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STRENGTHENING THE SECURITY OF THE EUROPEAN UNION THROUGH INVESTMENTS IN TRAINING PROGRAMS AND SCHOLARSHIPS IN THE FIELDS OF TECHNOLOGY, HEALTHCARE, AND BUSINESS



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**STRENGTHENING THE SECURITY
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To address emerging challenges in a global environment marked by geopolitical instability, health crises, and hybrid threats, the European Union is implementing a series of programs with a direct impact on strengthening national and European security. Their objective is to create a smarter, safer, fairer, and more resilient European Union, capable of managing global crises and ensuring the well-being of its citizens. In this context, education plays a significant role in the European security architecture, being regarded as a strategic investment for strengthening societal resilience and preventing complex threats.

EDUCATION – A FOUNDATION OF DEMOCRATIC RESILIENCE AND SECURITY IN THE EUROPEAN UNION



Education is a key instrument for prevention, social cohesion, and the strengthening of democratic values, and is indispensable in a Europe constantly exposed to hybrid risks and disinformation.

In a period characterized by digital transformation, climate change, and new types of conflict, the education and training of a skilled workforce in strategic fields such as **cybersecurity, crisis management, civil protection, and artificial intelligence** has become a priority. The European Union recognizes that the development of human capital is a crucial factor in building a technologically secure Union, investing substantially in digital literacy programs, skills for the protection of critical infrastructures, and vocational training in the field of security. At the same time, education contributes to reducing social vulnerabilities that may be exploited through information manipulation, extremism, or hate speech.



By promoting inclusion, equity, and intercultural dialogue, the European Union seeks to strengthen social cohesion as a foundation of internal security and democratic resilience.

The European Pillar of Social Rights [1], and initiatives such as the *European Education Area* support every citizen's right to quality education adapted to contemporary security realities.



Launched in 2017, the European Pillar of Social Rights establishes a framework for improving living and working conditions within the European Union.

It contains 20 essential principles and rights, grouped into three categories:

- Equal opportunities and access to the labour market;
- Fair working conditions
- Social protection and inclusion.

Three major objectives to be achieved by 2030:

- 78% of people aged 20–64 are in employment;
- 60% of adults are to participate annually in vocational education and training;
- a reduction of 15 million in the number of people at risk of poverty or social exclusion.

[1] The European Pillar of Social Rights/ Pilonul european al drepturilor sociale. <https://eur-lex.europa.eu/RO/legal-content/glossary/european-pillar-of-social-rights.html>



Academic mobility and cross-border cooperation likewise contribute to strengthening European security by fostering networks of experts, researchers, and practitioners who share best practices, innovate in the field of public policy, and develop integrated solutions to common threats. Programmes such as Erasmus+, Horizon Europe, and Digital Europe support the development of skills in cutting-edge fields, enhancing interoperability and promoting strategic partnerships among Member States.

For the European Union, education represents a key element of the collective security architecture, contributing to the preparation of citizens for a future in which security is no longer the exclusive responsibility of law enforcement and security institutions, but a shared responsibility built through civic awareness, solidarity, and knowledge. In this way, education becomes a democratic “tool” against modern vulnerabilities and a pillar of a united, secure, and resilient Europe.

EUROPEAN UNION PROGRAMMES CONTRIBUTING TO THE STRENGTHENING OF VARIOUS DIMENSIONS OF SECURITY AND SOCIETAL RESILIENCE

Programme Name	Budget	Area	Type of security
The Digital Europe Programme	EUR 8.1 billion	Artificial intelligence, supercomputing, cybersecurity, digitalization of public administrations and SMEs, and digital skills	<ul style="list-style-type: none"> • cybersecurity; • technological security; • protection of critical infrastructure
EU4Health	EUR 5.3 billion	Public health, medical digitalization, health crisis management, and training of medical personnel	<ul style="list-style-type: none"> • human security; • health security
Horizon Europe	EUR 95.5 billion	Defence-related technologies, cybersecurity, advanced research, climate, migration, and disinformation	<ul style="list-style-type: none"> • cybersecurity; • societal security; • climate security; • environmental security
Marie Skłodowska-Curie Actions (MSCA)	Part of Horizon Europe	Researcher training, intelligence, ethics in security, and scientific innovation	<ul style="list-style-type: none"> • collective security; • strategic autonomy
European Social Fund Plus (ESF+)	EUR 142.7 billion	Social inclusion, vocational training, reskilling, and social cohesion	<ul style="list-style-type: none"> • social security
Erasmus+	EUR 26.2 billion	Civic education, democratic values, human rights, and the prevention of radicalisation	<ul style="list-style-type: none"> • human security; • societal resilience



I. PROGRAMUL EUROPA DIGITALĂ (DIGITAL EUROPE)



In this context, digitalization and technological innovation represent fundamental pillars of the new security architecture, and the Digital Europe Programme [2], constitutes a key instrument for achieving these objectives. The programme plays an important role in strengthening the technological sovereignty and cybersecurity of the European Union. With a budget of EUR

8.1 billion, it finances the development of European capacities in areas such as artificial intelligence, supercomputing [3], and the protection of critical infrastructures against cyberattacks. Furthermore, it supports the digitalization of public administrations and small and medium-sized enterprises (SMEs), thereby increasing resilience to cyber risks. Investments in the development of digital skills within the workforce, including in the security and justice sectors, contribute to the professionalization of national systems. The network of over 40 European Digital Innovation Hubs supports regional development and technology transfer in key security-related domains.

Key priorities under the Digital Europe Programme:

- Acceleration of the deployment of artificial intelligence (AI);
- Strengthening of cyber resilience;
- Expansion of digital skills and innovation;
- Modernization of digital infrastructure.



The Cyber Resilience Act [4] (which entered into force on 10 December 2024, with the main obligations introduced by the legislation taking effect from 11 December 2027) is the first legislative framework worldwide to regulate the security of digital products.

II. EUROPE FOR HEALTH (EU4HEALTH)

The EU4Health Programme [5], launched in response to the COVID-19 pandemic, reflects the recognition of health as an integral part of national and human security.



With a budget of EUR 5.3 billion, the programme finances the strengthening of capacities to respond to cross-border crises, the digitalization of healthcare systems, and the training of medical personnel for the effective management of emergencies. To date, over EUR 800 million has already been allocated to digital health projects, ensuring better coordination within emergency networks and the protection of the population.

[2] The Digital Europe Programme. <https://digital-strategy.ec.europa.eu/ro/activities/digital-programme>

[3] Supercomputing involves the use of extremely powerful computers capable of processing huge volumes of data and performing billions or trillions of operations per second, far beyond the capabilities of a normal computer. In the field of security, supercomputing is used for: rapid analysis of information from satellites, sensors, or networks; detection and prevention of complex cyberattacks; simulation of responses to crises or hybrid attacks; support for artificial intelligence algorithms for facial recognition, surveillance, conflict forecasting, etc.

[4] Horizon Europe.

[https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en?](https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en?prefLang=ro&etans=ro)

[prefLang=ro&etans=ro](https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en?prefLang=ro&etans=ro)

[5] EU health policy. <https://www.consilium.europa.eu/ro/policies/eu-health-policy/>



III. HORIZON EUROPE

Horizon Europe [6] is the European Union's most ambitious research and innovation programme in its history. The programme focuses on six areas that address the full spectrum of global challenges: health; climate; the digital environment; energy and mobility; food, agriculture, and biodiversity; culture and creativity; civil security; industry; and space.



The Horizon Europe research programme is structured around five missions: accelerating the transition to a resilient and climate-prepared Europe; addressing cancer; creating 100 climate-neutral [7] cities by 2030; restoring oceans and waters; and ensuring 75% healthy soils by 2030. The programme facilitates transnational collaboration among research centres, public institutions, and industry, tackling global challenges such as climate change, migration, and disinformation, all of which have significant implications for European stability and security.

IV. MARIE SKŁODOWSKA-CURIE ACTIONS (MARIE SKŁODOWSKA-CURIE ACTIONS (MSCA))



An integral part of Horizon Europe, the Marie Skłodowska-Curie Actions (MSCA) [8] is a programme funded by the European Commission that supports researchers across all disciplines and employment sectors.

The programme fosters the development of a new generation of experts capable of responding to emerging challenges in areas such as intelligence, security ethics, technology, and defence. MSCA contributes to building a network of scientific excellence in Europe, with direct benefits for collective security, through projects that integrate applied research, innovation, and professional ethics. In this way, the programme supports European strategic autonomy by developing the expertise needed for a rapid and well-informed response to global threats.

[6] Horizon Europe.

https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en?prefLang=ro&etans=ro

[7] Climatic neutrality/ <https://pisa.md/wp-content/uploads/2024/07/Neutralitate-climatica.png>

[8] Marie Skłodowska-Curie Actions / Acțiuni Marie Skłodowska-Curie. <https://horizoneurope.md/ro/pillar/actiuni-marie-sklodowska-curie>



V. EUROPEAN SOCIAL FUND PLUS (ESF+) [9]



European Union
European
Social Fund

The European Social Fund Plus (ESF+) introduces a crucial social dimension to the security architecture.

The programme supports vocational training, reskilling of the population, and social inclusion of vulnerable groups, thereby preventing internal tensions and marginalization. ESF+ contributes to preparing citizens for the digital and green transitions, fostering social cohesion and economic adaptability—fundamental conditions for sustainable internal security.

VI. ERASMUS [10]

Erasmus is an active instrument in preventing radicalization, extremism, and social polarization. By promoting democratic values, civic education, and the engagement of young people, the programme



Erasmus+

contributes to building a culture of peace and mutual respect across Europe. Erasmus+ projects increasingly address topics related to human security, human rights, social mediation, and community resilience, providing a solid framework for understanding global challenges and acting responsibly in response to them.

WOMEN AND ACCESS TO EDUCATION AND SCHOLARSHIPS IN THE EU: OPPORTUNITIES, CHALLENGES, AND OUTCOMES

Despite the European Union's ongoing efforts to integrate gender equality into all its strategic policies, persistent gaps and structural barriers continue to hinder the equitable participation of women in the fastest-growing economic sectors.

Fields such as information technology, engineering, science, digital health, and entrepreneurship remain male-dominated, reflecting not only numerical underrepresentation but also deeply rooted systemic inequality.

[9] European Social Fund+. <https://european-social-fund-plus.ec.europa.eu/el>

[10] What is Erasmus+? <https://erasmus-plus.ec.europa.eu/ro/about-erasmus/what-is-erasmus>



To counter these disparities, the European Union strategically invests in closing gender gaps by directing funds, scholarships, and educational initiatives toward increasing the representation of women in key sectors of socio-economic progress. Priority areas for these efforts include: STEM (Science, Technology, Engineering, and Mathematics) serving as a driver of innovation and economic competitiveness; Entrepreneurship and economic leadership supporting women in decision-making positions and fostering an inclusive business ecosystem; Health, including the digital component where the presence of women is essential to address the diverse needs of the population; Scientific research and innovation areas where diversity generates more creative and effective solutions; Diplomacy, public policy, and governance ensuring the representation of women in national and international decision-making processes.

EUROPEAN UNION PROGRAMMES DEDICATED TO SUPPORTING WOMEN IN EDUCATION, TECHNOLOGY, LEADERSHIP, AND BUSINESS

Programme Title	Main Domains	Target group/ Eligibility	Impact
Women TechEU ^[11]	Deep-tech startups (advanced technologies)	Women founders of deep-tech startups	Over 160 beneficiaries in the first edition
European Central Bank (ECB) Scholarship for Women ^[12]	Economics, statistics, IT	Master's students in economic/technical fields	Increases women's presence in strategic structures
Erasmus Mundus Joint Master Degrees (EMJMD) ^[13]	Interdisciplinary studies	EU and non-EU female students	55% women among beneficiaries (2021-2027)
Harbour. Space - Women in Tech Scholarship ^[14]	Technology, AI, design, entrepreneurship	Women interested in tech studies	Programmes in Spain and Thailand
Laidlaw Women's Leadership Program ^[15]	Leadership, Master in Business Administration	Women admitted to MBA programmes at top universities	Oxford, Columbia, HEC Paris, etc.
Kearney Women's Scholarship Program (CEE) ^[16]	Business, coaching, leadership	Women from Romania, Moldova, Czechia, Poland, Croatia	Supports young women with business potential

[11] Supporting women leading deep tech startups from Europe to grow into tomorrow's tech leaders. <https://womentecheuropa.eu>

[12] ECB Scholarship for Women. <https://www.ecb.europa.eu/careers/what-we-offer/wecs/html/index.ro.html>

[13] 20 years of Erasmus Mundus Beyond Borders and Boundaries. <https://op.europa.eu/en/publication-detail/-/publication/fa2067a3-18cb-11ef-a251-01aa75ed71a1/language-en>

[14] Scholarships. <https://harbour.space/admissions/scholarship>

[15] Empowering Women Leaders. <https://laidlawfoundation.com/women-in-business-laidlaw-scholarship/about-the-scholarship/>

[16] Kearney. <https://www.kearney.com/article/-/insights/women-s-scholarship-program-landing-page>



REPUBLIC OF MOLDOVA – BENEFICIARY OF EUROPEAN UNION PROGRAMMES

Active participation in European Union (EU) Programmes represents a strategic investment in the security, resilience, and sustainable development of the Republic of Moldova.

In a geopolitical context marked by regional instability, the war in Ukraine, and hybrid pressures on the EU's eastern borders, Moldova's association with key EU funding programmes constitutes not only a development opportunity but also a means to strengthen national and human security.

Through participation in programmes such as Horizon Europe, Digital Europe, EU4Health, and Erasmus+, the Republic of Moldova enhances its internal capacity to address complex security threats while reinforcing its links with the European knowledge, innovation, and social cohesion space.

Security through Innovation and Strategic Autonomy

Cyber Defence and Digital Autonomy

Health Resilience & Human Security

Security and Social Cohesion

As a candidate country, the Republic of Moldova has equal access to the Horizon Europe programme, which focuses on the development of emerging technologies, energy security, combating disinformation, and crisis management. This participation directly contributes to national resilience and the modernization of scientific and security infrastructure.

Security through Innovation and Strategic Autonomy

Cyber Defence and Digital Autonomy

Health Resilience & Human Security

Security and Social Cohesion

The Association Agreement for the Digital Europe Programme, signed in 2024, enables the Republic of Moldova to access resources to invest in artificial intelligence, cybersecurity, and digital skills. In an era marked by cyberattacks and information manipulation, this programme serves as a crucial instrument for national security, allowing the strengthening of digital infrastructure and public administration against hybrid threats.



Security through Innovation and Strategic Autonomy

Cyber Defence and Digital Autonomy

Health Resilience & Human Security

Security and Social Cohesion

The healthcare system is a fundamental pillar of human security. The EU4Health programme supports the Republic of Moldova in modernizing its healthcare system, preparing for pandemic crises, ensuring access to medicines, and digitalizing services. In a period where public health has become a strategic concern, participation in this programme strengthens the national capacity to respond effectively to emergencies.

Security through Innovation and Strategic Autonomy

Cyber Defence and Digital Autonomy

Health Resilience & Human Security

Security and Social Cohesion

Education, academic mobility, and international exchanges are key components of social security. Through Erasmus+ and the Marie Skłodowska-Curie Actions, young people from the Republic of Moldova can study, collaborate, and return with skills valuable for national development. At the same time, university faculty and researchers access MSCA grants, contributing to the formation of a professional elite capable of addressing security-related challenges.

Academic Mobility under Erasmus+ (2021–2024)

	2021	2022	2023	2024
Instances of universities participation from Moldova	226	222	267	
Students and Academic Staff moving to Ersmus+ (Outgoing)	1 434	492	468	474
Students and Academic Staff mogving to Moldova (incoming)	595	171	197	227
Percentage of Mobility in Region		6	7	8

Source: Erasmus+ for higher education in Moldova. https://www.erasmusplus.md/sites/default/files/media_file/2024-05/moldova_erasmusplus_2023.pdf?ut



The participation of the Republic of Moldova in these programmes contributes to:

- addressing systemic vulnerabilities;
- professionalizing public administration and researchers;
- strengthening resilience against hybrid threats;
- increasing citizens' trust in state institutions and in the European integration process.

RELEVANT FIGURES:



In 2023, 45 Moldovan companies benefited from grants totalling EUR 2.5 million through joint EU–Moldova business development programmes[18].



Moldova actively participates in the Interreg Black Sea Basin programme: in the latest round, 10 Moldovan beneficiaries accessed EUR 1.5 million [19].

The European Union strategically and sustainably strengthens its security through significant investments in education, vocational training, and scholarships in fields such as technology, healthcare, and business. These programmes develop human capital and skills necessary to face hybrid threats, contributing to societal resilience, internal cohesion, and the EU's digital and technological sovereignty.

Programmes such as Digital Europe, EU4Health, Horizon Europe, Marie Skłodowska-Curie Actions, the European Social Fund Plus (ESF+), and Erasmus+ provide the institutional framework for training a generation capable of managing contemporary crises, from cyber-attacks and disinformation to health emergencies and economic transitions. They transform education into an instrument of prevention, modernization, and collective security.

For the Republic of Moldova, association with these EU programmes represents an opportunity to modernize educational and scientific infrastructure, professionalize human resources, and enhance institutional capacity to respond to national security challenges. Active participation in initiatives such as Horizon Europe, Digital Europe, EU4Health, and Erasmus+ strengthens ties with the European research, innovation, and social cohesion space. Investments in vocational training, academic mobility, and digital skills development directly contribute to strengthening Moldova's national resilience, preventing social marginalization, and nurturing a generation capable of supporting European integration through expertise and civic responsibility.

[18] EU and Moldovan government grant more than 12 million lei to 45 companies in Moldova. https://eu4business.eu/news/eu-and-moldovan-government-grant-more-than-12-million-lei-to-45-companies-in-moldova/?utm_source=chatgpt.com

[19] New opportunities for European funding: Moldova can access larger budgets through Interreg programs. https://moldovalive.md/new-opportunities-for-european-funding-moldova-can-access-larger-budgets-through-interreg-programs/?utm_source=ch



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