands-on experience with soldering.

For physics and math teacher Rainer Langhans, it is precisely this combination of theory and practice that is the key to success. Langhans: "What's particularly impressive is how immediately visible the learning progress is. After each theory session, the students directly apply what they've learned to a functioning circuit. Theory and practice go hand in hand here. Witnessing the students' enthusiasm is, for me, the greatest confirmation and, at the same time, an incentive to continue this program."

In Schweinfurt, the "Wissenswerkstatt"—an extracurricular educational institution for children and teens focused on STEM topics—also made a strong impression. This year's "Solar Vehicles" project was recognized as part of LABS for CHIPS. In this project, teens build solar-powered and capacitor-buffered model vehicles, learning through play how to work with electronic components and soldering techniques.

## **A Strong Network for the Next Generation of Engineers**

Werner Battke, VDE STEM Coordinator, and Julian Marberger, Head of VDE Bavaria, have been supporting STEM initiatives at the VDE for many years. Julian Marberger praised the school's double success: "The Alexander-von-Humboldt High School demonstrates what is possible when students are inspired by technology at an early age. This success—unique in Germany—in both school award categories is the result of the tremendous commitment of the school and its teachers. STEM promotion, competitions, and hands-on electronics programs complement each other in an exemplary way here. In this way, curiosity gives rise to enthusiasm, and enthusiasm leads to technical understanding. These are precisely the best prerequisites for helping to shape the key technologies of tomorrow."

Numerous sponsors support INVENT a CHIP to inspire young people about microchips and their applications, including: Bosch, Cologne Chip, Globalfoundries, Infineon, and Siemens.

### **About VDE:**

VDE, one of the largest technology organizations in Europe, has been regarded as a synonym for innovation and technological progress for more than 130 years. VDE is the only organization in the world that combines science, standardization, testing, certification, and application consulting under one umbrella. The VDE mark has been synonymous with the highest safety standards and consumer protection for more than 100 years.

Our passion is the advancement of technology, the next generation of engineers and technologists, and lifelong learning and career development "on the job". Within the VDE network more than 2,000 employees at over 60 locations worldwide, more than 100,000 honorary experts, and around 1,500 companies are dedicated to ensuring a future worth living: networked, digital, electrical.

Shaping the e-dialistic future.

The VDE (VDE Association for Electrical, Electronic & Information Technologies) is headquartered in Frankfurt am Main. For more information, visit [www.vde.com](http://www.vde.com)

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