



# FUNDÃO'S THRIVING AI FUTURE SHAPED BY YOUTH

CELEBRATING THE FIRST EUROPEAN EDITION OF  
WORLD ARTIFICIAL INTELLIGENCE COMPETITION  
FOR YOUTH (WAICY)



Câmara Municipal



June 2025

# EXECUTIVE SUMMARY

## A Landmark Success in Fundão, Portugal

WAICY Europe 2025, held on June 28 in Fundão, Portugal, marked a resounding success as the World Artificial Intelligence Competition for Youth (WAICY) made its European debut. Hosted in the city's Migrant Centre, the event brought together a global community of youth innovators, AI researchers, educators, policymakers, and tech leaders to celebrate a shared vision: that artificial intelligence must be ethical, inclusive, and youth-driven.

Fundão, a small city with a big heart, proved to be the ideal host for this landmark event. Long committed to equity, inclusion, and entrepreneurship, the city embodied WAICY's mission of empowering young people through transformative AI education. The day opened with welcoming remarks from Fundão's Mayor Paulo Fernandes, who highlighted the city's decade-long commitment to equity, inclusion, and innovation. His words set the tone for the day, affirming that young people in Fundão have endless potential in leading the city's AI development. This was followed by a keynote address from Professor José Barata, Chair of the European WAICY Program, who emphasized the significance of regional innovation ecosystems and the transformative power of AI education in less-urbanized areas.

The main program featured four powerful panel discussions, each tackling critical dimensions of AI's role in society and education:

- Panel 1: The Future of Education and AI in Europe
- Panel 2: AI for Social & Environmental Good: Innovate for Impact
- Panel 3: Ethics-by-Design: Empowering Responsible Builders
- Panel 4: The Teacher's Role in the Age of AI

These panels featured youth innovators, university professors, tech industry leaders, NGO representatives, and researchers from across Portugal, France, the United States, China, Saudi Arabia, and beyond. Their insights sparked rich dialogues on inclusive AI futures and the urgent need for collaborative, ethical, and human-centered AI development.

Concurrently, students from Fundão and around the world participated in live AI project presentation sessions. These showcased the impressive technical skills and social awareness of students from Grades 1 through 9, judged by a panel of experts who evaluated each project's fluency in AI concepts, ethical design, and potential for real-world impact.

The day concluded with a series of powerful closing keynotes delivered by industry leaders and a Stanford University professor, reflecting on the future of AI and the role of youth in shaping it. The event came full circle with a closing address by Mayor Paulo Fernandes, who celebrated the success of the day and reaffirmed Fundão's long-term commitment to advancing youth-driven innovation.

WAICY Europe 2025 marked a new chapter in Portugal's emergence as a leader in global AI literacy and innovation, thanks to strong support from both local stakeholders and international partners. WAICY Europe 2025 was made possible by the unwavering support from the Municipality of Fundão, along with NOVA University of Lisbon, VVAI, ECAIRE, and ReadyAI (USA).



# WAICY EUROPE IN NUMBERS

## From Portugal to the World

**407**  
projects  
submitted.

**37**  
countries  
represented.

WAICY Europe 2025 received an outstanding **407 project submissions from youth across 37 countries**, showcasing a global wave of creativity and responsible AI innovation. Portugal had a strong presence, with several projects coming from Fundão's local schools, reflecting the city's growing leadership in youth-centered AI education. Notable candidates also came from European countries like Greece and Germany, alongside impressive contributions from South Asia, East Asia, and North America. The diversity of submissions highlighted a shared commitment among young people worldwide to use AI for meaningful impact.



ReadyAI

UNINOVA

ECAIRE

educom

VENTOS VERSÁTEIS



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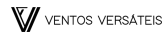
# GLOBAL EVENT WITH A LOCAL HEART

## Transnational Knowledge-Sharing in Fundão



WAICY Europe bases its educational process in the roots of the Municipality's history, culture and territories, while elevating children and young people with digital talent, critical thinking and openness to the world. This balance between tradition and modernity is at the core of the Municipality's educational and cultural strategy. WAICY's mission is to **make sure every child, not just those in tech capitals, has the opportunity to learn, build, and lead in the AI age.** As the host of the first European WAICY, Fundão is also sending a powerful message that AI is for everyone. Besides professors and municipal officials in Portugal, the main event featured representatives from countries such as the United States of America, China, France, and Saudi Arabia. The hybrid mode of both on-site and online conferencing made transnational knowledge-sharing an empowering reality.





## Opening Messages from Mayor Paulo Alexandre Bernardo Fernandes & Prof. José Barata

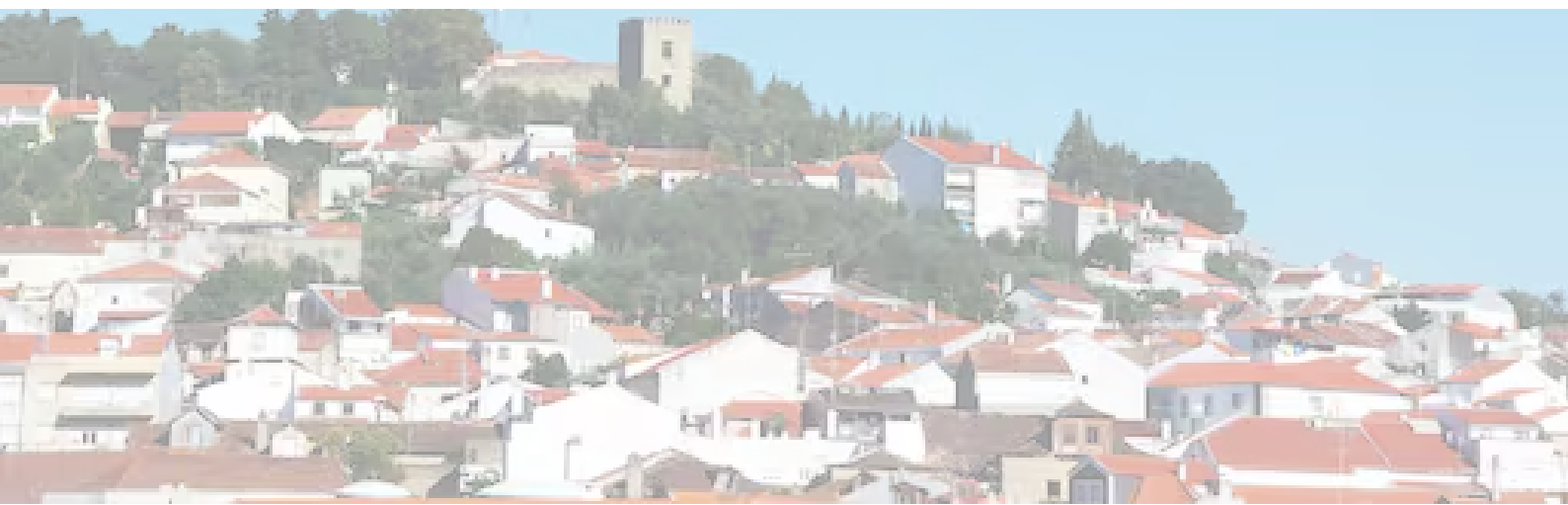


“All of Fundão’s children learn how to programme – but they also learn how to make cheese. Our young people can maintain their roots yet still spread their wings and fly.”

(Source: UNESCO Global Network of Learning cities)



“This is not just a competition. It’s the beginning of something much bigger. Fundão, once a quiet town in Portugal’s interior, has emerged as a dynamic tech hub—home to a thriving ecosystem of IT companies and startups. Now, it’s channeling that momentum into AI education for young people, showing that innovation can flourish far from the usual urban centers.”



## Roundtable Discussions from International Panelists

The main event featured panel discussions from representatives of diverse national backgrounds, spanning youth innovators and seasoned professionals alike. These discussions delved into four critical dimensions of AI's role in shaping education and society. **Panel 1: The Future of Education and AI in Europe** explored how AI can transform teaching and learning across European schools, with speakers highlighting the need for cross-border collaboration and policy alignment. **Panel 2: AI for Social & Environmental Good: Innovate for Impact** showcased youth-led projects and nonprofit initiatives using AI to address climate change, ocean conservation, and community resilience. **Panel 3: Ethics-by-Design: Empowering Responsible Builders** addressed the moral imperatives of AI development, emphasizing transparency, fairness, and human-centredness in algorithmic design. Finally, **Panel 4: The Teacher's Role in the Age of AI** examined how educators can become active facilitators of ethical AI learning and adapt their pedagogy to the evolving digital landscape. Speakers across the seven continents brought to the table their unique perspectives, sparking rich and timely dialogues around the urgent need for collaborative, human-centered approaches to AI.

**PANEL 1**  
The Future of Education and AI in Europe

**Megan Ammari**  
AI Researcher & Designer  
AI Workshop Series, FabLab Lisboa  
AI Consultant, Activepieces (Y Combinator S23)

**Paulo Esteves, MSc**  
Customer Success Manager at IBM

**Prof. Javad Jassbi**  
Professor & Senior Researcher in Uninova  
NOVA School of Science and Technology

**PANEL 2**  
AI for Social & Environmental Good: Innovate for Impact

**Mr. Montgomery Simus**  
Global Director of Public Affairs, Policy, and Blue Finance - The Ocean Cleanup

**Sanaz Nikghadam-Hajjati, Ph.D.**  
Senior Researcher at CTS-UNINOVA; Vice President of Robotics and Industrial Complex System (RICS) at UNINOVA; Invited Professor at Nova University Lisbon

**Artem Nikoian**  
PRATA AI  
United Lisbon International School

**Vsevolod (Seva)**  
PRATA AI  
United Lisbon International School

**PANEL 3**  
Ethics-by-Design: Empowering Responsible Builders

**Haotian Fang**  
Digital Humanities Masters Student, EPFL

**Nathan Goldberg & Zach Nadan**  
Co-Founders, Debate Guru AI  
Students at Horace Greeley High School

**Xiaojun Sun**  
AI Engineer

**PANEL 4**  
The Teacher's Role in the Age of AI

**Shuhan Li**  
Research Associate, ReadyAI

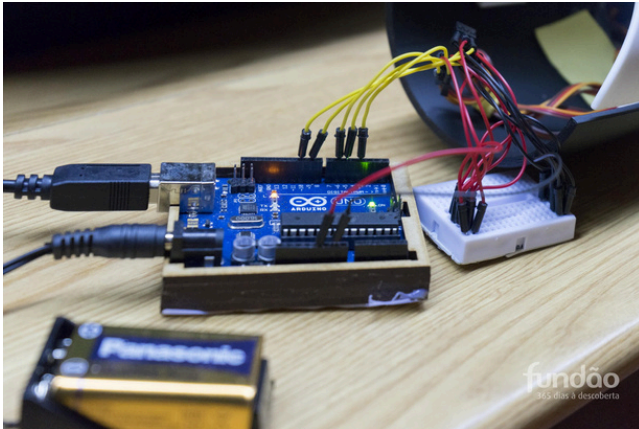
**Shanshan Jin**  
Creative Director, ReadyAI

**Mr. João Gomes Mota**  
Manager, Albatroz Engenharia



# BRIDGING YOUNG TALENTS NEAR AND FAR

## Hybrid-Mode Live Presentations



During WAICY Europe 2025, middle school and elementary school students of Fundão delivered impressive on-site presentations. They demonstrated their extraordinary ability to **combine machine learning with robotics to solve real-world problems**. Several teams from Fundão and other regions of Portugal showcased AI-powered innovations addressing pressing challenges in the environment, healthcare, and education. Projects included intelligent robotic arm “friend hAnd,” autonomous health monitoring systems “Smart Medicine Box,” and adaptive infrastructures “InClude” designed to support students with disabilities. These student-led solutions reflected not only technical skill but also a deep sense of social responsibility. The judges were thoroughly impressed by the students’ mastery of the AI4K12 Five Big Ideas of AI, as well as their adept usage of technologies for social and environmental wellness. Three teams of Portugal won Gold, Bronze, and Fifth Place Recognition respectively, under the Middle School AI Showcase Track.



Elementary school learners impressed the audience with their artistic expression in the AI-generated Art Track. Among the most memorable was a Gold Award-winning project titled *Cartaz Comemorativo 500 anos Camões AEF*, in which students began by composing an original poem inspired by the style and themes of Portugal's greatest literary figures. They then used the poem as a creative springboard, generating a stunning image in classical realism. Through a series of artistic iterations, they reimagined the piece using cubist techniques and infused it with bold, vibrant colors to create a powerful final composition. The project captivated judges and audiences alike with its **blend of cultural homage, artistic experimentation, and technical fluency**. Their project embodied the depth of artistic imagination young learners can achieve through AI.

### Prompt 1 Ilustração

Cria uma imagem ilustrativa do poema com base no estilo artístico do renascimento, para ser apreciado por crianças.



### Prompt 2 Ilustração

Cria uma imagem ilustrativa do poema com base nas características do estilo artístico de Picasso, para ser apreciada por crianças.



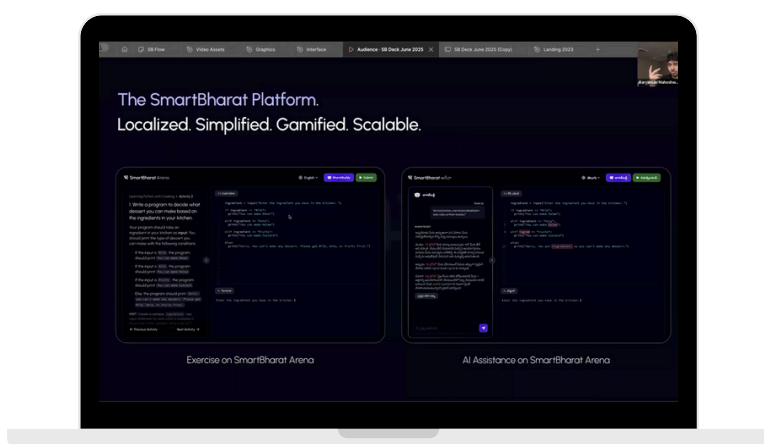
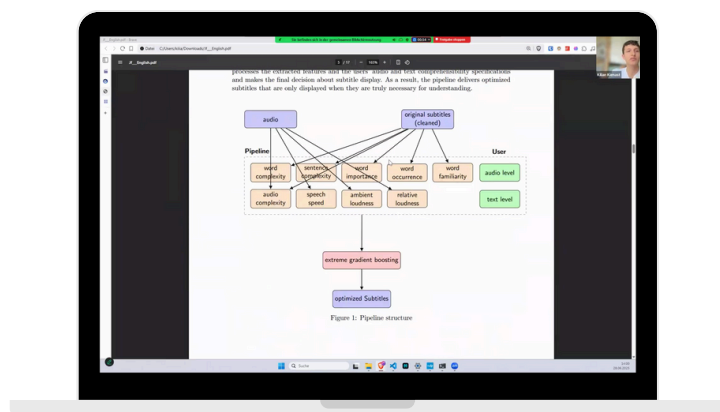
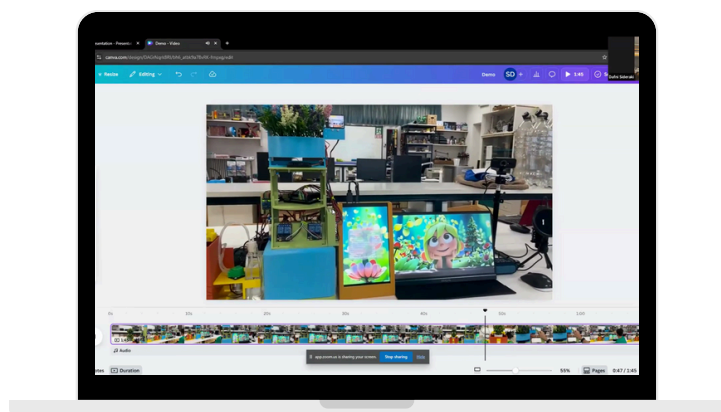
## Cartaz



- David Lourenço:
- Camila Catana
- Beatriz Lourenço



WAICY Europe extended beyond the main auditorium of the Migrant Centre. Online, hundreds of middle and high school students from around the world joined live to present their AI-driven innovations. These students showcased **remarkable coding, machine learning, and data visualization skills** through projects that addressed real educational, socio-emotional, and environmental challenges. Several teams developed AI tools to support teacher training, enhance language acquisition for multilingual learners, or provide emotional check-ins for students facing mental health struggles. Others focused on adaptive technologies to support neurodivergent learners, using AI to personalize learning experiences with sensitivity and care. Standout submissions came from Greece and Germany, where students built intuitive platforms for multimodal usage. Other powerful solutions came from India, South Korea, and Hong Kong, where students leveraged AI to increase access and equity in learning worldwide.



# THE IMPERATIVENESS OF TEACHER TRAINING

## Training the Trainers for Enduring AI Fluency

The success of WAICY Europe is attributed to **the leadership and dedication of school teachers**. The outcome signifies the **growing imperativeness of teacher training in AI education**, ensuring that educators are not only prepared to teach about AI but also empowered to use it meaningfully in the classroom. In partnership with EDUCOM and ReadyAI, a professional development program was launched to equip primary and secondary school teachers with both foundational knowledge and practical skills through the AI Integration Course. This structured, comprehensive training spanned 14 synchronous and 11 asynchronous hours delivered via Moodle and Zoom, combining theoretical-practical modules tailored for 1st, 2nd, and 3rd Cycles, IT specialists, and master trainers. The course covered essential topics such as AI fundamentals, ethics and responsibility, exploring AI tools, designing pedagogical projects, and evaluating the sustainability of AI integration. Developed through co-design with local providers, the program focused on translating complex content into accessible, context-sensitive learning while remaining flexible and responsive to the diverse needs and digital readiness of teachers. More than abstract concepts, the program offered immersive, hands-on experiences that helped teachers bring real-world AI applications directly into their classrooms.



**Competências Pedagógicas para a Integração da IA na Educação – Desenvolvimento de projetos com IA**

**Modalidade:** Curso

**Destinatários:** Professores dos 1º, 2º e 3º Ciclos do Ensino Básico e do Ensino Secundário

**Regime:** e-Learning

**Duração:** 25 horas

**Logos:** Câmara Municipal, Associação Municipal de Cidades Educadoras, INCoDe 2030, GARI, educom, ReadyAI, WAICY

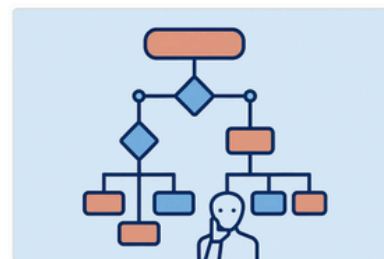




VÍTOR GODINHO 4/10/25 3:49PM

Exemplo

0 0



Exemplo de algoritmo

HUGO RODRIGUES 4/10/25 3:50PM

SEDE

0 2

Susana Nun 4/10/25 3:52PM

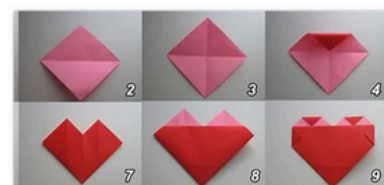
Só funciona se se pegar com a mão esquerda?

Hugo Rodrigues 4/10/25 3:59PM

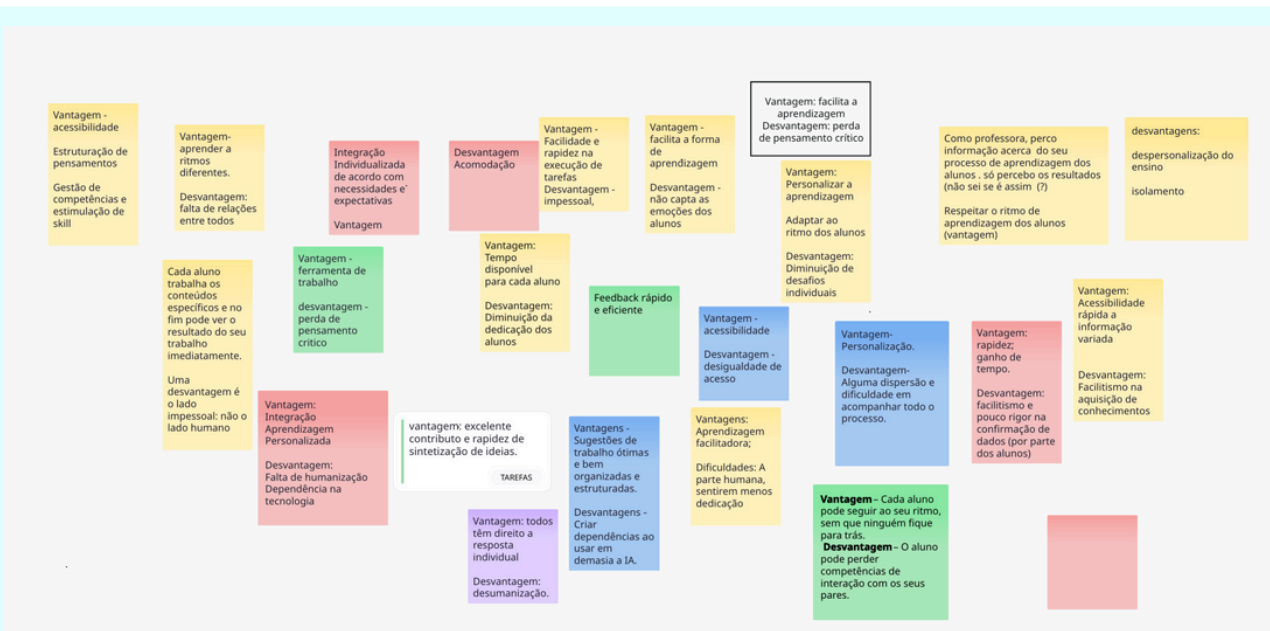
Dá um bug pequeno, ou seja, bebemos na mesma. :)



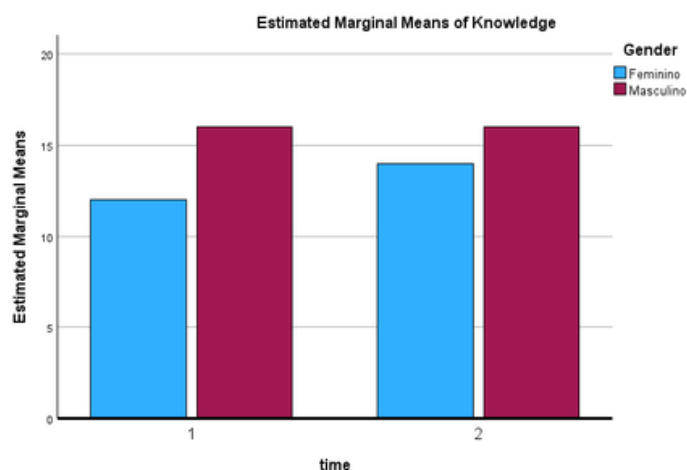
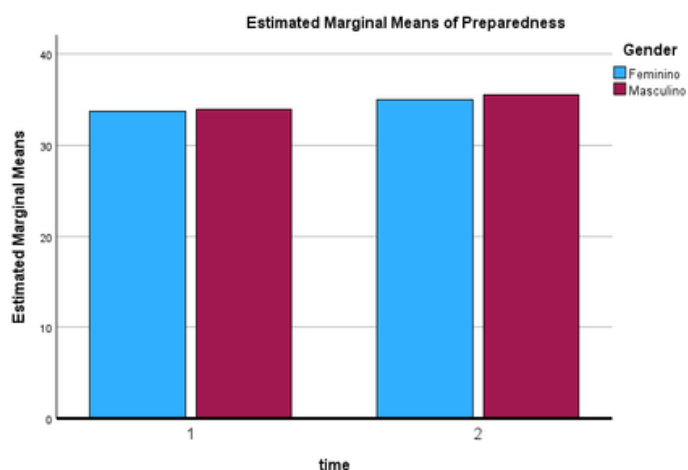
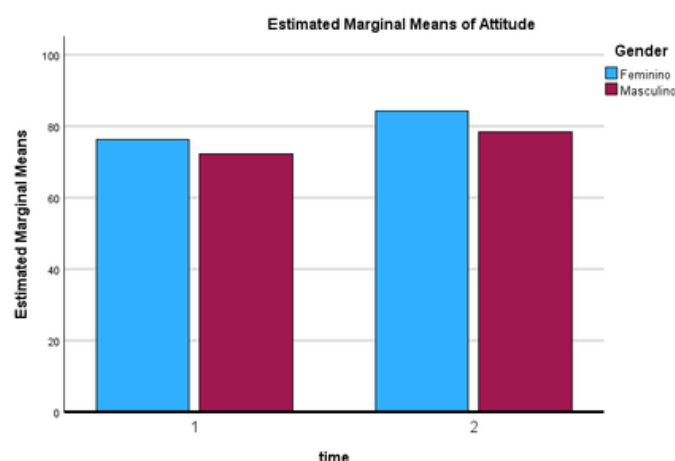
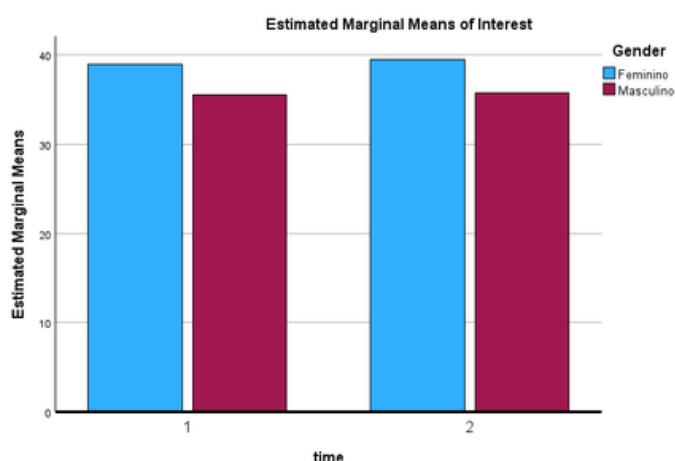
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A key highlight of the AI Integration Course was its emphasis on interactivity and hands-on enrichment, creating an engaging and collaborative learning experience for educators. Through Moodle, teachers participated in structured online discussions, exchanging ideas and reflecting on real-world classroom applications of AI. Interactive Jamboard sessions allowed participants to brainstorm with virtual sticky notes, mapping out how AI could be ethically and effectively integrated into their subjects. Padlet boards served as vibrant galleries where teachers shared insights, visuals, and examples of how they understood core concepts like machine learning and algorithms. These activities transformed abstract theory into tangible learning artifacts. This dynamic approach fostered deeper comprehension and built a supportive community of practice among educators across different grade levels and disciplines.



Administered under EDUCOM, teachers of all levels completed two surveys before and after the training to assess four key domains: 1) Interest in AI, 2) Attitudes towards AI, 3) Pedagogical Preparedness to use AI, and 4) AI Knowledge Level. Preliminary results from the teacher training program showed increases across all key measures. **Teachers, regardless of gender, reported greater interest in learning about AI and demonstrated positive attitude shifts toward its integration in the classroom.** They also felt more prepared to use AI in everyday teaching, with **enhanced and lasting understanding of the technology**; notably, female teachers generally scored slightly higher (except for AI knowledge) than their male counterparts, though the difference was modest. Despite initial logistical challenges such as limited enrollment and participant attrition, the program laid critical groundwork for systemic teacher upskilling in AI. Once upscaled, the program would contribute to the broader strategic objective of integrating AI competencies into Portugal's national education system.



### Teacher Testimonials:

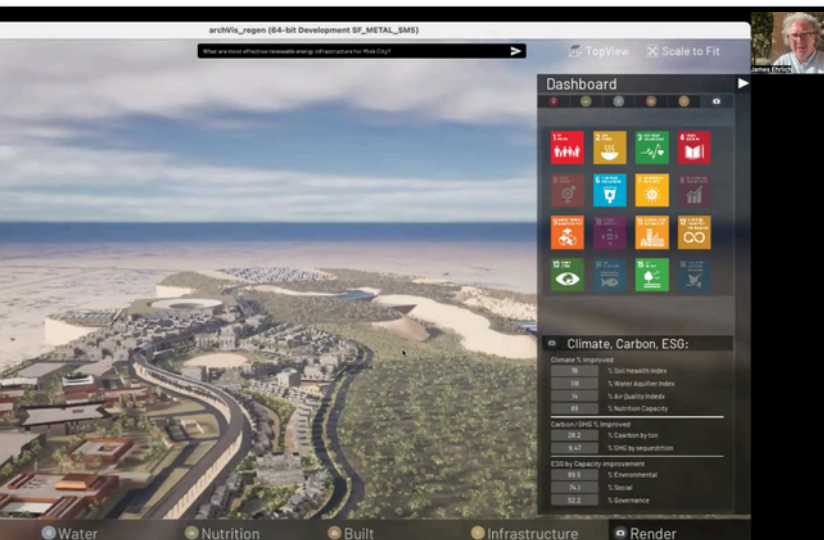
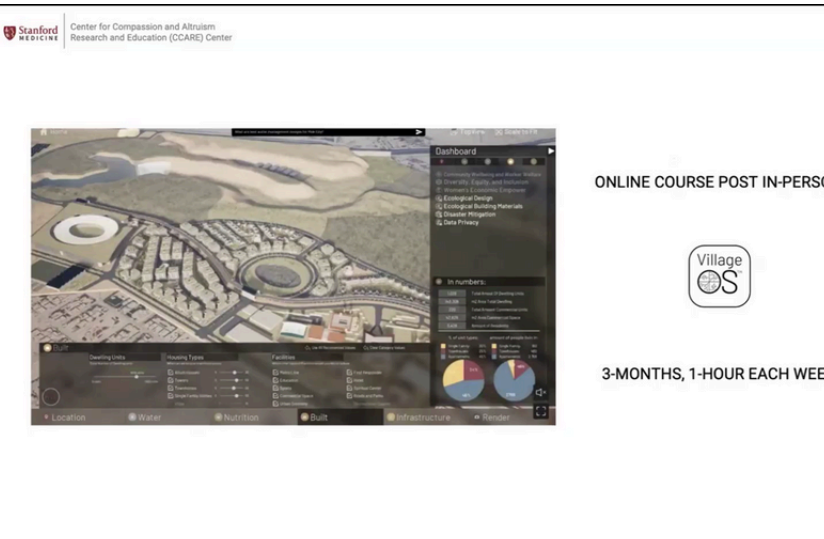
*“Very **interesting**, challenging, and **motivating** session—both for the topic and the dynamics.”*

*“**Highly motivating**—now I’m even more interested in deeper training on AI.”*

*“So **interesting and motivating** that I joined both sessions!”*

# CLOSING KEYNOTES

## The Unwavering Future of AI Innovation



WAICY Europe culminated with the motivating presentation from Prof. James Ehrlich, Director of Compassionate Sustainability at the Centre of Compassion and Altruism Research and Education (CCARE), affiliated with Stanford University School of Medicine. Prof. Ehrlich delivered **a dynamic walkthrough of his AI-powered 3D simulation software, VillageOSTM**. The demo detailed the versatile application of machine learning technologies and large language models in visualizing data, optimizing urban planning decisions, and effectively engaging young learners in acquiring AI literacy and climate knowledge. Prof. Ehrlich exemplified AI for SDGs with the measurable positive outcomes from students of Misk Schools in Riyadh, Saudi Arabia. The impact assessment results established VillageOSTM as a scalable platform for conducting project-based learning courses with K-12 learners. Prof. Ehrlich's vivid presentation echoed with WAICY's goals of empowering youth to learn, build, and lead using AI, by providing tools and models that translate abstract concepts into tangible, actionable projects.







# MAJOR STRATEGIC ANNOUNCEMENTS

## Fundao as the Leading Force in AI Innovation


At the closing ceremony, WAICY announced four remarkable steps forward that will shape the future of AI education and innovation in Fundão and beyond. First, beginning in 2025, **Fundão will become the permanent headquarter for WAICY Europe** and the official staging site for the global finals for the next two years. This monumental step solidifies the municipality's role as a central hub for youth-led AI innovation. Second, **Fundão will pioneer the implementation of Portugal's first national K-12 AI curriculum**, making it the first municipality in the country to integrate AI education across all grade levels. Third, **the European Center for AI Research & Education (ECAIRE) launched two new publications: *Teaching AI in the Classroom* and *Intro to AI for Parents***, designed to support both educators and families in navigating AI learning. Finally, a landmark **Memorandum of Understanding was signed for the establishment of an AI Robotics Assembly Center in Fundão by 2026**, which will create over 120 AI-related jobs, foster international robotics partnerships, and offer hands-on training programs for students and young professionals. These strategic plans ensure that the momentum sparked by WAICY Europe continues to grow into lasting regional impact.




## MAJOR ANNOUNCEMENTS



*"Fundão is where ethics meets engineering, where compassion meets computation, and where a 14-year-old can design a system that changes the world."*



- 1 Fundão Named **WAICY Europe Headquarters**
- 2 Portugal's **First National K-12 AI Curriculum** launched for 1<sup>st</sup> through 3<sup>rd</sup> cycles
- 3 Two **New Books** officially translated & published in Portuguese
- 4 **AI Robotics Assembly Center** established by 2026 + 120 new jobs created



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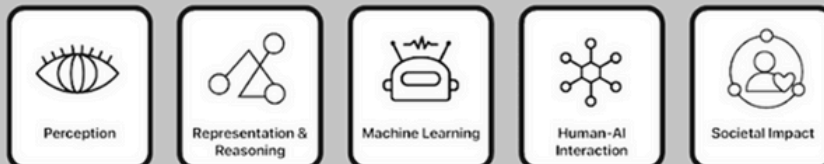
# National Curriculum for AI Literacy

Building on the momentum of the competition, Fundão school clusters have collaboratively outlined a structured curriculum that embeds AI across all stages of education throughout all 3 circles, along with executive education. At the core of this initiative is the belief that AI literacy must be accessible, age-appropriate, and grounded in real-world applications. To this end, the project offers tailored PBL materials that evolve in complexity from the 1st to the 3rd cycle, ensuring that students progressively build their understanding of AI concepts, tools, and responsible practices. For example, at the secondary level, teachers are drafting a concrete application of the curriculum that challenges students to solve a community-based problem using AI. The curriculum integrates technical skills like data analysis and machine learning with civic engagement and ethical reflection. Looking forward, this curricular integration reflects Fundão's vision of preparing its youth not just to use AI tools, but to understand, shape, and lead with them. **Weaving AI into the fabrics of its local education system, Fundão is cultivating a generation of technically competent learners who are empowered to use AI to improve their communities and participate meaningfully in a rapidly evolving digital world.**

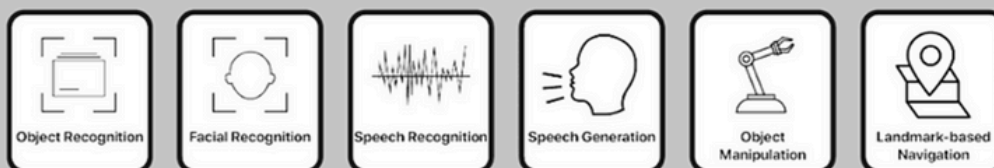
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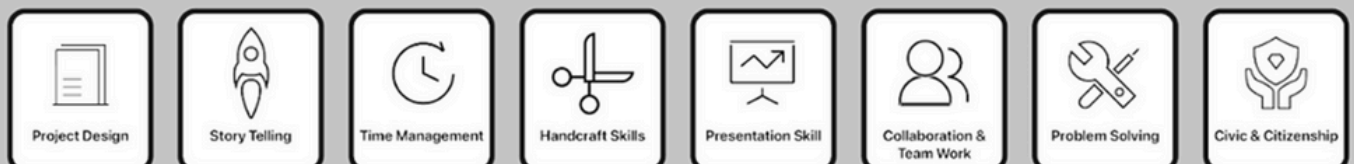
## 2 Five Big Ideas



## 3 Six AI Applications



## 4 PBL





# CONCLUDING REMARKS

## Innovate & Evolve with WAICY Europe

The successful debut of WAICY in Europe marks not only a critical milestone in the competition's global reach, but also the resonance with AI literacy and youth empowerment shared by educators, parents, and governments around the world. As the event concludes, it lays the foundation for concrete, forward-looking actions: fostering a culture of innovation and collaboration between teachers and students, empowering young learners to navigate and shape their academic and career pathways through AI, and further enlivening Fundão's growing AI education ecosystem. In parallel, WAICY Europe has catalyzed new multistakeholder partnerships between academia, industry, and the public sector. The first iteration of WAICY Europe has positioned Fundão as a national and international trailblazer in the integration of interactive and enriching AI education. The culmination of the past event is far from an endpoint; it is the beginning of enduring partnerships with Fundão in driving digital transformation and preparing future generations for the AI era.







WORLD ARTIFICIAL INTELLIGENCE COMPETITION FOR YOUTH



FUNDÃO, PORTUGAL  
JUNE 2025



Jointly Organized by



# WAICY

The world's largest and longest-standing "Make-a-thon" where the world's brilliant young minds congregate to tackle real challenges through AI innovations

Learn more:

<https://www.waicy.org/europe/> (Europe)

<https://www.waicy.org/> (Global)

Contact us:

[info@waicy.org](mailto:info@waicy.org)



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European Center for AI Research and Education



Associação Portuguesa de Telenáutica Educativa



June 2025