

25 Years of INVENT a CHIP 2026: Award-Winning Students Develop Voice-Controlled Microchips

- **Nikita Heitzler (16) from Kirchgarten takes first place, winning a prize of 2,000 euros**
- **25 years of successful STEM youth development**
- **1,500 students participated in the competition**

(Augsburg/Frankfurt am Main, October 6, 2026) INVENT a CHIP celebrates its 25th anniversary, and the success story continues: To mark the occasion, 1,500 students from all over Germany took on the challenge and designed their own microchips. At the grand anniversary finale in Augsburg, the VDE, together with the Federal Ministry of Research, Technology, and Space (BMFTR), honored the best young chip designers. Also in attendance were numerous former award winners who now work in science, research, and industry.

The first-place prize of 2,000 euros for 2026 goes to Nikita Heitzler (16) from the Marie-Curie-Gymnasium in Kirchgarten. "What fascinates me about chip design is that it forms the basis for almost all technological progress. I find it particularly exciting to think about what will be possible in the future, such as brain-computer interfaces or quantum computers," he says.

In this year's competition, the students developed microchips with their own voice control and artificial intelligence (AI). "The goal was to recognize the given words as quickly and accurately as possible. What made it special was that I found an additional training dataset to improve the model," explains INVENT a CHIP winner Heitzler. Second place and prize money of 1,500 euros went to Pascal Roth (19) from the Moll-Gymnasium in Mannheim: "I find chip design exciting because almost everything in our world today is based on computer chips," he says. Third place, with a prize of 1,000 euros, went to Simon Wörlen (17) from Einhard-Gymnasium in

Aachen: “You get a glimpse into a part of technology that you wouldn’t otherwise have,” the award winner notes.

Hands-On Experience for the Next Generation of Engineers

This is exactly where INVENT a CHIP has been making a difference for 25 years: The nationwide student competition organized by BMFTR and VDE enables young people to step into the role of chip developers themselves and gain hands-on experience with one of the most important key technologies.

“The 25-year history of the INVENT a CHIP initiative and its success stories show how curiosity and enthusiasm give rise to qualified professionals for the key technologies of tomorrow. The young participants possess enormous potential, and the initiative provides them with a well-deserved platform to showcase their practical experience in chip design. INVENT a CHIP thus creates direct pathways into research, business, and science,” says Dorothee Bär, Federal Minister for Research, Technology, and Space.

“We believed in young people from the very beginning so that Germany could continue to rely on its own talent for future technologies. This idea has paid off,” says VDE President Prof. Christoph Kutter.

About the Chip Design Challenge

The competition is aimed at students in grades 9 through 13 and introduces them to microelectronics in three phases. It begins with a quiz, followed by the IaC Challenge, which features more challenging online tasks. The top 25 students ultimately qualify for the IaC Camp at Leibniz University Hannover. There, under expert guidance, they deepen their knowledge and develop their own chips. This year’s INVENT a CHIP Camp was also a hit with award winner Konstantin Borodulin (15) from Herder-Gymnasium in Berlin, who took seventh place, which comes with a prize of 500 euros. “I think the competition is the perfect opportunity for young people to get to know this field, since it rarely comes up before college,” he says.

25 Years of INVENT a CHIP – Talents Become Experts

The career paths of former participants show just how formative taking part in INVENT a CHIP can be. Karolin Lohre won in 2015; she studied electrical engineering and information technology, and today she is pursuing a Ph.D. in digital forensics. “Have confidence in yourselves and believe in your ideas,” she says. Philipp Winter, a participant in INVENT a CHIP 2010, sums it up with one message: “Do what you really enjoy!” He now works as a high school teacher. Jan Hieronymus was also part of one of the early teams. He works as a systems engineer for camera systems on board satellites. In 2009, Dr. Kai-Uwe Demasius won INVENT

a CHIP at the age of 18. Today, he is a chip developer and entrepreneur. “Participating and winning were a huge motivational boost for me back then,” he explains. “The competition completely inspired and convinced me of the appeal of microelectronics, so I went on to specialize in the field during my studies.” After earning his Ph.D. at the Max Planck Institute for Microstructure Physics in Halle (Saale), Demasius founded SEMRON GmbH in Dresden together with a former classmate. The company develops energy-efficient AI chips and software for on-device applications.

A Head Start for Up-and-Coming Chip Designers

“We need young people who will responsibly advance these new technologies and discover career opportunities within them,” says VDE President Prof. Christoph Kutter. In addition to prize money ranging from 500 to 2,000 euros, all winners also gain access to contacts in industry and academia, are nominated for the German National Academic Foundation, and have the opportunity to complete a multi-day internship at Bosch in Reutlingen.

INVENT a CHIP is funded by the BMFTR as part of the High-Tech Agenda Germany. The student competition makes an important contribution to promoting young talent in key technologies such as microelectronics. In addition, numerous sponsors are supporting the current round of the competition: Bosch, Cologne Chip, Globalfoundries, Infineon, and Siemens.

An Overview of the INVENT a CHIP 2026 Winners

Nikita Heitzler (16), Marie-Curie-Gymnasium in Kirchzarten, 1st place (2,000 euros)

Pascal Roth (19), Moll-Gymnasium in Mannheim, 2nd place (1,500 euros)

Simon Wörlen (17), Einhard Gymnasium in Aachen, 3rd place (1,000 euros)

Josef Hunien (17), Kurfürst-Friedrich-Gymnasium in Heidelberg, 4th place (500 euros)

Malte Rauschenbach (15), Franz-Marc-Gymnasium in Markt Schwaben, 5th place (500 euros)

Damian Gurbiel (16), Herzogenaurach Gymnasium in Herzogenaurach, 6th place (500 euros)

Konstantin Borodulin (15), Herder-Gymnasium in Berlin, 7th place (500 euros)

Lenny Kranjec (19), Ziehenschule in Frankfurt am Main, 8th place (500 euros)

Till Schacht (19), IGS Franzisches Feld in Braunschweig, 9th place (500 euros)

Oleksandr Kalikhman (18), Städtisches Gymnasium Erwitte in Erwitte, 10th place (500 euros)

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

Press contact: Matthias Schmidt-Stein, Phone +49 69 6308-398, presse@vde.com