



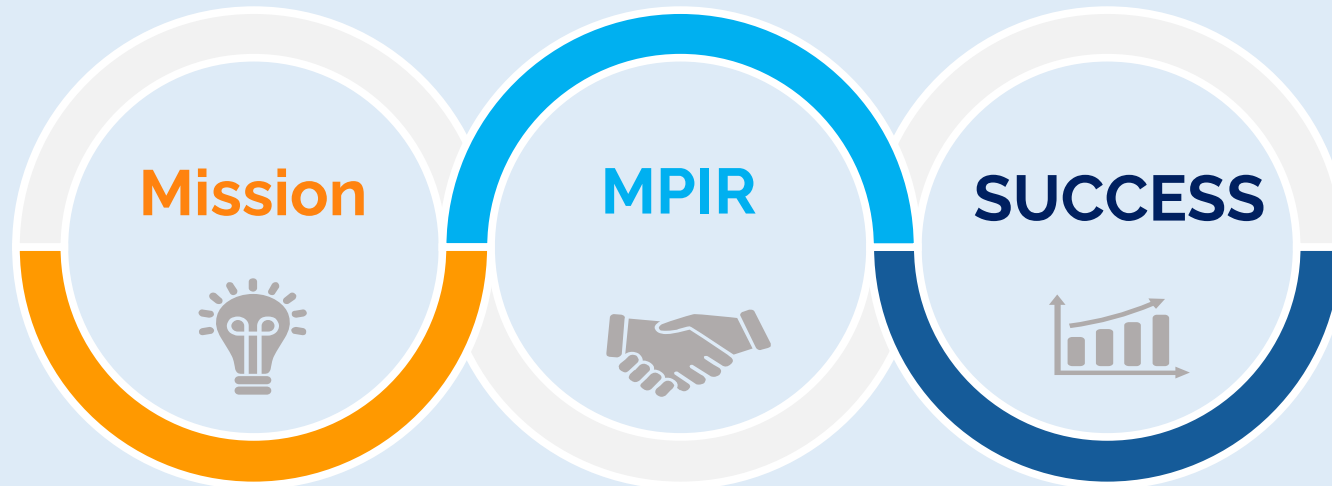
Mitr Phol Innovation & Research Centre

ศูนย์นวัตกรรมและการวิจัยกลุ่มมิตรผล



2026

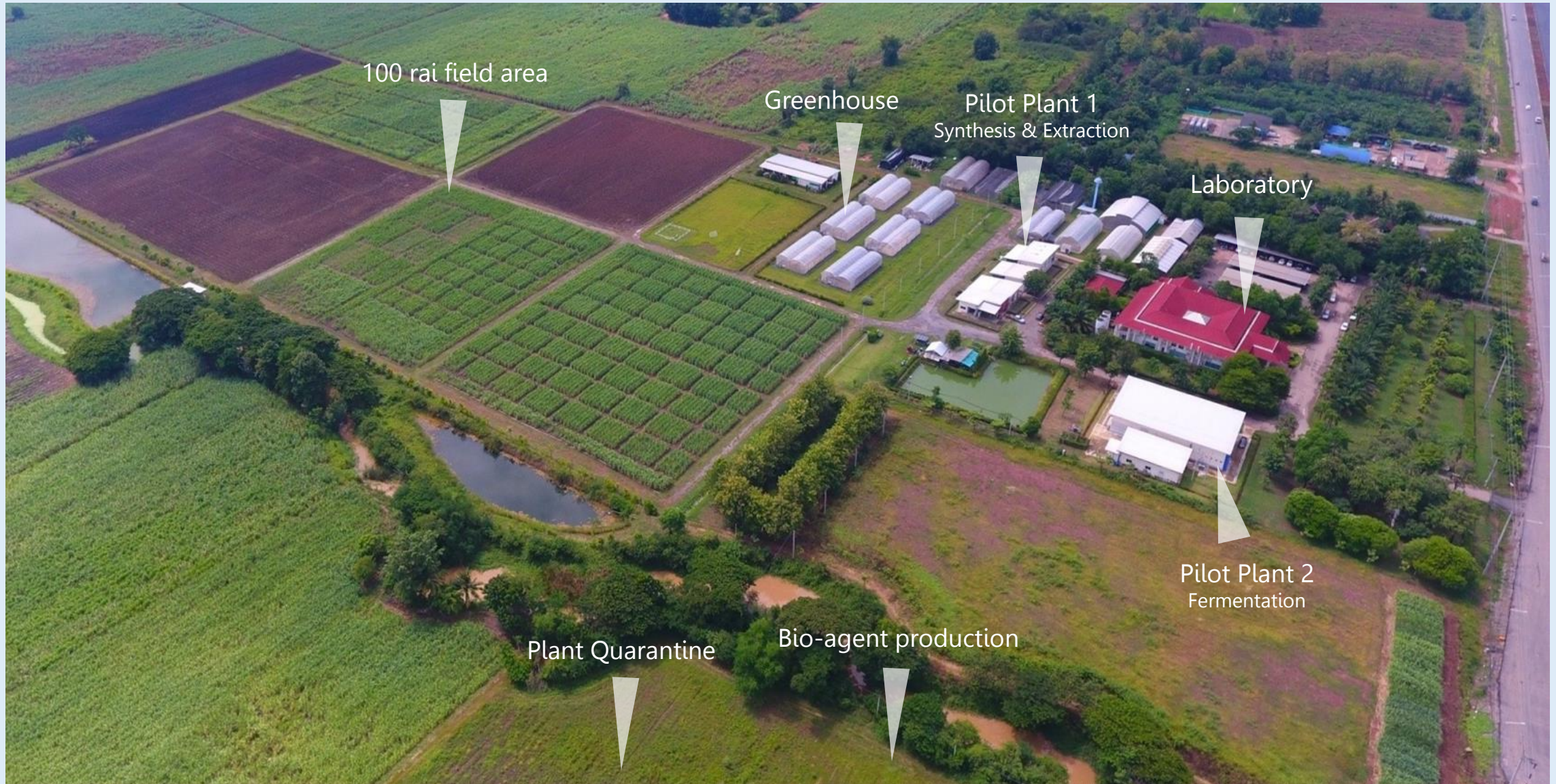
MPIR ศูนย์นวัตกรรมชั้นนำของภูมิภาค ด้านอ้อยน้ำตาลและ Bio-based



สร้างคุณค่าทางธุรกิจ
ผ่านการวิจัยและนวัตกรรม
สร้างความสามารถแข่งขันของกลุ่มมิตรผลที่ยั่งยืน

Commercialization
Competitiveness
Collaboration

MPIR - PK



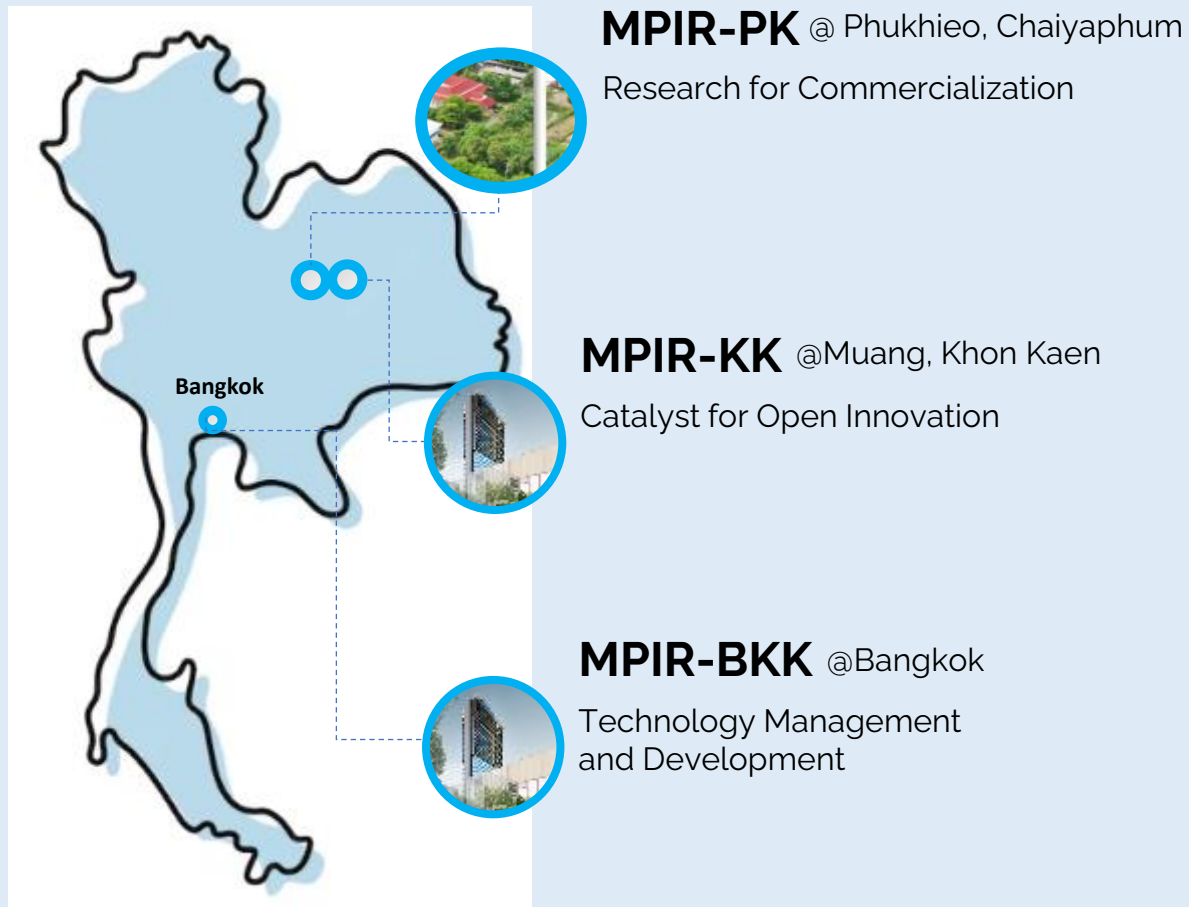
Value Chain

From Waste to Value Creation



Mitr Phol Innovation & Research Centre (MPIR)

MPIR was established in June 1997 with the goal of using technology and innovation to drive Mitr Phol Group's businesses and achieve sustainability and leadership in the sugar industry.



75

Researchers, professionals
25 PhD., 30 Master, 20 Bachelor
Agriculture
Soil Science
Chemistry
Biotechnology
Microbiology
Food technology
Genetics/molecular engineering
Materials/polymer science
Remote Sensing

4

Research programs

>25

Technology platforms

Research & IP Highlights (as of 2025)

3 patents approved (11 on process)
25 petty patents approved (35 on process)
67 publications (international)

MPIR research programs and technology platforms

From research to commercialization

To create innovation ecosystem in technology of agriculture, food, energy, health and digital

A. Precision Crops

Bread & Butter



1. Sugarcane breeding technology
2. Soil technology
3. Fertilizer technology
4. Irrigation technology
5. Crop protection technology
6. Tissue culture
7. Cane yield forecasting
8. Crop health monitoring
9. GHG reduction
10. Waste utilization

B. Manufacturing & Operation

Productivity



1. Sugar technology
2. Bio-power Technology
3. NIR technology
4. Industrial process
5. Sugar high value products development
6. Sustainability packaging

C. Ethanol & Derivatives

Productivity & Growth



1. Ethanol yield improvement
2. Yeast derivatives
3. Microbial strain development
4. Fermentation technology

D. Bio-Based Products

Growth



1. Bioprocess engineering
2. Enzyme technology
3. Sweeteners
4. Prebiotic fibers
5. Nutraceuticals
6. Bio-material (Bio-Graphene)

We are a multidisciplinary team covering 4 research programs >25 technology platforms

MPIR research programs and technology platforms

From research to commercialization

To create innovation ecosystem in technology of agriculture, food, energy, health and digital

Digital/AI

Competitiveness



- Precision agriculture technology
- Crop Health monitoring
- Yield prediction

Open Innovation

Collaboration



- Research extension
- Innovation collaboration & partnership
- SME support system

Innovation Management

Competitiveness



- Research management
- Strategy R&D
- Innovation sourcing

Technology Development

Commercialization



- Engineering
- Scalability

We are a multidisciplinary team covering **4** research programs **>25** technology platforms



Strengthen cores and speed up New Businesses can be achieved through

Partnership and Collaboration



MITR PHOL
Sugar



MITR PHOL
Plantation



MITR PHOL
Bio Power



MITR PHOL
Bio Fuel



RATCHASIMA GREEN



MITR PHOL
OFFSHORE
Business



MITR LAO



MIPENG
蜜朋



MSF Sugar



Chulalongkorn University



KHON KAEN UNIVERSITY



KMITL
สถาบันเทคโนโลยี
พระจอมเกล้า
เจ้าคุณทหารลาดกระบัง



King Mongkut's
University of
Technology
Thonburi



KASETSART
UNIVERSITY



CHIANG MAI UNIVERSITY



มหาวิทยาลัยแม่โจ้
MAEJO UNIVERSITY



มหาวิทยาลัย
สงขลานครินทร์



THAI
SYNCHROTRON
NATIONAL LAB



สำนักงานนวัตกรรมแห่งชาติ



cenicaña



Sugar Research
Australia



AGRICULTURAL RESEARCH
FOR DEVELOPMENT



CSIRO



NSTDA



BIOTEC
a member of NSTDA