

# **THE STATUS AND DEVELOPMENT ELECTRONIC CLUSTER IN HANOI MERTROPOLITAN AREA**

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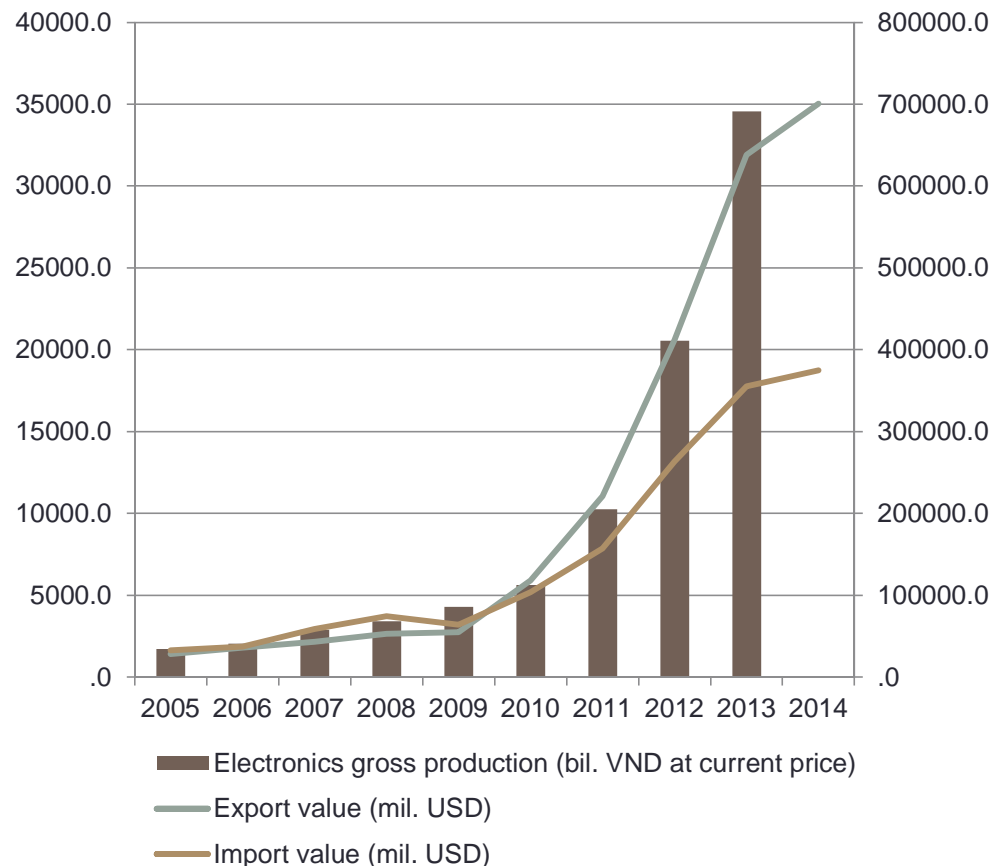
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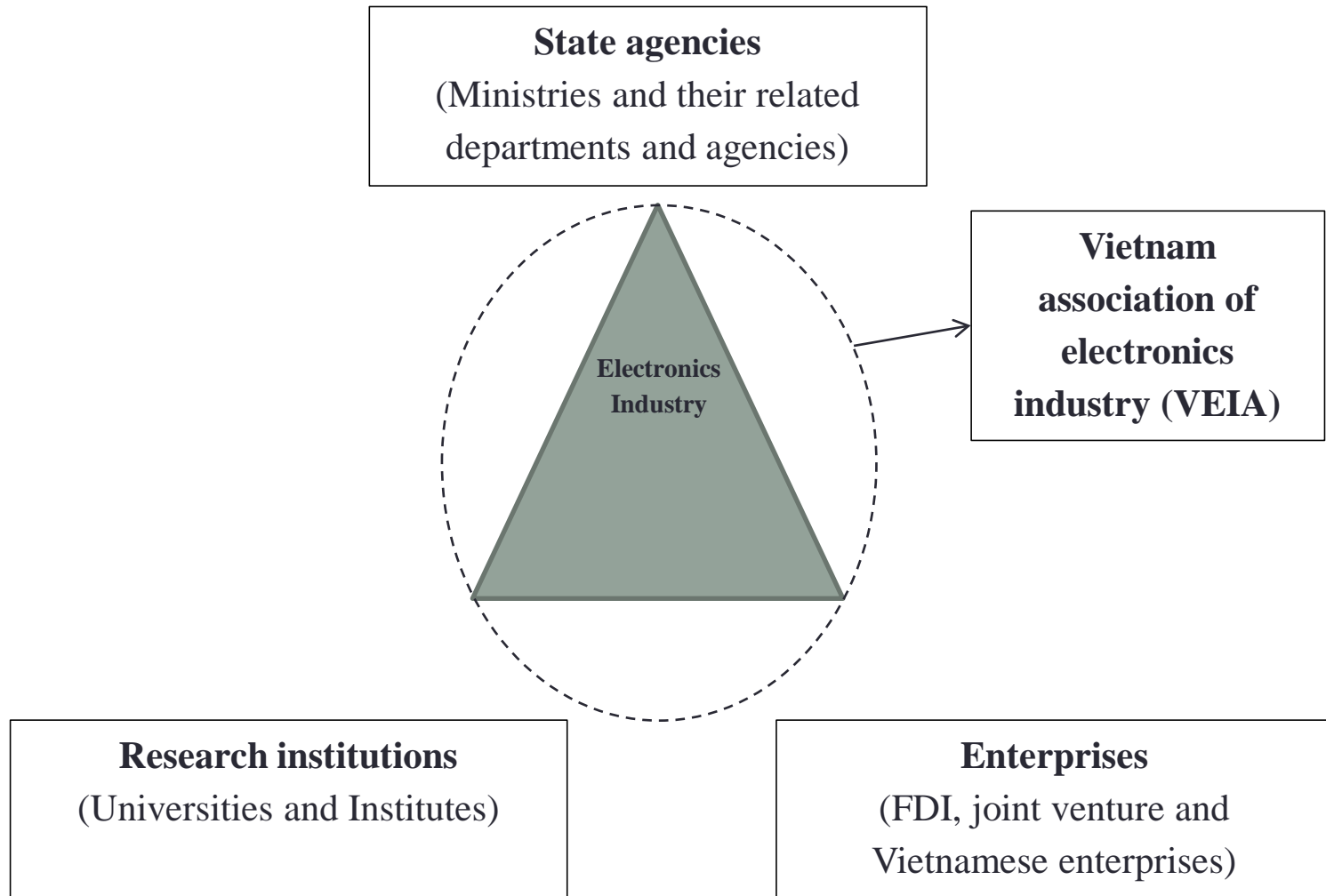
# I. Status and characteristics of the electronics sector in Vietnam

## • 1.1 Supply & demand status and features of the Vietnam's electronics industry

- - In 2009-2015: high growth rate of production output 32.0%, exports 42.7% and imports 31.1% (*Source: Vietnam GSO*)
- - Currently in the first phase of development process (assembling and processing).
- - Vietnamese enterprises: backward technological level and incapable of updating technology.



- **1.2 Agencies related to the electronics sector**



## • 1.3 Developing policies by the Vietnamese government

### • \* *List of issued documents related to the electronics sector:*

- - Laws and legal documents;
- - General orientations by the government;
- - Some policies for electronics supporting industry, electronics enterprises, targeted investment and promoting human resources (HR) development.

### • \* *06 limitations:*

- (1) Lack of development policies, plans and strategies concentrated on national key products (**now VN has degreed**);
- (2) Gaps between government policies and practical needs of enterprises, policy contents and its implementation, **especially discrimination between FDI and domestic enterprises**;
- (3) High tax, interest rate, frequently changed exchange rate, impractical policy for HR development, lack of policy for technology transfer in this field;
- (4) Lack of policy on national innovation system of science and technology (*Vietnam is currently in the second of the 4 stages of the system development*);
- (5) Lack of a national competition agency (at present, VN has 5 different agencies);
- (6) Vietnamese enterprises lack of strategies on business, high quality human resources development, poor governance and severely limited in connection, cooperation and competition (**what and how is linked in VN**).

## • 1.4 SWOT analysis

### • \* *Strengths, weaknesses:*

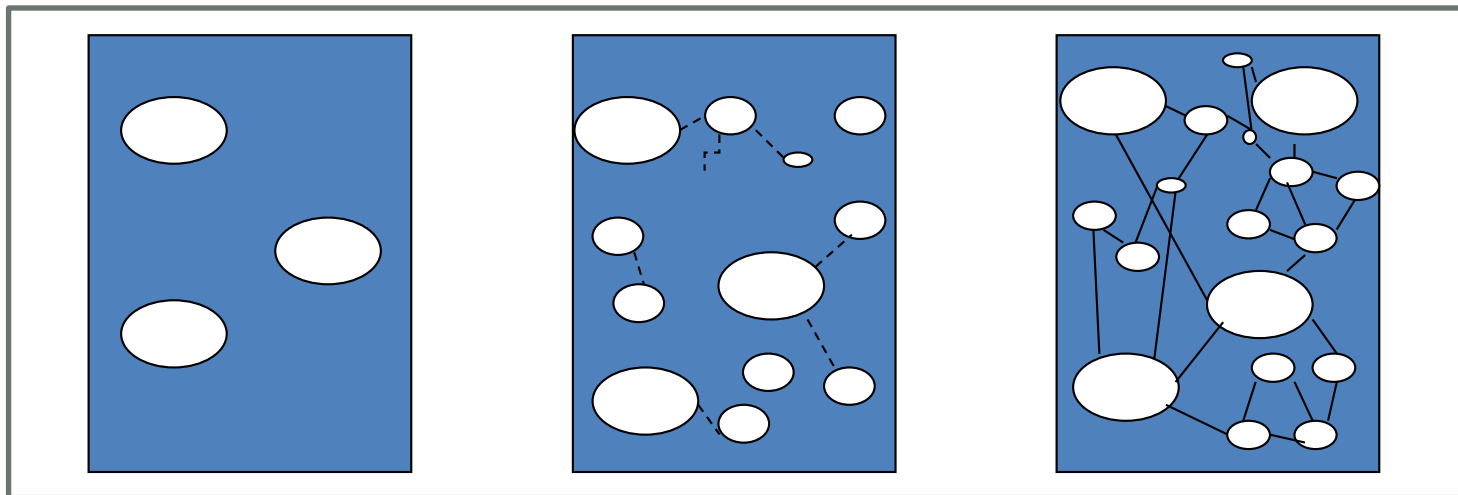
- - Competitive advantages, favorable connectivity with the outside; good conditions in land resources and climate at present; a number of products already well-known in the world market;
- - Potential market, more labour, with low prices, especially Vietnamese workers have good potential and skills;
- - However, specific key electronic products has not been identified at government site **so that VN has many think and need to do so far.**

### • \* *Opportunities, challenges:*

- - Authorities and enterprises have gradually considered electronics as a key national industry, recognized the needs of improving science and technology innovation, implementation of R&D and I&D, applying lean management;
- - Globalization and integration bring great opportunities and challenges as well, as electronics industry changes rapidly; lacking of high labor.
- - Impractical development policies, mismatch between policies and implementation; meanwhile, limited in attracting, using and developing resources, and economic institutions **(interconnected and corporate).**

## II. Status and Characteristics of electronic cluster in Hanoi metropolitan area

- **2.1 Status of electronic cluster in Hanoi area**
- \* *The cluster's spatial organization has been established (3 evidences):*
- - Currently **at the second phase in the cycle of 4 phases** of electronic cluster forming (with FDI enterprises playing decisive role);
- - The principles of volunteer, cooperation, not excluding competition, win-win basis among all actors of the cluster;
- - Large and high growth rate of production, business scale, production output, especially exports.



1<sup>st</sup> phase:  
Preparation

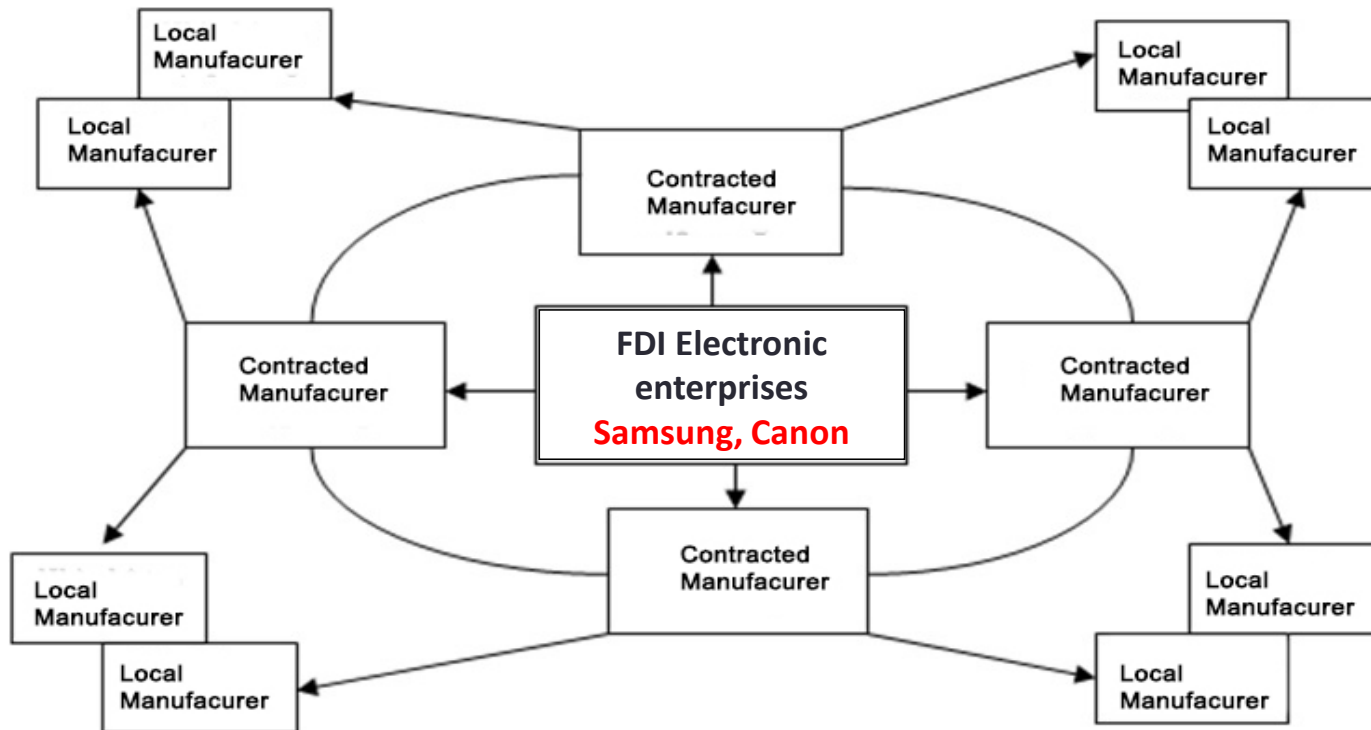
2<sup>nd</sup> phase:  
Emerging

3<sup>rd</sup> phase:  
Expanding

- **2.1 Status of electronic cluster in Hanoi area (cont.)**
- **\* *Participation situation of the cluster's enterprises in the global value chain and production network:***
  - - *Up-stream:* this is weakness of the sector, as designing is carried out abroad, main components (plastic, electronic chip, etc.) are imported from other countries.
  - - *Mid-stream:* the area has advantages with high production output of various electronic products, especially export value. VN has only assembling and processing.
  - - *Down-stream:* limitations in marketing activities due to discrimination between local and foreign enterprises (the difference of permitted cost for marketing is around 30-32% for FDIE), low capacity of local enterprises in marketing, exporting is around 20%.
- ***However, according to a survey in Bac Ninh (2013):*** -Localization rate of Canon's products (20%), much higher than that of Samsung.
- -Value added of Canon (25-28%) much higher than Samsung (10-12%)
- -One of the reasons is that Korean FDI enterprise has not paid much attention to technological transfer.



- **2.1 Status of electronic cluster in Hanoi area (cont.)**
- *\* Participation level of the cluster's enterprises in the global value chain, production network*



- *\* 03 major challenges facing actors of the cluster: 1/ labor and social issues, 2/ added value and 3/ sustainable development.*

- **2.2 Conditions of Hanoi metropolitan area for electronics cluster development**
  - - Favorable geographical location to connect, cooperate and compete with partners in other regions of the country and foreign as well.
  - - Convenient transport condition, including road system (04 expressways), railway system, 02 airports (Noi Bai, Cat Bi) and international seaports (Lach Huyen, Cai Lan).
- **2.3. Industrial Parks in Hanoi metropolitan area**
  - - 88 industrial parks in 10 provinces of the area: with high occupancy rate, highest percentage of enterprises developing hightech products in the country and rather good efficiency in production and addressing social, environmental issues.
  - - Hoa Lac high-tech park: established as a model of science city (1,586 hectares) with various specialized zones and special incentive policies (on taxes, administrative and customs procedures and other services).

- **2.4 Electronics-related infrastructure and supporting institutions**
- **\* *Electronic research institutes and universities***
- - *02 groups*: 1/ Policy, strategy development research group (VDIS, CIEM, IPSI, ILSSA); 2/ Science and technology research group (VAST, HUST, HaUI and other research institutes and centers).
- - *Positive points*: Initial successful researches and cooperation with some foreign and domestic enterprises to support R&D implementation.
- - *Negative points*: Researches are less practical and have yet to focus on potential products.
- **\* *Agencies supporting electronics industry (Table 1 of the report)***
- - *Capacity of participating in new-generation (06) trade agreements*: Ministries are still not ready, even have yet to understand contents related to electronics products.
- - *Building and implementing electronics development policies*: Many provinces provide special incentive policies to attract FDI enterprises (Bac Ninh, Thai Nguyen for Samsung).

- **2.4 Electronics-related infrastructure and supporting institutions (cont.)**
- \* *Electronics association and electronics-related organizations:* **Vietnam Association** of Small and Medium Enterprises, Vietnam Electronics Industries Association (VEIA) and JETRO in Vietnam.
- **2.5 Electronics-related technical personnel and University research institutes**
- - Electronics technical labor: + Senior experts (both working in the country and overseas)
- + Skilled workers.
- - Electronics research institutes, Hanoi university of science and technology (HUST),
  - + Faculty of electronic, Hanoi university of industry (HaUI)
    - Center for electronics, Institute for electronics, informatics and automation, Ministry of Industry and Trade.

## • **2.6 Necessity of fostering electronics industrial Cluster in Hanoi geographic metropolitan area**

### • **A. Good condition**

- - The area's potential electronic market and advantages of electronics industry.
- - Electronics product and cluster development have been identified as priorities of Vietnam.

### • **B. Limitation**

- - Vietnamese has not clear on principle on industrialization of the country and in particularly productive production.
- - Overcoming limitations for win-win principle.
  - Environment investment is inequality between Vietnam enterprises and foreign enterprises

(E.g (Bac Ninh): + Incentive policy exempt from income tax (= 0) for Samsung enterprises period of 5 years, then reduce 50% for the next 9 years and holds a lifetime investment.

+ Meanwhile Vietnam Electronic enterprises produce; the business has income taxed at 25% and just decreased to 20% at present).

# III. Suggestion of promising items for future electronic products in Vietnam

- **Development situation of some key products**

- *Output: thousand items; Value: mil. US\$*

No.	Indicators	2008	2009	2010	2011	2012	2013	2014
I	Output	8.956	9.421	14.562	15.468	15.722	17.298	16.059
1	Printer	0	6.400	37.500	79.600	109.400	132.000	181.600
2	Mobile phone	3.107	3.006	2.800	3.099	2.600	3.112	3.666
3	TV	3.751	3.159	3.273	1.469	0	0	0
4	Camera	8.956	9.421	14.562	15.468	15.722	17.298	16.059
II	Export value							
1	Mobile phone and accessories	0	0	2.307	6.397	12.747	21.253	23.598
2	Computer and accessories	2.640	2.763	3.590	4.662	7.849	10.636	11.434

*Source: Vietnam GSO*

- **04 Criteria to determine national key electronic products:** (1) concept; (2) role and position; (3) economic value and potentials; (4) social, resources, environmental values
- **List of selected key products:**

No.	Key products	Note
1	Smartphones & accessories	
	Samsung	
	Nokia - Microsoft	
	Others	
	Accessories	
2	Computer, printer and accessories	
3	TV and accessories	
4	Other products	

# The opinion on sharing of research between Vietnam and South Korea

1. It is not only to develop the report but also it needs to have site demonstration (focus on main product and enterprises of the Vietnam and the South Korea are developing and it was indicated in my report for agricultural sector last time).
- 2. By this way I supported the idea of the Dr Joo to establishment of R&D Center for electronic product in Ha Noi (It is changed methodology approach for research from two sides because at present, we only make reports included workshop).
- 3. Vietnamese needs to have good methodology approach for development of this cluster (policy balance for two side on main product and implementation; interest rate low; Vietnam enterprises are interesting on productive production **(discovered and worried by Dr Jo?)**)
- 4. South Korea should be changed the methodology approach for win - win of two sides. The enterprises of South Korea are transferred technology to Vietnam enterprises in the same products **with the condition of supporting from two sides of government.**



• **Thank you!**