

INNOVATION

Developing game-changing solutions for enhanced consumer satisfaction, shared value and sustainability.



Thai Union's Approach to Innovation

From improving sensory qualities to creating new and novel products, innovation is one of the corporate values around which every business decision is aligned.

Focused on creating shareholder value:

- Improving quality, nutrition, and the consumer experience
- Creating product and brand differentiation
- Unleashing new corporate revenue streams
- Leading in sustainable solutions
- Maximizing raw material utilization

Global Innovation Leadership

Under the guidance of recognized experts in research, technology, innovation, and business management, Thai Union's Global Innovation Center (GIC) has assembled a world-class team of Principal Investigators and Advisory Board Members.



Global Innovation Center

Developing game-changing technologies, processes and products

Thai Union's Global Innovation Center (GIC) is an agent of change within the seafood industry, combining the talents of leading academic and in-house researchers with decades of experience in marine biotechnology, engineering, biochemistry, and food and nutritional science.

Launched in 2015, the R&D facility in Bangkok, Thailand deploys unconventional investigations of seafood to:

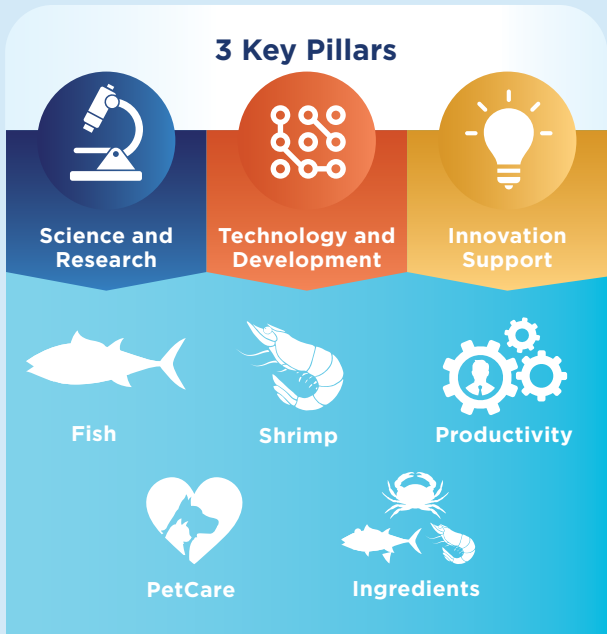
- Enhance product quality, nutrition, and consumer satisfaction
- Accelerate our sustainability through smarter utilization of fishery resources, optimization of processes and technology, and value creation of byproducts
- Create new corporate revenue streams from research and development tailored for new business growth

Global Innovation Structure

The Global Innovation Center (GIC) is driven by a collaborative culture centered on generating novel solutions based on consumer and production insights. The GIC is structured on three pillars:

- **Science and Research**
A long-term focus on establishing the fundamentals that drive insights into new processes, technologies, and products
- **Innovation Support**
Providing the tools and framework necessary for supporting and fostering innovation and collaboration
- **Technology and Development**
Translating science and research insights into commercial products and processes





Strategic Areas of Interest

1 Fundamental Knowledge

Fundamental knowledge of seafood, including nutritional composition, biochemical changes during storage and processing, and physiochemical structure of fish muscle, enables Thai Union to understand the nutritional value of tuna and—above all—how to maintain nutritional qualities within tuna from catch to consumption.

2 Health and Wellness

Thai Union seeks to identify and elevate seafood’s nutritional benefits and leverage technology to more effectively extract nutrients such as proteins and fats; helping to instill our products as an essential part of any healthy and balanced diet.

3 Processing

Disruptive technology and engineering solutions transform how Thai Union processes our seafood to deliver differentiated product attributes, sustainable processes, and high-quality standards. We implement digital engineering, machine learning, and sensor technology to develop fast and continuous product flow across our factories at all stages; from raw material in cold storage to a finished product.

4 Packaging

Thai Union creates and delivers breakthrough innovative packaging through fundamental research on material science, focusing on sustainability and bringing new convenient formats to consumers to create excitement. Biomaterial production, biodegradable materials technology, and surface coating engineering are studied to develop functional packaging materials.

5 Sensory

Thai Union examines worldwide consumer trends and consumption behaviors to inform product development, ensuring our products reflect localized sensory preferences such as aroma, flavor, and texture. This involves identifying and mapping sensory attributes, along with consumer research to understand product preferences—creating innovative products with the highest “Driver of Liking” score.

6 Co-products

With scientific understanding of seafood raw material properties, Thai Union can maximize the utilization and value of our catch by transforming it into highly valuable marine ingredients. Co-products such as protein, oil, and phospholipids can help supply the growing demand for human and clinical nutrition.

Collaboration

The GIC creates a mutually beneficial transfer of knowledge with external entities in Thailand and around the globe. The GIC creates partnerships with universities, research institutions, NGO’s, and strategic corporate partners, including:

- Mahidol University
- Kasetsart University
- King Mongkut of Technology Thonburi
- Chulalongkorn University
- Prince of Songkhla University
- Suranaree University of Technology
- Naresuan University of Technology
- Ratchaphat University
- Matis
- Nofima

Working under the supervision of academic advisors, eligible Thai Union employees continue their education and conduct GIC research simultaneously, ultimately earning post-graduate degrees.



We seek strategic innovation partnerships with institutions – private and public – around the world, while providing meaningful support and resources for start-ups. This public-private partnership supports the GIC’s rigorous scientific processes, offers universities industry exposure, maintains low costs through shared use of facilities, and builds valuable intellectual property for all involved.

