

# Faculty of Agro-Industry

Chiang Mai University





## Chiang Mai University

A Leading University Committed to Social Responsibility  
and Sustainable Development

- » founded in 1964
- » the first provincial university  
in Thailand







**#75**  
in the world



**#2**  
in Thailand

## 5 Campuses <<<



Main Campus  
(2.5 km<sup>2</sup>)



Suan Dok Campus  
(0.5 km<sup>2</sup>)



Mae Hia Campus  
(2.1 km<sup>2</sup>)



Maritime Campus  
(8,000 m<sup>2</sup>)



Haripunchai Campus  
(7.6 km<sup>2</sup>)

## Faculties & Colleges

- 21 Faculties
- 4 Colleges
- 2 Research Institutes
- 1 Science and Technology Park

## Multidisciplinary University

- Health Science
- Science & Technology
- Humanities & Social Science



## Academic Calendar

1st Semester  
(June-October)

2nd Semester  
(November-March)

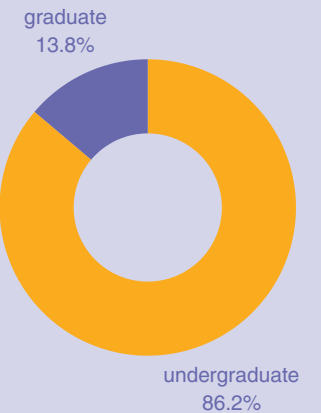
Summer break  
(April-June)

**18,642**  
Research  
Publications

**Outsource Funding**  
(Fiscal Year 2024)

**1,550** MTHB

**37,626**  
students



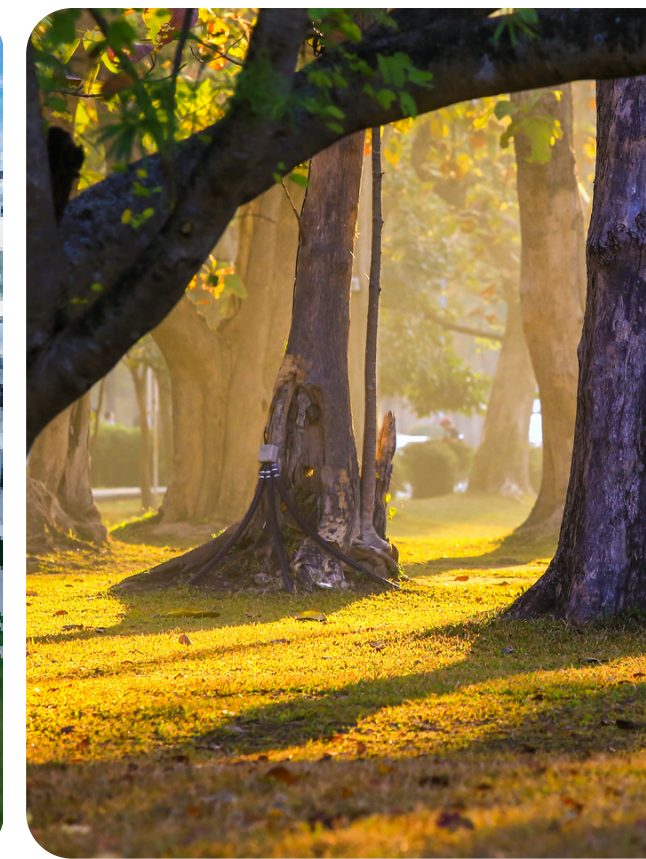
5,203 graduate  
32,423 ungraduate

\*As of 05/02/2024

**13,416**  
staffs

**88**  
international  
programs





*CMU surrounding*





**S01**

**Biopolis  
Platform**



**S02**

**Medicopolis  
Platform**



**S03**

**Creative  
Lanna  
Platform**



**S04**

**Education  
Platform**



**S05**

**Research &  
Innovation  
Platform**



**S06**

**CMU  
Excellence  
Management  
Platform**







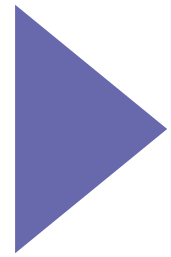
# Faculty of Agro-Industry

Chiang Mai University





# VISION



***“Influencing a better future”***

## ***Mission***



**Organize higher education to cultivate a skilled workforce capable of driving innovation and contributing to the global agro-industry.**



**Generate groundbreaking research, knowledge, and innovation to propel Thailand's agro-industrial sector to international prominence.**



**Deliver exceptional academic services to develop the agro-industry and position it as a global leader.**



**Manage the organization to become a high-performing institution, optimizing efficiency and effectiveness.**

# FACT SHEET

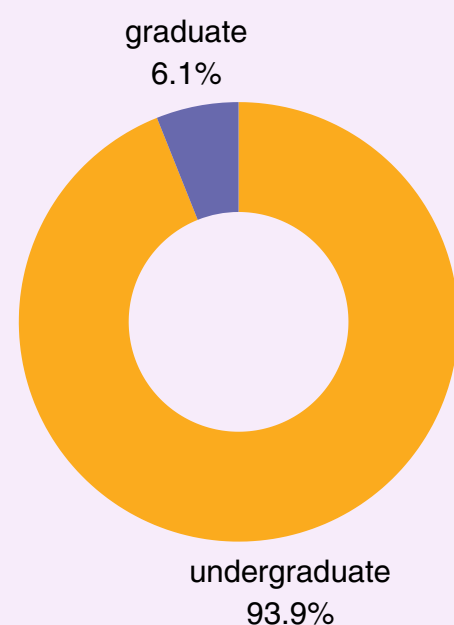
# AGRO

CMU | AGRO-INDUSTRY  
CHIANG MAI UNIVERSITY

Established in 1992



## 135 Research Publication



## 1,700 students

103 graduate  
1,597 undergraduate

\*As of 10/10/2024

## 190 staffs



SCIMAGO  
INSTITUTIONS  
RANKINGS

**#5** in Thailand  
**#559** in the world



U.S. News  
Best Global Universities

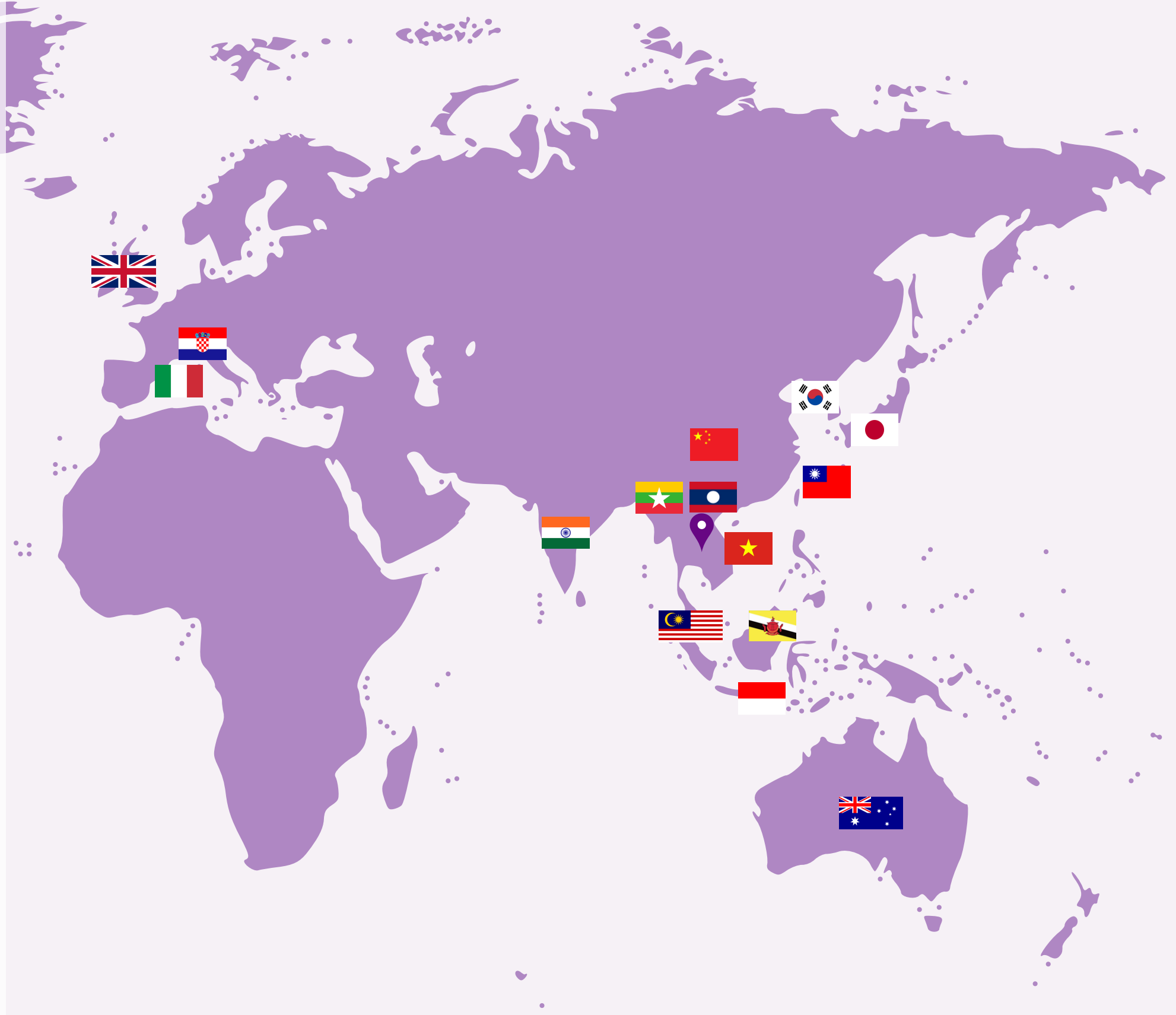
**#3** in Thailand  
**#184** in the world

## Ranking for Food Science



# 32 MoUs 15 Countries

- Australia (1)
- Brunei (1)
- China (5)
- Croatia (1)
- India 1
- Indonesia (2)
- Italy (1)
- Japan (4)
- Korea (10)
- Laos (1)
- Malaysia (1)
- Myanmar (1)
- Taiwan (1)
- UK (1)
- Vietnam (1)



# Academic Programs

## 8 Undergraduate Degree (7 Thai + 1 Inter)

Food Science  
and Technology  
(FST)

+ Inter

Biotechnology  
(BIOT)

Food Process  
Engineering (FE)

Product  
Development  
Technology  
(PDT)

Packaging  
Technology  
(PKT)

Marine Product  
Technology  
(MPT)

Agro-Industrial  
Innovation and  
Entrepreneurship  
(AIE)

### Graduate Degree

## 5 Master Degree (4 Thai + 1 Inter)

Food Science  
and Technology

+ Inter

Agro-Industrial  
Product  
Development

Packaging  
Technology

Food Innovation  
and Bioindustry

## 4 Doctoral Degree (3 Thai + 1 Inter)

Food Science  
and Technology

+ Inter

Agro-Industrial  
Product  
Development

Food Innovation  
and Bioindustry





# Research

**Center of High value  
product from Thai rice  
and plants for health**

**Center of  
excellence**

**Center of excellence in  
Agro Bio-Circular Green  
Industry (Agro BCG)**

## Clusters

1

Bioprocess  
Research  
Cluster

2

Sensory  
Evaluation and  
Consumer  
Testing Cluster

3

Rice Products  
Research Cluster

4

Food Drying  
Technology  
Research Cluster

5

Fisheries Product  
Technology  
Research Cluster

6

Research Unit for  
Functional  
Ingredients and  
Innovative Food  
Products

7

Bioactive  
Compound  
Extraction  
Research Unit

▶ Optimization and innovation of food processing and preservation

Fruit and vegetable products


Fishery Product

Plant-based meat


Products and their health-related applications from emerging technologies

Alternative proteins


Plant and marine extracts



Food structure and formulation technology



Quality, safety and shelf-life of foods



Nutrition and health

▶ Agro-industrial entrepreneurship and logistics management



Sustainable food innovation



Brand marketing, and strategic frameworks that foster stakeholder engagements and entrepreneurship



Business process management



Decision Analytic



Logistics and supply chain management

**AGRO**  
CMU | AGRO-INDUSTRY  
CHIANG MAI UNIVERSITY

**Research Areas**

Packaging design

Biodegradable and active packaging for food shelf-life extension

Modified Atmosphere Packaging

Smart Polymeric Films and Coatings

On-package indicator films

Biomaterial development using nanotechnology

Functional, healthy foods and nutraceutical products

Culinary arts and gastronomy

Consumer behavior consumer testing and cultural insights

Functional ingredients and products from fermentation and enzyme technologies

Gut microbiome and metabolome associated with lifestyle related disease

Biofuel production

Microbial Innovation

Air pollution treatment using biofilter technology

▶ Food packaging



▶ Food product development

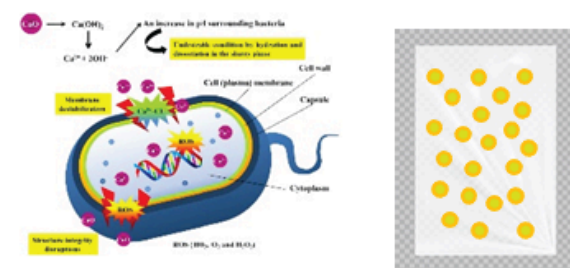
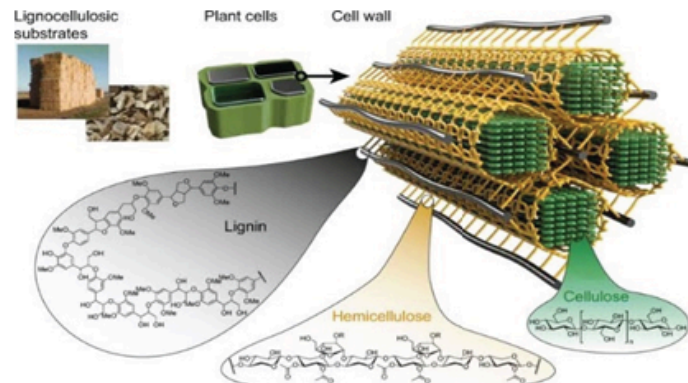
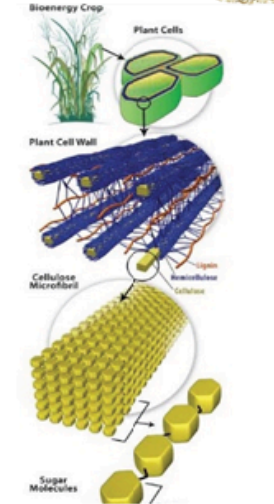
▶ Bioprocessing of agri-food wastes





# “BCG” Research

## Bioeconomy



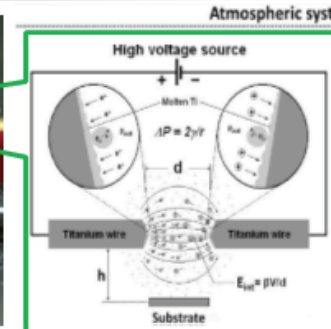
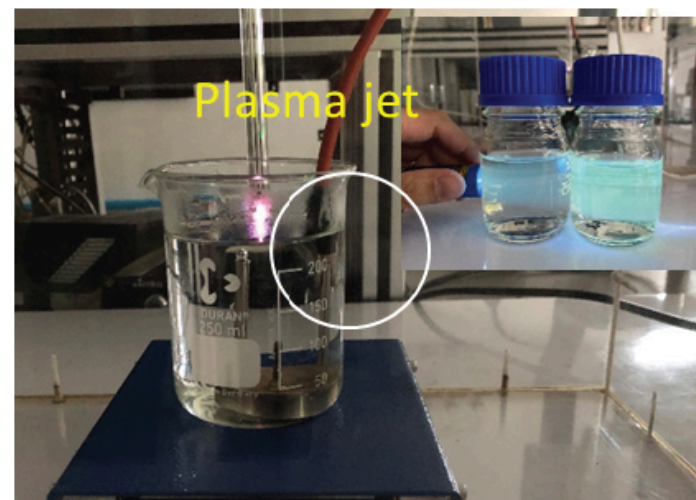
## Green Technology



Choline Nutrient



SPARKING PROCESS



## Circular Economy

Storage Transportation Distribution

Time-Temperature Indicators (TTIs)



Monitoring  
Recording  
Indicating



“Checking quality of product with your eyes”

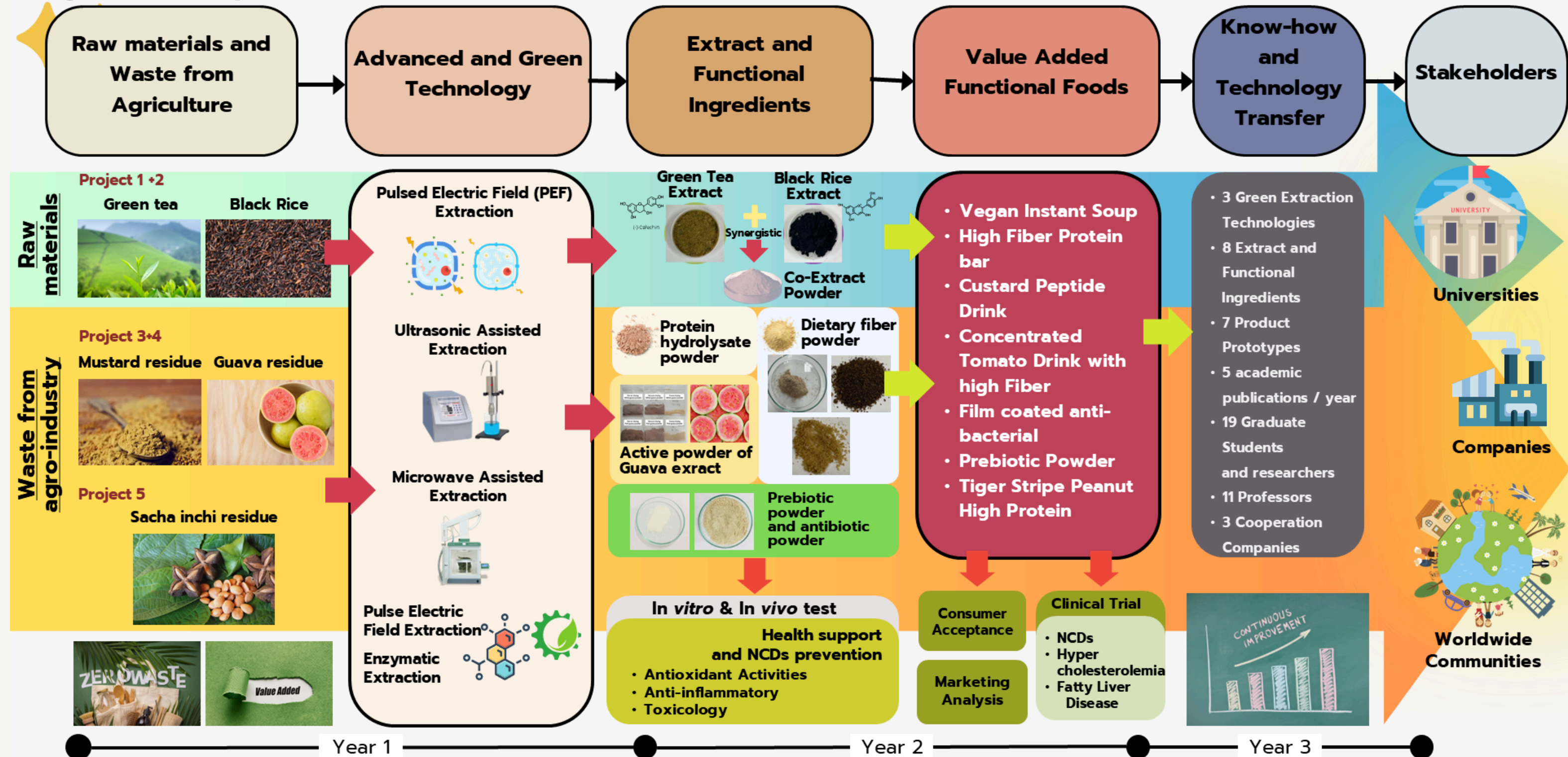


# “Thai rice and plants for health” Research

## Research Framework (2023-2025)

Innovation plant-based functional foods for health support and NCDs prevention from Agro-industry products and wastes

**AGRO**  
CMU AGRO-INDUSTRY  
CHANG MAI UNIVERSITY  
HIGH VALUE PRODUCTS FROM THAI RICE  
AND PLANTS FOR HEALTH





# Academic Services



**Consultation  
of Agro-  
industry**



**Laboratory  
analysis  
service**



**Processing  
equipment for  
prototyping**



**Organize  
training  
courses**



**Services for  
public and  
private  
projects**



# Academic Services

Food Innovation and Packaging Center (FIN)



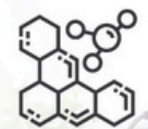
Food Innovation and  
Packaging Center

## SERVICE

### CREATIVE FOOD & PACKAGING



NCDs Food



Active  
Ingredients



Biodiverse and  
Sustainable  
Gastronomy



Well-mental  
and immune  
boosting food

### CREATIVE PACKAGING



FDA  
Approved  
Design



Package  
Library

## CONSOLIDATED PRECISION TESTING



### THERMAL PROCESSING (Fo)

บริการทดสอบกระบวนการฆ่าเชื้อในผลิตภัณฑ์



### GLYCEMIC INDEX (GI)

บริการตรวจวิเคราะห์ค่าดัชนีน้ำตาลของผลิตภัณฑ์



### SHELF LIFE EVALUATION

บริการประเมินอายุการเก็บรักษาผลิตภัณฑ์



### PACKAGING TESTING

บริการตรวจวิเคราะห์ค่า WVTR และ OTR

## CONNECT

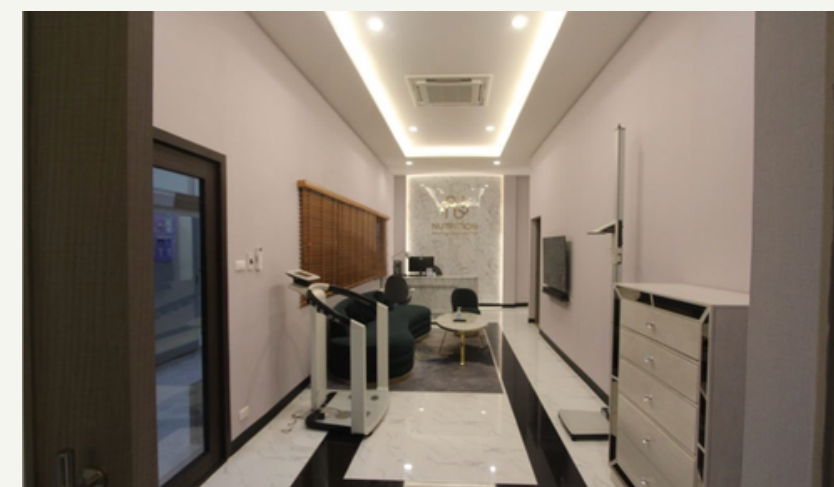
- ✓ Food Innovation Databank
- ✓ Marketing and VC Connect
- ✓ Ingredient Library
- ✓ iExtract
- ✓ Future Food Lab





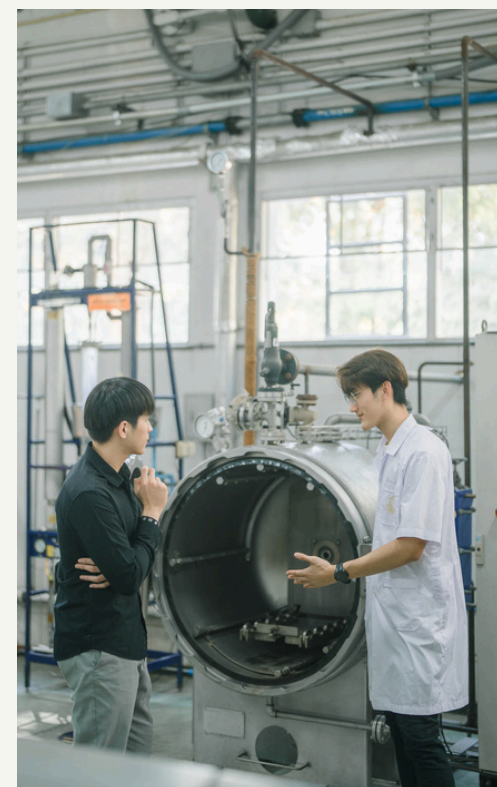
# LABORATORY

- Biotechnology
- Food Processing
- Packaging
- NICE-Cell culture room
- Nutrition Innovation Center
- Sensory Evaluation Unit





# Pilot Plant





# Thank you



**Get in touch with us..**

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