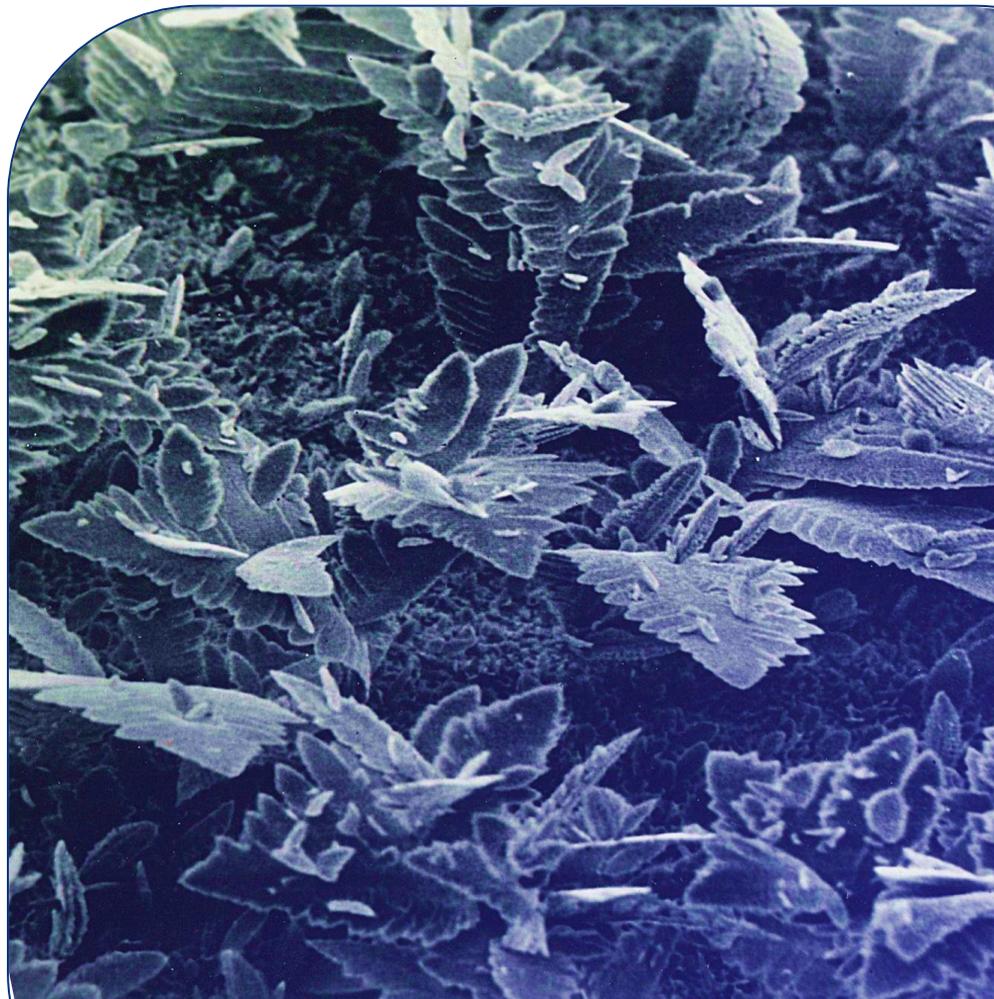




ANNUAL REPORT

**2025 – A Defining Year
for FTMC**

Prof. Dr. Ramūnas Skaudžius | Director
March 5, 2026, Vilnius



1 Researcher employment at FTMC

2 FTMC research results

3 FTMC Doctoral studies

4 FTMC projects

5 FTMC business cooperation

6 FTMC license agreements

7 ChipcC2LT

8 FTMC visibility

9 FTMC funding

10 Looking ahead

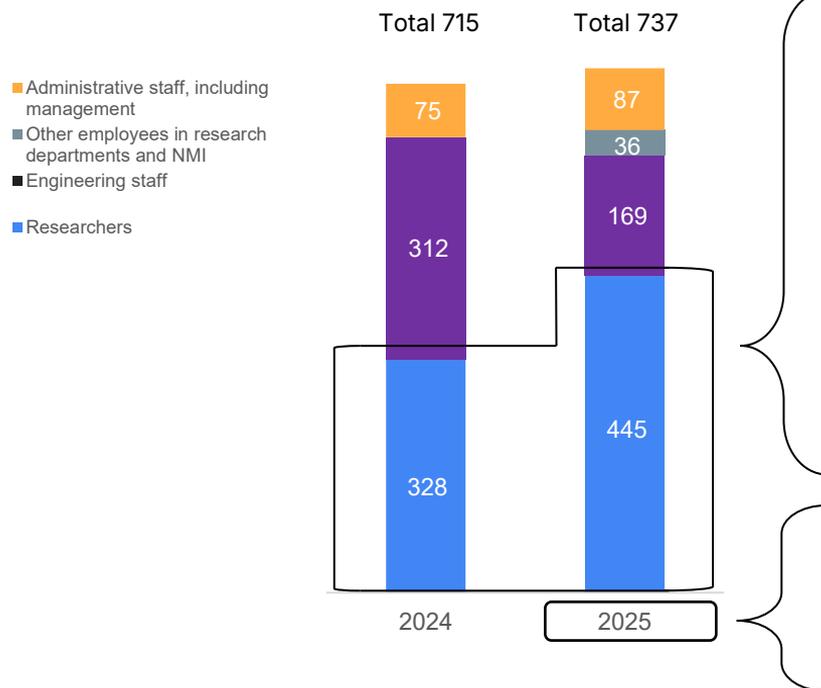


Researcher employment at FTMC

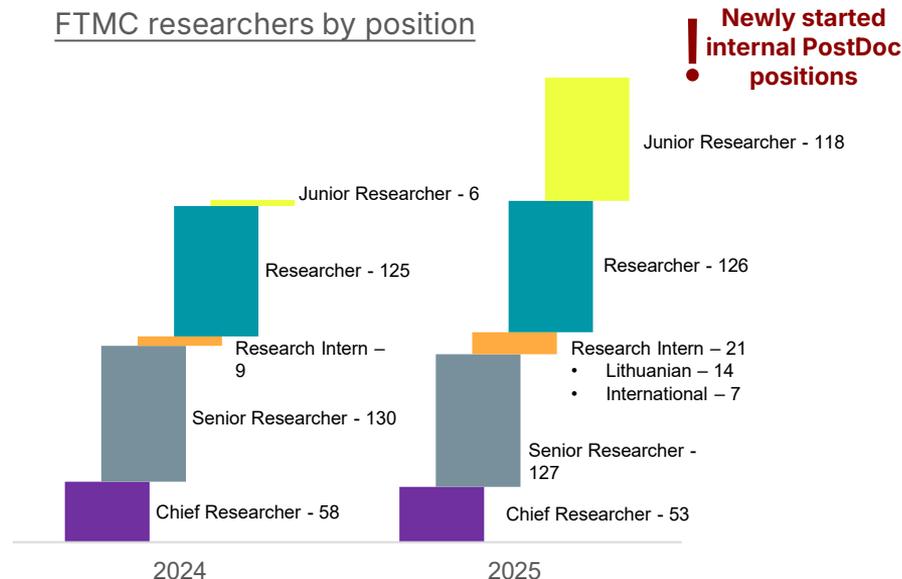


2025 in numbers and activities

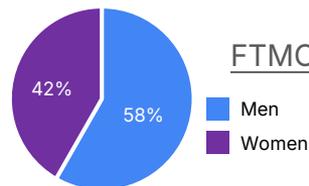
FTMC employees by employee group



FTMC researchers by position



FTMC employees by gender (2025)

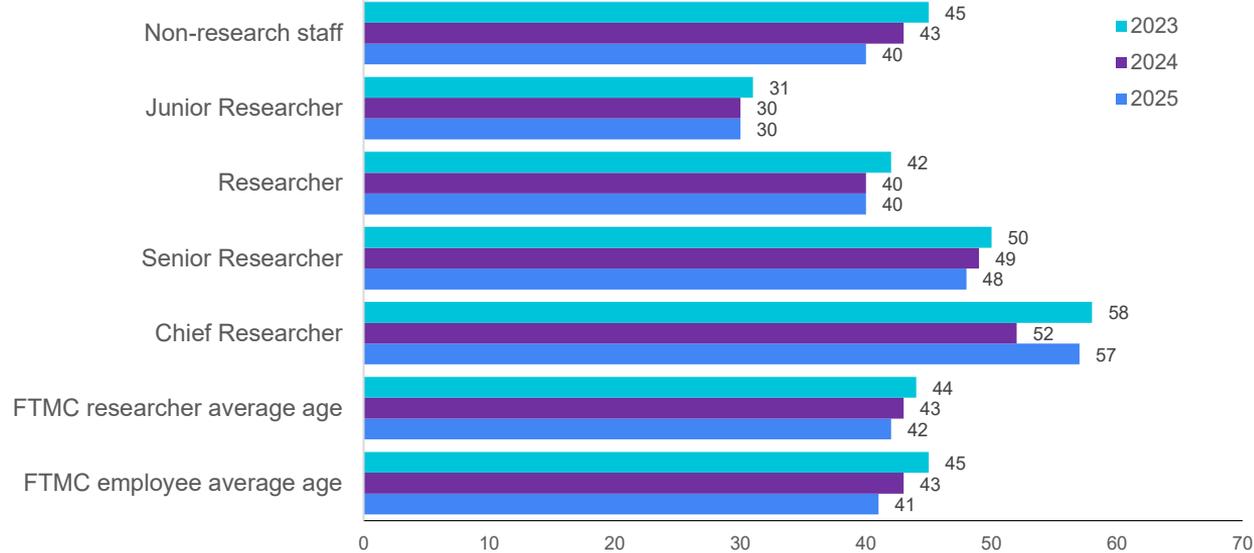


Researcher employment at FTMC



2025 in numbers and activities

FTMC employees by average age



Researcher employment at FTMC



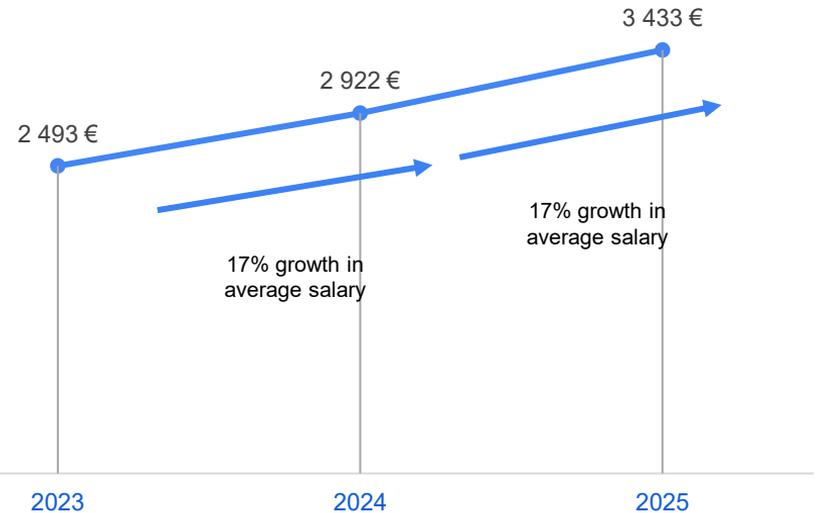
2025 in numbers and activities

Average salaries by position (2023–2025)

	2023 m.	2024 m.	2025 m.
Principal researcher	3 732 €	4 209 €	4 571 €
Senior Researcher	2 632 €	3 045 €	3 594 €
Researcher	2 048 €	2 444 €	3 125 €
Junior Researcher	1 558 €	1 988 €	2 441 €

Average salary of a scientist continued to grow in 2025

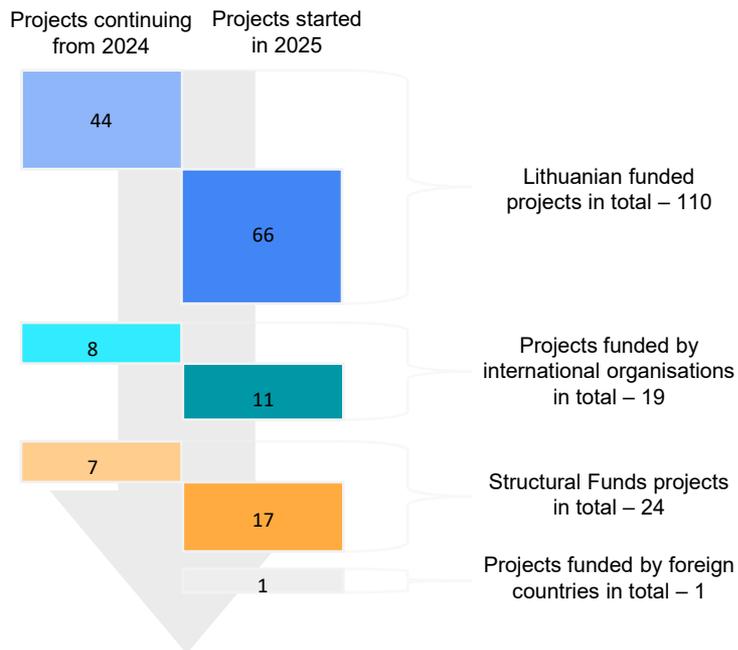
Change of average salary at FTMC (2023–2025)



FTMC projects



2025 in numbers and activities



In 2025 FTMC was engaged in 154 different projects

FTMC business cooperation



2025 in numbers and activities

Contracts with businesses

	2025 m.
	Total
Value of contracts with businesses	1,126,084.99 €
Average contract value with businesses	1,542.58 €
R&D contract value with businesses	300,100.86 €

Number of contracts by value

Contract value	Number of contracts
0 ÷ 99	65
100 ÷ 999	482
1000 ÷ 9.999	164
10.000 ÷ 99.999	19
>100.000	0

The largest number of contracts are in 100–999 EUR range. !

Largest business contractors by total contract value

Name of business entity	FTMC department(s)	Number of contracts	Total value of contracts
UAB Tuma	6100	15	307,636.45 €
UAB ASU Baltija	6100	1	65,340.00 €
VŠI FIMTP	2300	2	47,189.99 €
UAB Optomenas	1400 2300 3500	9	43,820.12 €
Ramidus AB, Švedija	1500	8	26,000.00 €
UAB BalTstamp	5200	8	19,868.20 €
Vilniaus universitetas	1100 1400 2200 2300	17	19,676.18 €
UAB Brink's Lithuania	6100	4	19,412.03 €
Kauno technologijos universitetas	1400 2200	9	18,356.54 €
UAB Audimas Supply	6100	27	17,888.31 €



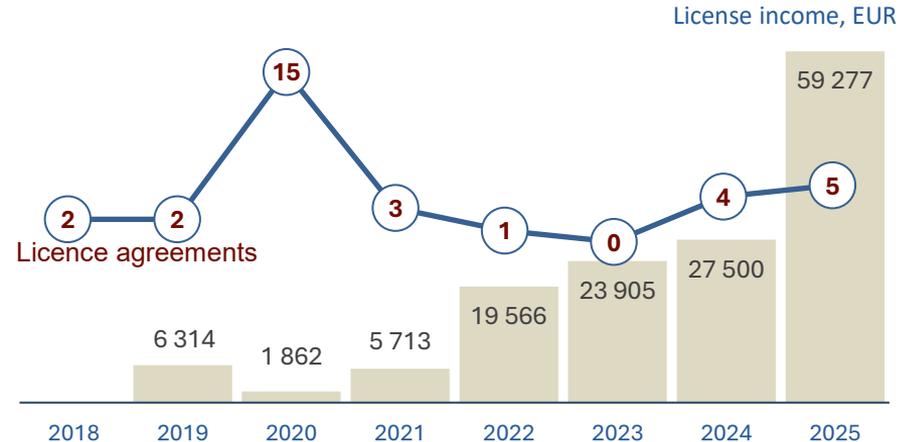
FTMC license agreements



2025 in numbers and activities

LICENSE AGREEMENTS 2025

- Technology for Determining the Precise Speed of Objects Using Magnetic Field Measurement
MB „Mag militaris“
- Thick-Layer Copper Coating Deposition Technology
MB „H-altitude“
- Controlling the Reflection, Absorption and Scattering Parameters of 3D Metal Surfaces Using Femtosecond Laser Texturing
MB „Asinve“
- Technology for Harvesting Piezoelectric Energy and Converting it Into Direct Voltage to Power Electronic Devices
UAB „Internal charge“
- Electrochromic Device Comprising Copper Micromesh Electrodes Formed via Laser Induced Metallization Process
MB „Optofab“

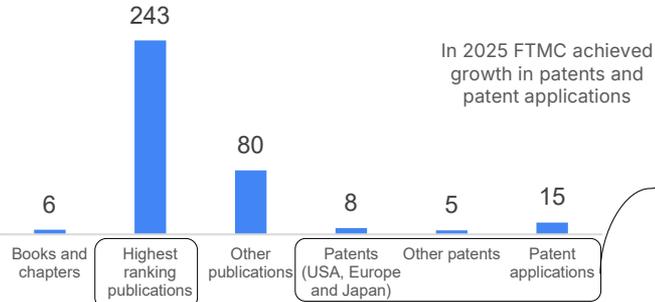


FTMC research results



2025 in numbers and activities

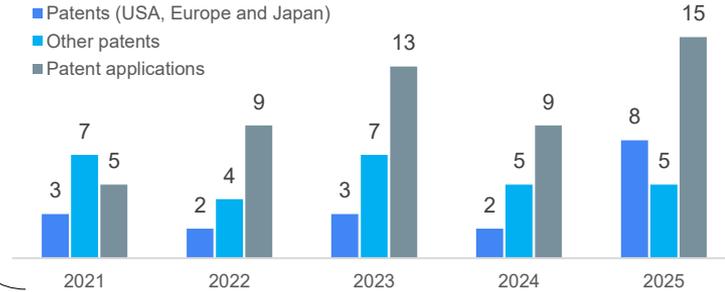
Research results in 2025



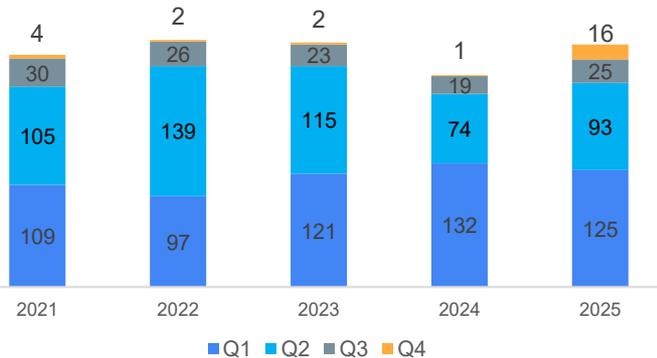
In 2025 FTMC achieved growth in patents and patent applications

The total number of highest ranking publications grew in 2025

FTMC patenting results (2021–2025)



FTMC Q1-Q4 publications (2021–2025)



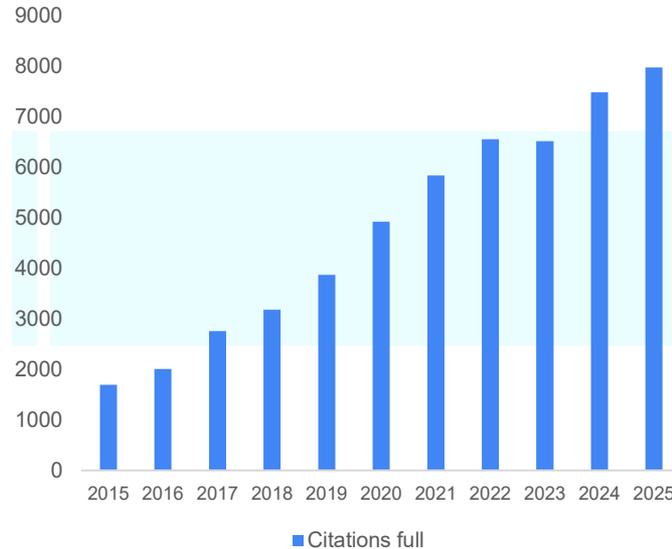
Number of Q4 publications saw significant increase in 2025:
 Lithuanian Journal of Physics – 7 publications,
 Chemija – 8 publications,
 Journal of Electromagnetic Waves and Applications – 1 publication.

FTMC research results



2025 in numbers and activities

Citations (full) of FTMC affiliated publications
2015–2025

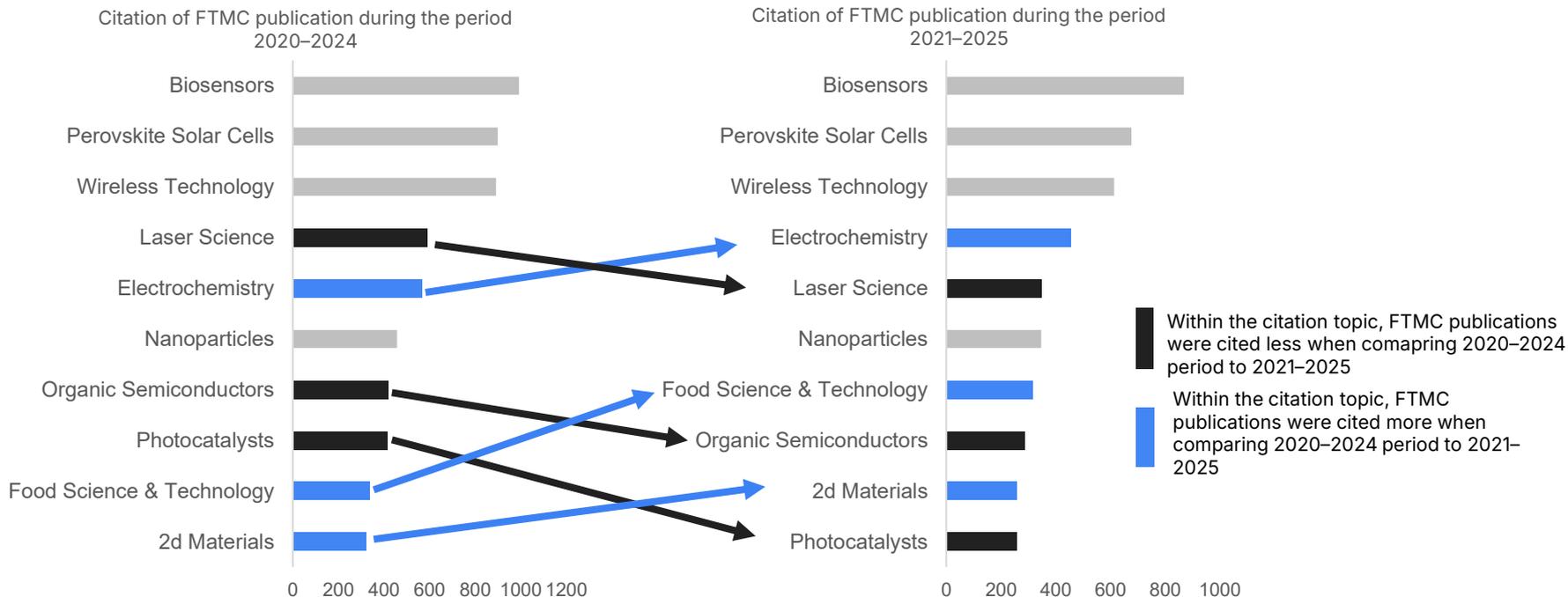


During the past 5 years, FTMC publications particularly contributed towards biosensor research, as well as energy, laser sciences, nano technology and semiconductor development

FTMC research results



2025 in numbers and activities



FTMC research results



2025 in numbers and activities

FTMC researchers with the most publications and patent applications in 2025

	Total productivity
Arūnas Ramanavičius	17
Martynas Talaikis	12
Steigvilė Byčenkienė	11
Gediminas Niaura	10
Inga Morkvėnaitė	9
Arūnas Stirke	9
Loreta Tamašauskaitė-Tamašiūnaitė	8
Eugenijus Norkus	8
Vidas Pakštas	8
Lina Grinevičiūtė	8

Most cited FTMC scientists in 2025 (from FTMC establishment)

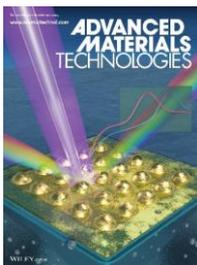
	Total times cited in 2025	Total times cited (since 2010)	Total times cited (since 2010) without self-citation	H-Index
Arūnas Ramanavičius	1843	13,223	11,082	62
Gediminas Niaura	934	5,107	4,661	31
Martynas Talaikis	498	1,635	1,551	17
Gediminas Račiukaitis	427	3,806	3,389	33
Algirdas Selskis	352	2,256	2,068	24
Marius Franckevičius	322	3,082	3,008	24
Paulius Gečys	275	1,777	1,515	25
Vidmantas Gulbinas	255	2,465	2,295	27
Leonas Valkūnas	250	3,304	2,895	32
Sergejus Orlovas	199	1,397	1,157	17

FTMC research results

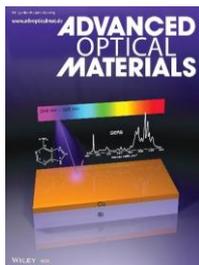


Researcher achievements in 2025

International publications in 2025 that featured FTMC publications on the cover



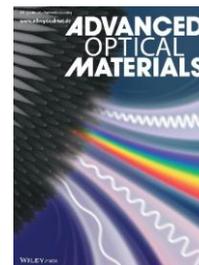
Advanced Materials Technologies
High-Quality Plasmonic Ag–Au Bilayer Nanobump Grating Sensor
K.Vilkevičius, T.Rakickas, E.Stankevičius



Advanced Optical Materials
Copper-Based Multiwavelength UV Surface Enhanced Raman Spectroscopy
S.Yadav, **M.Talaikis**, Y.V. Ryabchikov, M. Ziegler, **G.Niaura**, T.Deckert-Gaudig, V.Sivakov



New Journal of Chemistry
Synthesis of High-Performance Multifunctional Electrode Material using Sweetwood Lignin as a Precursor
L.Tamašauskaitė-Tamašiūnaitė, D.Upskuvienė, A.Balčiūnaitė, D.Šimkūnaitė, V.Jasulaitienė, G.Niaura, J.Jablonskienė, R.Levinas, A.Plavniece, A.Volperts, G.Dobele, A.Zhurinsh, I.Kruusenberg, K.Kaare, L.C.Colmenares-Rausseod, E.Norkus



Advanced Optical Materials
Carbon-Coated Moth-Eye Structure: An Ultrabroadband THz-DUV Near-Perfect Absorber
Y.Hakamada, M.Cojocari, M.Matoba, S.Kawano, H.Sakurai, K.Konishi, **D.Pashnev, S.Revanth Ayyagari, V.Janonis, A.Urbanowicz, S.Tumėnas, J.Jorudas, I.Kašalynas, J.Pennanen, A.D.Amos, A.Saushin, G.Fedorov, Y.Svirko, Polina Kuzhir**



World Scientific, the international publishing house „**Terahertz Spectroscopy and Its Applications**“
The book's chapter, „Terahertz Spectroscopy in Oil Investigation“ author – **M.Karaliūnas**

FTMC research results



Researcher awards in 2025



Professor Habil. Dr. Arūnas Ramanavičius, Head of the FTMC Department of Nanotechnology, received the Commander's Cross of the Order of the Lithuanian Grand Duke Gediminas for his significant contributions to Lithuanian science and society, and for promoting Lithuania internationally.



Professor Habil. Dr. Gediminas Niaura, researcher at the FTMC Department of Organic Chemistry, was awarded the Knight's Cross of the Order of the Grand Duke of Lithuania Gediminas for his world-class scientific work in the field of molecular structure and functionality, contributing to the development and advancement of cutting-edge technologies.



Dr. Gediminas Račiukaitis, Head of the FTMC Department of Laser Technologies and President of the Lithuanian Laser Association, was awarded the Officer's Cross of the Order of the Grand Duke of Lithuania Gediminas for the development and implementation of laser technologies in Lithuania, significant scientific achievements, active participation in organizational, expert, and public activities, and for promoting Lithuania internationally.



Professor Habil. Dr. Vidmantas Remeikis, former FTMC Director, received the Knight's Cross of the Order of the Grand Duke of Lithuania Gediminas for his high-level, internationally significant research in applied nuclear and reactor physics, radiation ecology, and environmental science.

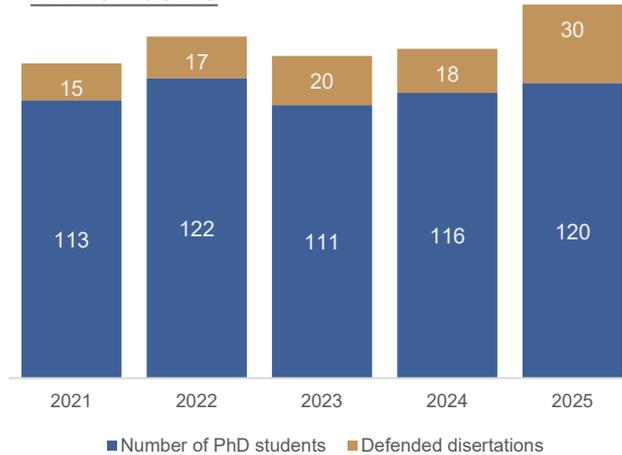
FTMC Doctoral studies



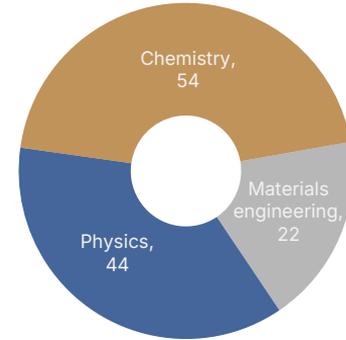
2025 in numbers and activities

2025 saw the highest total number of successfully defended PhD thesis in the last 5 years. 28 defended on time (in 1 year after finish)

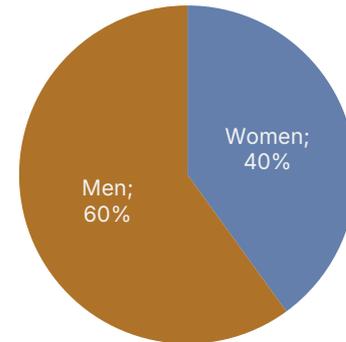
PhD students



PhD students by research fields (2025)

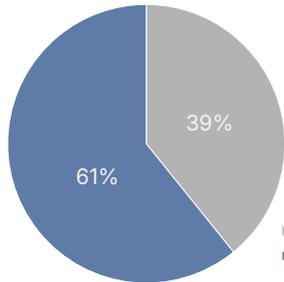


PhD students by gender (2025)

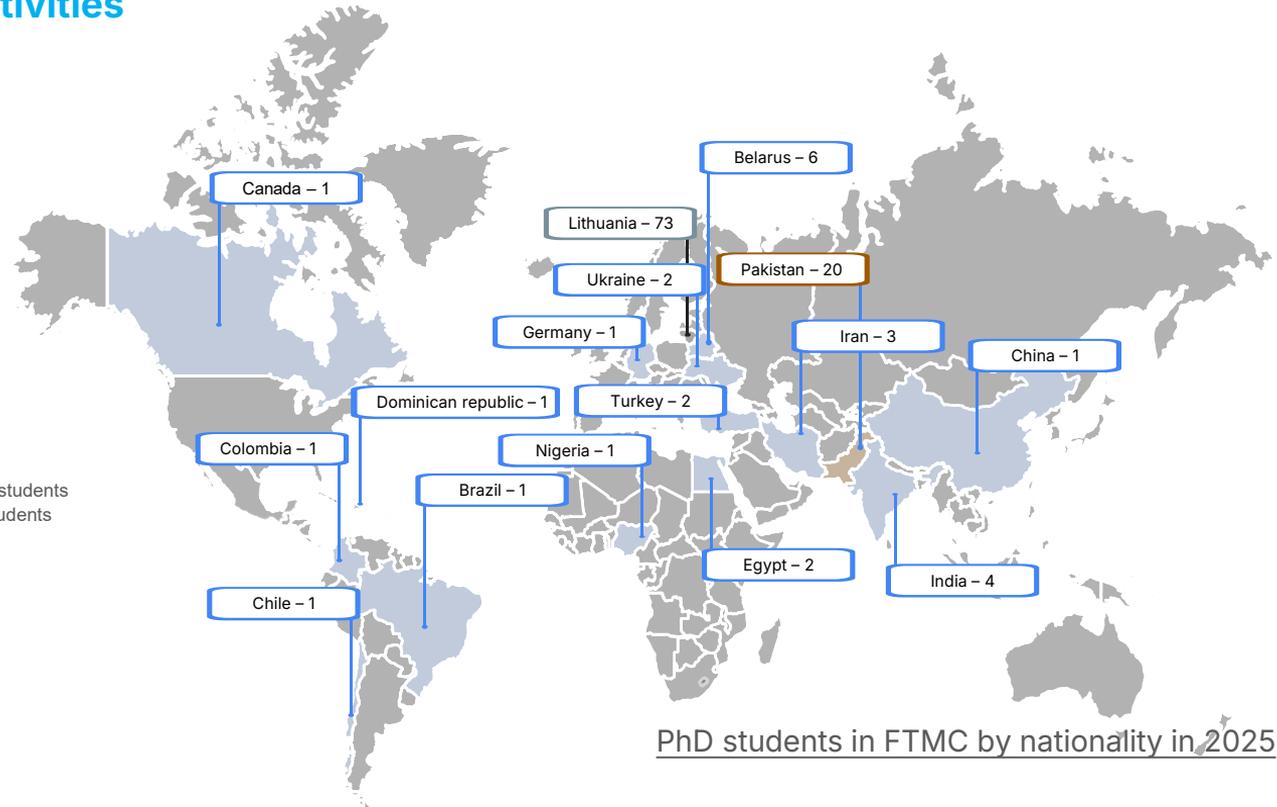


FTMC Doctoral studies

2025 in numbers and activities



■ International PhD students
■ Lithuanian PhD students



PhD students in FTMC by nationality in 2025

FTMC Doctoral studies

Young researcher achievements



Young researchers from FTMC
achieved national recognition for excellence

Dr. Vladislovas Čižas

Recognised for the Best Doctoral
Dissertation of 2024



Dr. Ramūnas Levinas

Awarded LMA Young Scientist
Scholarship



Dr. Simonas Ramanavičius

Awarded the 2024 Prize in
Mathematics, Physics and Chemistry
by the Lithuanian Academy of
Sciences of the Young Scientists
Competition



FTMC Doctoral studies

Young researcher achievements



From 16 to 18 May, the remote **CASSINI Hackathon** took place, where participants from 10 countries developed and pitched innovative ideas. In the Lithuanian category, the FTMC Department of Environmental Research team (Dr **Mehri Davtalab**, PhD student **Sonata Pleskytė**, PhD student **Abdullah Khan**, and Dr **Daria Pashneva**) won **second place**.



FTMC team Quantum Băcon (PhD student **Ugnė Šilingaitė**, **Paulius Rindzevičius**, **Akvilė Paskačimaitė**, **Vakarīs Šilys** and PhD student **Jorūnas Dobilas**) took **1st** place in the **Quantum Boost 2025 Hackathon**.



One-stop shop for semiconductor services in Lithuania

What we deliver



Technology services

Testing, prototyping, design tools, access to EU pilot lines and EuroCDP platform



Training & skills

Online platform, university modules, industry workshops, professional courses



European access

ENCCC network, 5 pilot lines, Baltic & Nordic cooperation, Chips Skills Academy



Funding & commercialisation

EU Chips Fund guidance, investor connections, startup/spin-off support

Achievements

chips2.lt website launched

Baltic MoU signed with LV & EE CCCs

Nordic MoU signed with Nordic CCCs

Resource database compiled

ENCCC – active in 5 working groups

2026 priorities

Online learning platform – launch by M12

Pilot line partnerships – 3 EU agreements

Industry consulting – first tech assessments

IAB meeting – first board session

International conference in Lithuania (2027)

50+
SMEs &
startups served

250+
specialists
trained

50+
workshops
& trainings

10+
international
partnerships

FTMC partnership



Memorandums of Understanding signed in 2025

In 2025 FTMC signed 4 MOUs,
booting our international cooperation

Academy of Innovative
Semiconductor and Sustainable
Manufacturing of National
Cheng Kung University
(NCKU AISSM)



LIKAT Leibniz-
Institut für Katalyse



Korea Photonics
Technology Institute



Finnish state
research centre
VTT



FTMC visibility

FTMC social initiatives in 2025



FTMC Science Ambassadors – Dr Mažena Mackoit-Sinkevičienė, Dr Vytautas Jakštas, Dr Raimonda Bogužaitė, Dr Vladislavas Čižas, and Dr Vincentas Mindaugas Mačiulis – visit schools across Lithuania. Through this initiative, FTMC contributes to the advancement of STEAM initiatives, helps strengthen pupils' competencies in the natural sciences, and introduces them to the everyday work of scientists.

FTMC organized science competitions for secondary school students, contributing towards interest in STEM studies.

- „AUKI“, still ongoing, challenges students to grow their own crystals and describe their scientific approach.
- „Vėjuotos mintys: vėjo jėgainės iššūkis“ presented student teams with the task of assembling a working model of a wind turbine.



The FTMC Chess Tournament was held for the 6th time this year. It brought together FTMC scientists, representatives from other organizations and communities, and students. Played according to the FIDE rapid chess rules, this tradition continues to bring together and strengthen the Saulėtekis Valley community.

The **FTMC Running Club**, made up of our scientists and administrative staff, continued participating in sporting events like the Vilnius Marathon. **FTMC** likewise **organized the autumn, winter and spring Cross**, bringing together employees from research institutions across Lithuania.



FTMC visibility



International events organized in 2025

As part of Lithuania's Science Week, FTMC hosted the conference "Tech Transfer Unlocked: Bridging Ideas across the region and UK". The conference focused on technology transfer and facilitating entrepreneurship between the Baltic States, Finland, Ukraine and the UK.



The international scientific conference **EcoBalt 2025** held in Vilnius, was organized by FTMC together with the Vilnius University Life Sciences Center and the Vilnius University Faculty of Chemistry and Geosciences. Many presentations focused on ecology, ecotoxicology, and environmental research.



The final for the international quantum technology hackathon, **Quantum Boost 2025**, was held at FTMC. This was the first event of its kind in the Baltic region, uniting scientists, start-ups, and industry leaders.



FTMC hosted a meeting of the **European Partnership on Metrology (EPM) Committee**.



FTMC hosted the international workshop "**Photonics Frontiers: Building Stronger Ecosystems Together**", which brought together laser technology experts from Lithuania, the Czech Republic and Ukraine.



FTMC held an international conference celebrating the **220th anniversary** of the first theory of electrolysis by **Theodor von Grotthuss**, the first Lithuanian physicochemist.



FTMC was honoured to **host international representatives of science and policy in 2025**, enabling wider outreach and building important relationships. Examples include **increasing information exchange** with Taiwanese partners, including **5 PhD student visits to Taiwan**.

FTMC outreach on „Facebook“

Analysed period: 2025 m. January 1'st – 2025 m. December 31'st

Overall visibility

- **871 569 page views** per year;
- **65,5 % views from people not following** – indicates FTMC has a wider outreach beyond the existing audience.

Audience engagement

- **54 369 instances of engagement per year** (+41,8 % growth when compared to the same period in 2024 m.): **15 711 reactions**, **822 comments**, **415 shares**.

Audience growth

- **3 214 followers** (+20,2 % per year);
- **In total +502 new followers** per year.

FTMC outreach on „LinkedIn“

Analysed period: 2025 m. January 1'st – 2025 m. December 31'st

Overall visibility

- **225 074 content views**.

Audience engagement

- **6 423 reactions**, **243 comments**, **46 shares**.

Audience growth

- **3 818 followers**;
- **In total +1 272 new followers** per year.

Follow FTMC on „Facebook“



Conclusion:

FTMC has steadily grown its visibility and audience on social media. „Facebook“ guarantees wide societal outreach while „LinkedIn“ strengthens the institutional position among the professional community. The stable and organic growth indicates increasing relevance of FTMC-produced content.

Follow FTMC on „LinkedIn“

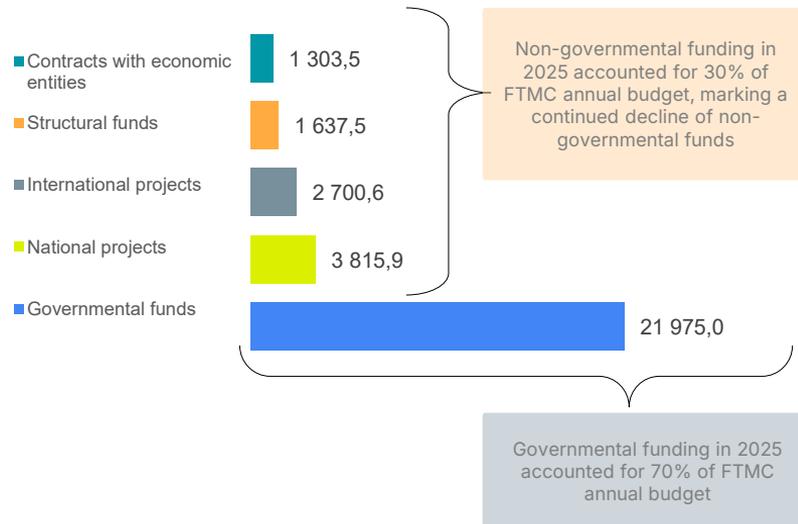


FTMC funding

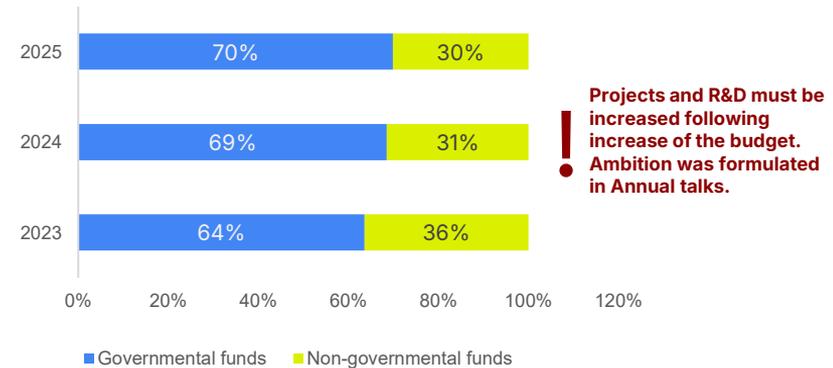
2025 in numbers and activities



Total funding of FTMC (thousand EUR) by funding source



Change of proportion between governmental funds versus non-governmental funds in FTMC budget

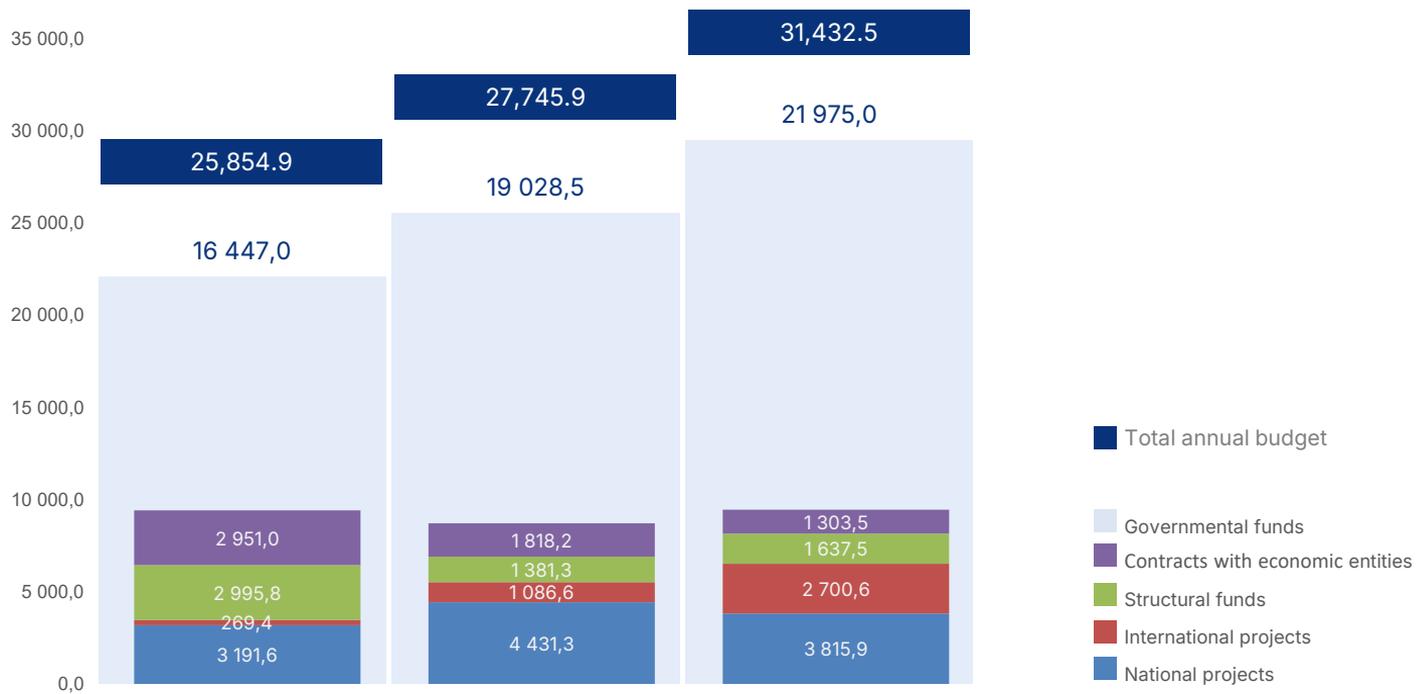


FTMC funding

2025 in numbers and activities



Change in total funding of FTMC (thousand EUR)



FTMC look to the 2026



FTMC Strategic Plan 2026–2030

In 2025 FTMC engaged in a comprehensive process of developing its Strategic Plan 2026–2030

Strategic Objectives for 2030

Enhance FTMC's role at the centre of the European knowledge and innovation system by emphasising partnerships and collaboration

Lead breakthrough research in emerging fields, ensuring that advanced solutions benefit industry, society and national interests

Strengthen and develop research teams with the necessary support

11 recommendations per year to policy-making institutions and participation in 5 policy-making initiatives

Established annual researcher reward system using a compilation of individual researchers' results to incentivize them proportionally to their achievements

30 FTMC employees in strategically important international networks and partnerships

15% more scientific outputs with Top 100 research centers/universities in the fields of physical and technology sciences

Implemented collaboration system for research departments

One international application from each FTMC research department annually (HORIZON EUROPE, EIT, ERC, EDF, ESA, EURAMET, etc.).

FTMC generates 10% of its annual budget from knowledge commercialization, including 200,000 EUR in revenue from licenses, patents, and spin-offs activities. By 2030, FTMC achieves:

- 10 new licensing agreements
- 6 new FTMC-maintained patents
- The establishment of 8 new spin-off companies.

90% of FTMC researchers go on at least one business trip or internship abroad within two years

Implemented gender-balance system

The Doctoral School that, in line with European recommendations and a holistic model, ensures that at least 85% of doctoral candidates are satisfied with the teaching and support services, and that 80% of graduates have a well-defined postdoctoral or career plan

25% of researchers participate in training programs, workshops, and summer schools. Each doctoral student participates in these activities at least 4 times over 4 years

FTMC Strategic Plan SMART objective for 2030

FTMC look to the 2026



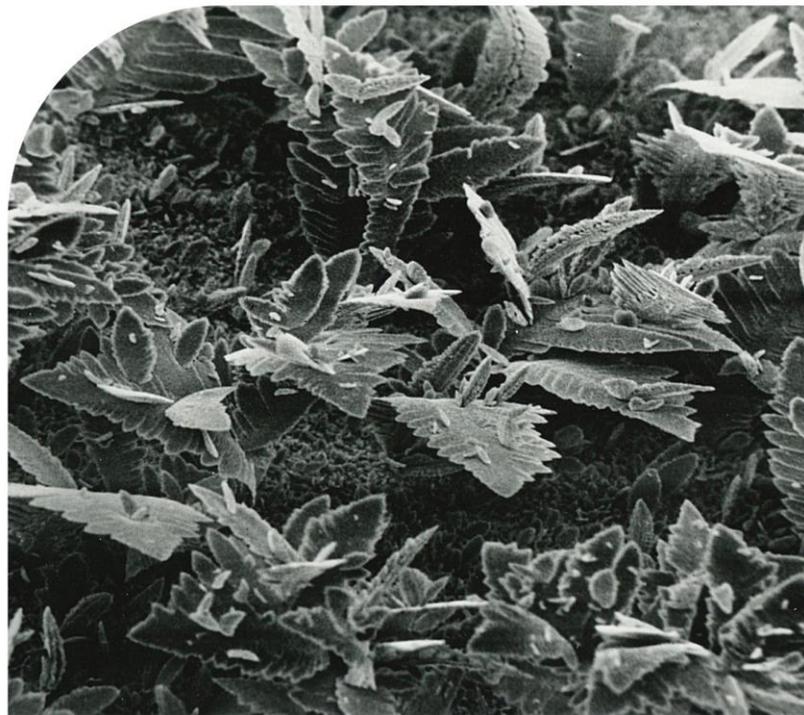
Strategic plan and 2026 action plan were prepared:

- **Define areas of activity:** institutions to which we will provide recommendations; participation in strategically important networks/memberships, partnerships, TOP 100 scientific institutions.
- **International scientific activity:** project applications from each scientific department, secondments of scientific staff, international doctoral school, participation in and organization of workshops, summer schools, etc.
- **Creation of processes that simplify and facilitate life:** employee remuneration and incentive system, scientific department cooperation system, equipment registration system, project and application registration/monitoring system, revised certification procedure, processes enabling the financing of top-level science.
- **Increasing commissioned and R&D funding.**

ANNUAL REPORT 2025



CENTER
FOR PHYSICAL SCIENCES
AND TECHNOLOGY





FTMC Nominations 2025

Scientist of the Year 2025



Dr. Paulius Ragulis

Prof. Dr. Arūnas Ramanavičius
Dr. Gediminas Niaura
Dr. Gediminas Račiukaitis
Dr. Martynas Talaikis

Young Scientist of the Year 2025



**PhD student
Kernius Vilkevičius**

**Dr. Vladislovas Čižas
Sonata Pleskytė
Dr. Ramūnas Levinas**

Patent of the Year 2025



**Karolis Ratautas, Gediminas Račiukaitis, Aldona Jagminienė,
Ina Stankevičienė, Eugenijus Norkus. Method for Selective
Metallisation of Inorganic Dielectrics or Semiconductors.
US 012336114 B2.**

Project of the Year 2025



**Digital Europe Programme (DIGITAL-Chips-2024-SG-CCC-1)
project. Lithuanian Chips Competence Centre, ChipsC2-LT.
2025-2029. Gediminas Račiukaitis, Saulius Tumėnas.**

Administrative Employee of the Year 2025



Aušra Vilutienė

Aneta Bytautaitė
Audronė Barkauskienė
Ieva Bricienė
Ieva Stirkė
Marija Gutauskienė
Ovidijus Žalys
Ramunė Stankevičienė

Initiative of the Year 2025



**New Year Celebration
"Back to the Future"**

Ramunė Stankevičienė
Marija Gutauskienė

Publications of the Year 2025



- Jurgelaitis, Edvinas; Zagorskaitė, Evelina; **Kopūstas, Aurimas**; Ašmontas, Simonas Vytautas; Manakova, Elena; Dalgėdienė, Indrė; Tylenytė, Ugnė; Šilanskas, Arūnas; Toliušis, Paulius; Grybauskas, Algirdas; **Tutkus, Marijonas**; Venclovas, Česlovas; Zaremba, Mindaugas. Activation of the SPARDA defense system by filament assembly using a beta-relay signaling mechanism widespread in prokaryotic Argonautes. *Cell research*. ISSN 1001-0602. 2025, vol. 35, iss. 12, p. 1056-1078.
- **Taha, Ahmed**; Casanova, Federico; Khalifa, Ibrahim; **Talaikis, Martynas**; **Kirsnytė-Šniokė, Monika**; **Stirkė, Arūnas**. BSA/EGCG binding affinity modified by nanosecond pulsed electric field. *Food hydrocolloids*. ISSN 0268-005X. 2025, vol. 164, art. no. 111184, p. 1-10.
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