

EECI
EASTERN ECONOMIC CORRIDOR OF INNOVATION

กอ
กระทรวงการอุดมศึกษา
วิทยาศาสตร์ วิจัยและนวัตกรรม
Ministry of Higher Education, Science, Research and Innovation



An Innovation Hub Supporting Investment in EEC 支撑EEC产业升级之创新基地

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18 March 2021

EECi : Innovation Infra Supporting S-Curve Industries

EECi 支持S型曲线行业的创新基础设施



SOFTWARE PARK THAILAND



An Innovation Hub Connecting Research and Investment Across Thailand
连接泰国各地研究与投资的创新中心

- Universities/ Research Institutes 大学与科研院所
- Science Park 科技园区
- MNCs / Les 跨国公司 / 大型企业
- Startups/SMEs 初创企业 / 中小企业



- Modern Agriculture & Advanced Biotech 现代化农业&先进生物技术
- Bio-Fuels & Bio-Chemicals 生物燃料与化学
- Battery and Modern Transports 电池与现代化运输
- Automation Robotics & Smart Electronics 自动化机器人和智能电器
- Aviation and Aerospace 航空与航天
- Medical Device & Supplies 医疗设备器材



Laboratory Environment
实验室环境

Pilot Plant, Testbed, Sandbox, Demonstration, Localization, Techno-Economic FS
中式工厂、试验台、沙箱、融入地方、成果模拟展示、技术经济可行性

Industrial Environment
产业环境



EECi @ Wangchan Valley

东部经济走廊创新园区 @ 罗勇府旺詹谷

生活社区 Community Zone



Community Mall
Hotel & Serviced Apartment
International School

教育区 Education Zone

Kamnoetvidya Science Academy (KVIS)

Vidyasirimedhi Institute of Science and Technology (VISTEC)

Wangchan Forest Project

Solar Farm

Highway No. 344
(Ban Bueng - Klaeng)

Gas Station

PTT Art Gallery & Energy Museum

第1创新区 Innovation Zone 1 EECi Headquarters



PTTEP

GC

GPSC

Synchrotron Facility (3 GeV)

Utility Center

Innovative Agriculture Learning Center

第2创新区 Innovation Zone 2



Wangchan Valley,
Rayong Province

Total Area 3,454 Rai (552.64 ha)

• Community Zone	178 Rai (28.48 ha)
• Education Zone	1,186 Rai (189.76 ha)
• Innovation Zone 1	989 Rai (158.24 ha)
• Innovation Zone 2	946 Rai (151.36 ha)
• Innovative Agriculture Learning Center	155 Rai (24.8 ha)

Progress of EECi Headquarters 东部经济走廊创新区总部的进度



- Construction Progress 工程进度: ~70%
- Expected Completion 预定完成: September 2021
- Soft Opening 测试运营: April 2022

Groundbreaking Ceremony 奠基仪式
Presided by Thailand's Prime Minister 由泰国总理主持
(27 February 2019)



EECi Technology Platforms in-Action

在进行中的东部经济走廊创新区技术平台

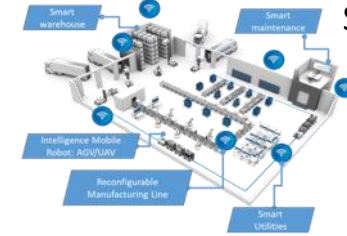
Biorefinery Pilot Plants
(2020-2023)

生物炼制试验 (2020-2023)



CAV Proving Ground*
(In budget approval process)

CAV试验场所*
(在批准预算过程中)



Sustainable Manufacturing
Center (SMC)
(2021 onwards)

可持续生产中心(SMC)
(从2021年起)



Greenhouse and Plant Factory
(2021 onwards)

温室和植物工厂 (从2021年起)



Modern Aquaculture Facility
(in planning stage)

现代水产养殖设施 (在计划中)



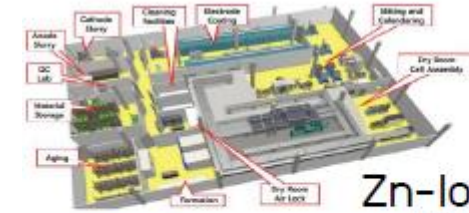
Smart Farming Demo Sites
(2021 onwards)

智能化牧场示范站点 (从2021年起)



3-GeV Synchrotron Facility ***
(2021 - 2027)

3-GeV同步辐射设施***
(2021 - 2027)



Zn-Ion Battery
Pilot Plant
(in budget approval process)

水系锌离子电池试验厂
(在批准预算过程中)



UAV Sandbox**
(2021 onwards)

无人机沙盘**
(从2021年起)

* by Dept. of Science Service 由科学服务厅
** by PTT & PTTEP 由泰国国家石油公司
和泰国国家石油勘探和生产公司
*** by SLRI 由同步辐射研究所

EECi and Modern Agriculture


东部经济走廊创新区和现代农业



High Valued Crops,
Herb, and Spice
高价值农作物、药草和香料



Economic crops 经济作物



Advanced Greenhouse
先进温室



Phenomics Facility
表型组学设施



Plant Factory
植物工厂



UAV & AI
无人机和人工智能



- ✓ **Precised New Candidate Variety Screening**
各类准确新候选者的筛选
- ✓ **Elite Variety with Specific Trait Selection, e.g, High Phytochemicals Suitable for Active Ingredient Extraction etc.**
以特性挑选的精英多样， 如适合活性成分提取等
- ✓ **Optimal Growing Conditions with Minimal Use of Chemicals & Fertilizers**
以最低限度使用化学品和肥料的最佳生长条件

R&I Partners 评级和投资信息的合作伙伴

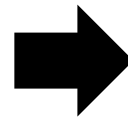
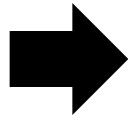


EECi and High Value Ingredients and Biochemicals

东部经济走廊创新区和高价值配料和生物化学品

Multipurpose GMP/Non-GMP Biorefinery Pilot Plants

多功能良好生产规范 / 非良好生产规范的生物炼制试验厂



Food Supplement and Nutraceuticals

补助食品和保健食品

- Functional Ingredients 功能性配料
- Flavor Enhancer 增味剂
- Super Antioxidants 超级抗氧化剂
- Alternative Proteins 替代蛋白
- Specialty Carbohydrates 特殊碳水化合物
- High Value Fatty Acids 高价值的脂肪酸

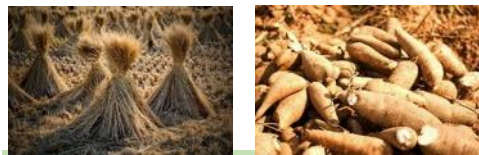
Cosmeceutical 化妆品

- Bioactive Compounds 生物活性化合物

Biochemical & Biomaterials

生物化学品和生物材料

- Bio-Plastics 生物塑料
- Bio-Surfactants 生物表面活性剂
- Bio-Controls 生物防治
- Industrial Enzymes 工业用酶



Herbs and Agro Wastes
药草和农业废物

- Open and Generic Platform for Scale Up and Techno-Economic Feasibility Study 开放通用平台加强技术经济可行研究
- Professional Management Company 专业管理公司
- Proprietary Tech. Providers under “same roof” 专有技术供应商在“同屋檐下”

R&I Partners 评级和投资信息的合作伙伴

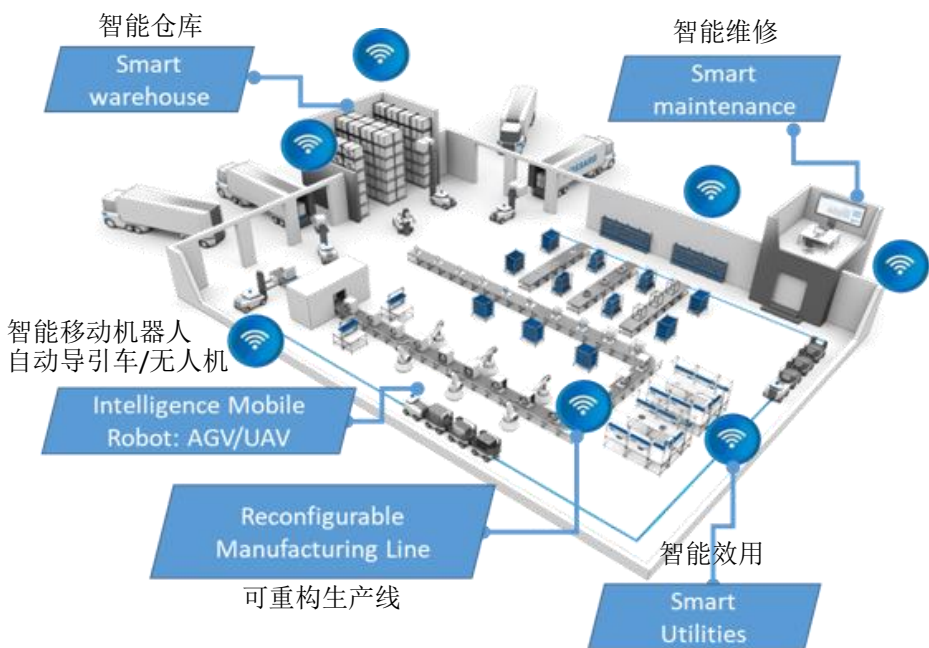


EECi and Industry Digitization

东部经济走廊创新区和业界数字化

Sustainable Manufacturing Center (SMC)

可持续生产中心

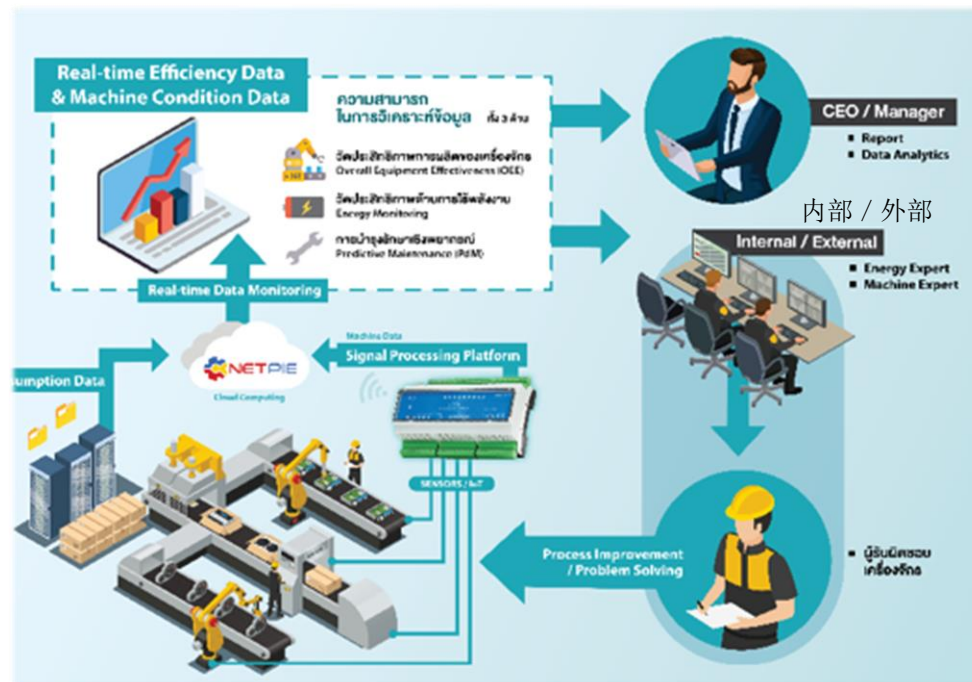


Demo Factory and Industry 4.0 Testbed
示范工厂和工业 4.0 试验平台

- Show Case 展示柜
- Test Bed 试验平台
- Consultation 咨询服务
- HRD 人力资源总监
- Market Place 市场

Industrial IoT and Data Analytic (IDA) Platform for Better Energy Management

工业物联网和更好的能量管理的数据分析 (IDA) 平台



EECi and Modern Transports

EECi 与现代运输

即将到来的基础设施 Upcoming Infrastructure



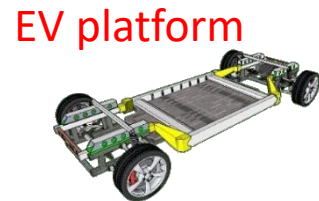
自动驾驶汽车试验场和测试设施
AV proving ground and testing facilities

进行中的工作 Ongoing works

1. 自动驾驶汽车技术 Autonomous Vehicle Technology 在封闭社区内实施 Implementation in Gated Community



2. 自主支线开发 Autonomous Feeder Development 应用于最后一公里连接 for Last-mile Connectivity



AV Feeder



得到以下部门支持协作 In collaboration with...



Partnership Opportunities 形成合作夥伴的机会

- ◎ 开发高价值产品 - 从国内生物资源进入世界市场
Development of **High Value Products** to the World Market from **Domestic Biological Resources**
- ◎ 本土化的先进科技 - 供给东盟市场
Localization of Advanced Technology for ASEAN Market
- ◎ 参与研究与创新 - 与国际企业及当地合作伙伴展开合作
Joint Research and Innovation between International Firm & Research Institutes with Local Counterparts
- ◎ 可利用先进的研究基础设施
Shared use of **Advanced Research Infrastructure** in EECi
- ◎ 参与高端人才发展
Joint **Development of Talents**
- ◎ 其他双赢安排
Other **Win-Win Arrangements**



EECi

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of Innovation



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Ready for Occupancy in Q4' 2021