A Pathway to Shared-Prosperity

- Development Aid through Science & Technology -

World Ocean Forum 2019

Oct. 30~Nov. 1, Pusan, Korea

Kum Dongwha

President

Vietnam-Korea Institute of Science & Technology

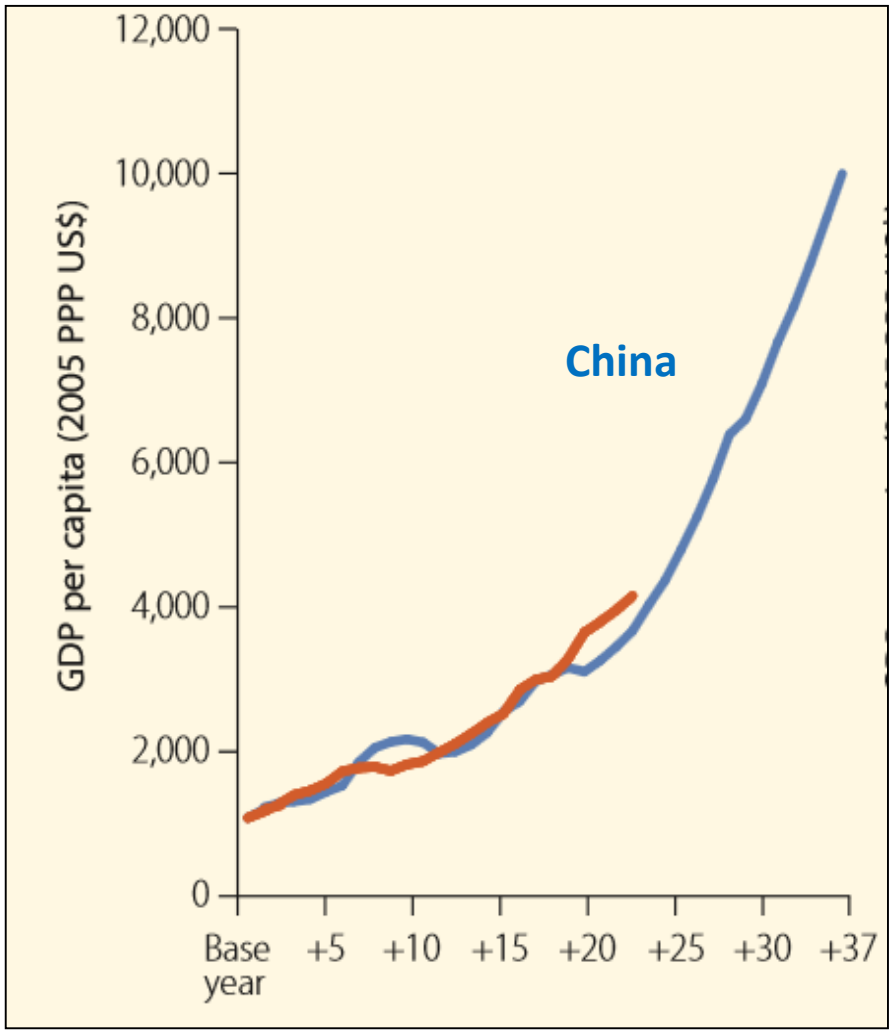
New Southern Policy


01
Site Layout
Bird's View

VKIST Project at a Glance

- **Mission : Leading institute in research on applied science and development of advanced technologies fused with sustainable economic advancement.**
- **Established based on the Agreement between Governments of the Socialist Republic of Vietnam and the Republic of Korea**
- **Location : Hoa Lac Hi-Tech Park, Ha Noi (Area: 196,913m^2)**
- **Budget : $70M ($35M by Korea + $35M by Vietnam)**
- **Period : 2014 ~ 2020 (extended two years)**
- **Construction Plan :**
  - Building(79,512m^2) : Labs(3), Administration(1) & Utility Plant(1)

Vietnam, post-China?



The Economist
(September 7, 2016)

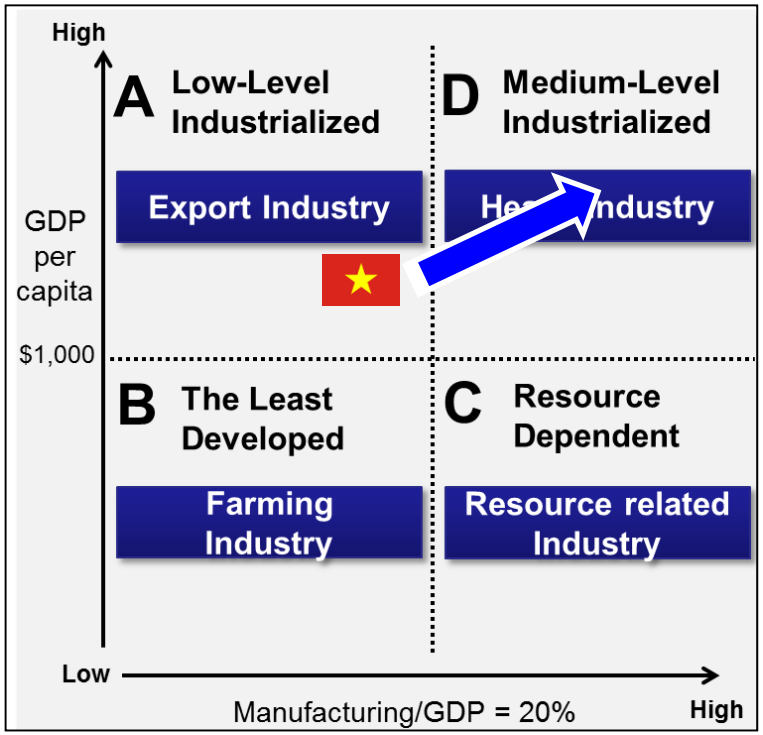
Vietnam is poised to become Asia's next economic tiger. Like Korea, Taiwan and China before it, Vietnam is piecing together the right mix for rapid and sustained growth.

Vietnam 2035, WB (2016)

Vietnam on a Development Ladder

- **Lower middle-income country**
  - GDP per capita of $2,343
    with 6.9% growth rate(2017)
  - Trade volume of $425B with
    $2.7B surplus (2017)

- **Low-level Industrialization Economy**
  - Manufacturing in GDP: 15.3%(2017)

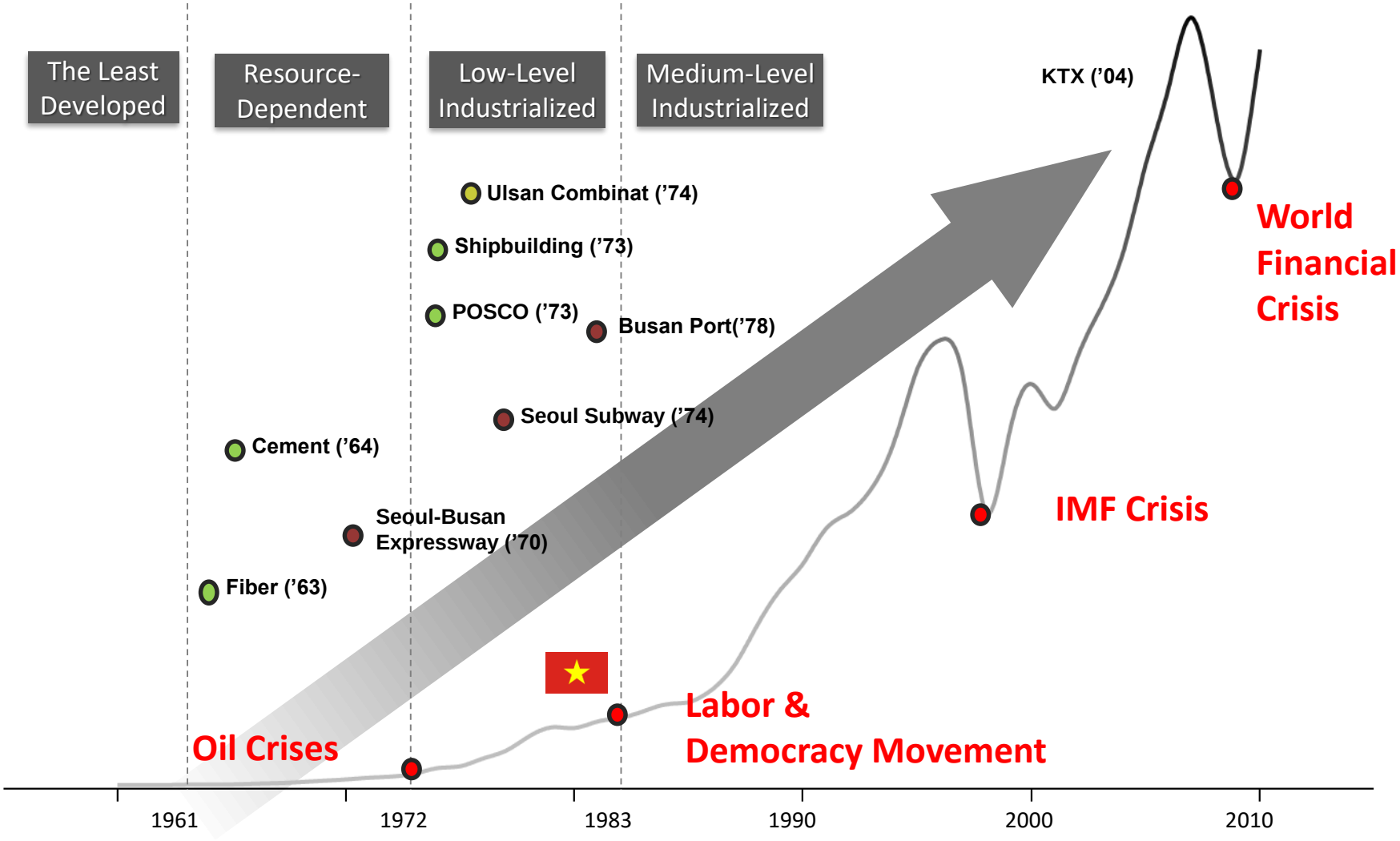


Why Korea?

&

Why KIST?

Korean path to a world economy



1966

KIST Korea Institute of Science and Technology

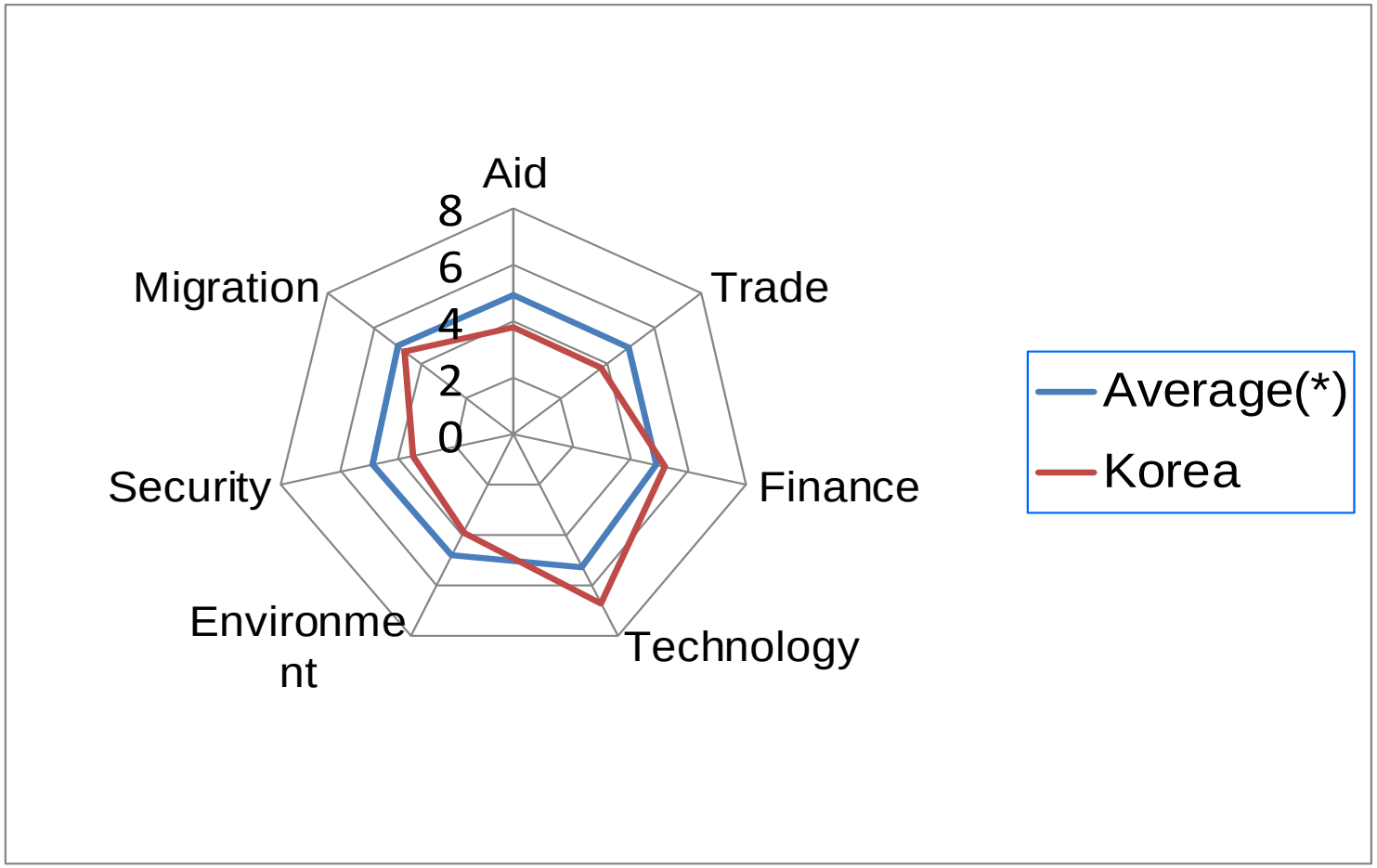
1929

BATTELLE

2014

Quality of Korean ODA

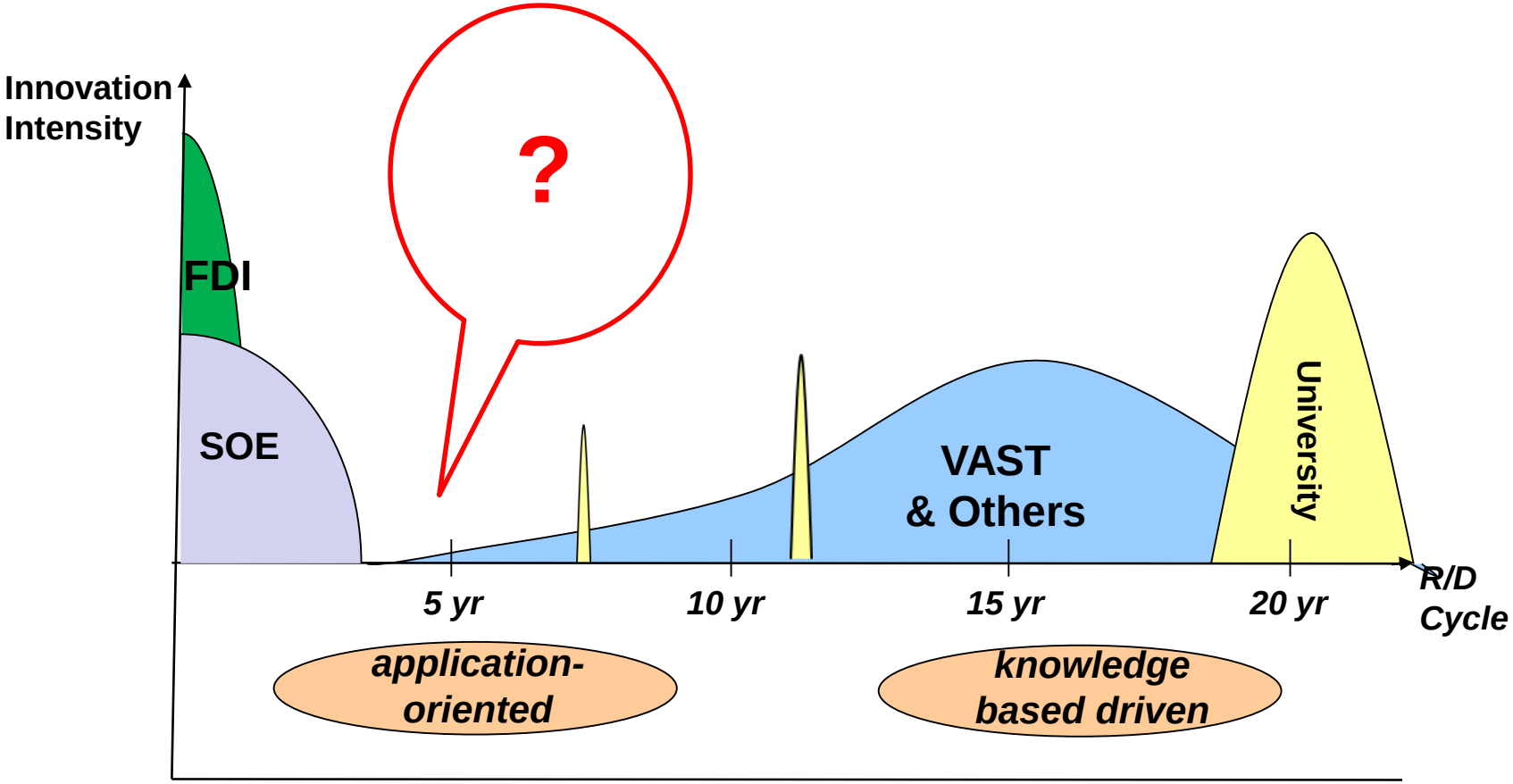
- Commitment to Development Index -



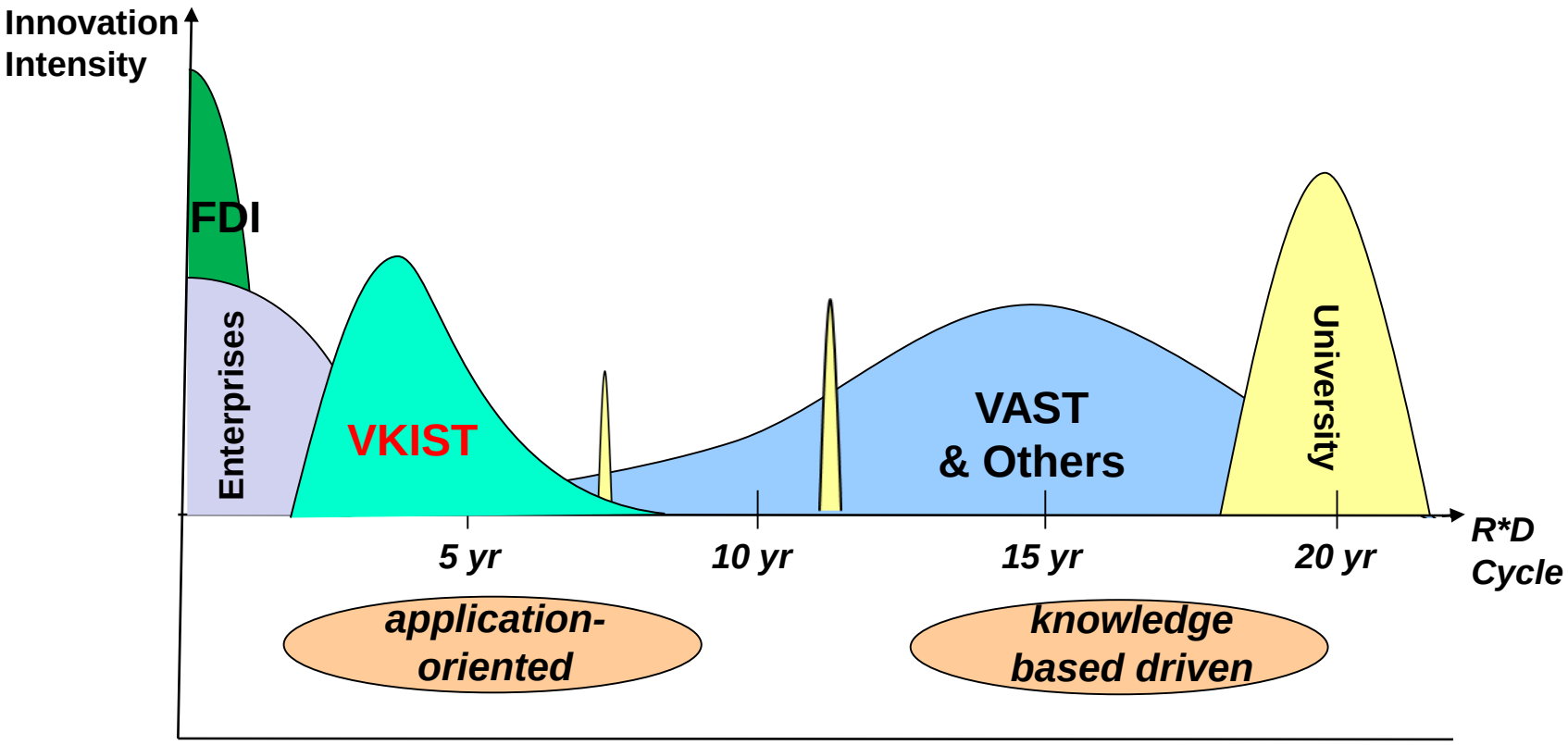
Center for Global Development, 2017

Promotion of Industrial R/D

National Innovation System, Vietnam



Position of VKIST on NIS



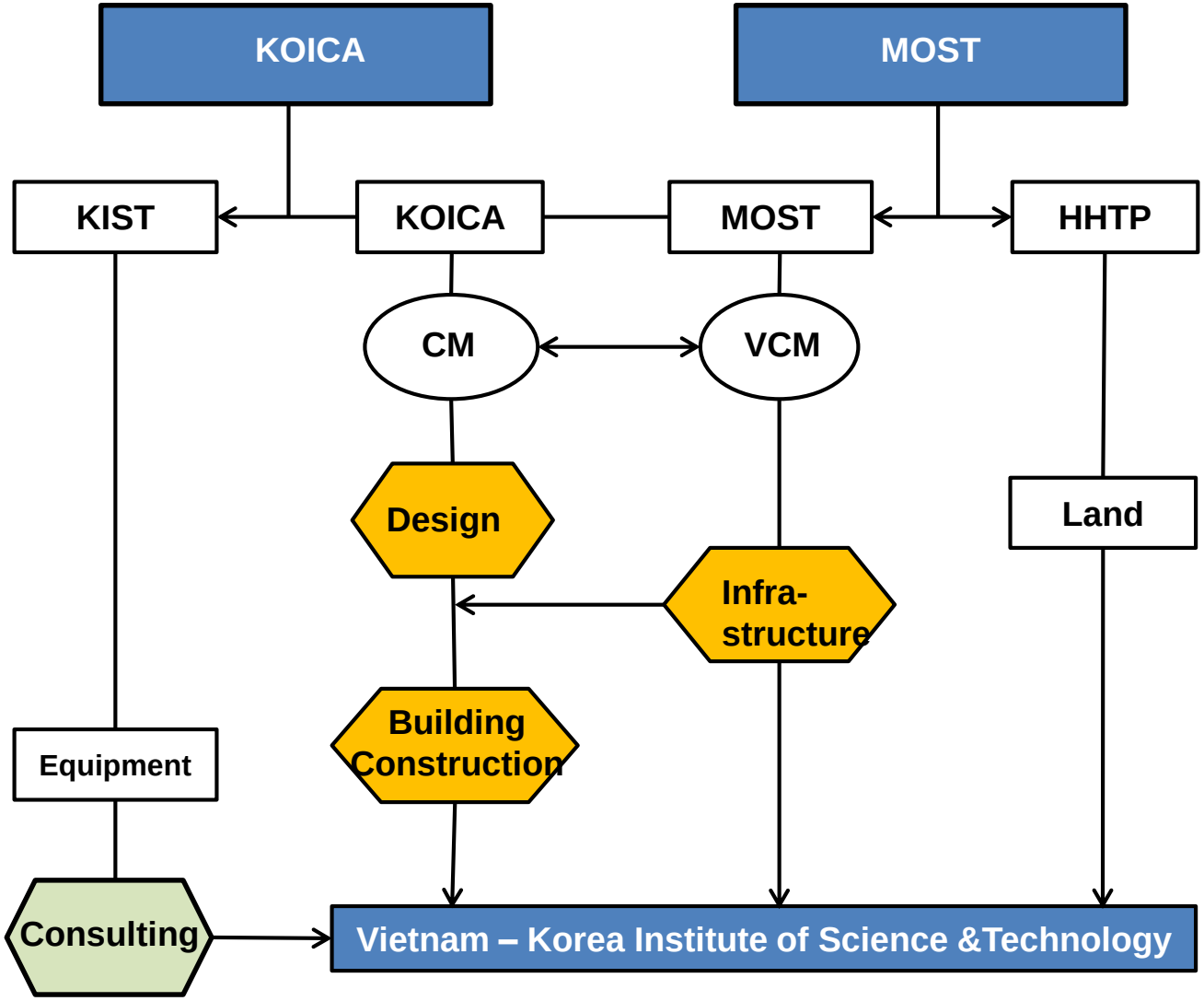
Technology solution provider for market winners!

Identity of VKIST

- Decree No. 50/2015/ND-CP -

- **Public ST agency under MOST**
- **R&D institute of industrial technology**
- **Contract R&D institute**
- **Financial autonomy**

ODA Project: Job Sharing



Priority R&D fields

Information Technology

- Electronic/optical parts & devices
- Telecommunication technology
- S/W development

Bio-technology

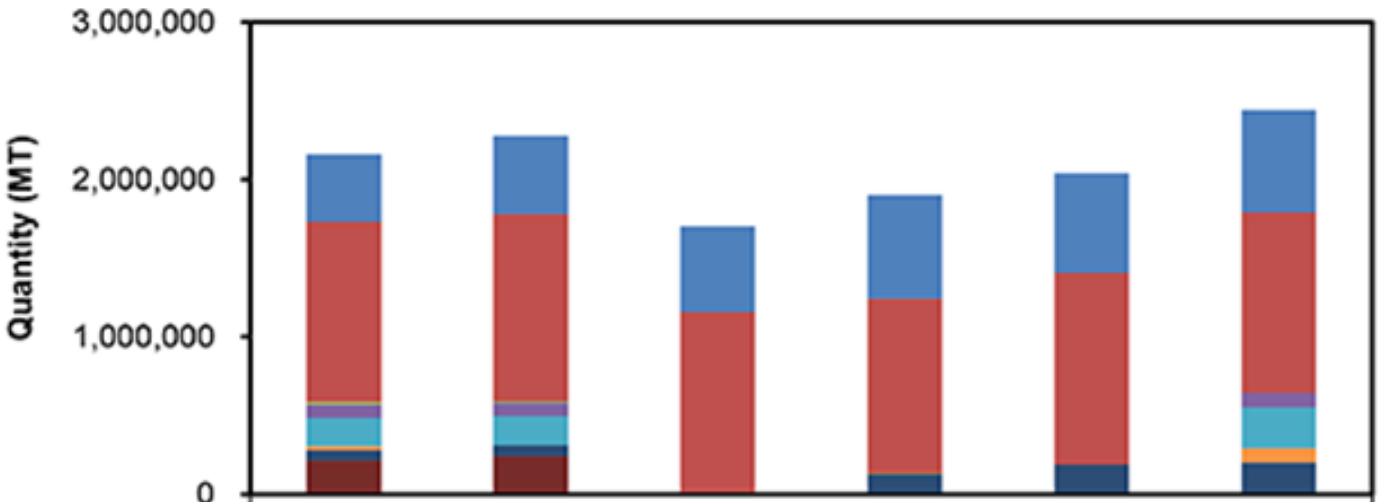
- Aqua culturing & Food processing
- Post-harvest processing & machinery
- Medicinal herb & Pharmaceuticals
- Medical devices

Example 1: *polyscias fruticosa*

MOST – MIST project (plan)

- **Company: Traphaco**
- **Contents: discover cellular effects of *polyscias***
- **Needs: correct composition for efficacy study**
- **VKIST: provide chemical analysis on demand data through KIST**

Made in Vietnam – Catfish white fillet

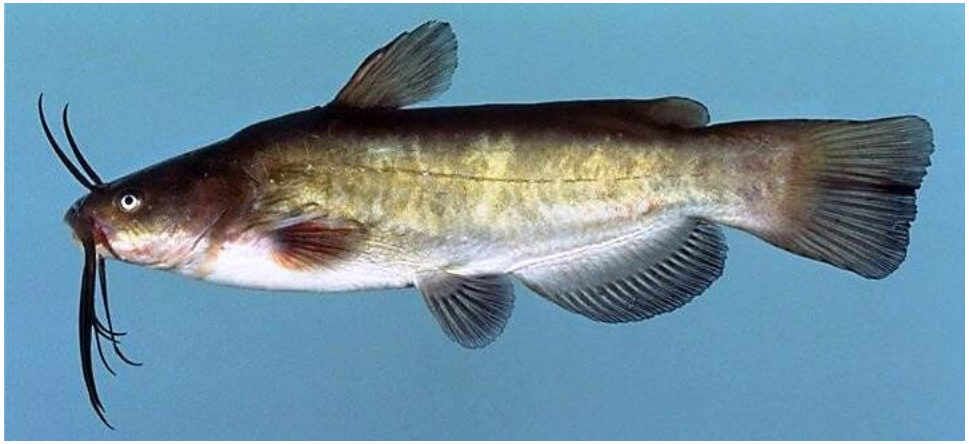


	2011	2012	2013	2014	2015	2016
Brackishwater shrimp	430,000	500,000	548,000	660,000	630,000	650,000
Catfish (Pangasius)	1,150,000	1,190,000	1,150,000	1,110,000	1,220,000	1,150,000
Giant freshwater shrimp	13,000	8,700	6,100	6,700	-	-
Marine fish	85,000	86,000	-	-	-	90,000
Mollusks	180,000	185,000	-	-	-	260,000
Seaweeds	25,000	-	-	-	-	90,000
Tilapia	65,000	66,500	-	125,000	187,000	200,000
Others	214,000	242,000	-	-	-	-
Total (MT)	2,162,000	2,278,200	1,704,100	1,901,700	2,037,000	2,440,000

Example 2: Aquaculture of Catfish

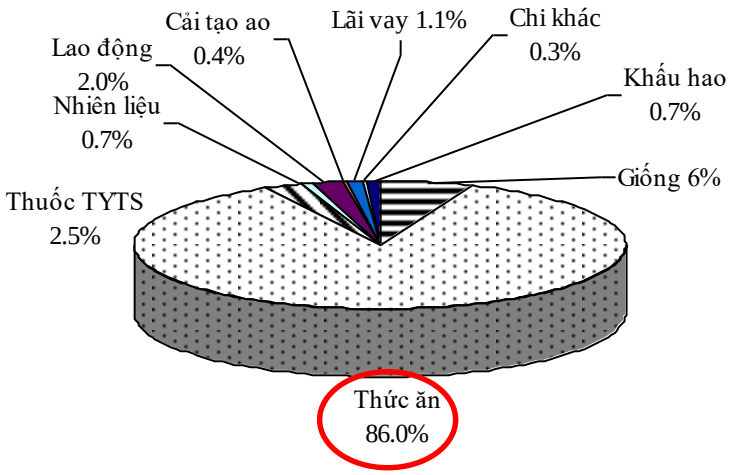
Vietnamese Catfish
***pangasius* Family**

American Catfish
***ictaluridae* Family**



Challenges – Aquaculture

Farming cost



Byproducts

Body of Pangasius	Amount (%)
Fillet	33.9
Head + backbone	40.4
Scraped meat from skin and other parts	11.7
skin	4.4
Fast separated from anterior and belly	2.2
Swim bladder	0.9
Vicera and stomach	4.6
Kidney	0.2
Blood	1.7

Value of the VKIST Project

Shared-prosperity through Footprints of KIST

Build ST Capacity
&
Speed up Industrialization

Get a Sustainable Partner
&
Raise National Brand in ST

Concluding Remarks

Greenfield ODA

***Next priming water* for capacity building of manufacturing**