RUTS | SDG 2025

# SDG 9

## INDUSTRY, INNOVATION AND INFRASTRUCTURE

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

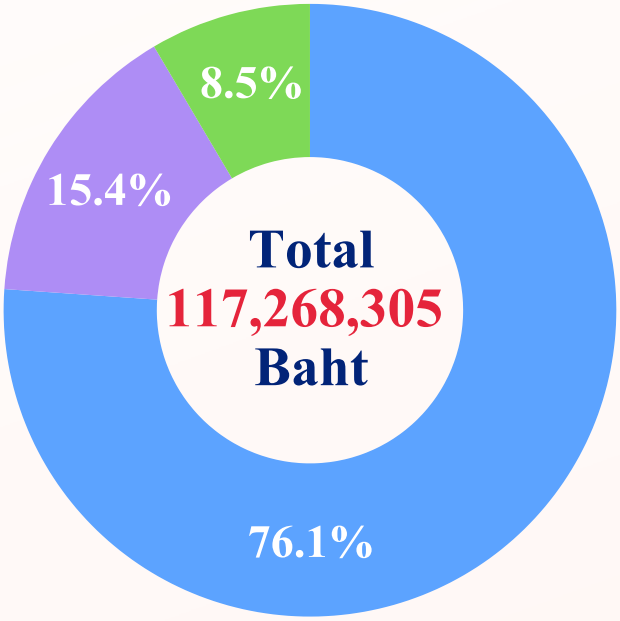
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation




https://sdgs.rmutsv.ac.th/evidence-2025/sdgs-9

**Number of University Spin-offs** 22

## RESEARCH INCOME BY SUBJECT AREA

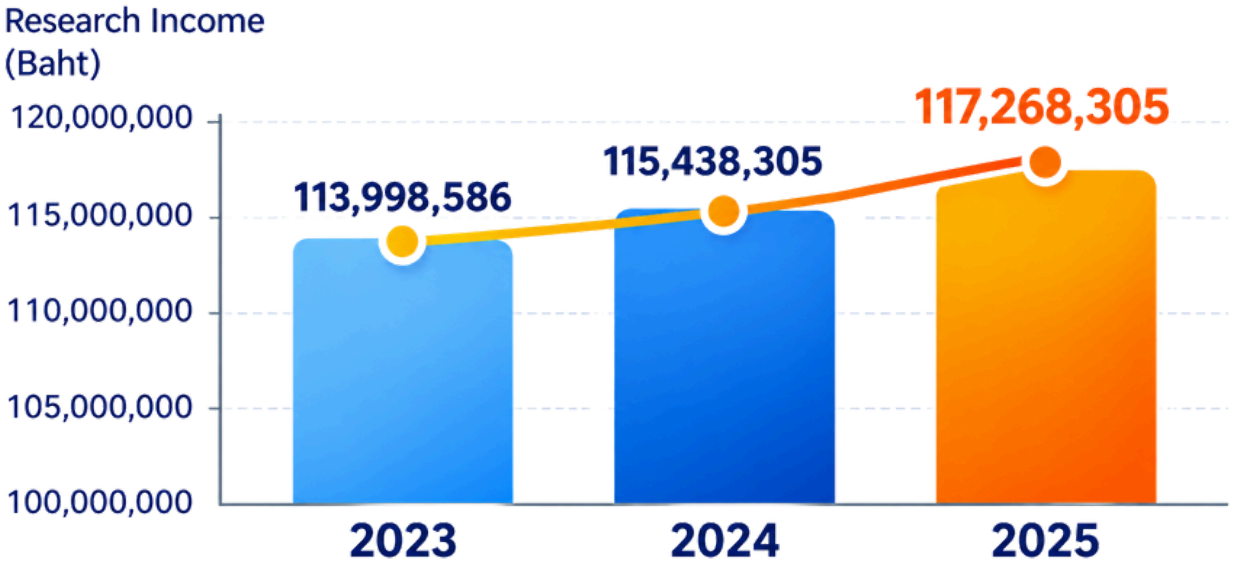



**STEM**
Science, Technology, Engineering and Mathematics
82,276,208 Baht/76.1%

**Arts, Humanities and Social Sciences**
18,047,597 Baht/15.4%

**Medicine**
9,944,500 Baht/8.5%

## RESEARCH INCOME GROWTH



# Research Collaboration for Sustainable Industrial Development

RUTS advances Industry, Innovation and Infrastructure by strengthening research collaboration with industry and commerce to promote technological innovation, applied research, and sustainable industrial development. Through industry-sponsored research, collaborative projects, and research-related services, the university connects academic expertise with private-sector needs while mobilizing financial resources to support research across multiple disciplines.

In 2025, RUTS generated THB 117.27 million in research income from industry and commerce, reflecting substantial private-sector investment in university research. Science, Technology, Engineering and Mathematics (STEM) accounted for the largest share at THB 89.28 million (76.1%), followed by Arts, Humanities and Social Sciences at THB 18.05 million (15.4%), and Medicine at THB 9.94 million (8.5%). This funding distribution highlights the university's strong research capacity in science and technology while demonstrating multidisciplinary engagement with industry.

These investments strengthen the foundation for university–industry partnerships, knowledge transfer, and innovation-driven research. By attracting private-sector research funding, RUTS creates opportunities to address industrial and societal challenges, enhance technological capabilities, and support regional economic development.



# Industrial Skills and Technological Competencies

RUTS integrates practical education, workforce development, and technology transfer to enhance industrial competitiveness and sustainable economic growth. Recognizing the increasing demand for skilled personnel in modern industries, RUTS implemented specialized training programs in industrial sensor applications and advanced automation technologies. Through collaboration between the Office of Innovation Management and Technology Transfer, the Faculty of Industrial Education and Technology, and the Faculty of Engineering, RUTS organized an eight-day Industrial Sensor Application Training Program during May–June 2025. The program strengthened participants' competencies in instrumentation, sensors, transducers, industrial monitoring, and process control. Additionally, the PLC Fundamentals and Troubleshooting (Siemens) training provided practical instruction in programmable logic controllers, automation systems, fault diagnosis, and industrial equipment maintenance. These initiatives enhanced technical knowledge and practical skills relevant to modern industrial operations, contributing to workforce readiness and technological capability development.





## Enhancing Agricultural Competitiveness through Standards-Based Education

RUTS promotes innovation and quality assurance in agriculture, a key economic sector in southern Thailand. In collaboration with the National Bureau of Agricultural Commodity and Food Standards (ACFS), the Faculty of Agriculture, Nakhon Si Thammarat Campus, implemented the Durian Harvest Controller Training Program from June to July 2025.

Based on Thai Agricultural Standard TAS 9070-2566, the program combined theoretical and practical training in durian maturity assessment and quality control for farmers, durian cutters, quality-control personnel, and agricultural entrepreneurs. Successful participants received jointly issued certificates from RUTS and ACFS, supporting professional registration as durian cutters and graders.

The initiative strengthened agricultural quality-control competencies, supported professional development, and promoted practices aimed at reducing premature harvesting and post-harvest losses. Its recognition as a RUTS Knowledge Management Best Practice further demonstrates the university's contribution to sustainable academic services and industry-oriented lifelong learning.



# Advancing Sustainable Innovation through International Research Recognition and Technology Transfer




RUTS transforms academic research into practical innovations that address industrial, agricultural, environmental, and societal challenges. Through the Office of Innovation Management and Technology Transfer (IMTT), the university promotes applied research, technology transfer, and international collaboration to strengthen innovation capacity and sustainable economic development.

In 2025, RUTS achieved international recognition for 10 inventions at three major international exhibitions: ITEX 2025 in Malaysia, INTARG 2025 in Poland, and SIIF 2025 in South Korea. These achievements included three Gold Medals, three Silver Medals, one Bronze Prize, and several international special awards, demonstrating the university's multidisciplinary research capabilities and innovation potential.




The award-winning innovations addressed challenges in agriculture, industry, healthcare, and environmental sustainability. Examples include the Smart WiFi Mushroom Cultivation Cabinet, Seafood Dried Product Cutting Machine, B-mixed Bacillus Bioproduct, and natural rubber-based products. Environmental innovations such as Palmcharcrete and Low-Carbon Rubber Flooring demonstrated opportunities to utilize local resources and develop more sustainable materials. Notably, research underpinning the B-mixed bioproduct demonstrated up to 97.12% plant disease control in greenhouse trials, highlighting its potential for sustainable agriculture.

These accomplishments demonstrate RUTS's capacity to develop value-added innovations from local resources, strengthen international research networks, and create opportunities for technology commercialization. Overall, RUTS's international achievements in 2025 reinforce its role as a technology-oriented university committed to transforming research into innovations with practical applications and potential contributions to sustainable industrial and regional development.



# Advancing Research Commercialization through University–Industry Partnerships and Herbal Innovation

RUTS advances research commercialization through university–industry partnerships that translate academic expertise into market-oriented innovations. In 2025–2026, through the Office of Innovation Management and Technology Transfer (IMTT), RUTS collaborated with Arekee Co., Ltd. under the Talent Mobility Program to develop an innovative skincare product from *Stemona tuberosa*, a medicinal herb native to southern Thailand.

The project applied advanced low-temperature extraction technology to develop a stable herbal skincare formulation. Through a petty patent licensing agreement, the university successfully transferred its technology to the company, enabling the commercialization of CosMD 2% Stemona tuberosa Root Extract Ultra White Body Serum. The innovation demonstrated product stability for up to 120 days and secured THB 1,022,500 in funding from the National Innovation Agency (NIA). The product was distributed through online channels and 41 Beautrium retail branches nationwide, with international market exposure at Mini Thailand Week 2025 in Malaysia.

