EVOLVING TRENDS IN EUROPEAN HIGHER EDUCATION AND RESEARCH

IMPLICATIONS FOR THE SECTORS IN THE COMING YEARS

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EUROPEAN HIGHER EDUCATION: A RAPIDLY EVOLVING LANDSCAPE

Global Competition

- Internationally, EU universities compete with other rising continents for students, staff, and research excellence
- Internally, universities rely on limited government and EU funding

Digital Transformation

- AI and technology redefine research collaboration and learning
- Growth of digital campuses, cloud-based infrastructures, and virtual labs

Fiscal Constraint

- Governments pursue efficiency and innovation through partnerships
- Ongoing public-funding pressure is pushing universities to diversify revenue and deepen industry collaboration

- **Strengthen research and innovation as drivers of Europe’s competitiveness**

SIX MACRO TRENDS:
SHAPING EUROPEAN HIGHER EDUCATION

- Geopolitics and Global Science
- Climate Change and the Digital/AI Revolution
- Demographic Shifts and Lifelong Learning
- Massification and Widening Access
- Future Knowledge and Skills Needs
- Evolving Research & Collaboration Frameworks

GLOBAL SCIENCE HAS BECOME MULTIPOLAR:
EUROPE MUST COMPETE FOR TALENT AND INNOVATION

Brain Drain

EU universities are strong but lack global top-tier scale

Limited University–Industry Collaboration

Greece ranks 22/27 in the European Innovation Scoreboard (2024)

Greece and the EU can strengthen collaboration networks to enhance research output

Expand cross-border networks

- Horizon Europe, ERA, & COST Actions

Foster talent circulation

- Incentivize return programs & joint PhD

Build regional research clusters

- SEENET & Athena Research Center

GREEN AND DIGITAL TRANSITIONS: RESHAPE TEACHING AND RESEARCH PRIORITIES

Dual Transitions Reshaping Europe: The green and digital transitions are redefining how universities teach, conduct research, and manage operations

Digital Transformation: AI, data analytics, and automation are transforming scientific discovery, collaboration, and data sharing

Sustainability Integration: Universities are embedding sustainability principles into everything – from campus design and energy systems to curriculum and research

Capacity & Access Challenges: Many southern European countries, including Greece, still lack sufficient digital infrastructure and AI literacy among researchers

Specific EU Targets for the Digital & Green Transition:

Digital Readiness: Ensure all higher education institutions have access to high-speed networks, AI tools, and cloud-based research infrastructure by 2030

AI for Research: Increase the share of EU-funded research projects using AI, machine learning, and data-driven modelling by at least 40% by 2030

Green Campuses: Cut carbon emissions in higher education facilities by 55% (aligned with EU Green Deal targets)

Sustainable Research Practices: Integrate environmental and digital sustainability indicators into university evaluations and funding frameworks

Green Focus: Expand national programs for AI research through Horizon Europe and Digital Europe Programme

DEMOGRAPHIC HEADWINDS: AGING AND LEARNER DIVERSITY

- **Greece's opportunity: position universities as regional hubs for adult upskilling and research-driven training**

Aging Europe

- By 2070, 30% of EU citizens will be aged 65+
- Greece's median age has risen to 45.6 years (2023), one of the oldest in the EU
- Greece's old-age dependency ratio is projected to reach 63% by 2050, up from 38% today
- Working-age population shrinking by -0.3% annually, driving the need for lifelong learning
- Since 2010, more than 500,000 young Greeks (5% of the national population) have emigrated for better job and education opportunities, which results in skills shortages in research and digital sectors

Learner Diversity

- The EU's 18–24 age group is projected to decline by 12% by 2035
- In Greece, student-age population has dropped by almost 20% since 2010
- Only 5% of adults in Greece engage in lifelong learning (vs 11% EU average)
- EU target: *60% of adults aged 25–64* should participate in learning activities by 2030, expanding international enrollment to offset domestic decline

SKILLS & RESEARCH: YOU NEED COLLABORATION

Future Skills:

Critical Skill Areas

- *Digital and AI Literacy:* 80% of EU jobs will require at least basic digital skills by 2030; currently, only 54% of adults possess them
- *Interpersonal Skills:* collaboration and leadership are rated top non-technical skills by 70% of employers
- *Creativity:* 60% of firms report creativity as a key hiring criterion
- *Problem Solving and Adaptability:* the ability to pivot across disciplines is increasingly valued over specialization

Skill Shortages and Mismatches

- Persistent shortages in STEM, health, and green economy fields is nearly 6 million unfilled digital jobs in the EU
- Greece ranks below EU average in digital skill readiness (48%) and faces an IT talent deficit of ~60,000 specialists

Implication

- Universities must embed AI education, interdisciplinary learning, and entrepreneurial skills into every degree program
- Lifelong learning must become the norm: reskilling programs for mid-career professionals can reduce the country's talent gap

SKILLS & RESEARCH: YOU NEED COLLABORATION

Research Collaboration:

Structural Challenges

- Greece invests 1.6% of GDP in R&D (<EU average of 2.3%)
- Only 8% of Greek firms collaborate with universities on research
- Brain drain persists of over 400,000 highly educated Greeks left the country between 2010–2020

Policy & Collaboration Opportunities

- Build joint research centers and data-sharing networks under *Horizon Europe* and *Digital Europe Programme*
- Encourage interdisciplinary research hubs
- Expand university–industry collaboration (e.g., technology transfer offices, shared labs, spin-offs)
- Create regional research clusters with Southern Europe partners to pool infrastructure and funding

Greece's Leverage Points

- Focus on AI-driven research and talent exchange
- Utilize EU mobility programs (Marie Skłodowska-Curie, Erasmus+)
- Develop cross-sector innovation incubators in Athens, Thessaloniki, and Patras to commercialize research outcomes

POLICY IMPLICATIONS: GREECE BUILDING A STRONGER RESEARCH AND EDUCATION ECOSYSTEM WITH EUROPE

Governments: Strengthening the Policy and Legal Framework

Reform Legal Frameworks to encourage open science, data sharing, and academic mobility

Invest strategically in research infrastructure – AI labs, national data centers, and digital repositories

Simplify access to EU funding mechanisms, ensuring smaller states like Greece can compete more effectively for Horizon Europe

Universities: Catalysts of Collaboration and Innovation

Deepen cross-border research partnerships by forming multi-country academic alliances and joint PhD programs

Foster cross-sector collaboration, connecting academia with technology firms, startups, and NGOs

Leverage AI and data analytics to manage large-scale research collaboration

POLICY IMPLICATIONS: GREECE BUILDING A STRONGER RESEARCH AND EDUCATION ECOSYSTEM WITH EUROPE

Industry: Applied Research and Innovation Partnerships

Collaborate on applied research projects addressing Europe's most urgent challenges – climate adaptation, healthcare innovation renewable energy, and digital transformation.

Share data, technical tools, and experimental platforms with universities, turning industry R&D into open testbeds for academia.

Create joint AI research centers and support start-up acceleration programs within universities.

Civil Society: Inclusion, Transparency, and Public Engagement

Strengthen public understanding of science through community partnerships, local workshops, and open lectures, particularly in smaller Greek cities.

Promote citizen science projects that involve the public in environmental monitoring, cultural heritage digitization, and health data collection.

Encourage NGOs and social enterprises to collaborate with universities on SDGs and ensure transparency in AI research to maintain public trust in data use.

GREECE – ATTRACTIVE HIGER EDUCATION ENABLERS

Strong Economic Fundamentals to Support Education and Research

- Greece's real GDP growth has outpaced EU averages, reaching 8.7% in 2021, 5.7% in 2022, and 2.3% in both 2023 and 2024. It is projected to remain above 2.3%;
- Channeling Economic growth into higher education and research in Greece.

Historical Cradle of Civilization

- Greece can draw upon its history and image of historical Greek education scholars and research, to build upon that strength to reflect upon a future Greece role at the center of global education and research;
- Use History as an Enabler and Image for the Future.

Global Destination

- Greece is one of the world's top popular travel destinations, welcoming over 40 million visitors in 2024;
- Transfer that tourist and business flow into global student and global research flow into Greece.

Right Reforms and Statutory Environment

- New reforms point to this future: like the new law enabling private universities;
- Attract global foreign centers of academic excellence to Greece and profit from visa restrictions and limitations being imposed in other countries, to attract top global academics and international students.

European and Global Academic and Research Networks

- Maximize and use European and global research networks and initiatives;
- Engage and use the Greek academic and research leadership diaspora in the world to tap and reattract global talent.

Espouse AI and Technology

- AI and technology can help Greece to leapfrog and catch-up to track, measure and enable Academic Excellence to a Global Scale;
- Aggressively introduce and use AI and technology in Universities, Research, and Government Initiatives to lead, track and measure academic and research excellence and global talent magnet.

THE REAL EU COMMON CURRENCY: EDUCATION ECONOMY

It appreciates the more you share it!

THANK YOU

FOR YOUR KIND ATTENTION

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