



*APRSAF Space Education for All Working Group*

# **Advancing space education in Asia-Pacific: best practices and policy challenges ahead**

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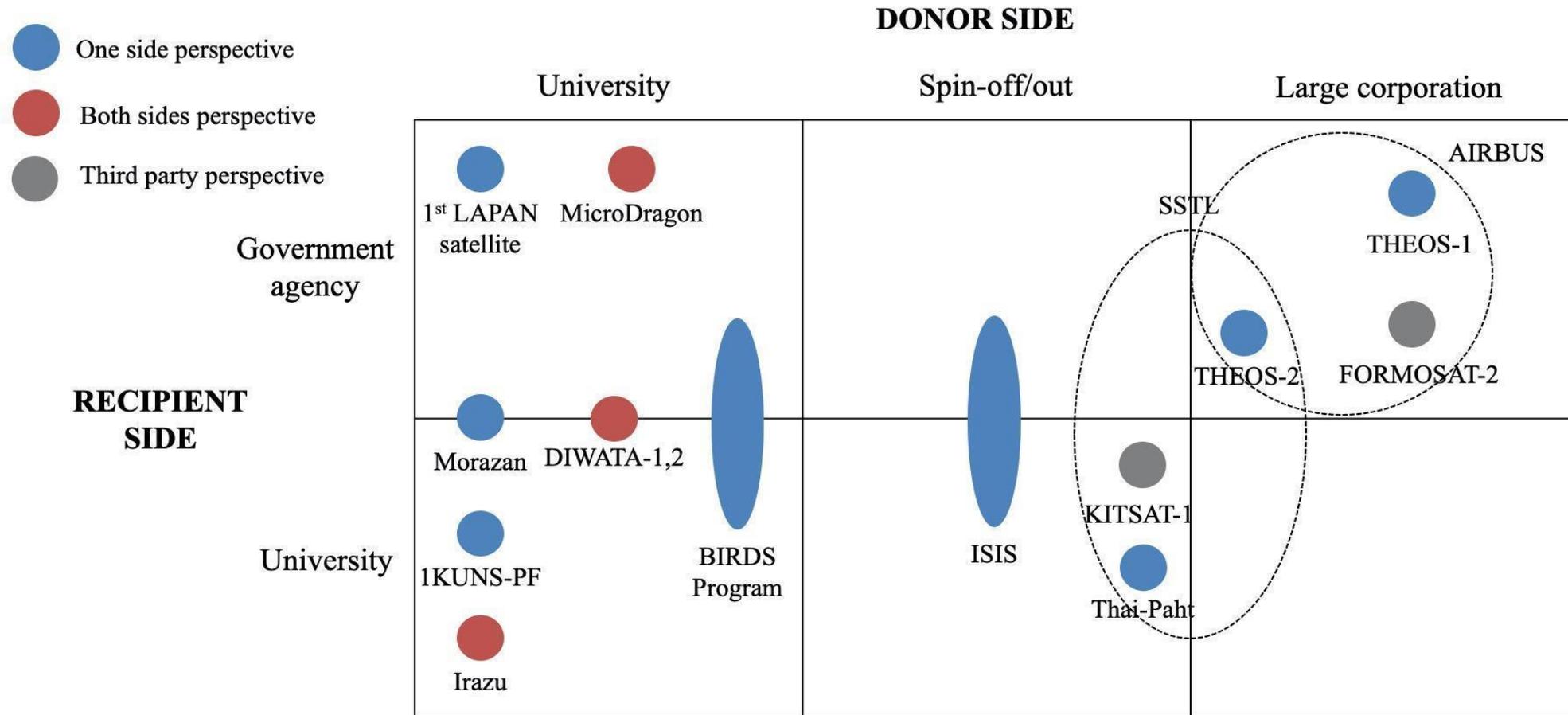
Science, Technology, and Innovation Governance (STIG) Program

The University of Tokyo

## Anything that contributes to building space technology development and/or utilisation capacity in an organization, a country, etc.:

- Initiation to space activities (for primary/middle/high schools)
- Introduction to basic guidance, autonomous embedded systems (e.g. CanSat)
- Hands-on learning on space systems replica (e.g. HEPTA-Sat)
- Development of actual space systems (e.g. CubeSat and higher)
- Capacity building in space technology development and utilization
- Capacity building in space law, policy and strategy
- Etc.





Examples of projects analysed in: Verspieren, Quentin, Yuichiro Nagai, and Hideaki Shiroyama. 'Evaluating Japanese University-Led Space Technology Development and Utilisation Capacity Building Programmes in Emerging Countries'. STIG Space Policy Report. Tokyo, Japan: Graduate School of Public Policy, The University of Tokyo, March 2021.

- All projects focus on **transferring knowledge and technology** => very easy
- Complexity and success lies somewhere else: **relevance and sustainability**
- **Relevance = adapted to local needs**
  - What type of knowledge and technologies are needed?
  - What scale of capacity building project?
  - What size of trained workforce is appropriate? Etc.
- **Sustainability = maintaining and developing the knowledge acquired**
  - Knowledge retention strategy
  - Long-term budgetary and technology development vision
  - Human resources management strategy, etc.
- **Requires a well-designed policy**
- Some **good practices exist (previous speakers)**
- UTokyo has projects on this topic => **partnered with UNISEC-Global on a project**

## **Vision**

Promoting virtuous governmental policies in support to space education

## **Research goals**

- (1) Collecting and analysing existing policies worldwide and acknowledging best practices
- (2) Devising and proposing innovative policies in support to space education

## **Main outcome**

Annual report published by UNISEC-Global and partners

## **Governments with an established space program**

- (1) Opportunity to compile and review existing space education policies
- (2) Benchmark against the policies of other nations
- (3) Implementing or experimenting some of our policy recommendations

## **Governments of emerging space countries**

Access to a list of best practices on which to build a sustainable space program

## **People or institutions benefitting from space education policies**

- (1) Raised awareness of programs/opportunities
- (2) Higher quality/frequency education programs
- (3) Increase in volume/efficiency of funding
- (4) Research opportunities domestic/international

## **Private entities involved in capacity building**

Support towards innovation/commercialisation of private space education solutions

## Data providers

**Type:** government, industry, academia or non-profit organisations

**Roles:** provide data and information on existing policies and their implementation

## Research partners

**Type:** Academia, think-tanks or non-profit organisations

**Roles:** develop the methodology, analyse the data and publish the annual report with UNISEC-Global

## Our only objective

Promoting quality space education by collecting,  
acknowledging and widely sharing best practices

**To join us, contact UNISEC-Global**

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**Thank you for your attention**  
**Questions? Comments?**