Integral Manufacturing & Supporting Industries
The Way Forward for Vietnam

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How to Catch Up with & Overtake Other ASEAN Economies

- **Open up trade and FDI boldly**
  Step-by-step liberalization no longer works; create freest business environment in E Asia, and use it to market Vietnam

- **Promote local-FDI linkage vigorously**
  Analyze why other ASEAN countries are slow to link up with FDI and foreign buyers

- **Learn integral manufacturing and become Japan’s reliable partner**
  This strategy is needed to avoid direct clash with China and to overcome the “glass ceiling”
### Business Architectures

<table>
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<th><strong>Modular manufacturing</strong></th>
<th><strong>Integral manufacturing</strong></th>
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<tbody>
<tr>
<td><strong>Parts interface</strong></td>
<td>Parts are common and can be used for any model</td>
<td>Each product has unique parts, specifically designed</td>
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<td><strong>Merits</strong></td>
<td>Quick results and flexibility</td>
<td>Endless pursuit of quality</td>
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<tr>
<td><strong>Demerits</strong></td>
<td>No differentiation, excess entry, low profit, lack of R&amp;D</td>
<td>It takes much energy and time to achieve results</td>
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<td><strong>Institutional requirement</strong></td>
<td>Openness, quick decision making, flexible outsourcing</td>
<td>Long-term relations, building internal skills &amp; knowledge</td>
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#### Performance over Time

![Performance Graph](image1)

![Time Graph](image2)
Monozukuri (Manufacturing) Spirit

- It is a sincere attitude toward production with pride, skill and dedication. It is a *way* to achieve high performance, disregarding short-term profit.
- Many of Japan’s excellent manufacturing firms were founded by engineers full of monozukuri spirit.

Sakichi Toyota 1867-1930
Konosuke Matsushita 1894-1989
Soichiro Honda 1906-1991
Akio Morita (Sony’s co-founder) 1921-1999
What Must Be Done Is Clear

- **Promote industrial human resources**
  Training centers, Meister system, curriculum reform at industrial univs. & colleges, overseas educ. & training, incentive for brain return, using AOTS & JODC schemes, etc.

- **Promote supporting industries**
  SME promotion (HRD, technology, finance), inviting FDI parts makers, industrial standards, quality standards and testing, factory doctors, local-FDI matching service, promoting SME networking, trade fairs & reverse trade fairs, database, using JETRO services

These measures are well known and have been available for a long time in ASEAN. The question is not WHAT to do, but HOW EFFECTIVELY you do it.
Japan: Ageing Problem

- Japan has high technology, high wages, and ageing population.
- “The 2007 Problem”—Postwar baby boomers (born 1947-49) with high skills are now retiring.
- Integral manufacturing cannot develop fully by just using simple labor in developing countries.
- Japan needs a young and developing country as a reliable partner in integral manufacturing.
Population Pyramids

Source: US Census Bureau, International Database.
Chapter 2—Industrial Structure and Production Orientation

- Prof. Fujimoto’s business architecture theory.
- Modular manufacturing is easy but will face excess competition and technology lock-in.

- Parallel development of integral and modular manufacturing is acceptable, but policy should support only integral manufacturing.
Chapter 4—Supporting Industries and Industrial Human Resources

- Vietnam’s motorbike industry is now large enough (2 million units per year) to attract suppliers.
- Motorbike should be the core industry for promoting supporting industries.
- Three types of human resource should be targeted: (i) new managers, (ii) new multiple-skill workers, (iii) managers and workers solving current problems.
Policy Measures for Chapter 4

M1—Incentive measures for pressing, casting, forging, welding, die & mold

M2—New mechanism to receive foreign experts effectively, incl. Japanese retirees

M3—Strategic FDI marketing for supporting industries (Hoa Lac HTP, rental factories, etc)

M4—Building supporting industry database in conjunction with business matching service
Measures (continued)

**M5**—Creating pilot institutions for practical technical & vocational education and training (TVET)

**M6**—Testing centers for assembly-type manufacturing industries

However, details of action plans are not yet agreed or drafted into the master plan.
Proposal for Further Action

- MOI should draft a new Supporting Industry Master Plan within the framework of Joint Japan-Vietnam Initiative.
- This Master Plan must have concrete action plans and time tables.
- Government should clearly announce that supporting industries are top priority.
- Japan should actively assist implementation of this master plan.