

# Conference to promote the use of space technology and solutions for sustainable agriculture and precision farming



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Cooperation with  
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# **Global Supply Chain and Satellite Technology to Support the Agriculture Sector in Central America**

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# Abstract

- This official document is divided in two phases, and its main scope suggest to unify efforts to establish a plan to build a Center of Multilateral Aerospace Activities: Eurasia - Central America, High-Tech Hubs and Development.

## Cont

- The aim intends funding a Research, Development and Innovation Center to specialize in the sectors of Information Systems (IS) - Education, Industry, Governments, Hard & Soft Skill Progress. The purpose includes to nurture specific areas of the broadly Aerospace field.

# Purpose of the R&D+I Center



**Aerospace Technology**

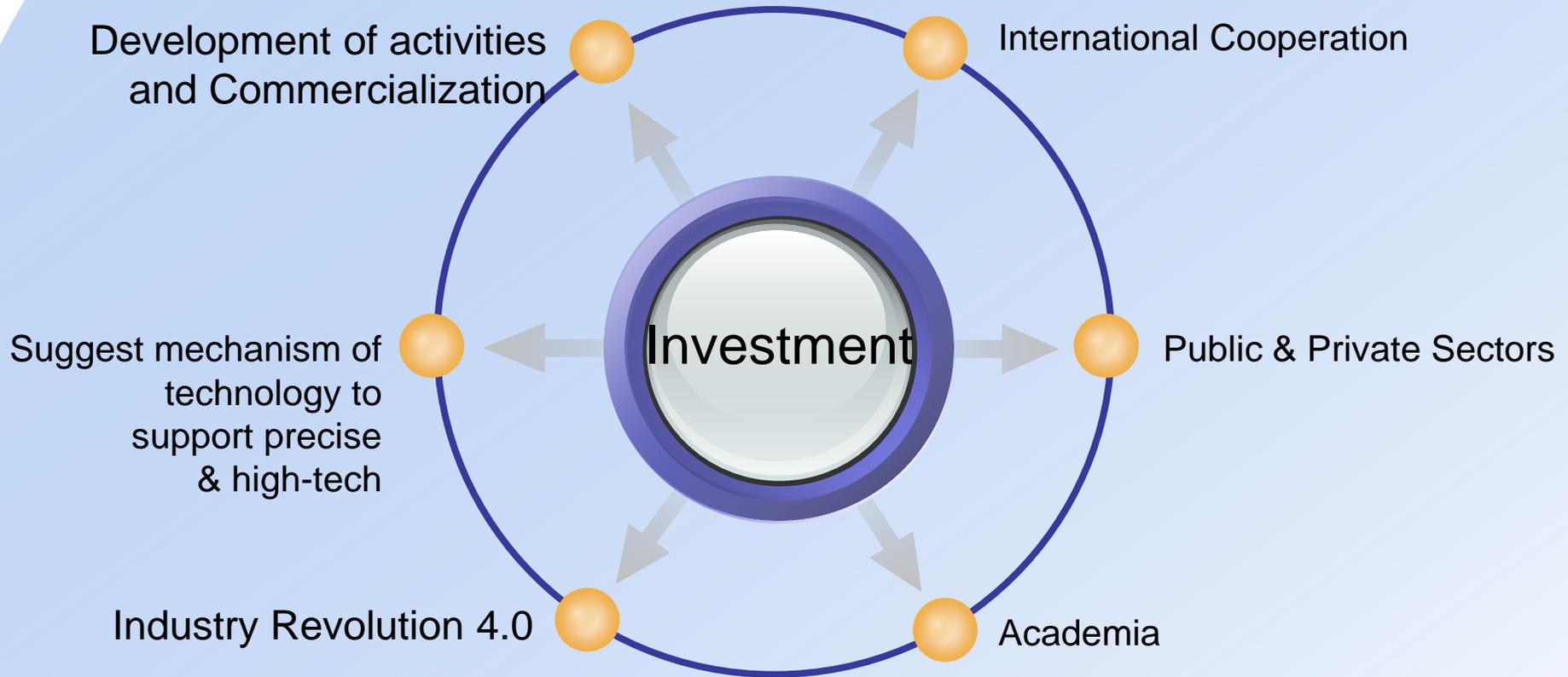
**Duy Tan University,  
Da Nang, Vietnam**

Ambitions to safeguard, adopt new techniques, mechanisms, teaching and tailored training programs, promote sustainable growth, etc.

**ESAI**

Call for Investment (CFI) or Call for Proposal (CFP) in connectivity with the recent announcement made by the Central Government of El Salvador to allow a freely Special Economic Zone (SEZ)

# Target Areas: Eurasia - Central America Center



# Pacific and Dry Canal Corridors – Central America



# Cont



## Key remarks:

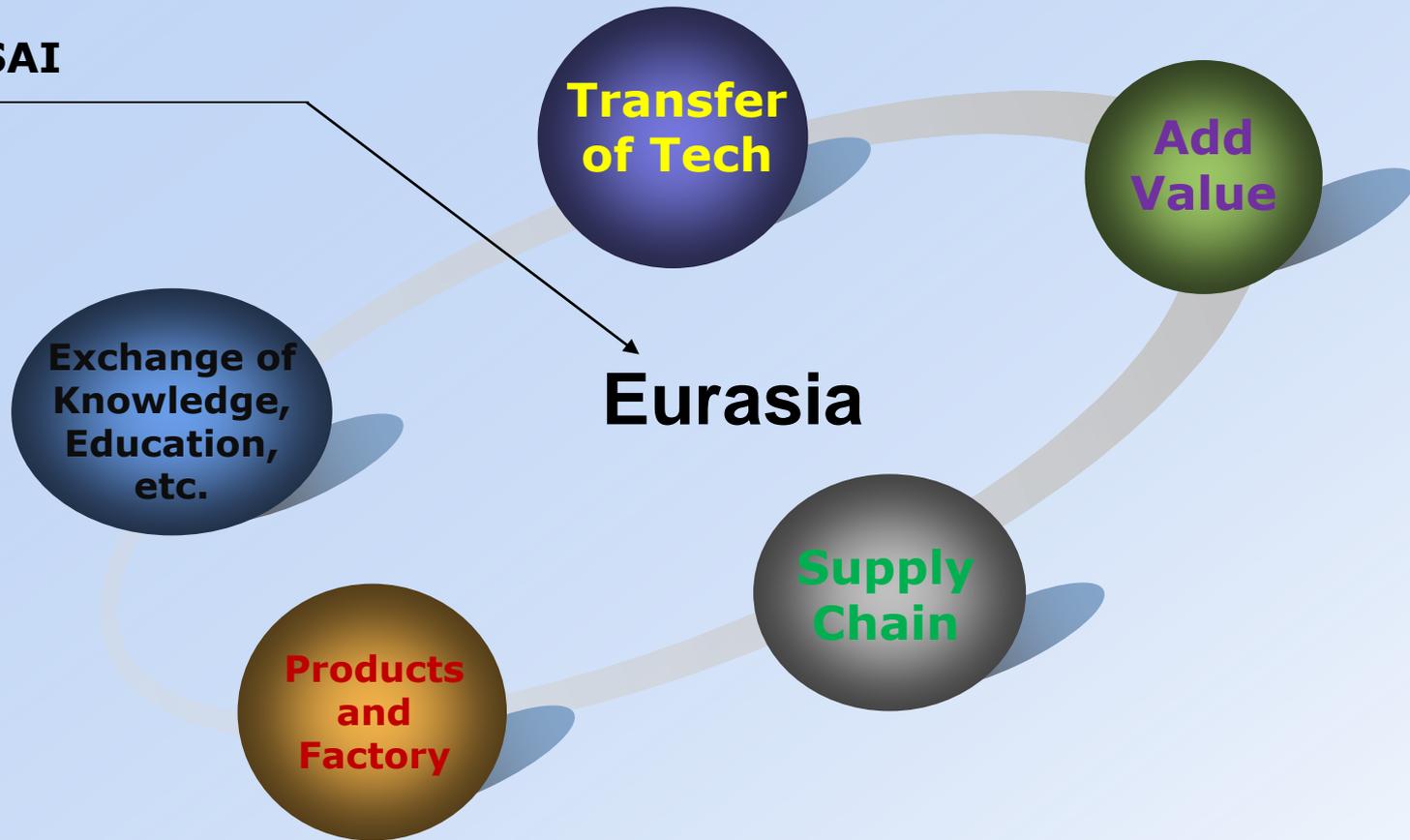
The red line in the map, indicates the Pacific Corridor scheme and how it connects present and future activities coming from Nicaragua (where is expected to build a Canal), it cross El Salvador, Honduras and Guatemala. The Pacific Corridor also include countries like: Costa Rica, Panama, Mexico, the United States of America. The Corridor, connects strategic ports, borders and cities, then continues its route bound to the West Cost of the United States of America (with the possible inclusion of Canada).

The blue line indicates the Dry Canal initiative which has as a starting point La Union Port. The Dry Canal moves through certainly cities of El Salvador, making a “short stop” in the Port of Cortes, Honduras; then continues its route through Belize, Mexico bound to the East Cost of the United States of America (with the possible inclusion of Canada).

# Vision and Planning Strategy



**ESAI**





# Some Projects of Cooperation

# Agriculture and Central America



Potential Investments  
from China, Korea, etc.

**New Free Trade  
Agreements**

Expansion of  
Business

**New Logistic  
Hubs for Asia  
and the World**

Trading of Goods

Promissory Industry

Special Economic Zones

**“North - South - East – West”  
transport Pacific and  
Dry Corridor of Central America**

# Aerospace Technology for Central America





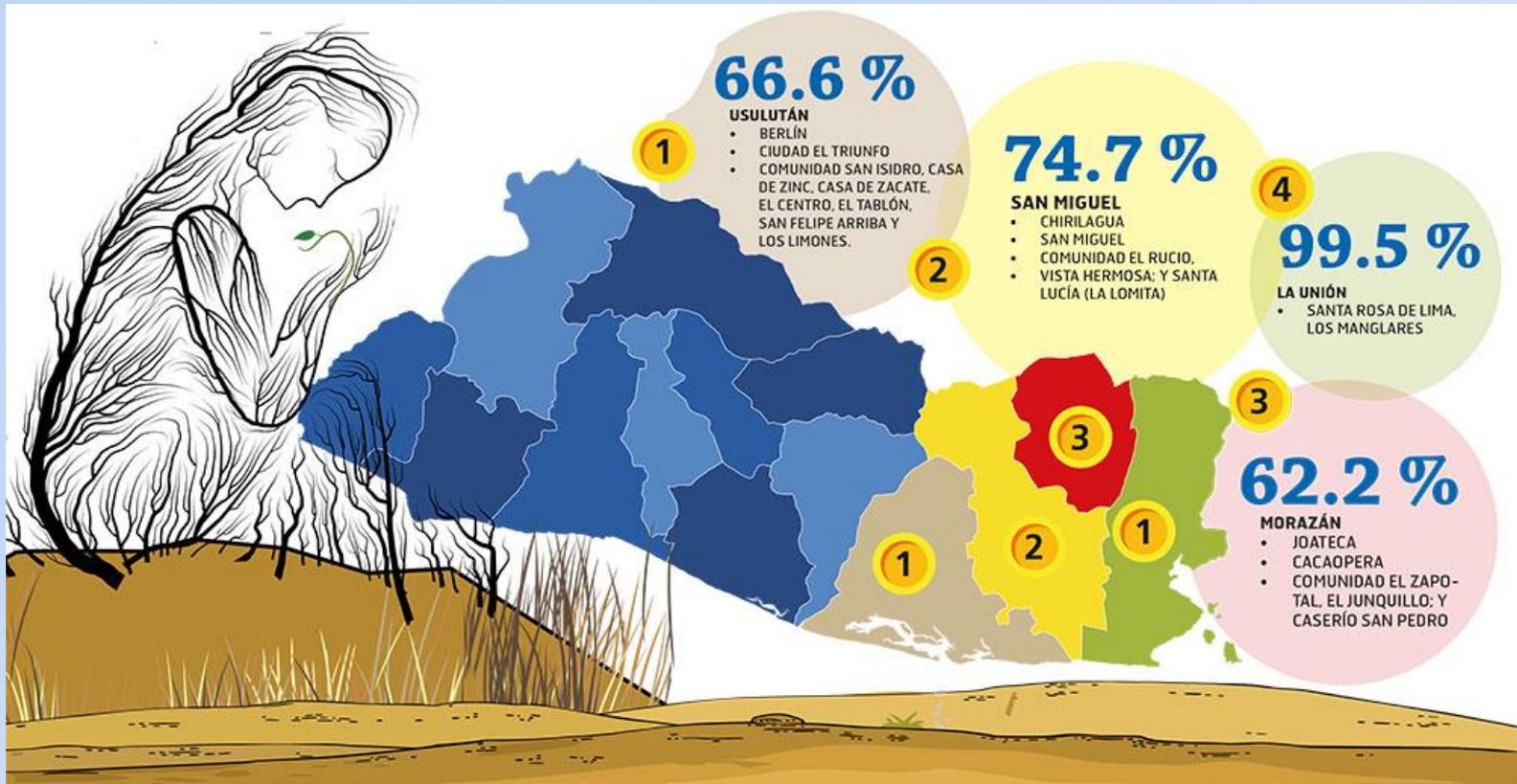
United Nations Organization for Food and Agriculture (FAO), Alan González,

About 8 days ago from now, **FAO: El Salvador, the country most affected by the drought in C.A.**

**The main problem? Drought.....**

The geographical position of the country, in the heart of the dry corridor of Central America, makes it more vulnerable to the phenomena of climate change that affect agriculture.

# Suffering Aereas – El Salvador: El Niño...



# Central America Agriculture Industry and Vietnam



- Some approach and cooperation with Asia has been negotiated in recent years, El Salvador has sign, Free Trade Agreements, Open New Embassies in Asia, Business Offices, and Intensively approach investments for various projects, aiming to cooperate with the world, and Asia in special case of economic trends.

# Cont



## Core Factors

### Potential Market

- Necessity of New Methods
- Improvement and New Technology
  - Aerospace and Agri/Agro Tourism Industry
- City Development

**Strong Tourism Industry**  
**Aerospace Investment**  
**Young Population**

### Aerospace for Agriculture and Tourism

- Performance and Mass Production
  - Employment Ratio
  - Use of IT Systems
- Commerce and Services
- Resilience/ Climate Change
  - New Research Tech
- Global Market/ Use of GIS

IT opportunities to cover all the central area of Vietnam

# Reasons of Cooperation



The recent interest of countries like China (mainland) to extend a cooperation and investment strategy in Latin American countries, are opening an interesting program of projects, specially in the following target areas:

- Logistics Activities
- Global Supply and Chain Values
- Aerospace Industry
- Port Administration
- Etc.

# Cont

- The Belt and Road Initiative (BRI) project has become one of the main reasons to invest in Latin America for areas of infrastructure, port, logistics, aerospace, and natural resources management (water, agricultural production, monitoring of maritime-port activities, etc.)

## Cont

- On the other hand, the investment intentions to build an interoceanic canal (Nicaragua Canal), which the initial investment consists of \$ 50 billion USD, invites the international community to keep an eye on the Central American region.

# The Nicaragua Canal





# Contribution of ESAI

- With the objective of supporting this series of aerospace initiatives, and being the main interest of ESAI; as it represents “a country project”, ESAI, recently has officially announced to various agencies, governments, public and private companies, the vigorous cooperation and offer to the world the long-term lease of 100 hectares of land to execute the project "Aerospace Industrial Park", which is coordinated by the government of El Salvador, through the Law of Special Economic Zones. A 25 years “zero” tax exceptions will be granted to investors, etc.

# Policy of Investment – El Salvador - ESAI

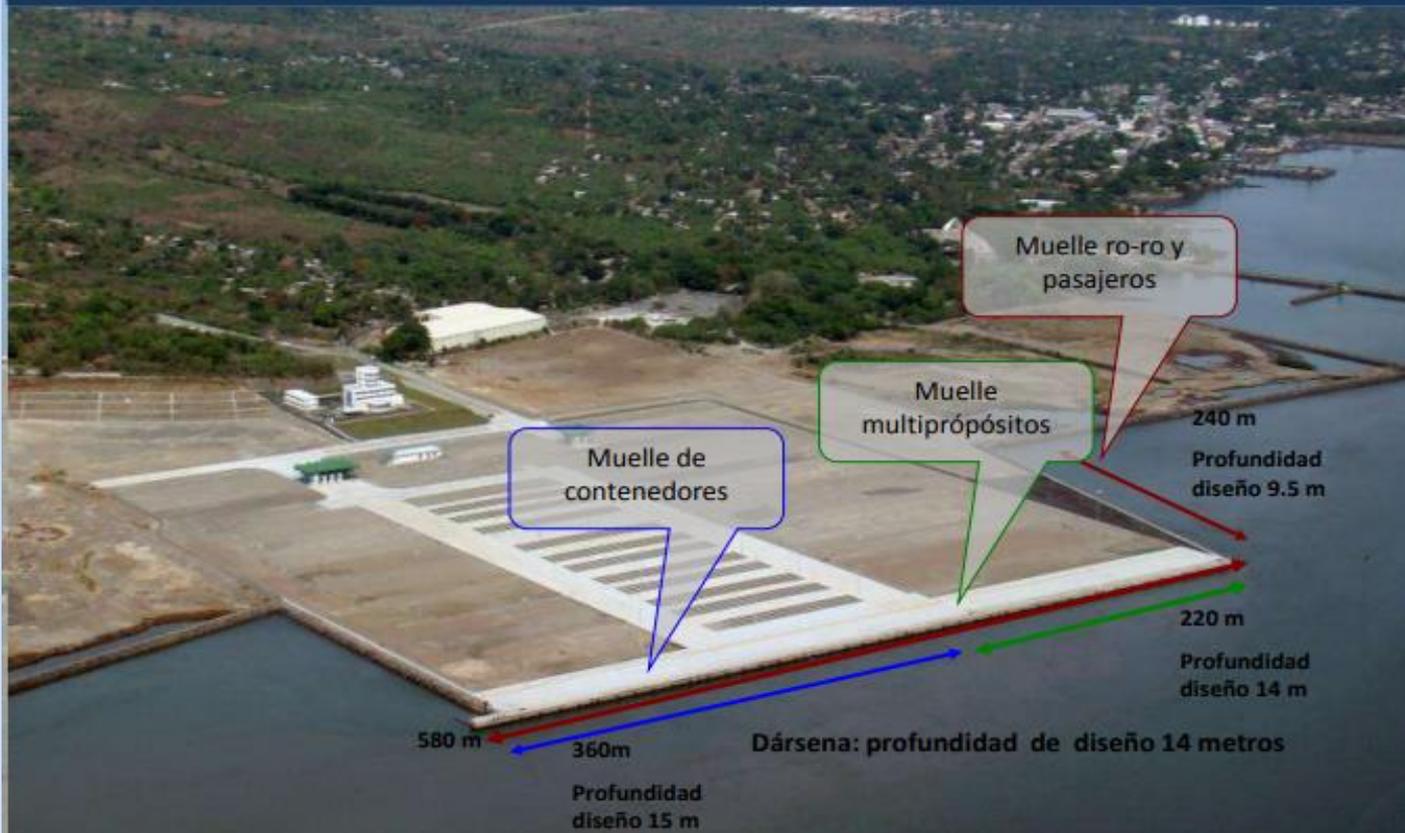


Name of the Project	Reason of the Project	Minimum Investment Required	Policy of Cooperation
Developer of Infrastructure	Supply the construction (building, assets, etc.) of future companies coming to operate in the SEZ, etc. the Project includes but is not limited to: <ul style="list-style-type: none"> <li>- Industrial Polygons</li> <li>- Equipment and other facilities</li> <li>- Maintenance, Operations, etc.</li> </ul>	\$20 million USD*.	<ul style="list-style-type: none"> <li>- The policy to become a Developer of Infrastructure will grant a long term basis.</li> <li>- The required investment should be done within 3 years since the starting of operations.</li> <li>- Certification and Authorization rights as a Developer will be granted by the local and central government of El Salvador.</li> </ul>
Economic Investor Operators	The investor will have the potential to offer the following services: <ul style="list-style-type: none"> <li>- Aerospace, Logistics and Training Centers</li> <li>- Warehouse and Distribution Centers</li> <li>- Aerospace for Freight Transport, etc.</li> </ul>	The investment should be between \$3.0 - \$5.0 million USD*.	<ul style="list-style-type: none"> <li>- The required investment should be done within 3 years since the starting of operations.</li> <li>- The investment can be exchangeable either by doing the required investment cited in the Developers Infrastructure project or following a policy of generating directly employment.</li> </ul>
Ubiquitous Technology Cooperation	To offer the opportunity of sharing knowledge and technology start-up development. The main fields include but are not limited to: <ul style="list-style-type: none"> <li>- GIS services, and Research, business, education, etc.</li> <li>- RFID, IoT, AI, Automation, Innovation Lab, etc.</li> <li>- Satellite Tracking and Tracing Technology for Containers, etc.</li> <li>- Skill Development Programs for: People, Companies, Governments, etc.</li> <li>- Ground Station to Monitoring Maritime activities through Satellites</li> <li>- Other Services and Intelligence Businesses, etc.</li> </ul>	The investment ranks between \$10 million - \$50 million USD*.	<ul style="list-style-type: none"> <li>- Flexible requirements of investment</li> <li>- The planning strategy includes generating cooperation with El Salvador Aerospace Institute – ESAI and LAA GLOBAL directly and others locally and international to develop the technology infrastructure, etc.</li> <li>- The investor should decide over this way of cooperation to determine its inclusion in the SEZ in case of looking to benefit of the SEZ tax incentives proposed by the government of El Salvador; otherwise the investor, must follow all the other Salvadoran laws regarding the investments, paying taxes, etc.</li> </ul>

# Aerospace Industrial Park - Port of La Union, El Salvador



## Port La Unión Facilities



# Cont



**First participation of ESAI and signature as a permanent member of the International Space Training (IST), KARI, Daejeon, South Korea, 2016.**

# Cont



**An overview and surrounding area of the ESAI planning project; the land is exactly on the bypass at La Union Port (around 700m of distance from the main gates).**



**A second overview, area of the land and on the main bypassa at La Union Port.**

# Aerospace and Tourism in Da Nang City

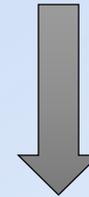


New Shift and Industries

Steadily Investments

New Fields and Potential

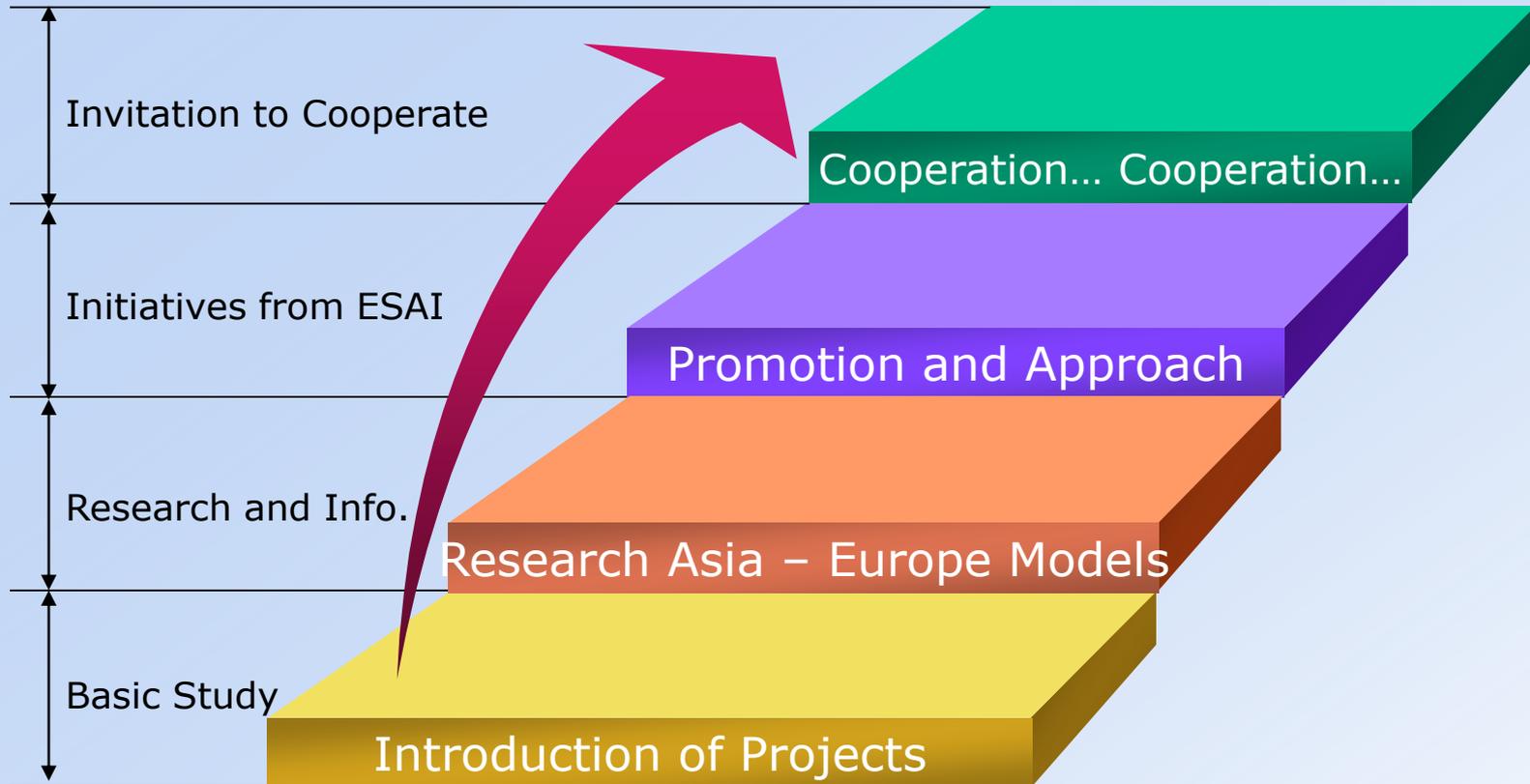
Vietnamese High-tech  
Park, and The first  
Operational Factory:  
Aircraft Parts and  
Satellite Industry



**Universal Alloys  
Corporation (UAC)**

Lamar Haley Parkway  
Canton, GA. USA

# Process and Development



# Thank You !



UNOOSA

