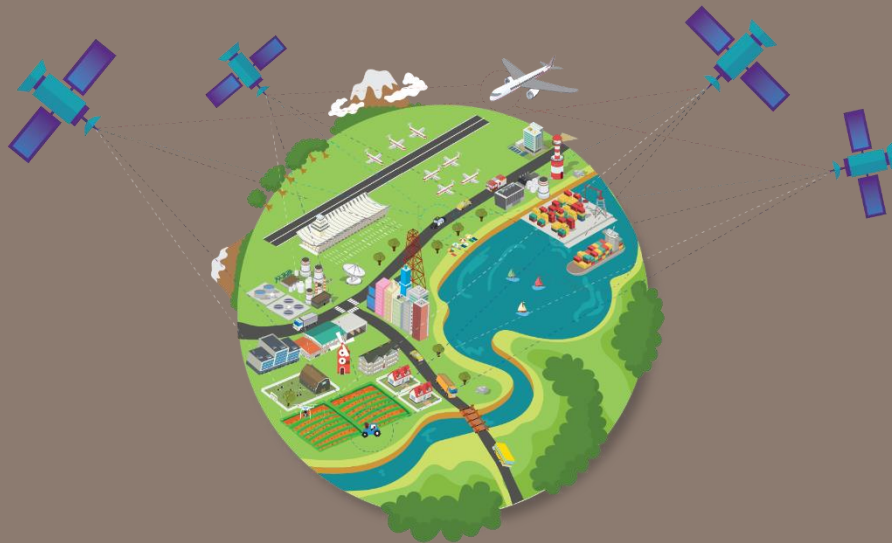


THAILAND'S SPACE ECONOMY



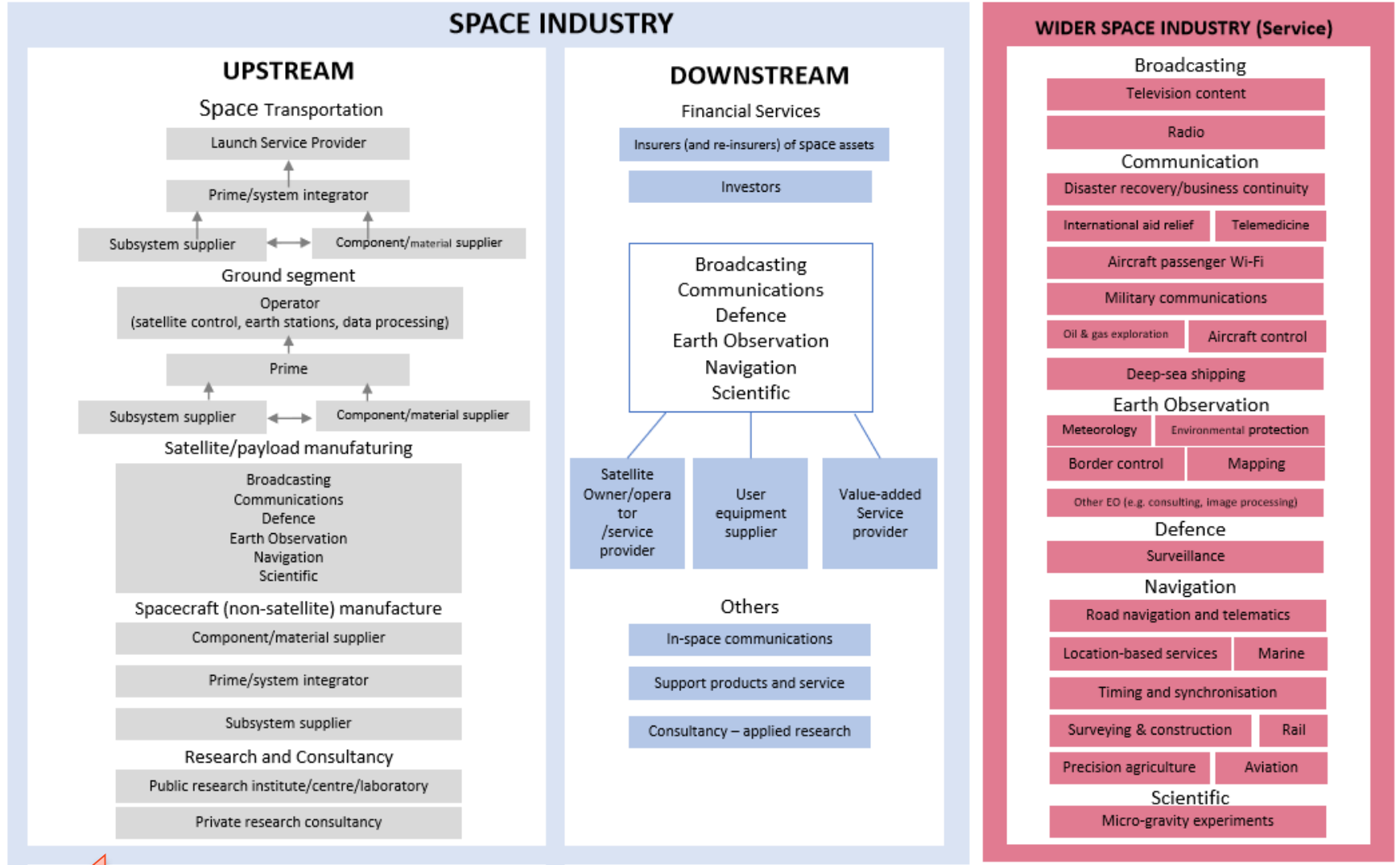
Damrongrit Niammuad, PhD
Acting Deputy Executive Director, GISTDA

damrongrit@gistda.or.th



Space Economy

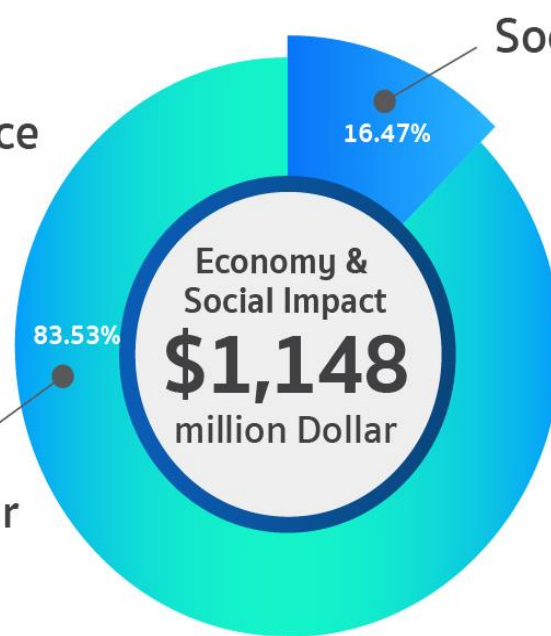
Space industry in Thailand are Downstream Economy rather than Upstream or Manufacturing based economy



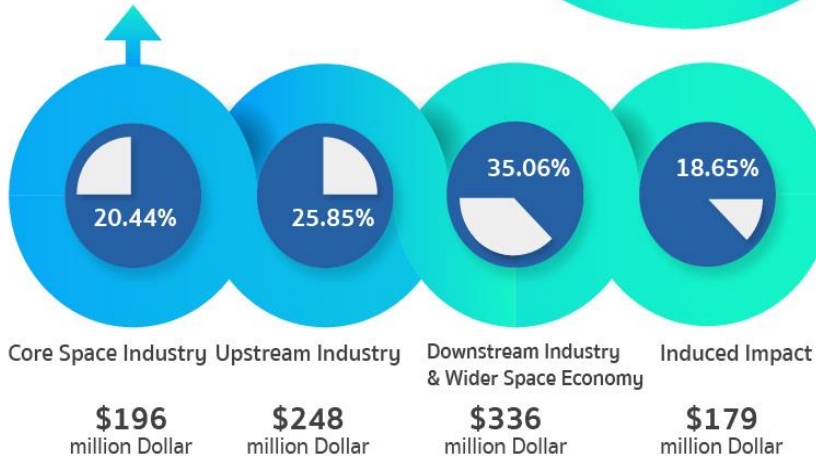
Development direction: from services to manufacturing

Value added in Economic & Social Impact in Thai Space Industry

The Size of Thai Space Industry in 2018



Economy Impact
\$959 million Dollar



Social Impact

\$189 million Dollar



Economic impact under Employment.

Type	Number of people
Direct Impact	16,271
Indirect upstream	2,966
Downstream Industry & Wider Space Economy	6,687
Induced Impact	10,938
Total	36,862

Revenue of 2 promising aspect of Thai space industry.



* Source: National Institute of Development Administration, 2019.

Aerospace Industry Ecosystem

2 main sectors – Manufacturing and Services

National Infrastructures

- THEOS 2 program
- GNSS CORS
- National GNSS Data Centers
- National Aerospace Laboratories
- Small satellite programs

Policy – National Space Program

Standards

R&D/HRD

International Collaborations

Economic Development
Government sector

Aerospace Industry Development

1

Aerospace Manufacturing

- Satellite
 - Small/Micro Satellite
 - Satellite subsystems
 - Satellite components
 - Ground Systems
- Aviation
 - MRO
 - Aircraft components, Cables and accessories
- UAV

2

Aerospace Applications (Service)

- Earth Observation & GNSS
 - City planning
 - Location Based services
 - Vehicle Tracking
 - Precision Agriculture
 - Construction
- Space Science and Exploration
 - Manned Exploration
 - Scientific mission

Development Process:

- Training
 - Hands on training
 - Collaborative program between industry and Government
- Standardizations
 - Factory Quality Assessment
 - Technology Roadmap
- Business Development
 - B2B meeting
 - Factory visits

Economic Development
Private Sector