European Commission

ERA Country Report 2024
Lithuania

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Report

Research and Innovation

ERA Country Report 2024: Lithuania

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Manuscript completed in June 2025

EUROPEAN COMMISSION

ERA Country Report 2024
Lithuania

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as part of the project ‘Implementation of the ERA Monitoring Mechanism’ for the European Commission, Directorate-General for Research and Innovation (RTD/2023/OP/0017)

2025 Directorate-General for Research and Innovation EN

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Key takeaways

- Lithuania is committed to 14 out of 20 ERA Actions, covering three ERA Priority Areas and demonstrating alignment with the ERA Policy Agenda and national R&I strategies, such as the Research Development Programme (RDP), Lithuania 2050, and New Generation Lithuania. These strategies emphasise research careers, research excellence, green and digital transitions, and knowledge valorisation.

- Lithuania (categorised as Moderate Innovator) achieved the highest increase in its Innovation Index in the EU according to the 2024 European Innovation Scoreboard.

- Significant progress has been made in areas such as open science, research careers, and access to excellence, with notable initiatives like EOSC financing, competence-based career reforms, and a pioneering transfer of funding from the 2021-2027 EU Funds Investment Programme to Horizon Europe projects.

- However, some challenges persist, including limited human resources and administrative complexities, which underscore the need for streamlined governance and targeted support to fully leverage the ERA framework.

1. National context

Lithuania is among the smallest EU-member states with a population of just over 2.8 million, (see Table 1). According to the 2024 European Innovation Scoreboard, Lithuania is categorised as a *Moderate Innovator* with performance at 83.6 percent of the EU average.[1] While there are notable trends, such as the highest (3.7 percent) increase in the EU in European Innovation Scoreboard (EIS) Summary Innovation Index , driven by strengths in job-to-job mobility of HRST, venture capital expenditures, and trademark applications, challenges remain in knowledge-intensive service exports and business R&D expenditure. Lithuania's research and development (R&D) investment lags behind EU average, with Government Budget Allocations for R&D (GBARD) at 0.39 percent of GDP in 2023, compared to the EU27 average of 0.73 percent. Nevertheless, the National Agreement on Education Policy (2021-2030)[2] sets an ambitious target that by 2030 the GBARD should reach at least 1 percent of the GDP. Lithuania has a relatively high share of female researchers at around 49 percent.

Table 1 Structural Key Indicators

Indicator	EU27	Lithuania		
	2023	2023	Average 2018-2020	Average 2021-2023
GDP in current prices, per capita	35 790.00	23 820.00	16 230.00	20 630.00
Gross Domestic Expenditure on R&D (GERD) as a share of GDP	2.27	1.05	1.02	1.07
Government Budget Allocations for R&D (GBARD) as share of GDP	0.73	0.39	0.31	0.34
Business Enterprise expenditure on R&D (BERD) as a share of GDP	1.52	0.53	0.45	0.53
Expenditure on R&D procurement as a percentage of GDP	0.06	0.02	/	0.02
Size of the population (million)	448.80	2.86	2.82	2.82
Researchers (in FTE) per million inhabitants	4 681.34	4 133.61	3 403.52	4 064.58
Share of female researchers, all sectors of performance (%)	33.71	/	49.05	/

Note: EU and country averages are for 2023, except share of female researchers (2021)
Source: see Annex 1

The main strategy for research and innovation (R&I) development in Lithuania is the **Research Development Programme for 2022-2030 (RDP)**[3], which consists of three progress measures: strengthening innovation ecosystems in science centres; improving the research and higher education environment; and implementing mission-based research and innovation programmes. Moreover, the **Lithuania 2050 strategy** (approved in December 2023) changes the previous Lithuania 2030 strategy and defines the long-term vision and priorities for Lithuania's development.[4] Looking at the key national institutions, the **Ministry of Education, Science and Sport** is the main public body for the R&I policy development in the ERA context. The main institution responsible for the implementation of R&I policy is the **Research**

[1] European Commission, Directorate-General for Research and Innovation (2024), European Innovation Scoreboard 2024 – Country profile Lithuania. https://ec.europa.eu/assets/rtd/eis/2024/ec_rtd_eis-country-profile-lt.pdf
[2] 'Agreement on National Education Policy (2021-2030)', Ministry of Education, Science and Sport website, https://smsm.lrv.lt/en/legal-information/agreement-on-national-education-policy-2021-2030
[3] Resolution on the Approval of the Research Development Programme 2022-2030. No. 67. Available at https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/a0b149f67f7411ecb2fe9975f8a9e52e?jfwid=32ocqtvvu
[4] Resolution on the Approval of the State Progress Strategy Lithuania 2050. No. XIV-2466. Available at https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/a8b03ef0a55511ee8172b53a675305ab?jfwid=1z7qrkybq

Council of Lithuania (RCL). Furthermore, the **Ministry of Economy and Innovation** is responsible for R&I policy targeting private business sector innovation, while the **Innovation Agency** implements such policy.

2. Status of the Implementation of the ERA Policy Agenda

Chapter 2 briefly summarises **new developments in Lithuania since the publication of the ERA Country Report 2023**, based on the commitments to ERA Actions. The findings are based on qualitative desk research and interviews.[5] Lithuania has **committed to 14 out of 20 ERA Actions**, covering three out of the four Priority Areas (see Table 2). The main strategy for R&I development in Lithuania is the aforementioned RDP, which remains unchanged but is scheduled for revision in early 2025. This revision is part of a broader governmental effort tied to the Lithuania 2050 strategy.[6] Overall, the current focus in Lithuania is on promoting the internal market for knowledge and research excellence.

Table 2 Commitment to ERA Actions

1: Deepening a truly functioning internal market for knowledge								
1. Enable Open Science, including through EOSC	2. Propose an EU copyright and data legislative framework for research	3. Reform the Assessment System for research, researchers and institutions	4. Promote attractive research careers, talent circulation and mobility	5. Promote gender equality and foster inclusiveness	6. Protect academic freedom in Europe	7. Upgrade EU guidance for a better knowledge valorisation	8. Strengthen research infrastructures	9. Promote international cooperation
2: Taking up together the challenges posed by the twin green and digital transition, and increasing society's participation in the ERA					3: Amplifying access R&I excellence across the Union		4: Advancing concerted research and innovation investments and reforms	
10. Make EU R&I missions and partnerships key contributors to the ERA	11. An ERA for green transformation	12. Accelerate the green & digital transition of Europe's key industrial ecosystems	13. Empower Higher Education Institutions	14. Bring Science closer to citizens	16. Improve EU-wide access to excellence	17. Enhance public research institutions' strategic capacity	19. Establish an ERA monitoring system	

Source: European Commission (Note: Actions 15, 18 and 20 were not implemented)

ERA Priority 1: Deepening a truly functioning internal market for knowledge

ERA Action 1) Enable the open sharing of knowledge and the re-use of research outputs, including through the development of the European Open Science Cloud (EOSC)

The Lithuanian Ministry of Education, Science and Sport has focused on initiatives to expand scientific cooperation and provide open-access platforms. It is currently preparing a funding instrument for the EOSC, starting with a feasibility study to guide its implementation.[7] In parallel, amendments to the Law on Research and Higher Education have been introduced to enhance open access to research results.[8] Moreover, in 2024, the Research Council of Lithuania (RCL) adopted the Description of the Procedure for Open Access to the R&D Results, establishing principles and requirements for open access to research publications

[5] Documents consulted during the desk research include European Semester reports, the European Innovation Scoreboard, and reports from national ministries, such as Research Development Programme for 2022-2030 (RDP).
[6] Source: interview with Lithuanian representative to ERA (12/12/2024)
[7] Source: interview with Lithuanian representative to ERA (12/12/2024)
[8] Source: interview with Lithuanian representative to ERA (12/12/2024)

and data. The provisions will be implemented gradually, taking full effect by 2030, with an action plan and monitoring procedure to be developed by 2026.[9]

ERA Action 3) Advance towards the reform of the Assessment System for research, researchers and institutions to improve their quality, performance and impact

Key efforts in assessment reform in Lithuania are guided by the Coalition for Advancing Research Assessment (CoARA) principles, with the RCL leading implementation efforts.[10] Following the signing of the Agreement on Reforming Research Assessment in December 2022, RCL has developed a 2024–2028 action plan[11] to implement CoARA principles within its activities. The plan focuses on replacing traditional, metrics-driven assessments with qualitative evaluations to enhance transparency and fairness.[12]

ERA Action 4) Promote attractive and sustainable research careers, balanced talent circulation and international, transdisciplinary and intersectoral mobility across the ERA

In the past year, Lithuania continued to promote attractive research careers. In 2023, the RCL introduced a competence-based framework for researcher careers[13], based on the previous amendments to the Law on Research and Studies[14]. This framework defines four career stages and outlines mandatory and desirable competencies for each stage, aligning with European principles of mobility and career development, and granting institutions greater freedom in hiring decisions. Additionally, researcher remuneration has been a significant focus with other amendments to the Law on Research and Studies.[15] Research salaries have been set at 150 percent of the national average salary starting from 2024,[16] with another 8 percent increase starting from 2025,[17] which reflects a broader effort to align compensation with the high demands of scientific work.[18]

ERA Action 5) Promote gender equality and foster inclusiveness, taking note of the

The Ministry of Education, Science and Sport and the RCL are participating in the Horizon Europe GENDERACTIONplus[19] project, focusing on sharing best practices with EU partners to develop inclusive policies. Additionally, gender equality measures are integrated into human resource management within the Resilience and Recovery Fund (RRF),

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[9] See: https://eosc.eu/tripartite-collaboration/lithuania
[10] Source: interview with Lithuanian representative to ERA (12/12/2024)
[11] Action Plan for the Application of the CoARA Principles in the Activities of the Research Council of Lithuania (2024-2028). Available at: https://lmt.lrv.lt/public/canonical/1735302517/3893/EN%20%C4%AEsakymo%20priedas_CoARA%20veiksm%C5%B3%20planas%202024_2028_p3.pdf
[12] Research Council of Lithuania (January 2025) Coalition for Advancing Research Assessment (CoARA). https://lmt.lrv.lt/en/science-policy-implementation/coalition-for-advancing-research-assessment-coara/
[13] Register of Legal Acts. Available at: https://www.e-tar.lt/portal/lt/legalAct/73b90eb0169511ee9f7ec2ffce8b47bc
[14] Legal changes of the Law on Research and Studies on regulation of researchers' careers (2022). OECD STIP. https://stip.oecd.org/stip/interactive-dashboards/policy-initiatives/2023%2Fdata%2FpolicyInitiatives%2F99996713
[15] Government of the Republic of Lithuania (November 2024) Pritarta Mokslo ir studijų įstatymo pataisoms dėl mokslininkų atlyginimų koeficientų didinimo. Available at: https://lrv.lt/lt/naujienos/pritarta-mokslo-ir-studiju-istatymo-pataisoms-del-moksliniku-atlyginimu-koeficientu-didinimo/; Legal changes of the Law on Research and Studies on regulation of researchers' careers (2022). OECD STIP. https://stip.oecd.org/stip/interactive-dashboards/policy-initiatives/2023%2Fdata%2FpolicyInitiatives%2F99996713
[16] Parliament of the Republic of Lithuania (November 2023) 2024 m. didės mokslo darbuotojų atlyginimai. Available at: https://www.lrs.lt/sip/portal.show?p_r=35403&p_k=1&p_t=286787&p_a=1648&p_kade_id=10
[17] Parliament of the Republic of Lithuania (December 2024) Nuo 2025 m. rugsėjo mėn. didės mokslo darbuotojų atlyginimai. Available at https://www.lrs.lt/sip/portal.show?p_r=35403&p_k=1&p_t=290428&p_a=1648&p_kade_id=10
[18] Source: interview with Lithuanian representative to ERA (12/12/2024)
[19] See: https://genderaction.eu/our-consortium/

Ljubljana declaration	further supporting institutional change and alignment with European standards.[20]
ERA Action 6) Deepening the ERA through protecting academic freedom in Europe	While there have been no specific policy changes recently, the key stakeholder in this action is the University Rectors' Conference (LURK)[21], which coordinates relationships between rectors and state institutions. Lithuania's approach to protecting academic freedom focuses on maintaining a balance between university autonomy and societal responsibility.[22]
ERA Action 7) Upgrade EU guidance for better knowledge valorisation	To facilitate dialogue and partnerships for knowledge valorisation, Lithuania continues to organise special events, one of which is currently planned for 2025.[23] Furthermore, significant funding has been allocated to support spin-offs and institutional knowledge transfer activities.[24] For example, "R&D projects by spin-offs" programme allocates up to EUR 5 million from the EU funds aiming to promote the transfer of scientific knowledge and development of innovative products from R&D.[25]
ERA Action 8) Strengthen sustainability, accessibility and resilience of research infrastructures in the ERA	In 2024, Lithuania joined two research infrastructures with the government's support: the Survey of Health, Ageing and Retirement in Europe (SHARE-ERIC), represented by Vilnius University,[26] and the Consortium of European Social Science Data Archives (CESSDA-ERIC), represented by Kaunas University of Technology.[27] In addition, the RCL has recently allocated funds to support the CLARIN-LT project (2024–2029), integrating Lithuania into the European CLARIN network and enhancing linguistic research infrastructure.[28] Moreover, additional funding is currently being planned to support Lithuania's involvement in these infrastructures.[29] Furthermore, in 2024, the RCL has also updated the Lithuanian Roadmap for Research Infrastructures, providing strategic guidance on infrastructure development and participation.[30] Lastly, the Vilnius University Medical Science Centre was opened in October 2024[31], dedicated to translational medicine, aiming to convert fundamental scientific discoveries into practical medical applications.
ERA Action 9) Promote a positive environment and level playing field	Lithuania participated in ERA Action 9 to better understand the European context of international cooperation while focusing on advocating the prioritisation of EU-Ukraine collaboration.[32] This engagement aligns with Lithuania's broader efforts to strengthen international partnerships

[20] Source: interview with Lithuanian representative to ERA (12/12/2024)
[21] See: https://lurk.lt/en/homepage/
[22] Source: interview with Lithuanian representative to ERA (12/12/2024)
[23] Source: interview with Lithuanian representative to ERA (12/12/2024)
[24] Source: interview with Lithuanian representative to ERA (12/12/2024)
[25] Research Council of Lithuania (2025) Atžalinių įmonių MTEP projektai, Available at: https://lmt.lrv.lt/lt/veiklos-sritys/mokslo-finansavimas/mokslo-ir-verslo-bendradarbiavimo-priemones/atzaliniu-imoniu-mtep-komercinimas/
[26] Vilnius University (November 2024) Lithuania Joins SHARE-ERIC – Europe's Largest Ageing Research Initiative. Available at: https://www.vu.lt/en/news-events/news/lithuania-joins-share-eric-europe-s-largest-ageing-research-initiative
[27] See: https://www.cessda.eu/News/CESSDA-Newsitem-nid3958
[28] "Lithuanian Research Council Allocated Funding to CLARIN-LT Project (2024-2029)". 23 Oct. 2024, http://clarin-lt.lt/?p=1384.
[29] Source: interview with Lithuanian representative to ERA (12/12/2024)
[30] Research Council of Lithuania (2024) Lietuvos mokslinių tyrimų infrastruktūrų kelrodis. Available at: https://lmt.lrv.lt/public/canonical/1735535380/3894/LMT%20infrastrukturu%20kelrodis%202024.pdf
[31] Vilnius University. Medical Science Centre. Available at: https://www.mf.vu.lt/en/research/medical-science-centre
[32] Source: interview with Lithuanian representative to ERA (12/12/2024)

for international cooperation based on reciprocity

and integrate its research community into European frameworks, as outlined in its strategic documents like the RDP.[33]

ERA Priority 2: Taking up together the green transition and digital transformation and other challenges with impact on society and increasing society's participation in the ERA

ERA Action 10) Make EU R&I missions (10.1) and partnerships (10.2) key contributors to the ERA

A significant initiative under the Recovery and Resilience Facility (RRF), implemented through mission-based science and innovation programmes, allocated EUR 77.7 million to establish three competence centres and collaborative projects.[34] This programme funds the formation of consortia comprising at least two research institutions and two businesses, thus facilitating effective knowledge transfer.[35] Likewise important is the Smart Specialisation concept for 2021–2027, which focuses on strengthening R&I capacities, developing new technologies, and enhancing the country's competitiveness in global markets.[36] Furthermore, Lithuania has joined the Horizo, Europe Policy Support Facility (PSF) Mutual Learning Exercise on Bridging the Gap between Science and Policy, which aims to facilitate the exchange of information, experiences, and lessons learned, and to identify good practices, policies, and programmes that promote the use of scientific evidence in policymaking.[37]

ERA Action 11) An ERA for green transformation

Lithuania has taken steps to accelerate accelerate the green transformation with a focus on energy and climate initiatives. Under the Strategic Energy Technology (SET) Plan and the recently renewed Green Hydrogen Action Plan, Lithuania is actively developing frameworks to foster clean energy innovation and reduce greenhouse gas emissions.[38] The Ministry of Energy is leading efforts, including updating the National Energy and Climate Action Plan in 2024 and planning to establish a hydrogen city.[39]

ERA Action 12) Accelerate the

Lithuania is advancing the green and digital transition through initiatives like Innovation and Technology Transfer Centres (ITTC), focusing on

[33] Research Development Programme for 2022-2030. Available at https://www.etar.lt/portal/lt/legalAct/ba9d56107f7411ec993ff5ca6e8ba60c

[34] Ministry of Economy and Innovation of the Republic of Lithuania (2024) Mission based science and innovation programs. Available at: https://eimin.lrv.lt/en/sector-activities/innovation/missions

[35] Source: interview with Lithuanian representative to ERA (12/12/2024) and European Commission. Lithuania's Recovery and Resilience Plan. Available at: https://commission.europa.eu/document/download/9a850477-bf1c-43bc-9668-24e95d397cfa_en?filename=Recovery_and_resilience_FS_LT_1

[36] Source: interview with Lithuanian representative to ERA (12/12/2024)
Innovation Agency (December 2023). Mokslinių tyrimų ir eksperimentinės plėtros bei inovacijų (sumaniosios specializacijos) stebėsenos ataskaita 2023. Available at https://inovacijuagentura.lt/site/binaries/content/assets/analitika/tyrimai/lietuvos-moksliniu-tyrimu-ir-eksperimentines-pletros-bei-inovaciju-sumaniosios-specializacijos-ataskaita-2023-m..pdf

[37] European Commission. Mutual Learning Exercise on Bridging the gap between Science and Policy. Available at: https://projects.research-and-innovation.ec.europa.eu/en/statistics/policy-support-facility/psf-challenge/mutual-learning-exercise-bridging-gap-between-science-and-policy

[38] Ministry of Economy and Innovation. Vandenilio plėtros Lietuvoje 2024–2050 m. gairės. Available at: https://enmin.lrv.lt/media/viesa/saugykla/2024/4/ZNrRbiZ96Hs.pdf

[39] Source: interview with Lithuanian representative to ERA (12/12/2024) and Ministry of Economy and Innovation of the Republic of Lithuania (2024) Nacionalinis energetikos ir klimato srities veiksmų planas. Available at: https://enmin.lrv.lt/lt/veiklos-sritys-3/neksvp-atnaujinimas

green/digital transition of Europe's key industrial ecosystems

health, green, and IT missions.[40] Additionally, with the support of the Ministry of Economy and Innovation, the Center for Physical Sciences and Technology (FTMC), alongside VU, KTU, and Vilnius Tech, secured European Chips Act funding to establish a semiconductor competence centre.[41] Moreover, Lithuania is developing an artificial intelligence (AI) "sandbox" to test and improve digital tools, marking progress in digital transformation initiatives.[42] EUR 117 million have also been committed to digitalising the public sector, improving e-governance, and enhancing digital literacy across different demographic groups.[43] These efforts are complemented by EUR 73 million allocated under the Recovery and Resilience Facility to expand digital connectivity, including 5G and fibre networks in rural areas.[44] In parallel, Lithuania has been active in digital upskilling, with initiatives like the National Digital Decade Roadmap, which outlines improvements in digital skills, especially for vulnerable groups, and promotes lifelong digital education.[45] Complementing this, the recently launched "Kursuok" platform provides adult training in technology and digital skills, supporting thousands of participants.[46]

ERA Action 13) Empower Higher Education Institutions to develop in line with the ERA, and in synergy with

Lithuania is focusing on the research quality in its Higher Education Institutions (HEIs), particularly focusing on increasing funding for research (rather than student enrolment) and thus prioritising research quality over quantity, as outlined in the RDP.[47] Lithuania is also part of five European Universities Alliance projects, fostering international collaboration in higher education.[48] Additionally, HEIs are undergoing re-

[40] Source: interview with Lithuanian representative to ERA (12/12/2024) and Research Council of Lithuania (2024) Inovacijų ir technologijų perdavimo centrų kompetencijų stiprinimas. Available at: https://lmt.lrv.lt/lt/veiklos-sritys/mokslo-finansavimas/mokslo-ir-verslo-bendradarbiavimo-priemones/inovaciju-ir-technologiju-perdavimo-centru-kompetenciju-stiprinimas/

[41] Source: interview with Lithuanian representative to ERA (12/12/2024) and FTMC (December 2024) Lithuanian Semiconductor Competence Centre project receives Top EU evaluation score. Available at: https://www.ftmc.lt/news/2012/49/Lithuanian-Semiconductor-Competence-Centre-project-receives-Top-EU-evaluation-score?

[42] Ministry of Economy and Innovation of the Republic of Lithuania (October 2024) Lithuania accelerates development of artificial intelligence by creating a "sandbox" to test the technology. Available at: https://eimin.lrv.lt/en/structure-and-contacts/news-1/lithuania-accelerates-development-of-artificial-intelligence-by-creating-a-sandbox-to-test-the-technology/

[43] Europawire (July 2023) European Investment Bank Signs €300 Million Financing Agreement with Lithuania for Green and Digital Transitions. Available at: https://news.europawire.eu/european-investment-bank-signs-e300-million-financing-agreement-with-lithuania-for-green-and-digital-transitions/eu-press-release/2023/07/21/09/57/33/119308/

[44] European Commission. Lithuania's Recovery and Resilience Plan - European Commission. https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility/country-pages/lithuanias-recovery-and-resilience-plan_en.

[45] Ministry of Economy and Innovation (2024) National Digital Decade Roadmap of the Republic of Lithuania. Available at: https://eimin.lrv.lt/media/viesa/saugykla/2024/5/wzspkh-PiZI.pdf
Digital skills and Jobs Platform. Lithuania - National Digital Decade strategic roadmap. Available at: https://digital-skills-jobs.europa.eu/en/actions/national-initiatives/national-strategies/lithuania-national-digital-decade-strategic

[46] Ministry of Education, Science and Sport of the Republic of Lithuania (2024) Individualių mokymosi paskyrų sistema KURSUOK. Available at: https://smsm.lrv.lt/lt/veiklos-sritys-1/smm-svietimas/suaugusiuju-svietimas/individualiu-mokymosi-paskyru-sistema-kursuok/

[47] Source: interview with Lithuanian representative to ERA (12/12/2024)

[48] Source: interview with Lithuanian representative to ERA (12/12/2024) and Ministry of Education, Science and Sport of the Republic of Lithuania (2023) Mokslo ir studijų įstatymo pakeitimas dėl studijų finansavimo modelio pertvarkos. Available at: https://smsm.lrv.lt/lt/viesosios-konsultacijos/viesosios-konsultacijos-

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structuring to optimise the network. For example, two colleges in Kaunas and other two in Vilnius have merged, and Marijampolė College has been integrated into Mykolas Romeris University.[49] Nevertheles, some of the mergers may raise concerns regarding their strategic value for the national HEI system. By 2028, academic requirements for colleges will include minimum thresholds for R&D and art activities, ensuring higher standards across the system.[50]

ERA Action 14) Bring Science closer to citizens

Lithuania continues to engage citizens in science through EU-wide initiatives like the "Plastic Pirates – Go Europe!" programme, where students collected and researched plastic with the support of FTMC.[51] Additionally, Lithuania participates in the EU Contest for Young Scientists (EUCYS), which encourages students to present their projects at a European level, inspiring the next generation of scientists.[52] Another notable event is the opening of the Science and Innovation Promotion Centre "Science Island" in Kaunas in December 2024, which features a permanent interactive science exhibition, a modern planetarium, and emerging STEAM laboratories, aiming to foster public engagement and trust in science.[53]

ERA Priority 3: Enhancing access to research and innovation excellence across the Union and enhancing interconnections between innovation ecosystems across the Union

ERA Action 16) Improve EU-wide access to excellence

In late 2023, Lithuania became one of the first countries to set an agreement with the European Commission to transfer additional EUR 18.5 million from the 2021-2027 EU Funds Investment Programme to Horizon Europe, ensuring continued funding for high-quality research projects and innovation initiatives.[54] This transfer focuses on three areas of activity (supporting advanced science, breakthrough innovations, and ERA fellowships), addressing funding gaps for highly-rated Lithuanian tenderers that previously missed out under Horizon Europe's highly competitive calls. This initiative enhances Lithuania's participation in European research programmes while streamlining administrative processes.

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[49] Source: interview with Lithuanian representative to ERA (12/12/2024) and Centre for Quality Assessment in Higher Education (2024) Three state colleges of Lithuania reorganised. Available at: https://skvc.lrv.lt/en/news/five-state-colleges-of-lithuania-reorganised

[50] Source: interview with Lithuanian representative to ERA (12/12/2024) and Research Council of Lithuania (May 2024) Ekspertinis mokslo (meno) veiklos vertinimas. Available at: https://lmt.lrv.lt/lt/veiklos-sritys/mokslo-kokybe/mokslo-meno-vertinimas/kolegijos/ekspertinis-mokslo-meno-veiklos-vertinimas

[51] Source: interview with Lithuanian representative to ERA (12/12/2024) and LINEŠA. Tarptautinis piliečių mokslo projektas „Plastic Pirates – Go Europe!" tęsiasi. Available at: https://www.lmnsc.lt/naujiena/tarptautinis-pilieciu-mokslo-projektas-plastic-pirates---go-europe-tesiasi-/

[52] Jaunasis tyrėjas. See: https://www.jaunasis-tyrejas.lt/lt/apie-konkursa

[53] Mokslo sala. See: https://www.mokslosala.lt

[54] Ministry of Finance of the Republic of Lithuania (May, 2023) Lithuania Allocates EUR 18.5 Million for the Breakthrough of Lithuanian Science and Business under the Horizon Europe. Available at: https://finmin.lrv.lt/en/news/lithuania-allocates-eur-18-5-million-for-the-breakthrough-of-lithuanian-science-and-business-under-the-horizon-europe

ERA Priority 4: Advancing concerted research and innovation investments and reforms

Lithuania has not committed to the ERA Action under this priority area.

3. Contribution of ERA Actions to national performance in reaching ERA objectives

This chapter provides a qualitative assessment of how the joint ERA Actions contributed to Lithuania's performance in achieving the ERA objectives as defined in the Pact for R&I during the period 2022-2024.

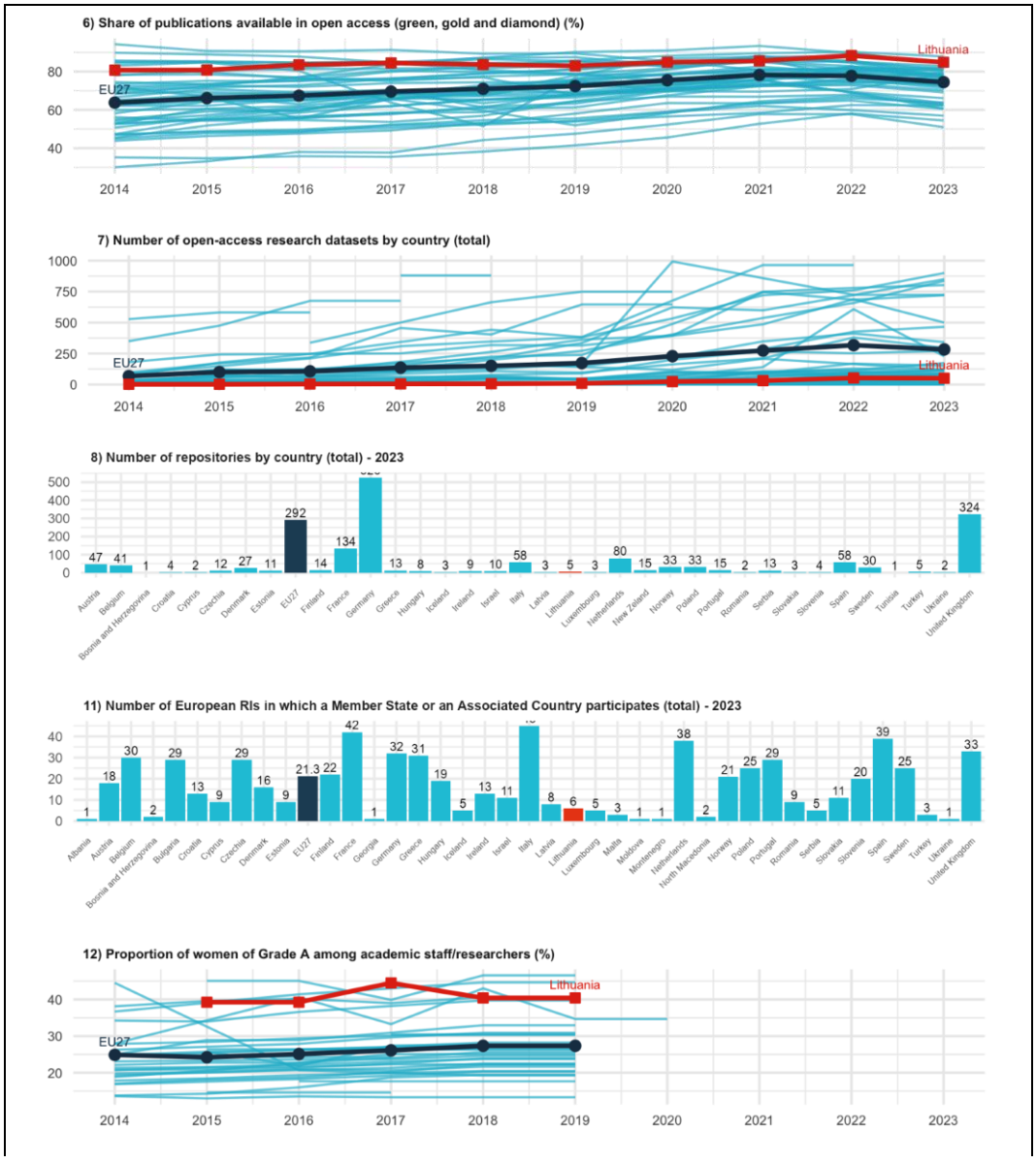
In general, since the last reporting period Lithuania achieved notable successes in advancing ERA objectives, highlighted by significant Horizon Europe funding and advancements in the area of research careers. This is reflected in the Horizon Dashboard results, the EIS Summary Innovation Index increase, and indicators related to publications and PhD students. Key changes contributing to this include reallocating European Structural and Investment Funds (ESIF) to projects that lacked funding from the Horizon Europe, improving researcher salaries and introducing competencies-based researcher career criteria, and the measure for the capacity building for Innovation and Technology Transfer Centres (ITTCs).[55] However, some barriers persist, including limited human resources for engaging in ERA Actions, and administrative burdens from uncertainties in the new strategic management system.[56] Coordination among government bodies remains insufficient, with intermediary steps like the Central Project Management Agency (Centrinė projektų valdymo agentūra – CPVA) adding layers of complexity. For example, CPVA procedures require institutions like the RCL to act as intermediaries rather than coordinate directly with ministries, which in turn reduces the effectiveness of public support for R&I initiatives. These barriers highlight the need for streamlined governance and targeted resource allocation to fully leverage Lithuania's R&I potential.

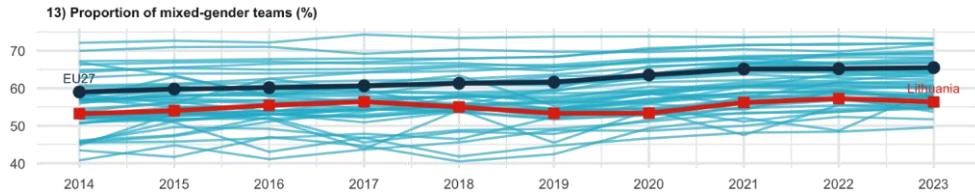
ERA Priority 1 is addressed through a range of initiatives focussing on **ERA Actions 1 to 9**, and the progress is likewise visible in ERA Dashboard indicators. The implementation of these activities in largely on track and supported by dedicated investments and initiatives, such as the adoption of the Description of the Procedure for Open Access to R&D Results (**Action 1**), and the RCL's 2024-2028 action plan, aligning with CoARA principles to transition to qualitative research assessment (**Action 3**). In 2023, the share of open-access publications stood high at 84.84 percent (ERA Dashboard Indicator 6), though the number of open-access datasets remained below EU27 average at 51 (ERA Dashboard Indicator 7). Moreover, research careers (**Action 4**) have improved with a competence-based framework and significant salary increases, while participation in the GENDERACTIONplus project (**Action 5**) or the SHARE-ERIC and CESSDA-ERIC research infrastructures (**Action 8**) contribute to accessibility of research. Indicators related to research careers (number of doctoral students) remain below the EU27 average (ERA Dashboard Indicators 17, 18), however, the positive effect of the implemented changes is yet to be perceived. In terms of gender equality, Lithuania stands above the EU27 average in several indicators (ERA Dashboard Indicators 12, 14, 16), while the proportion of mixed-gender teams remained relatively low at around 56 percent in 2023 (ERA Dashboard Indicator 13). Academic freedom (**Action 6**) is safeguarded

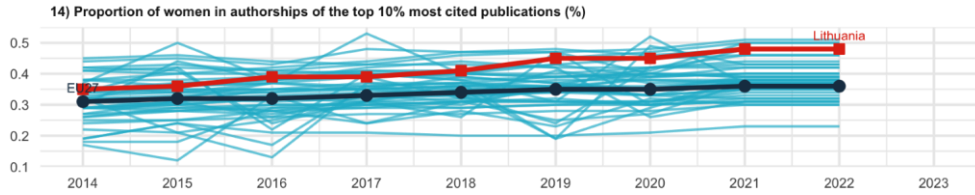
[55] Source: interview with Lithuanian representative to ERA (12/12/2024)
[56] Source: interview with Lithuanian representative to ERA (12/12/2024) and European Commission (2024) 2024 European Semester Country Report – Lithuania. European Commission. https://economy-finance.ec.europa.eu/document/download/b2eea0d9-a516-4153-82ac-66d150d1ce7e_en?filename=SWD_2024_615_1_EN_Lithuania.pdf

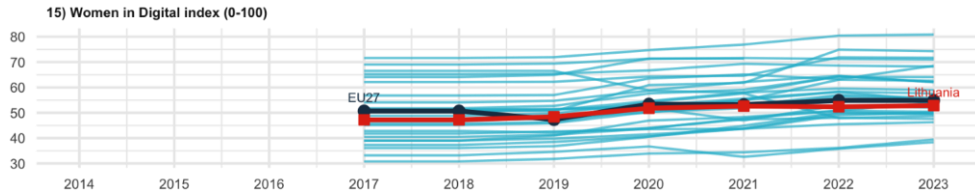
through coordination by the University Rectors' Conference (LURK), but Lithuania's Academic Freedom Index slightly declined to 0.816 in 2024 (ERA Dashboard Indicator 27). Lastly, knowledge valorisation (**Action 7**) is supported by funding spin-offs and institutional knowledge transfer, though Lithuania's values in public-private co-publications and patent-related indicators remain below the EU27 average (ERA Dashboard Indicators 19, 21, 25).

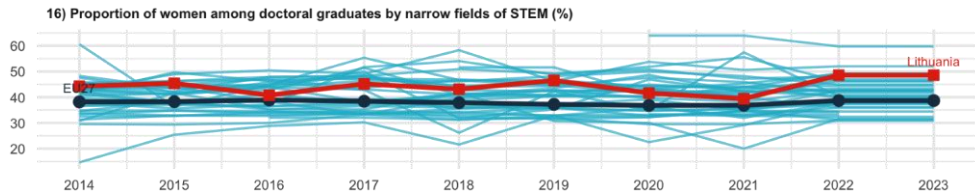
Figure 3-1 Indicators for ERA Priority 1

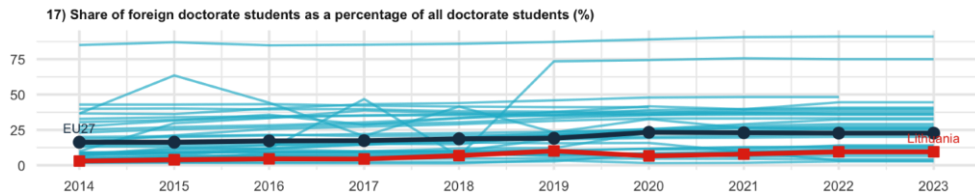


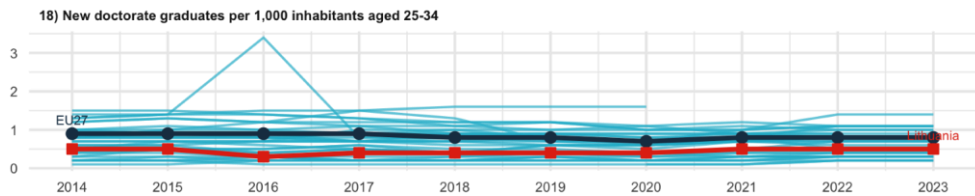

13) Proportion of mixed-gender teams (%)
70
60
50
40
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

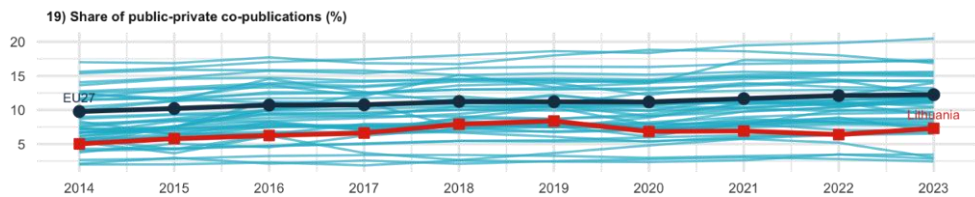

14) Proportion of women in authorships of the top 10% most cited publications (%)
0.5
0.4
0.3
0.2
0.1
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


15) Women in Digital index (0-100)
80
70
60
50
40
30
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

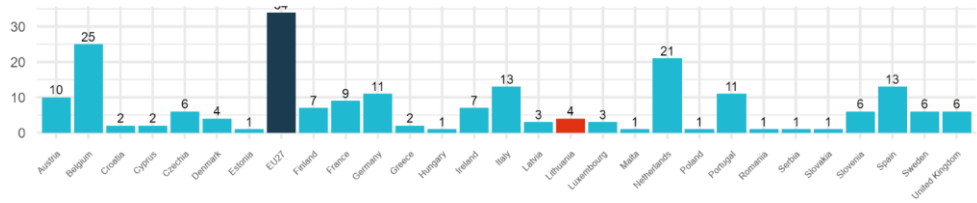

16) Proportion of women among doctoral graduates by narrow fields of STEM (%)
60
50
40
30
20
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


17) Share of foreign doctorate students as a percentage of all doctorate students (%)
75
50
25
0
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

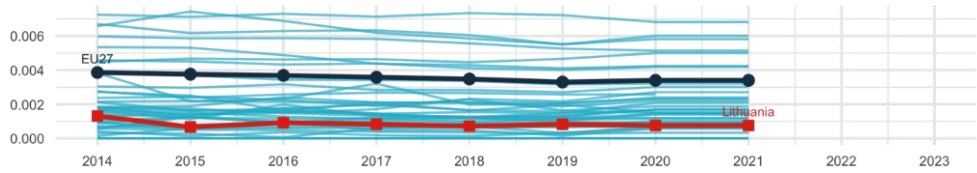

18) New doctorate graduates per 1,000 inhabitants aged 25-34
3
2
1
0
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


19) Share of public-private co-publications (%)
20
15
10
5
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

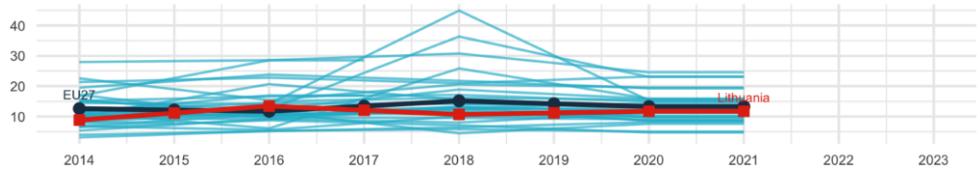
20) Best practice examples and methodologies for knowledge valorisation - 2023



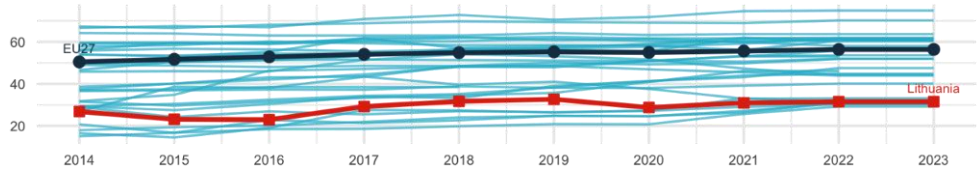
21) Number of PCT patent applications divided by GDP in million Euros/Dollars



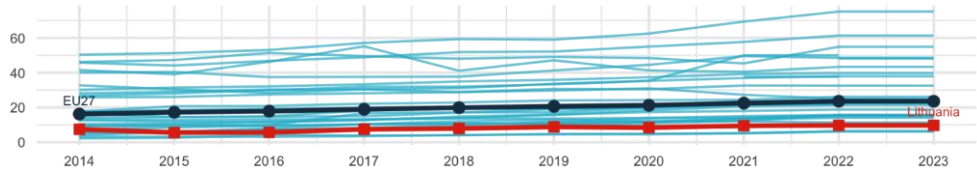
22) Share of innovating firms collaborating with HEI/PRO out of all innovative firms



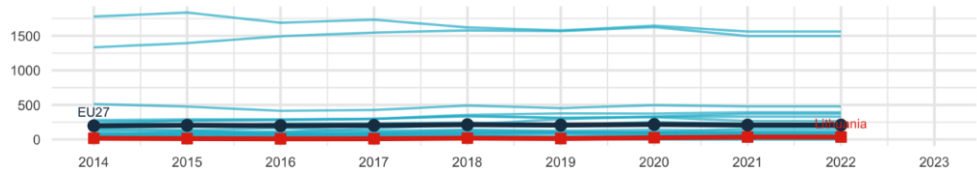
23) Business enterprise researchers as % of total researchers (%)

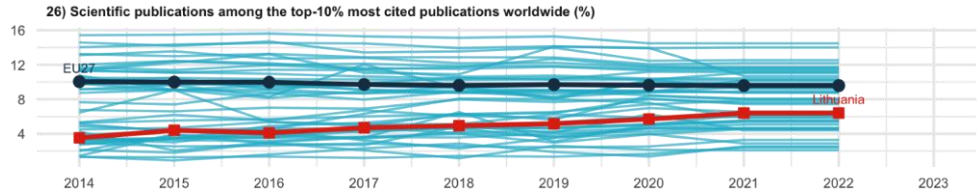


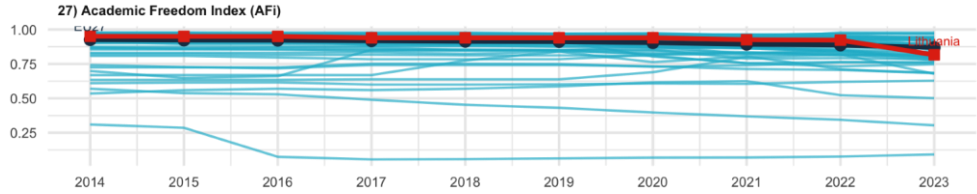
24) Business enterprise researchers in full-time equivalent per thousand employment in industry

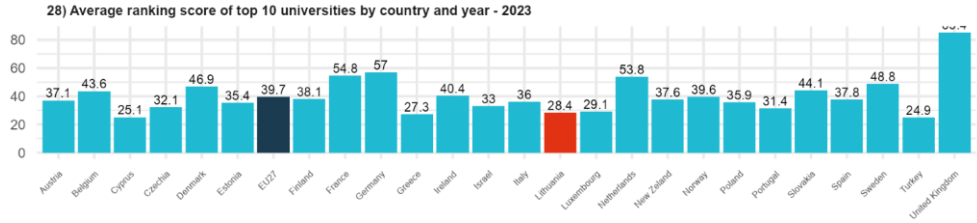


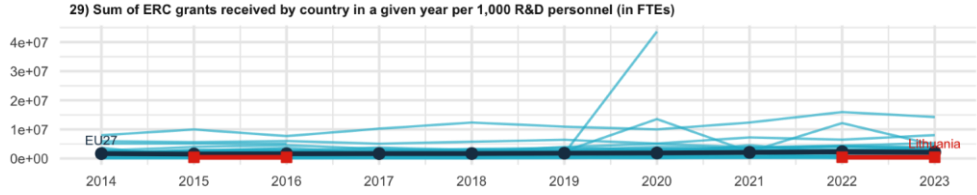
25) Patents by universities and public research organisations

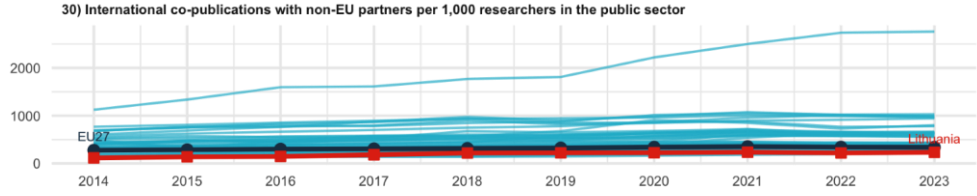


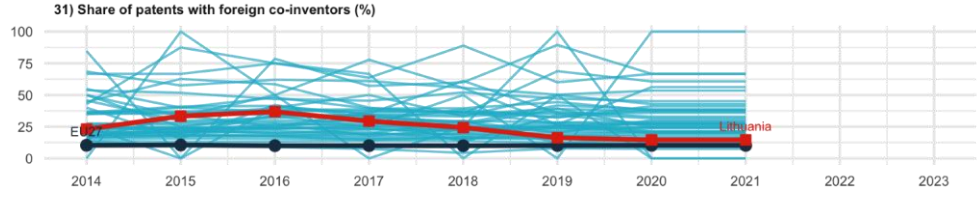

26) Scientific publications among the top-10% most cited publications worldwide (%)
16
12
8
4
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

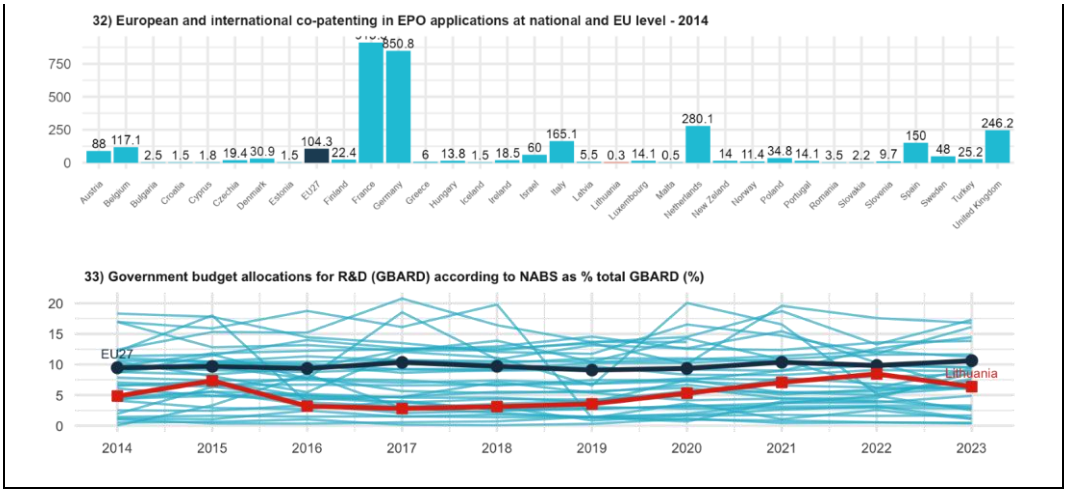

27) Academic Freedom Index (AFi)
1.00
0.75
0.50
0.25
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


28) Average ranking score of top 10 universities by country and year - 2023
80
60
40
20
0
37.1
43.6
25.1
32.1
46.9
35.4
39.7
38.1
54.8
57
27.3
40.4
33
36
28.4
29.1
53.8
37.6
39.6
35.9
31.4
44.1
37.8
48.8
24.9
Austria
Belgium
Cyprus
Czechia
Denmark
Estonia
EU27
Finland
France
Germany
Greece
Ireland
Israel
Italy
Lithuania
Luxembourg
Netherlands
New Zealand
Norway
Poland
Portugal
Slovakia
Spain
Sweden
Turkey
United Kingdom


29) Sum of ERC grants received by country in a given year per 1,000 R&D personnel (in FTEs)
4e+07
3e+07
2e+07
1e+07
0e+00
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


30) International co-publications with non-EU partners per 1,000 researchers in the public sector
2000
1000
0
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

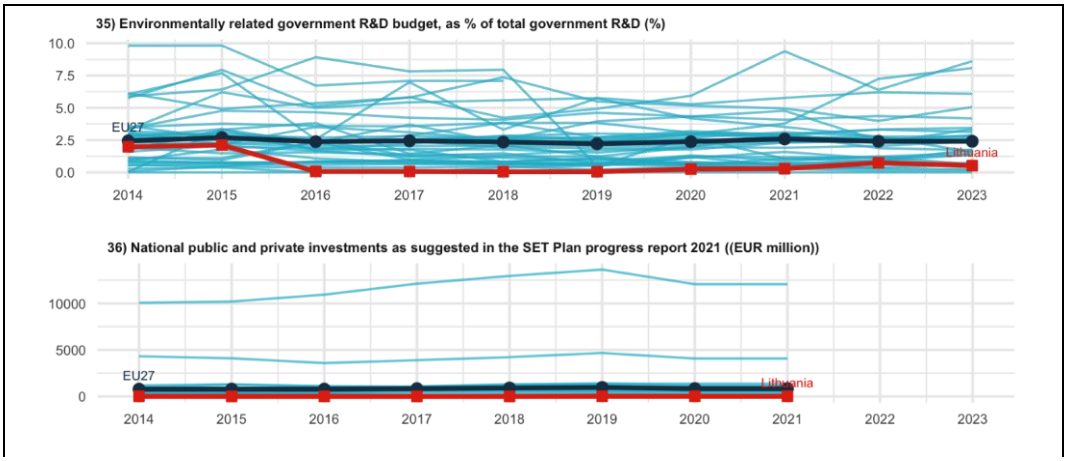

31) Share of patents with foreign co-inventors (%)
100
75
50
25
0
EU27
Lithuania
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

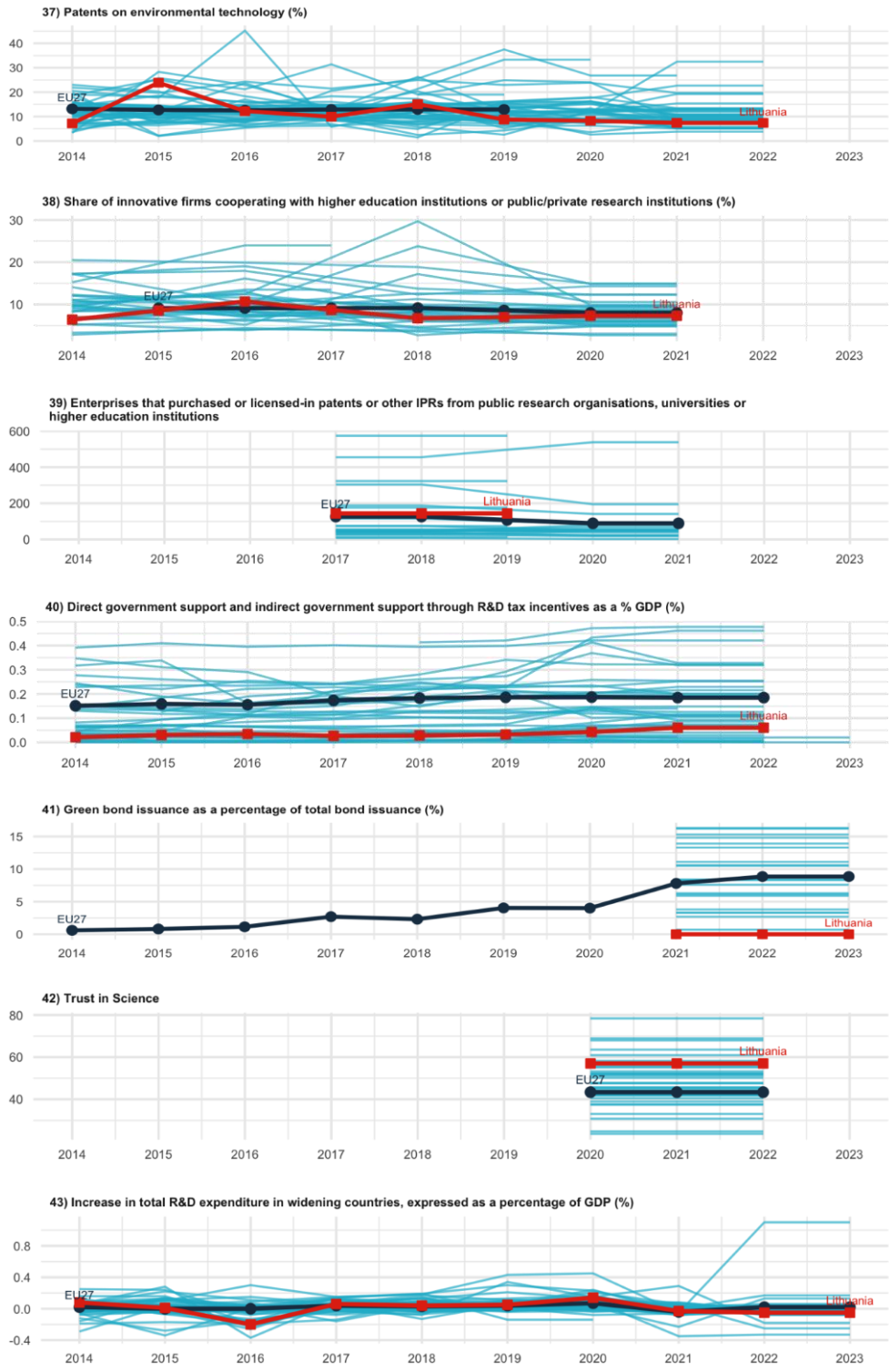


Source: see Annex 1

ERA Priority 2 is addressed through a set of initiatives focusing on **ERA Actions 10 to 14**. EU R&I missions and partnerships (**Action 10**) are supported by RRF funding for competence centres. Green transformation (**Action 11**) progresses through the SET and Green Hydrogen Action Plans, while environmentally related R&D budget (0.53 percent of GDP, ERA Dashboard Indicator 35) and share of patents on environmental technology (7.3 percent, ERA Dashboard Indicator 37) remain relatively low. **Action 12** is supported by different initiatives and funding for digitalisation, and digital infrastructure expansion, while higher education (**Action 13**) benefits from increased research funding, European Universities Alliance projects, and network optimisation. Citizen engagement (**Action 14**) is advanced by the "Plastic Pirates – Go Europe!" programme and Science Island in Kaunas, with public trust in science above EU27 average at 57 percent (ERA Dashboard Indicator 42). While environmentally related indicators show challenges, investments through the RRF and smart specialisation strategies drive alignment with ERA Priority 2.

Figure 3-2 Indicators for ERA Priority 2





Source: see Annex 1

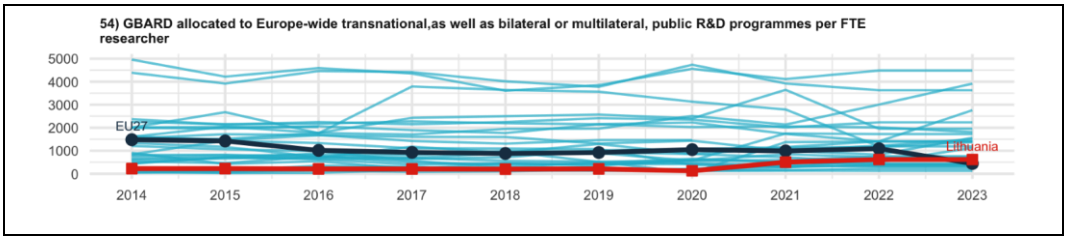
ERA Priority 3 is addressed in Lithuania through **ERA Action 16**, notably by becoming one of the first countries in 2023 to transfer funds from the EU Funds Investment Programme to Horizon Europe, thereby increasing researchers' opportunities of participating in highest standard research projects. This initiative will further contribute to Lithuania's progress seen in ERA Dashboard Indicators with the number of participations in Horizon Europe (ERA Dashboard Indicator 44) and the sum of received Horizon Europe grants (ERA Dashboard Indicator 45). These efforts underscore Lithuania's commitment to strengthening participation in European research frameworks.

Figure 3-3 Indicators for ERA Priority 3

Source: see Annex 1

Lithuania is not committed to any actions under **ERA Priority 4,** however, as seen in figure below, as of 2023, it is slightly above EU average in GBARD allocated to Europe-wide trans-national, as well as bilateral or multilateral, public R&D programmes per FTE researcher (Dashboard Indicator 54).

Figure 3-4 Indicators for ERA Priority 4



Source: see Annex 1

4. Effects of ERA Action implementation on the national R&I system

This chapter presents a qualitative assessment of the ERA Action commitments of Lithuania and their effects on the national R&I system, including the quantitative performance in the ERA Dashboard.

Overall, the implementation of ERA actions in Lithuania aligns well with national R&I priorities, which are guided by the Research and Development Program (RDP). Although the RDP predates the ERA Policy Agenda, it was developed with the European context in mind, and thus reflects the impact of ERA priorities on Lithuania's focus on fostering an attractive research ecosystem, supporting knowledge valorisation, and advancing green and digital transitions.[57] Furthermore, more general strategic documents like Lithuania 2050 strategy, and the New Generation Lithuania plan under the RRF are also in line with the ERA priorities.

In the Lithuanian context, ERA Actions provide a valuable framework for structuring policy, aligning reforms, and prioritising investments.[58] For example, the RDP's focus on research excellence and sustainable development aligns well with the objectives of **ERA Priority 1**, particularly in open science and research careers, which are critical for fostering an innovative environment. Additionally, the Lithuania 2050 strategy outlines a general vision for strengthening the country's capacity to address global challenges, such as climate change and digitalisation, closely linked to **ERA Priority 2**. Similarly, the New Generation Lithuania plan highlights investments in digital infrastructure and skills, further contributing to ERA objectives related to industrial transformation and green innovation.

However, while the alignment between ERA and national strategies is strong, some challenges persist. For example, limited human resources and administrative complexities[59] hinder full engagement, particularly with resource-intensive initiatives, highlighting the need for stronger alignment between EU-level funding and ERA objectives.[60] Nevertheless, Lithuania's commitment to ERA Actions reinforces the objectives of its national R&I strategies despite these challenges.

[57] Source: interview with Lithuanian representative to ERA (12/12/2024)
[58] Source: interview with Lithuanian representative to ERA (12/12/2024)
[59] For example, as mentioned earlier, RCL faces some capacity constraints and additional procedural steps in research project application and coordination due to intermediary roles required by CPVA processes.
[60] Source: interview with Lithuanian representative to ERA (12/12/2024)

5. Conclusions

Lithuania demonstrates strong engagement with the European Research Area (ERA), committing to 14 out of 20 ERA Actions across three ERA Priority Areas. Guided by key national strategies such as the Research Development Programme 2022-2030 (RDP), the Lithuania 2050 strategy, and the New Generation Lithuania plan, Lithuania's R&I system aligns well with ERA objectives. These strategies collectively emphasise fostering an attractive research ecosystem, advancing green and digital transitions, and supporting knowledge valorisation.

Progress has been particularly notable under ERA Priority 1, where Lithuania has advanced in open science, research assessment, and research careers. Investments such as the development of the EOSC financing instrument and CoARA-aligned reforms have been instrumental. Similarly, under ERA Priority 2, initiatives such as the establishment of Innovation and Technology Transfer Centres and funding for digital infrastructure have supported the green and digital transition. ERA Priority 3 benefits from Lithuania's pioneering transfer of significant funding from the 2021-2027 EU Funds Investment Programme to Horizon Europe projects, strengthening access to excellence and participation in high-standard international projects.

Some challenges remain, particularly in addressing limited human resources, administrative complexities, and gaps in indicators like environmentally related R&D budgets and patenting. Effective coordination between national and EU-level funding and policies is essential to overcoming these barriers. Nevertheless, Lithuania's R&I investment goals, alignment with ERA priorities, and strategic frameworks provide a solid foundation for continued progress in its R&I landscape.

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Annex 1 – Full list of ERA Dashboard Indicators

The indicators used in the report are taken from the ERA Dashboard 2024. The full ERA Dashboard Report and the supporting Data Replication Package can be downloaded at https://european-research-area.ec.europa.eu/era-monitoring-reports. However, *GDP (in million €)*, *Size of the population (million)*, and *Share of female researchers, all sectors of performance (%)* were added to provide additional context and directly retrieved from the Eurostat website.

Additionally, EU and country averages are for 2023, except *Share of female researchers, all sectors of performance (%)* (2021).

Table 1 Structural Key Indicators:

Indicator number	Indicator	Source
/	GDP in euro per capita, current prices	Eurostat https://doi.org/10.2908/TEC00001
1	Gross Domestic Expenditure on R&D (GERD) as a share of GDP	Eurostat
2	Government Budget Allocations for R&D (GBARD) as share of GDP	Eurostat
4	Business Enterprise Expenditure on R&D (BERD) as a share of GDP	Eurostat
5.2	Expenditure on R&D procurement as a percentage of GDP	EC/European Innovation Procurement Observatory
/	Size of the population (million)	Eurostat, https://doi.org/10.2908/TPS00001
3	Researchers (in FTE) per million inhabitants	Eurostat
/	Share of female researchers, all sectors of performance (%)	Eurostat, https://doi.org/10.2908/TSC00005

Figure 3.1 Indicators for ERA Priority 1

Indicator number	Indicator	Source
6	Share of publications available in open access (green, gold, and diamond)	OpenAIRE
7	Number of open-access research datasets by country	OpenAIRE
8	Number of repositories by country	EOSC - Re3data
9	Country investments in EOSC and Open Science (in ranges of investment)	EOSC Observatory
10	Share of national public R&D expenditure committed to European research infrastructures	ESFRI
11	Number of European RIs in which a Member State or an Associated Country participates	ESFRI
12	Proportion of women of Grade A among academic staff/researchers	Women in Science - She Figures
13	(Corrected) Proportion of mixed-gender teams	EC_Scopus
14	(Corrected) Proportion of women in authorships of the top 10% most cited publications	EC_Scopus
15	Women in Digital index (0-100)	EC-Women in Digital Scoreboard

16	Proportion of women among doctoral graduates by narrow fields of STEM	Eurostat
17	Share of foreign doctorate students as a percentage of all doctorate students	Eurostat
18	New doctorate graduates per 1,000 inhabitants aged 25-34	Eurostat
19	Share of public-private co-publications	EC_Scopus
20	(Cumulative number of) Best practice examples and methodologies for knowledge valorisation	Knowledge Valorisation Platform
21	Number of PCT patent applications divided by GDP in million Euros/Dollars	OECD, Eurostat & World Bank
22	Share of innovating firms collaborating with HEI/PRO out of all innovative firms	Eurostat CIS (own calculations)
23	Business enterprise researchers as % of total researchers	OECD
24	Business enterprise researchers in full-time equivalent per thousand employment in industry	OECD
25	Patents by universities and public research organisations	EPO PATSTAT - Fraunhofer ISI calculations
26	% of scientific publications among the top-10% most cited publications worldwide	EC_Scopus
27	Academic Freedom Index (AFi)	V-Dem Varieties of Democracy
28	Average ranking score of top 10 universities by country and year	QS World University Ranking
29	Sum of ERC grants received by country in a given year per 1,000 R&D personnel (in FTEs)	EC-ERC
30	International co-publications with non-EU partners per 1,000 researchers in the public sector	EC_ScienceMetrix and Eurostat/OECD
31	Share of patents with foreign co-inventors	OECD
32	European and international co-patenting in EPO applications at national and EU level	Eurostat
33	Government budget allocations for R&D (GBARD) according to NABS as % total GBARD	Eurostat

Figure 3.2 Indicators for ERA Priority 2

Indicator number	Indicator	Source
34	Note: The ERA Dashboard Indicator 34 was removed from the Dashboard in January 2025. As a consequence, the indicator has also been omitted from the Country Report, while, however, keeping the original numbering of the indicators.	
35	Environmentally related government R&D budget, as % of total government R&D	Eurostat
36	National public and private investments as suggested in the SET Plan progress report 2021 (EUR million)	SETIS R&I data
37	% Patents on environmental technology	OECD
38	Share of innovative firms cooperating with higher education institutions or public/private research institutions	Eurostat CIS
39	Enterprises that purchased or licensed-in patents or other IPRs from public research organisations, universities or higher education institutions	Eurostat CIS

40	Direct government support and indirect government support through R&D tax incentives as a % GDP	OECD
41	Green bond issuance as a percentage of total bond issuance	Eurostat - EEA
42	Trust in Science	Eurobarometer 95.2
43	Increase in total R&D expenditure in widening countries, expressed as a percentage of GDP	Eurostat, OECD, UNESCO

Figure 3.3 Indicators for ERA Priority 3

Indicator number	Indicator	Source
44	Number of participations in Horizon Europe (of Widening countries) measured in terms of 1,000 R&D personnel (in FTEs)	Cordis - Eurostat
45	Sum of Horizon Europe grants (€) received by Widening countries in terms of 1,000 R&D personnel (in FTEs)	Cordis - Eurostat
46	Summary Innovation Index (Widening countries)	EC_EIS
47	Share of enterprises using public funds from different governance levels (local or regional, national, and EU) for R&I activities	Eurostat CIS
48	Number of Seal of Excellence projects on the InvestEU Portal per 1,000 R&D personnel (in FTEs)	EC - Invest EU
49	Number of collaboration networks of RPOs in Widening countries with other EU countries	Cordis - Horizon Dashboard
50	Average number of partners from non-widening countries per institution from a Widening country participating in the Horizon programme each year	Cordis - Eurostat
51	Share of patents registered by a Widening country together with partners from other EU countries	OECD
52	Share of innovative enterprises that cooperated with RPOs located in other countries	Eurostat CIS
53	Share of public R&D expenditures financed by the private sector	Eurostat

Figure 3.4 Indicators for ERA Priority 4

Indicator number	Indicator	Source
54	GBARD allocated to Europe-wide transnational, as well as bilateral or multilateral, public R&D programmes per FTE researcher	Eurostat

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