



กระทรวงวิทยาศาสตร์และเทคโนโลยี  
Ministry of Science and Technology

สำนักงานพัฒนาเทคโนโลยีอวกาศและภูมิสารสนเทศ (องค์การมหาชน)  
Geo-Informatics and Space Technology Development Agency (Public Organization)



# Thailand Space Technology Advancement

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## Established

November 3, 2000

## Vision

Delivering Values From Space

## Objective

Developing geo-informatics and space technology as a non boundary knowledge for the country development



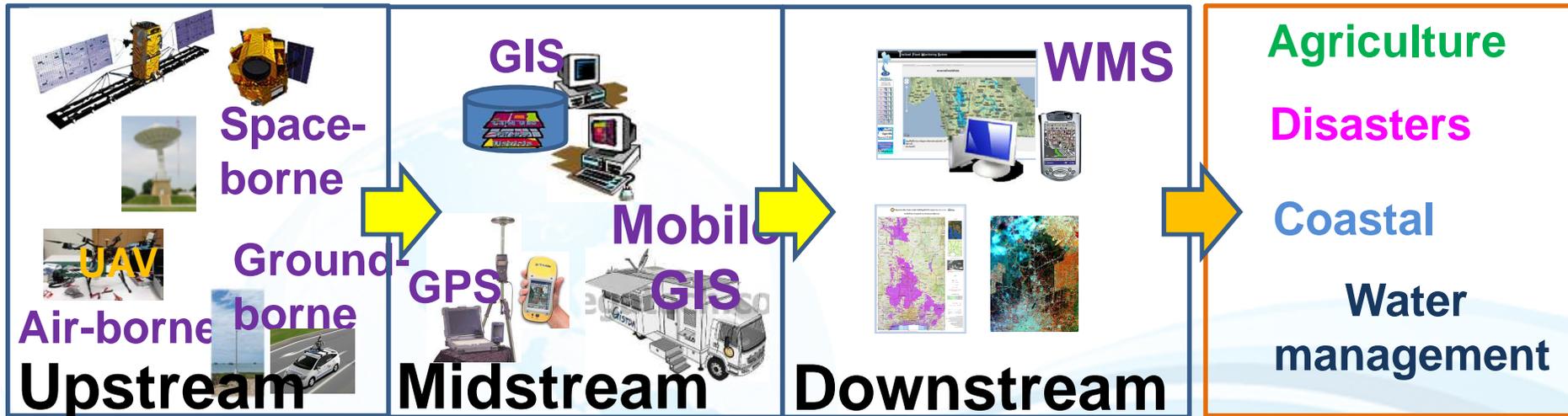
**MINISTRY OF SCIENCE  
AND TECHNOLOGY,  
THAILAND**



## Data Acquisition

## Processing & Model

## Solutions Products & Services



- *Multi-platform Data Acquisition System: Space, Air, ground*
- *Integrated Value Delivery: Upstream, Midstream, Downstream*



# THEOS-2 Program

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- National Program
  - Government to Government Level
    - by Thailand National Space Committee
- Objectives
  - Infrastructure of Science, Technology and Innovation to enhance the capabilities of Thailand in
    - space technology
    - geo-informatics
  - national program for developing 5 major applications
    - agriculture
    - disaster
    - natural resources
    - urban
    - defence



# THEOS-2 Program (2016 – 2020)

Upstream  
(satellite operation)

**Satellite Development (MOST)**

Optical VHRS (MiniSat)      Optical MRS (MicroSat)

**Constellations**

- 6 SAR
- 6 Optical VHRS
- 2 Met Sat
- 2 Optical LRS
- 7 Optical MRS
- GNSS

develop and update receiving stations and data centre (MOST)

Midstream  
(GIS from Sat images)

**IGS Development (MOST)**

**IT & communication networks link to stakeholder (MODE)**

Downstream  
(Applications)

**Agriculture (MOA)**

- suitable areas for agriculture (zoning)
- plan for Agriproduct and Processing
- yield forecasting and monitoring for economic crops (ASEAN & Global)

**Disaster (MOI)**

- trace, analyse and protect the affected area from floods, droughts, forest fires and other pollutants.

**Urban (MOI)**

- taxation on land use
- urban planning
- Infrastructure/public utility

**Defence (MOD)**

- surveillance along border area
- strategic areas management
- trace arable crop addition
- national security plan

**Natural Resources (MONRE)**

- forestry management
- marine resources management
- water resources management

Other Sensors

Ground survey      Aerial      Coastal radars      UAV

National Capacity Building on Science Technology and Innovation

**MOST, MOD**

- RDI on Space Technology and Geo-Informatics
- HDM (Human Development and Management)
- Enable and Support ongoing Industries which relate to Space Technology and Geo-Informatics



# SKP : Space Krenovation Park



# THEOS-2 Mission Control Centre



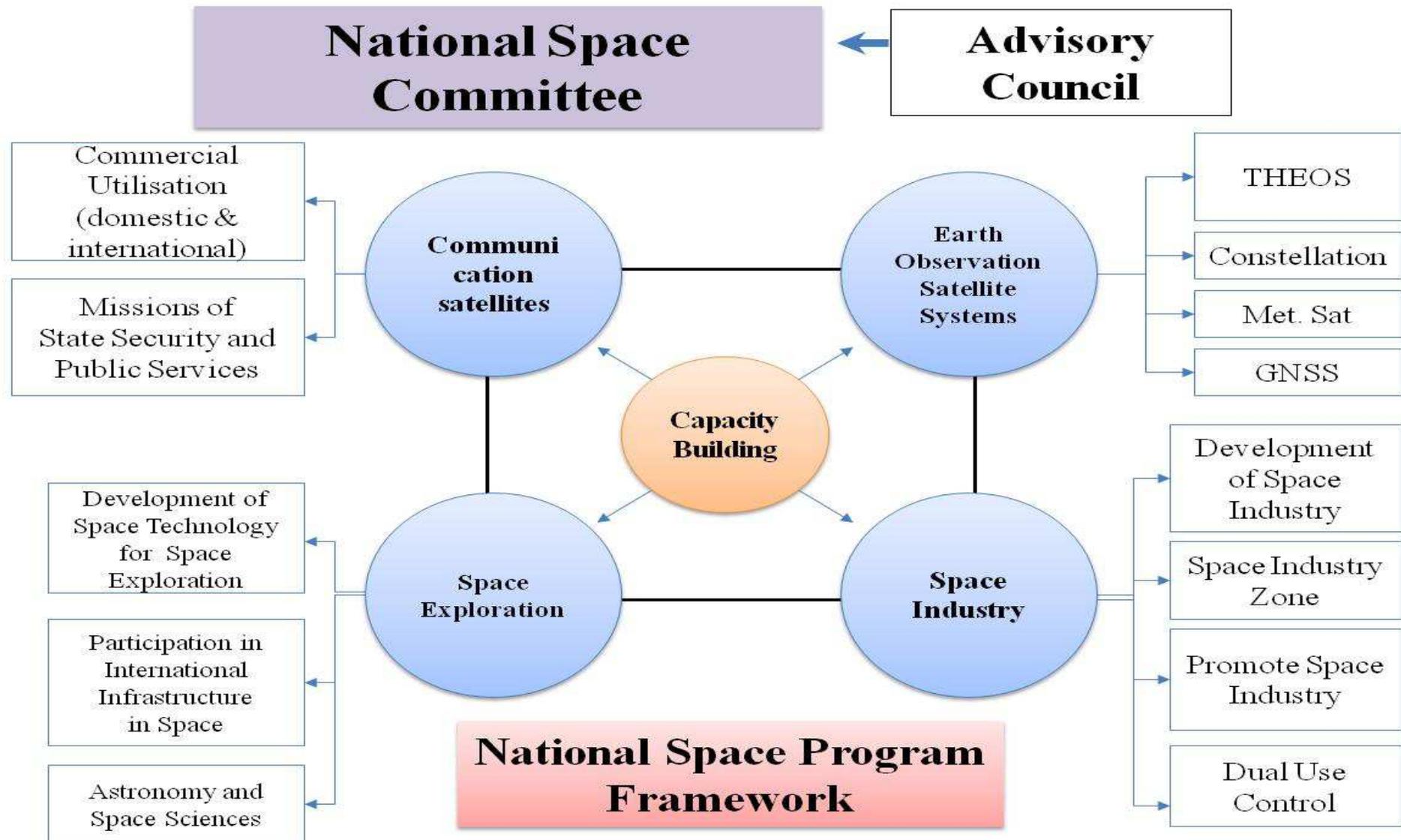
# National Space Program (NSP)

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- NSP Frame Work was drafted by
  - Ministry of Information and Communication Technology (MICT)
  - GISTDA, Ministry of Science and Technology
- Time frame 10-15 years program
  - commence in 2016 or 2017
- Focus on 4 major areas
  - communication
  - Earth observation
  - space exploration
  - space industry

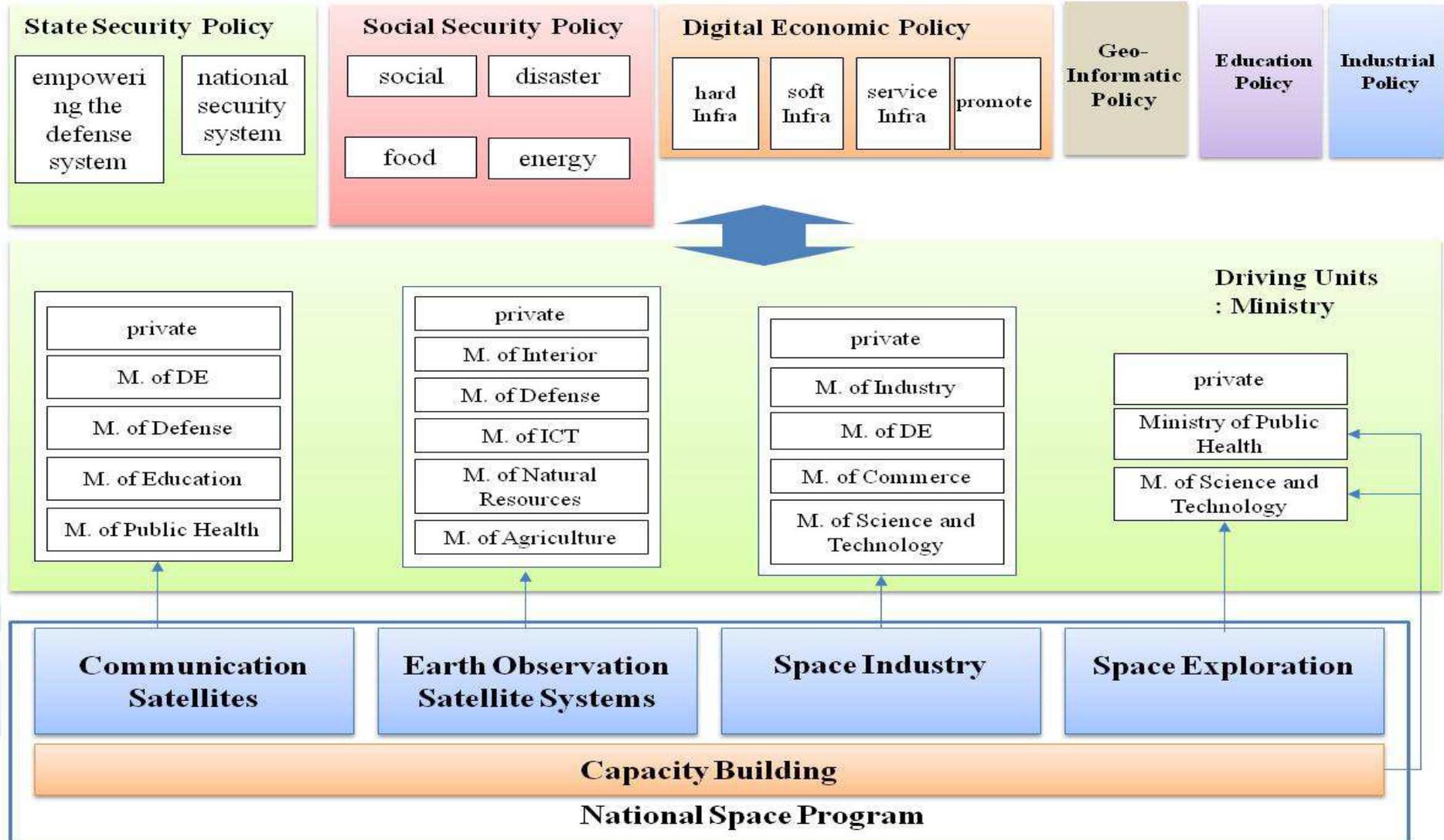


# National Space Program Framework



# National Space Program (NSP)

## State Policies related to Space Activities



# ASEAN Regional Training Centre for Space Technology and Applications (ARTSA)

- The SCOSA Committee endorsed the establishment of ARTSA in the 26th Meeting of the ASEAN Sub-Committee on Space Technology and Applications (SCOSA-26) during 25-26 May 2015 in Phuket, Thailand.
- To provide educational services, knowledge enhancement, awareness raising, and research collaboration in space technology and its applications for SCOSA member countries and worldwide.
- The center located at “Geo-Informatics and Space Technology Development Agency (GISTDA), Space Krenovation Park, Sriracha, Chonburi Province, Thailand”

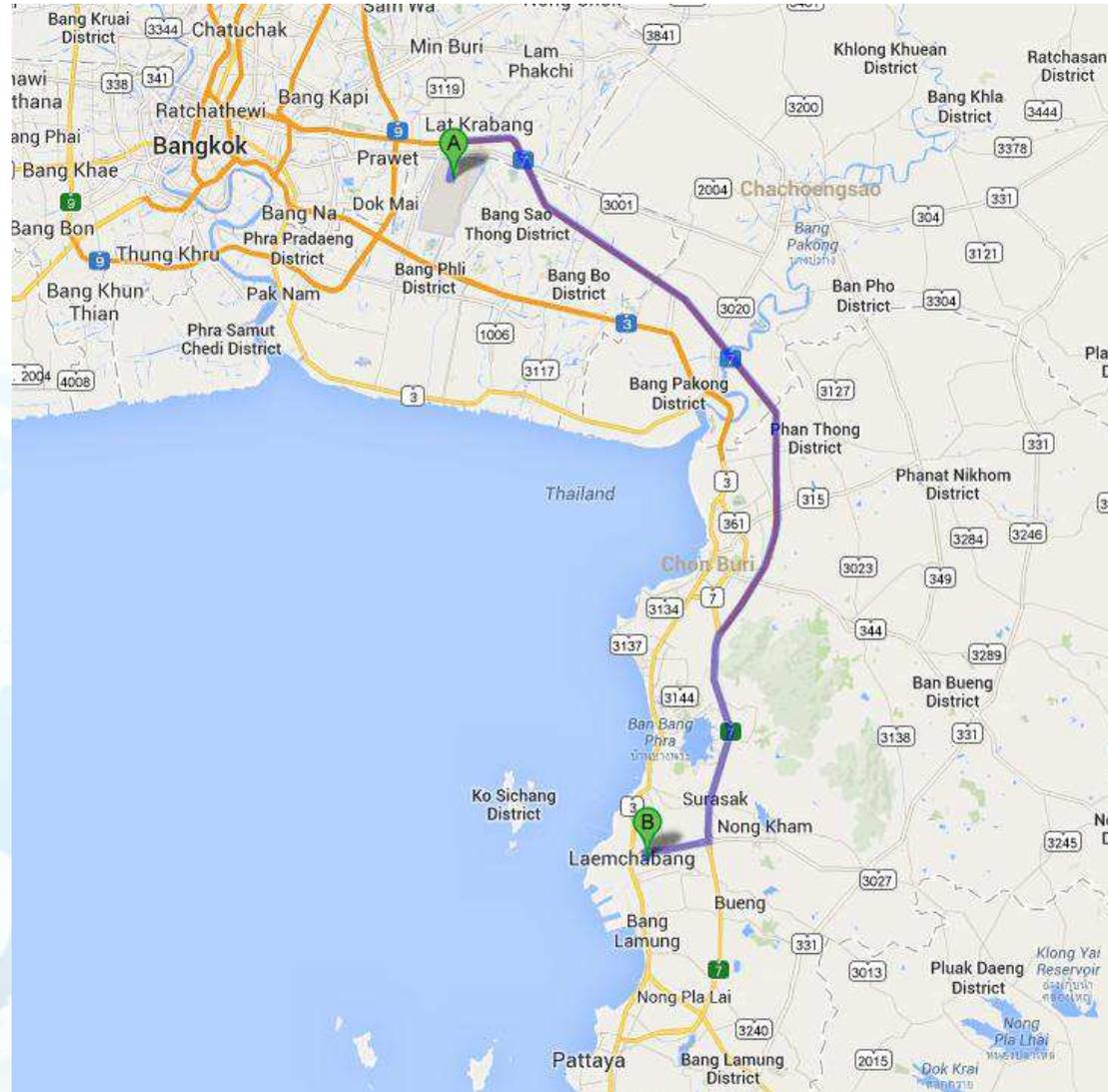


# ARTSA : Location

ARTSA located in Space  
Krenovation Park (SKP),  
SiRacha, Chon Buri province

≈ 100 km. (1.5 hr.) from  
Suvarnabhumi Airport

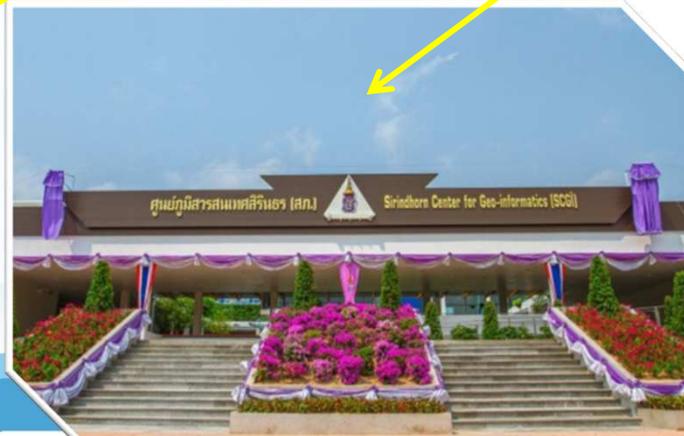
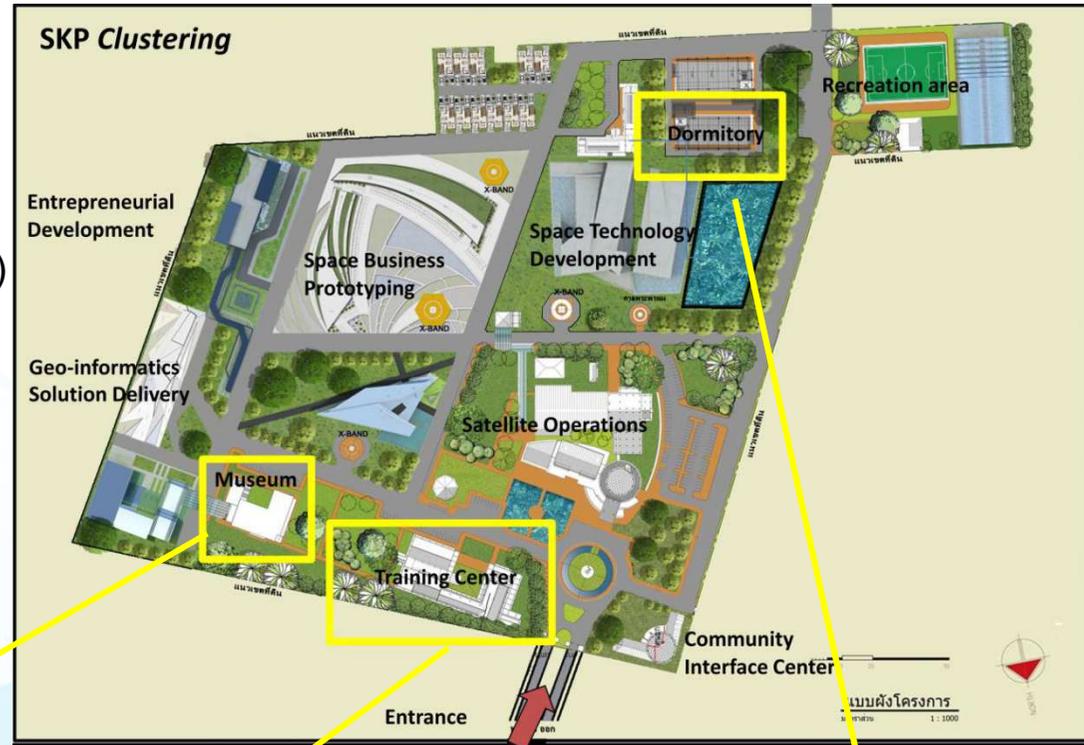
≈ 40 km. from Pattaya Beach



# ARTSA Facilities @ SKP

## • Training facilities :

- Total Area about 3,800 sq.m.
- 1 large Conference Room (180 Persons)
- 1 Laboratory Room (80 Persons)
- 3 Small Conference/ Lecture Rooms
- 1 Research Room
- 1 Cafeteria (85 Persons)
- 1 Dormitory (24 Units)



# ARTSA Facilities



**Training room (80 computers)**



**Auditorium room (180 seats)**



# ARTSA Facilities



# Plan of Activities 2015

Activities	Jul 2015	Aug 2015	Nov 2015
International Jointly Seminar on Introduction of Activities of Space Institute and Industries in Korea and Thailand (KARI)	X		
International Training Course on Space Application for Disaster (KARI)	X		
International Training Course on Remote Sensing (CRESDA)		X	
International Training Courses: Laser Scanning Course (ITC)			X
International Training Courses: Opportunities and Challenges of Using the Next Generation Satellite Data and Modelling Technique for Water Management, Refresher Course for ITC Alumni in ASEAN			X

# Plan of Activities 2016-2022

Activities	2016	2017	2018	2019	2020	2021	2022
International training courses	x	x	x	x	x	x	x
International workshops/ seminars/ special lectures	x	x	x	x	x	x	x
International Summer School	x		x		x		x
Exchange of personnel and information	x	x	x	x	x	x	x
Collaborative Research Projects	x	x	x	x	x	x	x
On-line Geo-informatics Media (Edutainment)				x	x	x	x
ASEAN youth space camp				x	x	x	x
Joint Degree Program (Master and PhD)				x	x	x	x



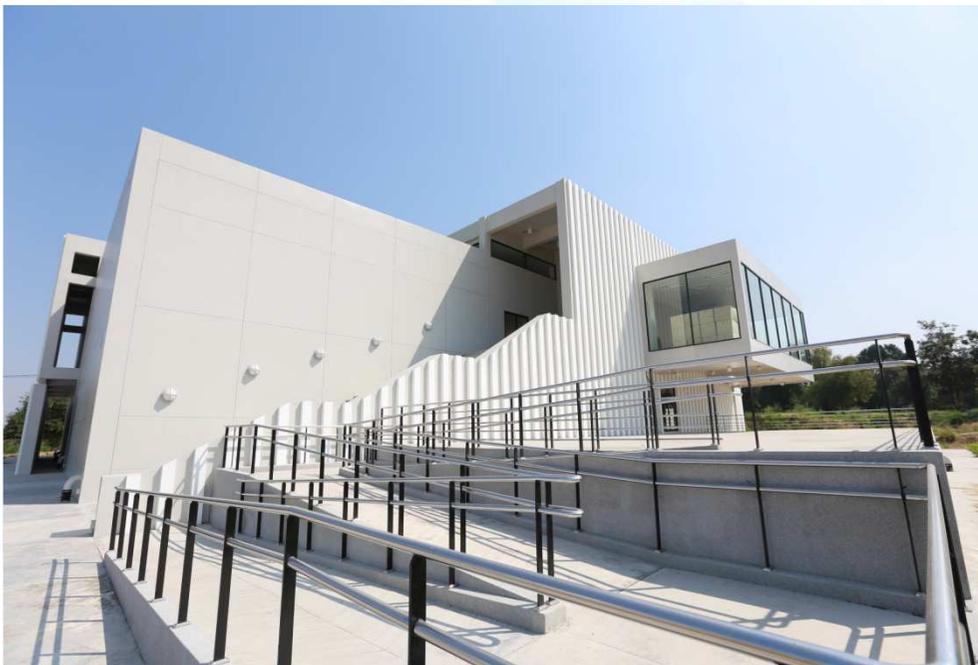
# Training Center



# Dormitory Building



# Space Inspirium



# Conclusion

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- Thailand (GISTDA) can support regional capacity development programme at ASEAN Regional Training Centre for Space Technology and Applications (ARTSA) and Sirindhorn Center for Geo-informatics (SCGI)
- GISTDA still move forward to promote the applications of space technology for supporting disaster risk reduction and inclusive and sustainable development in ASEAN region.



**Thank for  
your  
attention**

