# Policy Cases of Skills Development in Korea

# "Industry-Academia Partnership"

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### I. Introduction to Industry-Academia Partnership

Cooperative activities between the academic body and industry to meet the needs of the industry for effectiveness



- **1. Skills Development** (HRD: Human Resources Development)
- 2. Research and Development (R&D) (Joint research to create and expand new knowledge and technology)

## Situations in Korea

- Traditionally vocational education was mainly implemented based on schools.
- Companies screen employees by academic achievement, diploma, academic degree rather than by work experience.
- During the economic development period government established a skills development plan and imposed vocational education on academic institutes.
- The Korean government initiated the linkage between education and work, Government-led industry-academia partnership, despite weak willingness of industries.

### **Best Practices**

- Korean Government endeavors to strengthen various forms of industry-academia partnerships.
- The most recent best practices are the Meister high school policy and LINC project for vocational colleges and universities.
   (Leaders in Industry-Academia Cooperation)



# II. Industry-Academia Partnership of Meister High School

Formal Schooling System (6-3-3-4) Korea

Graduate school	
University (4 yrs)	Vocational College (2-3 yrs)
<b>General High School (3 yrs)</b> Special purpose high school	Vocational High Schools (Specialized → college/labor market) (Meister → labor market)
Middle School (3 yrs)	
Primary Education (6 yrs)	
Kindergarten (3 yrs)	

#### **Trends in Number of VHS Students (1965-2011)**

(unit: 10,000 persons)



## **Meister High Schools**

- Selected among specialized high schools.
  - aim for developing job competency of specialized industrial needs of promising fields through curriculum tailored to the industrial needs, in response to the demand of Shortage in lowskilled industries labor force
- well-established, well-tailored, well-invested by the government for selected small number of students, newly started in 2010
- 2010 21 schools 3,600 students
- 2012 28 4,430
- 2013 35 5,190

# **Partnership with Industries**

A MOU contract to cooperate Meister school education and employment

- curriculum and textbook development
- ► equipment donation
- ► employment in a stable condition



### **Promotion strategies**

☆ Government Financial support for preparation

 300 million Won one year
 (≒ 300 thousand USD)
 operation period (75 million won for 3 years)

 ☆ Local educational office 1:1 matching fund

 establishment and support

☆ Province: budget support in various form

# **Characteristics**

- Develop curriculum, text book and graduate certificate system jointly with industry, focused on promising fields related to the region's strategic industry
- Invitation of on-site meister and excellent faculty
- Recruit openly principal so that excellent faculty and head figure in the industry can participate.
- Select excellent talented students
- If the school is not reselected from review within 5 yrs, it is converted into specialized high school

# Outcomes

First, this system could convert the current society which focuses **on academic degrees into a society which focuses on performance.** 

Second, it is a **customized education system** based on job analysis, satisfying industrial demand, **having implications to other VET institutes.** 

Third, some tangible outcomes achieved

- Jobs improved both quantitatively and qualitatively.
- Most of the students employed in promising jobs and large companies even before graduation.

# Outcomes

Fourth, presents a new model for VET, will be benchmarked by other specialized high schools and universities.

Fifth, it raises **self-efficacy and awareness of career path of students** in Meister high schools.

Sixth, thanks to customized education and stable employment prospects, to Meister high schools has increased, raising the **entrance competition rate** 

# Challenges

- Only 2 years passed, already significant performance It is early to obtain a precise achievement of goals or performance analysis.
- In the light of the recruiting customs and promotion culture of the Korean society,

- concern as to there may be disadvantages in promotion and wage rise compared to those who graduated from universities and got employed.

- Those with 3 years of job experience **to enter the colleges and majors** that they want. Also, there is still the difficulty of having to do work and study at the same time.

• 6~7% of specialized high schools

### III. IAP for Skills Development of Vocational Colleges and Universities

- Industry-academia partnership in colleges and universities aims at
  - resolving the problem of mismatch between industrial demand and supply of middle-level and high-level labor force in the local areas,
  - increase in collaboration in R&D developing national industries.

### LINC for Colleges and Universities (2012~2016)

- ★ Government funding to support industry-academia partnership
  - Differential rate according to levels and types of industryacademia cooperation.

#### ★ Two types of projects

#### **1. Technology innovation leading type**

- bases and capabilities to create and expand the leading model

#### 2. Field training concentration type

- to concentrate on field training, and to establish the bases for industry-academia cooperation.

# LINC

### **Leaders in Industry-University Cooperation**

- To promote the projects, the government
- (1) proactively supports the colleges **instead of limiting the project to only engineering sectors to expand the range of industry-academia support**,
- (2) specialized and diversified the types of industryacademia cooperation by considering the characteristics of regional projects and colleges, and
- (3) encouraged the colleges to establish education friendly systems towards industry-academia cooperation, thereby selecting strategies of strengthening sustainability.

## Industry-Academia Cooperation Corp

- Project Management Committee and Evaluation Committee took charge of selecting colleges and evaluating the performances
- In order to increase project performance through connected cooperation among departments, the government established Industry-Academia Cooperation Corp under immediate control of the President of the College

## Leading Model of "Customized Ed." Case of Yeungjin College

- Leading Model of "Customized Education"
  - customize to needs of specific companies' required labor force
- With government funding
  - developing and operating ed. program, improving ed. environment, purchasing equipments, joint seminars and forums on industry-academia partnership.
  - Especially, based on its infrastructure of school faculty having rich field experiences in large enterprises such as Samsung, Hyundai and LG (85% of all faculty members have experiences in industries for 5 years or more)

- having and excellent educational equipment, expanding an additional contract ed. program

## Case of Korea Polytechnic University "Engineering House" (4 year Univ.)

- "Engineering House" to combine the research capabilities of university and company
- Participant students can receive customized, practical education from the on-campus business research center, including on-the-job training through specialized education programs.
- "EH education certification system" helps to improve field adaptability and project execution ability and to produce practical manpower who meets the needs of industries.

## **Characteristics of LINC**

- Top-down industry-academia cooperation led by the government
- Limited practical cooperation between partners of industry-academia cooperation
- On-site training at companies contributes a lot to the skill set improvement of students and therefore many universities have arranged field training courses for 1~2 months or up to the entire semester.

## **Performance of LINC**

- Students tend to have clear visions about their future and career, thus ease to develop clear goals.
- Remarkable quantitative performance in the employment rates, satisfaction level is very high.
- Increase in the number of patent etc., and the satisfaction of colleges and companies was quite high.
- College could invest the project funding of the government into development of technology, nurturing skills and recruiting professors.

# Performance

• Universities are encouraged to change faculty employment / promotion / performance evaluation systems, academic administration and organizational structure in favor of industry-academia cooperation, in a bid to spread new culture that not only research / education but also industry-academia cooperation is treated with priority.

## **IV. Recommendations**

- 1. Government led policy for industry-academia partnership improves efficiency at the developing stage
- funding scale
- practical project model
- 2. Incentive for Industries
- willingness is important for cooperation
- industrial development
- Incentive for faculty members to participate in partnership

# Recommendations

- 3. Responding to demands of industries and region
- regional characteristics
- development plan and policy of the local authority
- 4. Participation of faculty members
- incentives
- evaluation

# Recommendations

5. Awareness that the partnership is to benefit demanders of education and training

Demanders: industry, students, parents
Suppliers: schools, government, training centers

- Should benefit students:
  - improvement in skills, increase in employability
- Should benefit industry:

labor force fitting the needs of industries, resolving difficult skills, development of technology

# Recommendations

6. The policy cases imply the best practices of schoolto-work and work-to-school programs, which connect education and labor market to achieve a lifelong learning society in the long run.

