

WELCOME.

Statistics Portugal's Best Practices in in Promoting Statistical Literacy

Cooperation, Communication and Ethical Dimensions in the AI Era

José A Pinto Martins

Dissemination and Communication

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The Role of NSOs in a Digital Information Ecosystem

From Data Production to Democratic Enablement

Accessibility First

Ensuring statistics reach and serve all citizens

Meaningful Use

Beyond numbers — supporting informed decision-making

Democratic Resilience

Strengthening civic engagement through trusted data

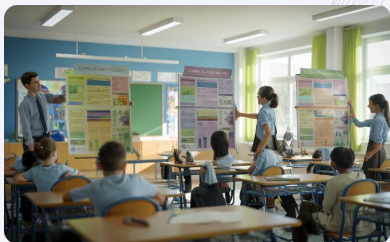
AI Era Adaptation

Navigating algorithm-driven communication landscapes



Educational Cooperation

Fostering curiosity, teamwork, and critical thinking through real-world official data.



European Statistics Competition

Engages thousands of students across Portugal in data-driven inquiry



ISLP Poster Competition

Promotes visual data storytelling
storytelling skills through global
global networks



School Partnership Network

Direct collaboration with educational institutions nationwide

ALEA: Digital Infrastructure for Statistical Learning



ALEA (Local Action for Applied Statistics) is a joint initiative with the Ministry of Education and a local school, created in 1999, which provides pedagogical tools, games, and real data for teaching statistics in primary and secondary education.

It has become a national benchmark in promoting statistical thinking



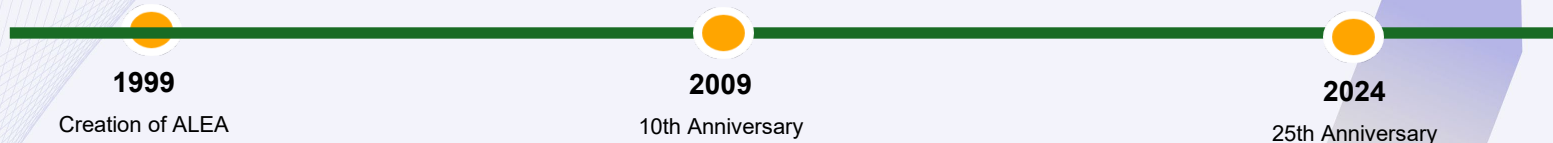
Objectives:

- Promote statistical thinking
- Provide teaching tools
- Use games for learning
- Integrate real data into education

Benefits:

- Increases statistical literacy
- Contributes to civic education
- Makes statistics more accessible
- Prepares citizens for the digital age

25th Anniversary: Renewal and Progress



EXPLORISTICA: Interactive Statistical Engagement



An interactive exhibition, available in both physical and virtual formats, created in collaboration with the Portuguese Statistical Society (1st edition) and supported by the DIGICOM project (ESS) (2nd edition).

Objective: Simplify essential statistical concepts through games and visual engagement, demystifying processes such as data collection, estimation, and interpretation



Interactive Features

Scope and Adaptation

- Reaches schools across the country
- Mobile version allows participation in science fairs and themed events
- Adaptable for different audiences, from schoolchildren to adults

Educational Games

Transforms statistical concepts into fun and engaging activities

Interactive Visualization

Allows participants to visualize and experiment with data and graphs

Hands-on Learning

Practical experience with sampling, data collection, and analysis

Version 2.0 (2020)

Based on storytelling, with hybrid physical and digital modules

International Competitions & Youth Engagement



European Statistics Competition (ESC)

- Promoted by Eurostat and implemented by voluntary National Statistical Institutes
- Encourages students to use statistics critically and creatively
- Since 2017, SP has coordinated Portuguese participation



Notable Results:

- In 2025, Portugal won the first prize again at the European phase.
- There was a 188% increase in the number of participants in previous years.
- In the 2025 edition, nearly 27,000 students from 21 countries participated.
- The Portuguese team "TEAMXII2" won first prize in the 16-18 age category



Statistical Literacy: International Statistical Competitions

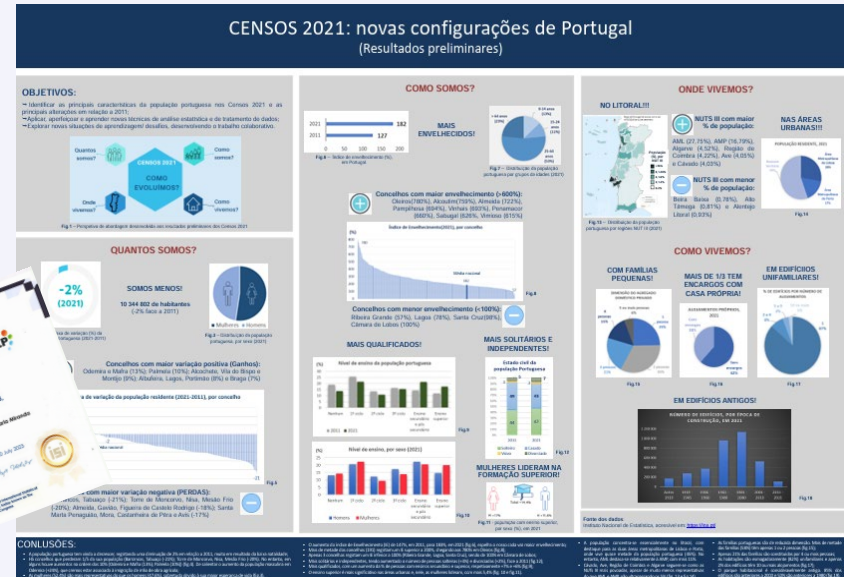


ISLP Poster Competition

- In partnership with UTAD (University of Trás-os-Montes and Alto Douro).
- Challenges students to analyze real-world phenomena using data.
- Students present findings visually

Notable Results:

- The 2024-2025 edition recorded a record number of participants and submissions
- Portugal achieved remarkable international recognition
- Victory in the lower secondary education division in 2023.





Remarkable Impact

25

Years of ALEA

A quarter-century promoting statistical thinking across Portuguese education

188%

Participant Growth

Dramatic increase in European Statistics Competition engagement

1st

European Prize

Portugal's remarkable achievement in ESC 2021 and 2025

These efforts cultivate a generation of citizens equipped to evaluate information critically – a key requirement in the age of digital uncertainty.

Citizen Engagement Ecosystem

Personal connection builds statistical confidence and understanding.



Interactive Study Visits

Hands-on exploration of statistical processes and data visualization labs



Higher Education Network (RIIES) (RIIES)

Structured training sessions connecting connecting universities with official statistics expertise



Responsive Support Services

Dedicated help desk and guidance services helping users navigate official data effectively

Proximity Strategies: Bringing Statistics Closer

SP invests in strategies aimed at bringing statistics closer to the general public, ensuring that information is understood and valued by all citizens.



Open Door Seminars



Training for Educators and Researchers



School Library Network (Protocol)



Academic Collaboration

Trust emerges from dialogue and accessibility

These initiatives allow Statistics Portugal to listen, adapt and respond to diverse publics, fostering trust through responsiveness and transparency



Communication Strategy & Media Relations

Amplifying Statistical Messages Through Multi-Channel Engagement

Visual Communication

Interactive infographics, animated statistical stories, and data visualization dashboards for complex data

Digital Engagement

Strategic social media presence, presence, real-time statistical updates, and multimedia content content campaigns

Accessible Narratives

Transforming complex statistical concepts into engaging, understandable understandable stories for diverse audiences

CIVIC FOUNDATION

Ethical & Human Rights Dimensions

Statistical literacy as a fundamental civic right.

"Statistical literacy empowers citizens to participate meaningfully in democratic processes and hold institutions accountable."



Principle 1: Access to Information

Equitable access to trustworthy statistical data for all citizens

Principle 2: Transparency & Independence

Impartial, independent statistical processes serving democratic accountability

Principle 3: Non-Discrimination

Protecting data rights while ensuring information serves all segments of society equally

Future Challenges: AI & Critical Thinking

Statistical literacy must evolve to include AI awareness and critical evaluation skills for data-rich societies.

Opportunities in AI Integration

- Enhanced data visualization and accessibility
- Personalized learning experiences
- Automated insight generation

Critical Challenges Ahead

- Algorithm transparency and bias detection
- Distinguishing AI-generated from authentic data
- Maintaining human judgment in statistical interpretation



The Future Imperative: Citizens must be equipped to critically evaluate AI-mediated data to navigate information ecosystems responsibly.

A Strategic and Collaborative Commitment

Commitment

Statistical literacy is a future-oriented commitment where communication, cooperation, and ethics converge — supporting informed societies and stronger stronger democratic systems.



Communication

Accessible, understandable statistics
statistics for all



Cooperation

Partnerships across institutions and
and sectors



Ethics

Transparency, rights, and democratic values



Key Takeaways

Literacy is Essential

Statistical literacy cultivates citizens equipped to evaluate information critically – vital in the digital age

Proximity Builds Trust

Dialogue, accessibility and responsiveness foster confidence through institutional openness

Resilience Against Misinformation

A literacy-driven approach strengthens democratic values and supports evidence-based decision-making

Statistics Portugal's integrated strategy demonstrates how communication extends the reach and impact of statistics beyond data users to all citizens



Statistical literacy strengthens democratic resilience

Credits

This presentation was created with the support of some AI tools, such as:

- ✓ Gamma AI
- ✓ Slides AI
- ✓ ChatGPT

Images from AI and Freepik.

THANK YOU.

José Pinto Martins
pinto.martins@ine.pt