

Programmes to Facilitate Innovation of Korean SMEs

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“Innovation of SMEs” is Policy Agenda

- KOREA established programmes to support Innovation of SMEs since the mid 1990s
- Began to designate Innovative SMEs
 - Venture company (1997): Spending more than 5% of revenues in R&D (Korean SMEs invest less than 3% on average)
 - Inno-biz company (2001): assessment based on “Oslo Manual” developed by OECD
 - proved to be better performed in terms of job creation and sales figures
- 2005 theme for SME policy agenda: “Promoting Innovation of SMEs”
- National Plan is to increase the number of Innovative SMEs up to 30,000 by 2008
 - 17,500 (6% of total number of Manufacturing SMEs: 2006) to 30,000 (10%)

Main Framework of Policy Support

Obstacles

General Risks

- General investment, R&D risk aversion

R&D Specific Risks

- R&D Capital intensive
- Technology/Market mismatch

Market-Related Risks

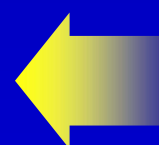
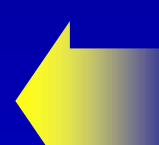
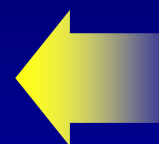
- Industry structure (Market access) etc.,

Policy Response

Tax Incentives on Capital gains, R&D etc.,

R&D (technology research) supporting Programmes

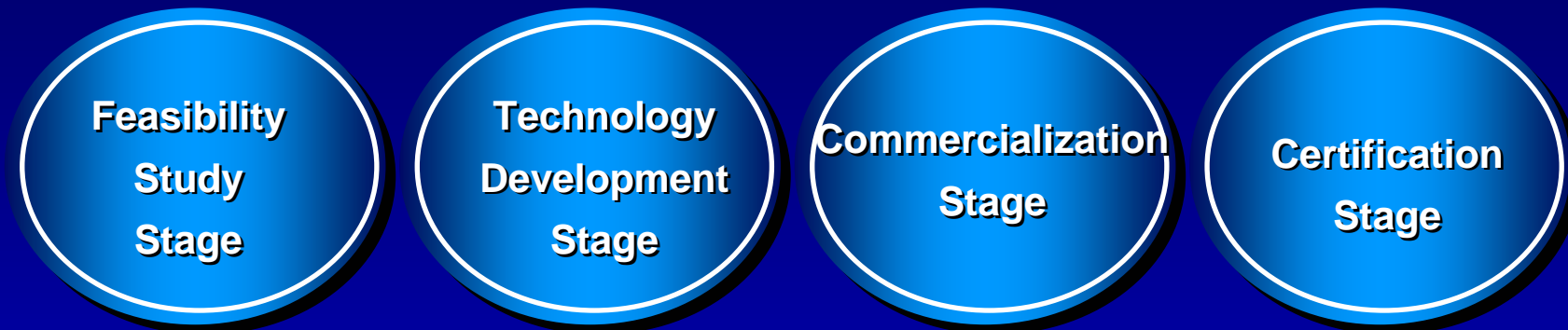
Programmes to support obtaining product / process certification



Programmes to Support Technology Upgrading

- In 2005, some 45 programmes in total were implemented by 10 ministries
- Total Budget: exceeded U\$ 1.15 billion
 - 57%: grants (partial / full), 43%: loans
- Short-term Programmes
 - Commercialization ready technology, lasts for less than two years
 - SMBA's share of budget: 29.7%
- Long-term Programmes
 - Infra-technology, lasts for more than 3 years
 - MOCIE (34.2%), MOIT (18.0%), MOST (7.6%)

Stages of Technology Development Process



- More than 90% of total budget was used for the technology development stage

- Currently, SMBA focuses on developing “application – ready” technologies
 - can be commercialized within a short period

Major Projects to support Technology Upgrading

- **Technology Innovation**
 - Partial support of new product development costs for SMEs
- **Commercialization of Transferred Technology**
 - To prevent superior technologies being discarded
 - Support costs for commercializing those technologies transferred from universities, research institutes and other companies
- **New Product with Purchase Condition Attached**
 - Support SMEs to develop new technology with the assurance that counterpart will purchase the products developed by SMEs
- **Joint Technology Development**
 - Central/Local Government offer match fund to encourage the establishment of joint cooperative system among industry, university and research institute

Support Acquisition of International Certification

- Since 1998, government has implemented the programme to support SMEs to obtain international certification
- Project covers 63 areas of product certification such as CE (Communaute Europeenne), NRTL (Nationally Recognized Testing Laboratory) including 5 areas of system certification such as TS16949 and ISO14001

< Performance before and after Certification (Unit:\$10,000) >

2005	Total Export Amount	954,398	1,069,302	Based on customs of 5,339 SMEs in 2004 and 2006
	Average Export Amount for Each Company	178.8	200.28	
	Average Rate of Export Increase(%)	12.0		
2006	Total Export Amount	225,460	265,894	Based on customs of 1,169 SMEs in 2005 and 2006
	Average Export Amount for Each Company	192.9	227.5	
	Average Rate of Export Increase(%)	17.9		

Major Projects to Support Digitalization of SMEs

- **Production Digitalization**
 - A program designed to assist the “e-manufacturing Project” aimed at boosting productivity through Computer Integrated Manufacturing (CIM), Manufacturing Execution Program (MES), and Point of Production (POP)
- **Total Information Management Providers**
 - A Total Information Management Provider (TIMP) presents the achievement index for establishing a digital system to SMEs
- **Supporting Regional Cluster for Digital Innovation**
 - To accelerate the digitalization of SMEs in underdeveloped area
 - Establish a broadband Internet infrastructure and internal network to lay the foundation for digitalization

Performance

- **Innovative SMEs out-performed other SMEs**
 - In terms of Job creation(2.6 times more than ordinary SMEs) and sales figures(3.2 times more than the ordinary SMEs)
 - The Export volume of “Venture” Companies increased from \$7.0 billion in 2003 to \$11.0 billion in 2006
 - The competitiveness of “innovative SME”'s technological capability improved

< Improvement of Competitiveness >

	Degree of Competitiveness	
	Year 2003	Year 2006
Manufacturing Capability	74.8	78.8
New-tech Development	64.9	73.9
Product Design	72.9	75.6
Parts/components & Process Design	71.2	73.3

Unit: %(compared to world best = 100)

Policy Implications

- Policy makers need to aware of the importance of GVC issues and the role of SMEs in the GVCs
- More portion of budget has to be allocated for the feasibility study stage and standard certification stage
- Holistic view of internationalisation
 - SMEs are included in the global value chain not only as a supplier but also as a distributor, Design and R&D provider etc.,
 - Importance of inward internationalisation
- More attention has to be placed on the service sector and offer support for it