

MINISTRY OF INDUSTRY AND TRADE

**MASTER PLAN
ON THE DEVELOPMENT OF SUPPORTING INDUSTRY
FOR VIETNAMESE INDUSTRIAL SECTORS
UNTIL 2010, WITH A VISION TO 2020**

**VDF Workshop
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INSTITUTE FOR INDUSTRIAL POLICY AND STRATEGY

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1. Identifying supporting industry

Completed assembly	Finished products	
Semi-completed assembly	Semi-finished products	
Complex assembly	Completely knocked down	
Simple assembly	Semi-knocked down	
Processing, thermal treatment, surface treatment...	Parts and components	
Forging, welding, molding...	Metal moulds and raw materials	

SI includes hardware (production) and software (production services)

2. The development of SI in VN (Electronic industry)

- **Export:**
 - 96-90 million USD
 - 0.5-1.75 billion USD (90% from FDI)
- **2/3 of firms are domestic ones (mainly assemblers)**
- **90% of firms are consumer electronic producers**
- **Status of supporting industry for electronic industry**
 - **Materials are mainly imported**
 - **Domestic parts: Plastic parts, circuit, metal components, frame**
 - **Domestic consuming: 20-60% (TV), 30-40% (PC)**
 - **Exported parts: IC, CRT, electric components...**

The development of SI in VN (Automobile industry)

- Production: From 1990 – assembling with imported parts and components
- Supporting industry:
 - Low value parts
 - Tire, spring leaf, low-precision-plastic parts, seats, electrostatic plating and painting, wire harness...
- Localization:
 - 7-10%
 - Difficult to increase due to small market volume, uneconomical production scale

The development of SI in VN

(Mechanical manufacturing)

- In 2004: 53,000 mechanical enterprises, in which 50% are mechanical manufacturing firms**
- Total investment capital: Domestic firms -- 360-380 mil. USD, FDI – 2.1 bil. USD. (In which, 50% invested in motorbike, auto and electric – electronic sectors)**
- Weak capability in molding, thermal treatment, surface treatment**
- Lack of industries' initiators**
- Unstable quality of SI products**
- High costs, low competitiveness**

2. The development of SI in VN

(Textile & garment and leather and footwear)

■ Textile & garment:

- Import 100% artificial fiber and yarn, dye
- Domestic cotton meets 20% of demand.
- Domestic chemicals meet 5-15% of demand
- Undeveloped production of materials
- Undeveloped supporting mechanical industry

■ Leather and footwear:

- Main activity is processing
- Materials are mainly imported
- Some materials are recently produced domestically
- Undeveloped supporting mechanical industry
- Environment polluter

Main problems of SI in Vietnam

- **Market volume:** Localization + Export
- **Roles of FDI producers:** Coordinator + Leader
- **Int'l labor division:** Selective development + Regional integration
- **Intensives, priorities in integration:** Technical assistances + Training
- **Roles of government:** Statistics, monitoring, supports, priorities and incentives

Lessons learnt from other countries in developing SI

	Modular manufacturing	Integral manufacturing
Parts interface	Parts are common and can be used for any model	Each product has unique parts, specifically designed
Merits	Quick results and flexibility	Endless pursuit of quality
Demerits	No differentiation, excess entry, low profit, lack of R&D	It takes much energy and time to achieve results
Institutional requirements	Openness, quick decision making, flexible outsourcing	Long-term relations, building internal skills & knowledge ₉

PART II:

DEMAND FORECAST FOR SI PRODUCTS

- Criteria for selecting of prioritized sectors
 - Large market volume
 - High cost of parts and components
 - Support for sectors that highly attract FDI
 - Inter-sectoral impact
 - Attracting large and long-term investment from MNC
- Selected SI
 1. Electronics, informatics, telecom
 2. Textile & garment
 3. Leather & footwear
 4. Mechanical manufacturing
 5. Production and assembling of bus and truck

Demand for SI of electronics, informatics and telecom

- **Demand forecast**

	2000	2005	2010	2020	Average
IM: mil. USD	859	664	645	1.700	10%/year
EX: mil. USD	556	1.400	3.000	12.100	06-10: 20%/year 10-20: 15%/year

- **Main SI products**

Main board, monitor, sensors, circuit, parts and components for telecom...

Demand for SI products in garment and footwear (2006-2010-2020)

- Fiber & yarn
- Chemicals
- Textile
- Garment mechanics (machines, accessories)
- Materials for garment
- Materials for footwear

Demand for SI products in auto industry

■ *Auto production and assembling*

– *Common vehicles : (bus and truck)*

- Until 2010 satisfying 80% of part demand and achieving localization ratio at 60% (engine: 50%, gear-box: 90%)

– *Specific vehicles:*

- Until 2010 satisfying 60% of part demand, localization ratio reaches 60%

– *High-class vehicles:*

- Production of PC by FDI firms achieve localization ratio at 15-20% by 2010
- Localization ratio in production of bus and truck reaches 35-40% by 2010.

– *Export potential:*

- Glasses, tire, rubber parts...

Demand for SI products in auto industry

	Đơn vị	2010	2015	2020
Truck cabin	unit/year	56,000	78,000	92,000
Truck frame	unit/year	56,000	78,000	92,000
Bus frame	unit/year	7,000	31,500	56,000
Bus cover	unit/year	17,000	31,500	56,000
Truck suspension sys.	unit/year	56,000	78,000	92,000
Bus suspension system	unit/year	17,000	31,500	56,000
Engines	unit/year	44,300	78,500	103,600
Chassis, gear box...	set/year	44,300	133,900	98,600
Steering system	set/year	63,000	109,500	109,500

Demand for SI products of autor and mechanics

- Demand forecast for SI products of auto to export

	2010	2015	2020
Chemical plastic (tons/year)	0	0	4,500
Glasses and inorganic mixture (tons/year)	430	2,360	8,150
Fabric (tons/year)	0	310	2,900
Rubber (tons/year)	7,200	18,100	41,500
Total	7,600	20,800	57,100

- Demand forecast for SI productions of mechanical manufacturing

	2010	2015	2020
Mould	350,000		650,000
Die	250,000		560,000
Screw nuts	35,000		55,000 ¹⁵

PHẦN III.

PART III: MASTER PLAN ON THE DEVELOPMENT OF SI FOR KEY INDUSTRIAL SECTORS IN VIETNAM

General Visions:

- Development of SI as the driving force for quick and sustainable development of critical sectors for industrialization of Vietnam
- Development of SI must stick to international division and cooperation, for SMEs development
- Development of SI based on potentials and advantages of Vietnam, for heighten added value of local production
- To best utilize the investment of different economic sectors, particularly the MNCs as the strategic partners
- To focus on specific industrial sectors to maximize competitive effectiveness

Plan for specific industrial sectors

■ Selected SI

1. Electronics, informatics, telecom
2. Textile & garment
3. Leather & footwear
4. Mechanical manufacturing
5. Production and assembling of bus and truck



1. Development vision

2. Development orientation

3. Development goals

4. Development plan

Electronics and Informatics

1. Development Vision:

- Focusing Human Resource, high technology and FDI
- Participate in international production of MNCs

2. Development Orientation:

- Up to 2010: switch from simple assembling stage to design, R&D new product development, establishment of some R&D centers and restructuring the industry
- Focusing processing industry to promote SMEs
- Attracting FDI from MNCs, exports production
- Infrastructures for FDI attraction in some important sectors. Establishment of some R&D centers, designing some products with own Vietnamese brandname .
- Promote and support firms and SME to design and develop new products, technology transfer and application, capability building

Electronics and Informatics

3. *Development goals:*

- Participate international production and regional and international parts supply chain.
- Beginning, meet the demands of simple assembled production, plastic parts, mold and dies, pcb..
- Attracting MNCs to promote manufacturing and R&D activities for PCB, ICs..
- Promote firms to produce high tech PCBs, softwares ...
- Setting to the goals to 2010 : Domestic value added : 22-25%^oo.

Electrics and Informatics:

4. Development Masterplan :

- Up to 2010: Invite some investment projects in manufacturing electronics parts, PCB, materials, computer peripherals... for computers, white goods, audio and video and other simple assembled products
- After 2010-develop complete components units (CBU), parts materials and other parts/components (CD, CD ROM, DVD, solar cell... . Build some high tech medical equipments, security equipments..

Manufacturing and Assembling trucks and Passenger car

1. Development vision:

- Domestic companies in all economic sectors: Trucks, bus/ commercial cars, -- less sophisticated technology.
- Strategic partners: Passenger car

2. Development orientation:

- Developing complete components parts (cabin, chassis, body, springs, ...)
- Parts for domestic assemblers and exports
- Enhance collaboration among firms in order to build Vietnam owned brand car
- Promote partnership and technology transfer with MNCs. Promote technology transfer with technology and equipment not over 15 year old.

Manufacturing and Assembling trucks and passenger cars

3. Development Goals:

■ Localization

- 2010: truck and bus - 65%; passenger car -- 15%;
- 2020: bus - 75%, truck-85% và passenger car - 0%.

■ Export some parts and components .

■ Formulization of technical standard sets for automobile parts produced in Vietnam (2015)

Bus and truck manufacturing and assembling industry

4. Development masterplan:

- Trucks, Bus: State owned companies (VEAM, VINAMOTOR, TKV, SAMCO) and private companies Xuân Kiên, Trường Hải... are leading firms.
- Establishment of industrial parks for engine parts manufacturers in Hochiminh, Binh Duong and Tay Ninh .
- Establishment of new factory for crankshaft (10,000-30,000 units, 20, 000 drive shaft unit/year in Hochiminh
- Forecast for basic parts quantity

Manufacturing

1. Development vision:

- Basic manufacturing/mechanics industry: import institution for some imports and export orientation for some important equipments
- Take part in international labor division and specialization and international collaboration in production ...

2. Development orientation:

- In-depth investment in manufacturing firms , enhance capability of forging, stamping, heating, casting, molding..., materials supply, semi products for CBU, tooling machines and construction machine .
- Attract FDI in high tech production and in basic manufacturing process forging, stamping, heating, casting, molding; production of high quality parts

Manufacturing

3. Development Goals

- 2010: 50% domestic demand for mold, casting..and quality parts
- 2020: 75% of products , quality meet international and regional standards

4. Development masterplan:

- Establishment of some factories specilized mold and dies, precision products, cutting tools and pressing/stamping ...
- Building industrial parks/clusters Hanoi, Vinh Phuc, Bac Ninh, Hung Yen, Haiphong, Dong Nai, Ba ria Vung Tau, Binh Duong, Tay Ninh, Da Nang focusing on manufaturing and supporting industries

PART IV.

SOLUTIONS AND DEVELOPMENT POLICIES

1. Building investment environment, encouraging production and trade development

- Build industry development programs
- Encourage industrial parks producing parts and components and material for industrial industries
- Keep improving the activities of state-owned enterprises, attract investment capital from all economic sectors
- Develop industries, prioritized industrial products, SMEs for SI
- Keep improving administrative procedure, improving the transparency of production and trade environment
- Build policies to encourage investment, technology transfer, industrial property protection...

PART IV.

SOLUTIONS AND DEVELOPMENT POLICIES

2. Improving investment environment solutions

- Organize and support in establishing promotion centers to search for consumption markets
- Establish and implement some professional websites in SI with government budget
- Improve database and statistical data collection about SI enterprises

SOLUTIONS AND DEVELOPMENT POLICIES

3. Science and technology solutions

- Build a quality standard system for products in consistence with international standards; development support and improve the product testing organization
- ODA for professional faculties in unversities and colleges to improve the basic technologies
- Provide conditions for FDI projects to transfer technologies and promote modern technology transfer; financially support SMEs in buying industrial property to develop SI
- Encourage professional research institutes in textiles, footwear, mechanics to develop SI
- Spend enough budget for ministries to implement industry standard and standards for SI products

PART IV.

SOLUTIONS AND DEVELOPMENT POLICIES

4. SI infrastructure development Solutions

- Enhance building, improving the transportation, and inventories facilities in core economics regions
- Focus on building some SI parts

5. Human resource solutions:

- Training technical human resource for design, machine manufacturing, metallurgy, IT...
- Attract supports from Japanese and EU governments... in SI human resource
- Provide equipments for research agencies, take initiatives in training professional experts, and in cooperation with foreign partners

PART IV.

SOLUTIONS AND DEVELOPMENT POLICIES

6. Solutions of enterprise linkage

- Link FDI firms with local ones: programs to introduce demands and to promote consumption
- Build long term cooperation programs with strategic partners
- Build up database and website: part producers, SI firms, and firms producing prioritized products from now to 2010
- Renovate the Professional research institute: as a bridge connecting research – design – application – production
- Build up some long term SI development program
- Improve the role of professional associations, governmental and nongovernmental organizations
- Organize and improve frequently the profession of exhibitions, trade fairs...

PART IV.

SOLUTIONS AND DEVELOPMENT POLICIES

7. Financial solutions

- Create conditions for Vietnamese enterprises to be able to access to long term credit: experience of Japan
- Create conditions for industrial promotion activities, IP development, supporting VNese enterprises in R&D
- **Develop licensing to improve the competitiveness of SI firms**
- Use ODA capital de support labor training, and to build legal framework, SI development program, SMEs, cooperation program with MNCs directly invested in Vietnam.

PART IV

MASTER PLAN IMPLEMENTATION

- MOIT takes the leading role in coordination with other ministries, central cities to lead the plan implementation
- MOIT coordinates with MIP, MOF, MOST, Vietnam Bank of Investment, VCCI to support companies
- People committee of central cities realize the plan for the cities; participates with ministries to monitor the implementation
- MOIT cooperate with VCCI to disseminate and guide the master plan implementation to companies so that they can propose to government effective measures to support their development.

2. Current situation of SI in Vietnam

- **SI is at an early stage; parts producers in Vietnam**
- **There are some parts producers for electronics, white good, motorcycles...**
- **lack of horizontal linkage and specialization. Difficulty for development**
- **lack of technical standard sets .**
- **Low product capacity**
- **major materials are imported**
- **Low competitiveness**
- **Low technology and backward technology**