

Technology commercialization practices and Technology collaboration demands: Thailand Case

National Science and Technology Development Agency (NSTDA), Thailand

By

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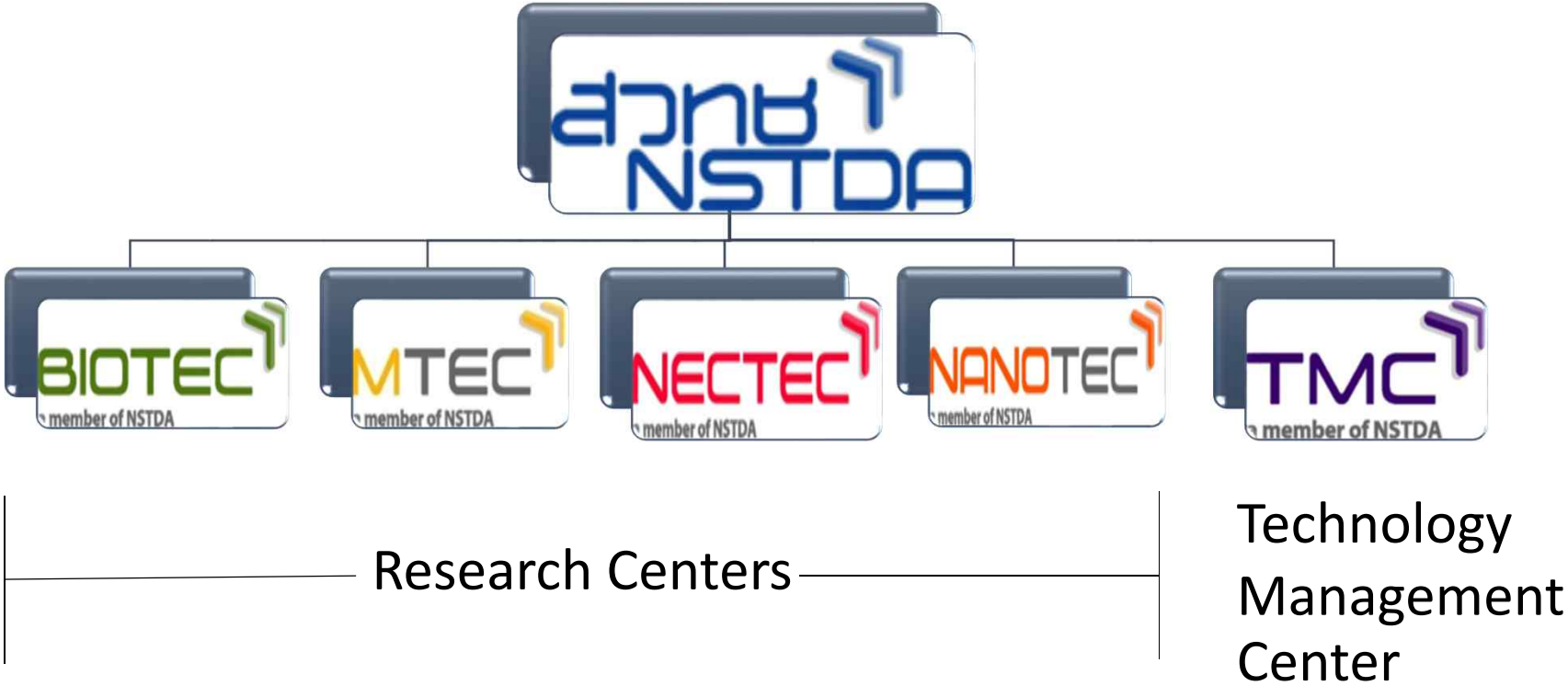
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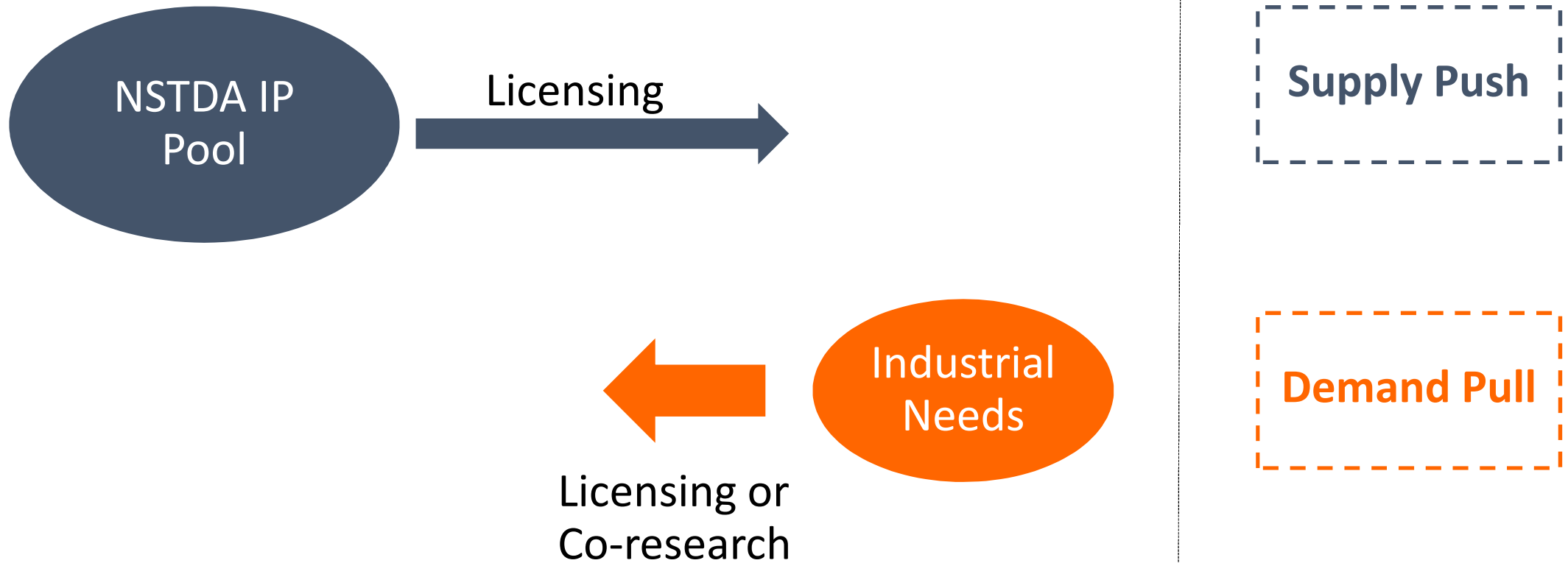
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Technology commercialization practices at NSTDA

NSTDA Organization Structure



Technology to be commercialized



Supply Push

Performed by Technology Licensing Office (TLO)

Collecting IP into Port

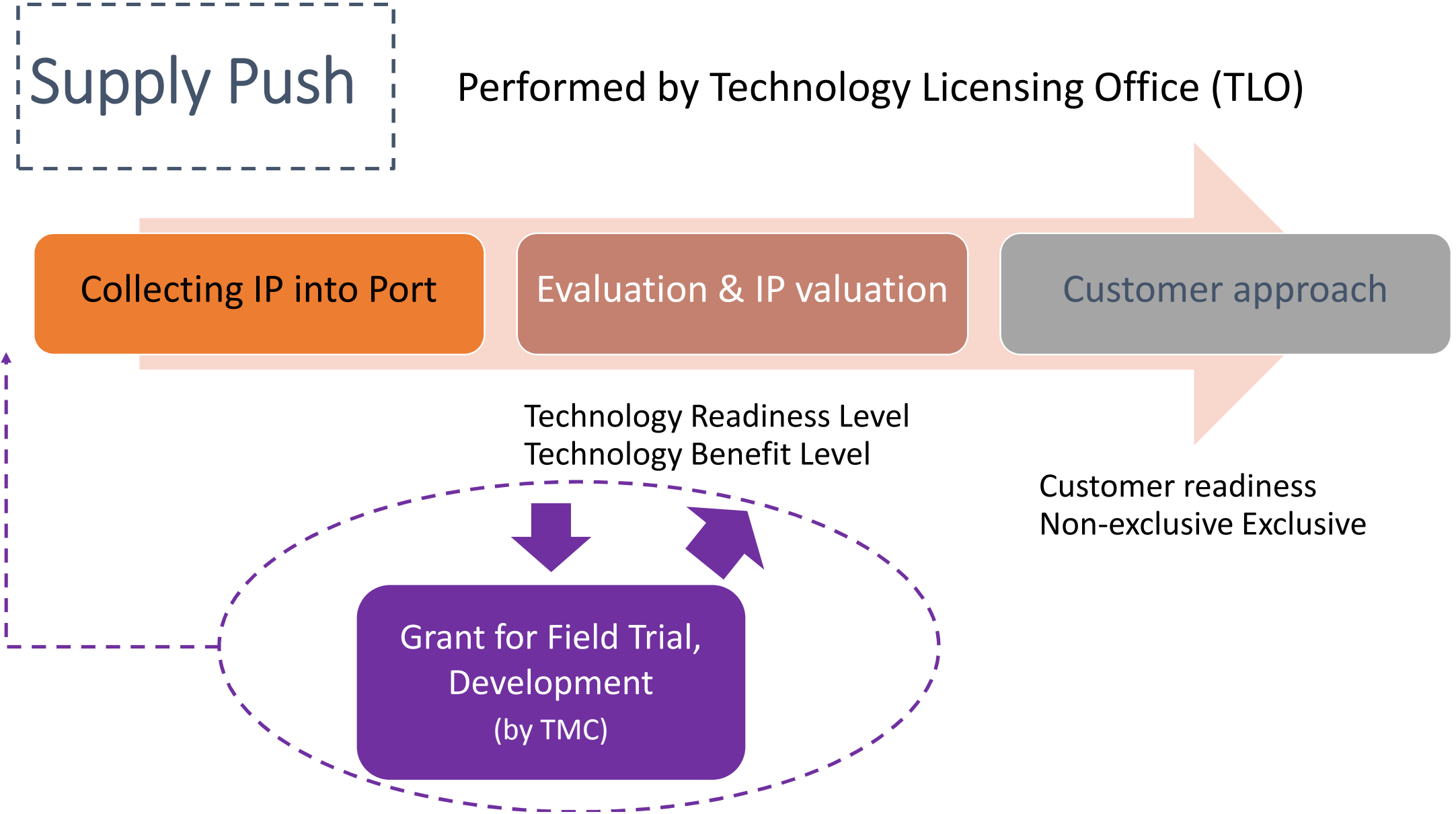
Evaluation & IP valuation

Customer approach

Technology Readiness Level
Technology Benefit Level

Customer readiness
Non-exclusive Exclusive

Grant for Field Trial,
Development
(by TMC)



Supply Push

Negotiation

Upfront fee+ Royalty fee
High Upfront / No Royalty fee
Royalty fee /No Upfront fee
Business model
Possibilities eg. Market
Revenue-based
may include
Field trial,
Market test,
Prototype development etc.

Technology Transfer

iTAP

Expert for production
Financial support

iTAP: Industrial Technology Assistance Program

Follow up

Annual report

Demand Pull

by Technology Licensing Office (TLO) or Industrial Technology Assistance Program (iTAP)

Industrial Needs

A

NSTDA IP Pool

Licensing process by TLO

B

Expertise in Thailand or Overseas

Selecting expert

Co-research

Licensing

iTAP Process: expert selection / financial support for co-research
Seminar or Focus Group Meeting can also be conducted

Demand Pull

Industrial Needs

C1

Technology Development

Field Trial /Development

Commercialization

iTAP Process:
expert selection /
financial support for
co-research

Grant
(by TMC)

TMC co-shares IP

C

Manufacturer

C2

Technology Development

Commercialization

iTAP Process:
expert selection /
financial support for
co-research

Manufacturer
owns IP

Non-exclusive Technology commercialization

- Collaboration Program with The Federation of Thai Industries
- Alliances: 9 Universities & Research Institutes → To be expanded
- Fixed Upfront fee (~KRW 965,000) and Royalty fee (2%)

Technology collaboration
demands

Electronics and IT

- Automation: Robot to make smart product, to make high efficiency, small renewable energy devices

Internet Of Things Technology

- Board, Sensor, Microelectromechanical system (MEMS)
- Low energy-consumption devices (to extend time of use before battery re-charging)
- Long-lasting battery, light-weight battery

Automotive Parts

- Parts Functional test
- Plastic engineering technology: Co-extrusion, Multi-layer products
- Metal Stamping (cost benefit, new technology)
- Metal parts Replacement with light-weight engineering plastics
- Automation/Robotics

Cosmetics

- Herb plantation management for cosmetic ingredients
- Herbal extraction process and machines
- Ingredient Development through Biotechnology
- Formulation
- Efficacy testing
- Safety evaluation of ingredients

Collaboration with

- Foundation of Korea Cosmetic Industry Institute

Food

- Shelf-life extension technology
- Packaging technology
- New ingredient testing and certification
- Semi-automation system

Collaboration with

- Korea Food Research Institute
- FOODPOLIS

Medical Devices

- Clinical Trial
- Safety Certification