

AI LAB® – The Future is Now!

Building a National Ecosystem for Innovation and Leadership in the Era of Artificial Intelligence



AI LAB® is an innovative program that transforms education. Through specialized laboratories, schools integrate Artificial Intelligence (AI) technology directly into the educational process. AI LAB® enables schools to transition from passive consumption of information to active creation of innovations with the support of technology.

The three pillars of AI LAB®:

- **Inspiring learning environment:** A space equipped with high-tech **Acer AI PCs** with **Intel® Core™ Ultra processors**, interactive displays **Samsung** and modular furniture. This environment stimulates collaboration and turns the learning process into an interactive adventure for teachers and students.
- **Comprehensive support for teachers:** A series of specialized trainings, mentoring support and selected interdisciplinary content. The program utilizes leading international frameworks and resources, **Intel® Skills for Innovation (SFI)** and **Intel® AI for Youth**, which support the teacher's transformation into a mentor and facilitator.
- **Preparing for the real world:** Access to higher-order skills and knowledge across Bloom's Taxonomy. Students prepare for their future careers through real-world AI projects with **Intel® Skills for Innovation (SFI)** and **Intel® AI for Youth**, programs that develop cognitive, technological, and social skills from grades 3-12.

AI LAB® operates as a complete ecosystem where cutting-edge hardware meets internationally recognized learning content. This combination allows schools to leapfrog the boundaries of traditional learning and enter the era of practical innovation.

1. The hardware foundation: Intel® Core™ Ultra processors and Acer

Laptops are at the heart of AI LAB® Acer, powered by revolutionary processors Intel® Core™ Ultra. These devices are designed to meet the demands of the future:

- **Significantly faster and more efficient:** Thanks to the built-in Neural Processing Unit (NPU), the devices are optimized for Artificial Intelligence (AI) tasks, ensuring flawless performance when working with heavy applications.
- **Local and secure work:** AI PC technology enables the execution of complex AI algorithms directly on the device. This ensures not only high response speed, but also maximum data security.
- **Durability and quality:** The devices are adapted for intensive educational purposes, have a longer lifespan and maintain the dynamics of the modern classroom.

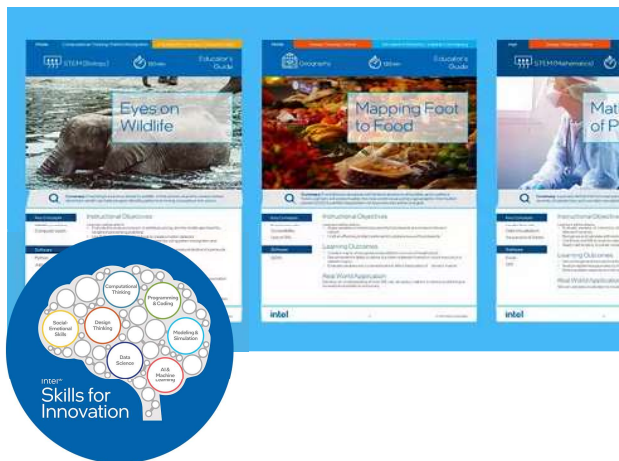


„By implementing Intel programs, we aim to give schools the support and courage to transform education. We want to build a strong connection between what students are learning, why they are learning it, and how they can apply it in real life. That's why these programs become a permanent part of the learning process.“

Vesela Ruseva, program manager at the Center for Creative Training.

2. Intel Programs: World-Class Education

Technological infrastructure is filled with meaning through leading programs Intel® Skills for Innovation (SFI) and Intel® AI for Youth. They provide the framework through which students prepare for the global job market.



Intel® Skills for Innovation (SFI)

The program provides a framework for transforming the learning process through ready-to-use interdisciplinary resources. These materials leverage AI-driven tools to connect classroom topics with real-world cases:

- **Educational projects:** Ready-made learning content with real-life cases that help students move from pure understanding of the material to active application and creation.
- **Horizontal integration:** The resources integrate AI and technology into all subject areas – from natural sciences and humanities to professional training.



Intel® AI for Youth

The program provides critical knowledge in the field of AI through a structured and in-depth approach:

- **Specific areas of knowledge:** Students learn skills in key areas such as computer vision, natural language processing (NLP), statistical data, and generative AI.
- **Practical application:** Through real-life case studies, students develop projects that respond to significant social and environmental challenges.

On the road to success

The project **AI LAB®** is a complete transformation that begins with a clear vision and strong leadership. Today we present to you the first steps on this path in Bulgaria of two schools with radically different profiles, proving that innovation in education is a universal language for success.

Leadership in Digital Transformation: 2nd English Language School „Thomas Jefferson”

2nd English Language School „Thomas Jefferson” is an emblematic school located in the capital of Bulgaria. As a specialized high school, it unites a community of 998 students and 68 pedagogical specialists. It is also one of the first Google Reference Schools in the country. Since 2018, teachers have been working on integrated lessons using the method of project and problem-based learning, and **AI LAB®** is a natural continuation and upgrade of this process as part of the school's vision for modern education.

„AI LAB® provides an opportunity to develop skills, prepare for the professions of the future, as well as to create an educational environment that encourages critical thinking, creativity and innovation of students and teachers.”

Vesselina Ivanova, Principal, 2nd English Language School „Thomas Jefferson”.

Democratization and a level playing field: PGKHT

The Vocational School of Chemical and Food Technologies in the town of Pazardzhik educates 450 students with a predominant profile from marginalized groups and a team of 38 pedagogical specialists.

„Our teachers are now facilitators in a new educational paradigm. It is technology and Artificial Intelligence that provide that even start which allows our students – even from marginalized communities – to gain confidence that they can succeed and be equal to everyone else. **AI LAB®** strengthens their capacity to learn and opens doors to anything they desire to achieve.”

Todor Dzhambov, Principal, PGKHT.

What the two schools have in common: each teacher has their own device, and **AI LAB®** is equipped with a total of 66 **ACER** powerful devices with **Intel® Core™ Ultra processors**.

There is also absolute consensus (**rating 5/5**)* among school leaders: **AI LAB®** is recognized as a key tool for innovative prestige, a level playing field and high competitiveness of students. The project is establishing itself as a major catalyst for the digital transformation of teachers, supported by the methodological expertise of the Center for Creative Training.



* Center for Creative Training, AI Lab Schools Survey, April 2026 (Teachers, Students, School Leaders)

Teachers at the heart of the laboratory

The transformation into AI LAB® starts with educators. They are the people who turn technology into a meaningful educational experience, moving from traditional lecturers to knowledge facilitators.

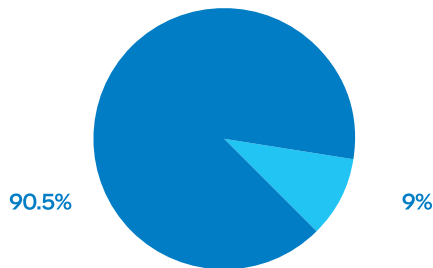
„For real change to happen, we must first start with teachers. The Center for Creative Training is our strategic partner all the way, and qualifications are fundamental – with Intel’s programs, as well as training on the use of various attractive tools that teachers can use to make the learning process more interactive and understandable for their students.“

Vesselina Ivanova, Principal, 2nd English Language School „Thomas Jefferson“.

Paradigm Shift: From Lecturer to Mentor

Data shows that teachers no longer fear technology, but recognize it as an ally.

Chart 1: The new attitude towards AI in the classroom*



- **90.5%** of teachers have changed their opinion in a positive direction, **62%** of them already define AI as an “essential partner” in the learning process.
- Barely **9%** do not report any change, which highlights the huge success of the qualification program.

For the teachers in Pazardzhik, this is the „next step” in the evolution of the school.

„We realized that we are not just teachers, but mentors who guide children to work with data and AI so that they can access information on their own.“

shares Teodora Tsvetanova, Teacher, PGKHT.

Horizontal integration: AI in every subject

AI LAB® dispels the myth that high-tech is the preserve of IT classes. Intel® Skills for Innovation (SFI) resources enable teachers to implement AI across a wide range of disciplines:

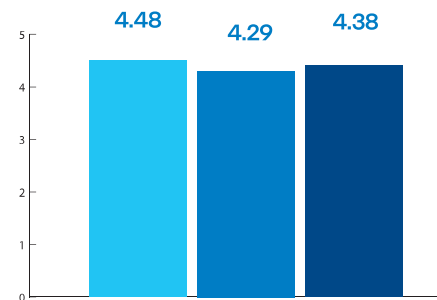
- **Humanities:** History, Philosophy, Languages (English, German, Spanish).
- **Natural Sciences:** Physics, Chemistry, Biology, Mathematics.
- **Professional training:** Automation, Electrical Engineering, Food Technology.

One of the teachers in the program shares: „It is applicable in any subject, it just requires knowledge and creativity.“

The technological edge: Why is AI PC critical?

Teachers are adamant: modern AI projects require specialized hardware. They appreciate Intel® Core™ Ultra processors not just in terms of speed, but as an opportunity for new learning methods.

Chart 2: Hardware Importance (Scale 1-5)*



- Importance of dedicated AI PCs for complex projects: **4.48 / 5**
- Positive influence on the dynamics of the lesson: **4.29 / 5**
- Better preparation for the real business world for students: **4.38 / 5**

What do teachers expect from the new Acer devices with Intel® Core™ Ultra processors?



- **Local AI and security:** Ability to run AI algorithms directly on the laptop, without the need for a constant cloud connection.
- **Working with „heavy” applications:** Process video, large data sets, and complex simulations without lag.
- **Hourly dynamics:** The high speed of operation allows more time for discussions and creativity, instead of waiting for programs to load.

Intel® Resources – Innovation and Project Framework

The platform **Intel® Skills for Innovation (SFI)** serves as the methodological backbone of **AI LAB®**. It provides teachers with a “resource base” that they adapt and build upon.

„Our encounter with Intel’s resources helped us build on our innovation. The programs gave us both the technological idea and the security of how to connect technologies – something without which STEM education is unthinkable today.”

teacher from 2nd English Language School „Thomas Jefferson”.

Projects that change the environment

„A Bite of Awareness”

Healthy Lifestyle (PGKHT, Pazardzhik)

This project is an example of large-scale integration between biology, physics, mathematics and special vocational subjects. Works with the Intel SFI lesson **Healthy eating for everyone**, in which students research the impact of poor nutrition and perform statistical analysis to understand the problem and raise awareness in society.

- **Method:** Teachers adapt the ready-made Intel lesson to the needs of students in grades 8 and 9. Students use AI models and mathematical algorithms to calculate their own energy needs.
- **Result:** A digital „Teenager’s Handbook” has been created, transforming dry theory into a practical guide to life.

„Thanks to Intel’s resources and the new lab, the classroom is no longer just a listening room. We are no longer just teachers, but mentors who guide children through the process of creation.”

Teodora Tsvetanova, teacher, PGKHT

„Water Pollution”

Field Science (ELS „Thomas Jefferson”, Sofia)

Students explore the effects of water pollution and propose solutions with the lesson **Water pollution**. An adapted model from the Intel SFI platform for profiled biology training for a Bulgarian park with water sources.

- **Practice:** Field work (South Park), sample collection and laboratory analysis.
- **Digital product:** Finalization through an interactive map with graphics, images and GPS coordinates – preparation for real research professions.

„Diversity of Flowers”

Computer Vision and 3D (2nd ELS „Thomas Jefferson”, Sofia)

Intel’s SFI lesson serves as an introduction to the world of programming and computer vision. Students explore how the diversity of flowers allows them to adapt to their environment and create a machine learning and artificial intelligence model to classify irises.

- **AI as a co-teacher:** Artificial Intelligence teaches students Python and concepts about computer vision, while the teacher acts as a moderator.
- **3D prototyping:** Students construct detailed models of plants in **Blender**, using AI to generate steps and ideas.

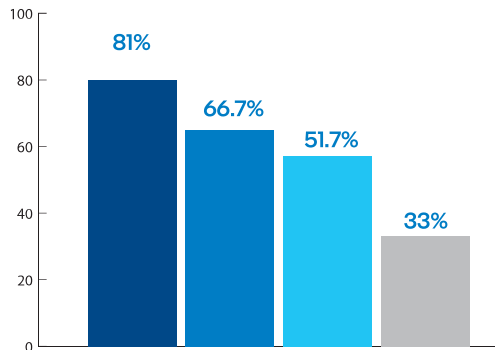


The overall result: skills of the future

The message of AI LAB® is clear: move from providing “content access tools” to creating “skill building tools.” A shift to active, interdisciplinary learning that transforms passive learning into active participation and creates future technology leaders.

Survey data shows that teachers emphasize the balance between high technological preparation and key „soft” skills.

Chart 3: Key competencies in AI LAB® (in %)*



- **Teamwork (81%):** This is the most strongly expressed expected benefit. The lab is perceived as a social collaborative space where students solve projects together, preparing for team dynamics in real business.
- **Technological literacy (66.7%):** Working with AI PC (Intel® Core™ Ultra processors) and specialized software ensures that students will be fluent in the tools of the future.
- **Critical thinking and creativity (51.7% each):** Students learn to analyze information critically and use AI as a creative partner.
- **Solving complex problems (33%):** Through the projects of Intel®, children face real, real-life challenges.

„I see our new AI lab as a new digital microscope of the future, through which our students will ultimately adapt to future professions that may not even exist today, but for which they, working in such a new, modern learning environment, will be largely prepared.”

Irina Kostadinova, teacher, 2nd ELS „Thomas Jefferson”, Sofia.

The Voice of the Future – Students for AI LAB®

Students are not just using new technology – they are recognizing it as their ticket to the professions of tomorrow. For them AI LAB® is the end of technical limitations and the beginning of true creativity.

The end of limitations. The power of hardware

For students, powerful devices Acer with Intel® Core™ Ultra processors are not just a luxury, but a tool that unlocks their hidden potential.

„Until a few years ago, I didn’t have the machine to make 3D models or deeper research. I was working on a „grandma’s computer”. Now, with the AI lab, the creativity that is hidden in many students can come to light, due to the lack of limitations from the technology..”

Martin, 11th grade, ELS „Thomas Jefferson”, Sofia.

Result: 53% of students believe that the specialized laboratory will help them learn **faster and more efficiently**.*

From research to solution as we work together

Students use Artificial Intelligence as an intelligent assistant throughout the entire cycle of their projects – from the initial information search to the final visualization. And with their work in the lab **66.7%** believe they will improve their teamwork.*

Speed and reliability: „AI is helping tremendously with research – it’s becoming much faster and more efficient. We can find sources and check if information is reliable by comparing it through these tools.” (Magda, 11th grade.)

History in the 21st Century: Students bring the past to life: „With the help of Canva and AI, we created videos about the April Uprising based on Zahari Stoyanov’s notes. We are glad that we will gain experience that is not yet so developed in Bulgaria.” (Eve, 11th grade.)

Motivation for the future

AI LAB® is a space that creates a sense of exclusivity and a high start in your career.

- **62.2%** of students appreciate the presence of AI LAB® as **extremely important for the school**.*
- **60%** believe that the skills acquired here will be **decisive for their future career**.*
- **48.9%** confirm the transition from **passive understanding to active creation** on their own projects.*

„We hope to find solutions to real environmental and global problems through the AI lab. We are motivated by the fact that we have access to something so modern while still in school.”

Sefania, 11th grade.

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www.cct.bg/ai-lab



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Intel programs are accessible to all teachers in Bulgaria via www.sfi.mon.bg under the 2024 Memorandum between Intel and the Ministry of Education and Science.

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