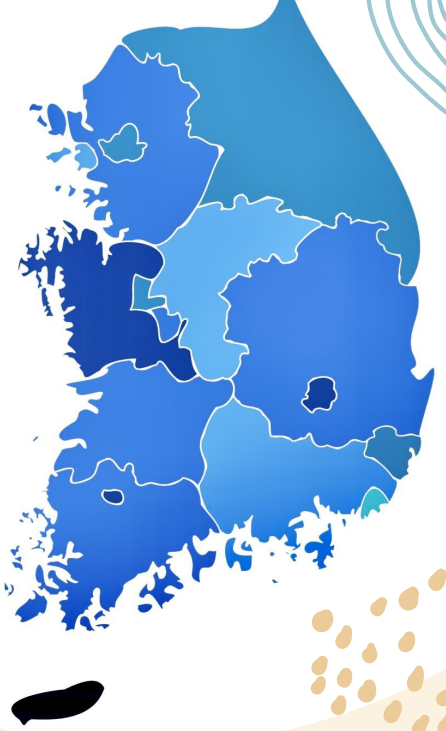
Reshoring:

How can Korean Government make Companies reshore with Human Resource Development strategies



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01

Introduction of Deindustrialization in Korea

Deindustrialisation of Korea

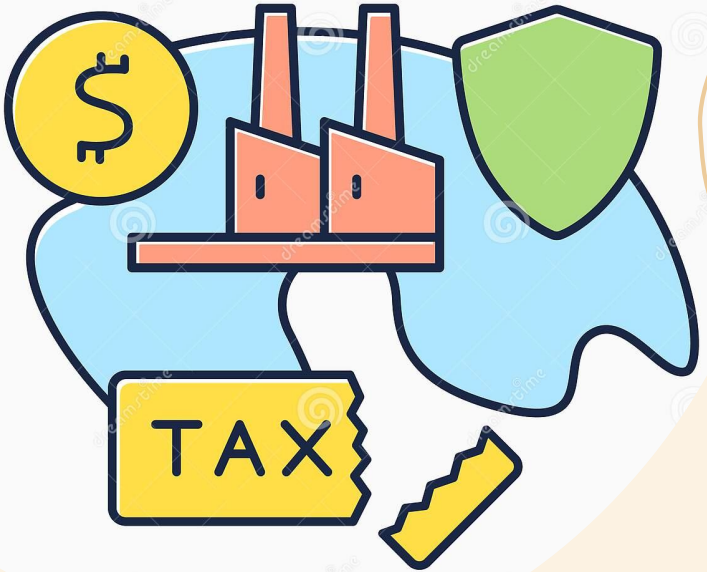


Deindustrialization has 2 main characteristics:

1: Manufacturing has stagnated, the value of industrial production & its growth has declined rapidly over the past decade.

2: Large-scale layoffs in manufacturing. The shift of employment from the secondary industry to the service industry. Resulting in a decline in the proportion of manufacturing employment.

02



What is Reshoring & Why do we need it

Reasons for Reshoring

The Oxford Lexico defines reshoring as: "The practice of transferring a business operation that was moved overseas back to the country from which it was originally relocated."

Reasons for Reshoring:

- Skilled workforce
- Local tax incentives
- Lower inventory levels, better turnover
- Better responsiveness to changing customer demands
- Minimal intellectual property and regulatory compliance risks
- Improved innovation and product differentiation
- Higher product quality and consistency

Drivers for Reshoring

- Risk: uncertainty & ease of doing business
- Cost related: reshoring to reduce certain costs
- Infrastructure related: reshoring to overcome/avoid infrastructure issues
- Competitive priorities: reshoring to support the operations strategy & competitive priorities of the company

Force Field Analysis

Current State

Despite the Government's implementation of various policies; Korean Manufacturing Companies aren't coming back to Korea.

Desired State

Making Korean Manufacturing SMEs come back to Korea with the help of Smart Factory & HRD

Driving Forces

Highly educated people
Developed technologies
Increased production of high value-added products

Refraining Forces

High manufacturing costs
Tendency to avoid blue collar jobs
Lack of skilled workers
Difficulty in transferring partners



03

The Government & Reshoring

Government & Reshoring

Since 2017, importance of reshoring is emphasized in the 100 national projects. The reshoring effect of domestic manufacturing companies that plan to withdraw from overseas will increase production upto ₩36.2 trillion, GDP by ₩11.4 trillion & 8.6 million new jobs are expected to be created.

President Yoon Seok-yeol has also pledged to promote reshoring.



The Reshoring Policy of the Government:

1. **Corporate Tax & Tariff Reduction:**
    1. Corporation income tax
    2. Tariff
2. **Factory Site Provision:**
    1. State funding
    2. Granting priority to long-term occupancy in industrial complexes
3. **Subsidy**
    1. Employment subsidy
4. **Modernizing of aging manufacturing industrial complexes**

The Result:

• Starting from 2014 to 2020, 12 Korean companies got reshored on an annual bases. Which is lower than the number of corporations who've got recently offshored (3,201). Most of the 84 companies where small & middle sized enterprises.

Year	2014	2015	2016	2017	2018	2019	2020
Number of Reshored Companies	27	4	12	4	10	16	20

Source: Ministry of Trade, Industry and Energy

04

Problems & Solutions



Why aren’t Korean SMEs reshoring?

“76% of SMEs operating oversea manufacturing factories said they are not willing to reshore even with the covid and increasing risk in oversea countries.”



Source: Korea Federation of SMEs, 2020.06

Case study: Aju Steel

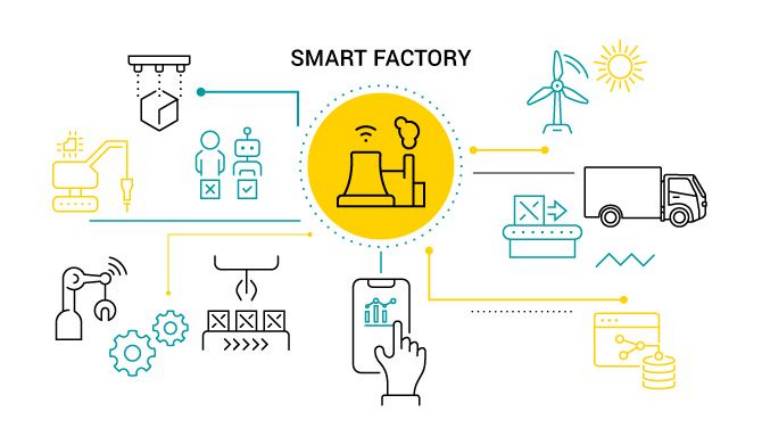
Aju steel: Korean medium-sized company in primary steel manufacturing industry

- Representative company that successfully **reshored applying smart factory** (Philippine ▸ Korea)
- Making **labor costs lower** and **productivity higher** using smart factory
- **Achieved growth after reshoring** by reducing the rate of defects, increasing labor productivity significantly



Smart Factory

: **Intelligent production plant** that improves productivity, quality, and reducing labor costs by applying ICT that **combines digital automation solutions in production processes**



1. Lowering labor **costs**
2. Increasing labor **productivity**

▸ Effective to make **SMEs reshore**

- Germany used **Smart Factory** to **prevent offshoring** of companies and keep their **competitiveness in manufacturing**

Who should we target?

"SMEs who are in the mold manufacturing industry"

- **Affects to downstream and rear industries** with respect to quality, time and cost
  - If we bring them in and make them more competitive, their partners might reshore too

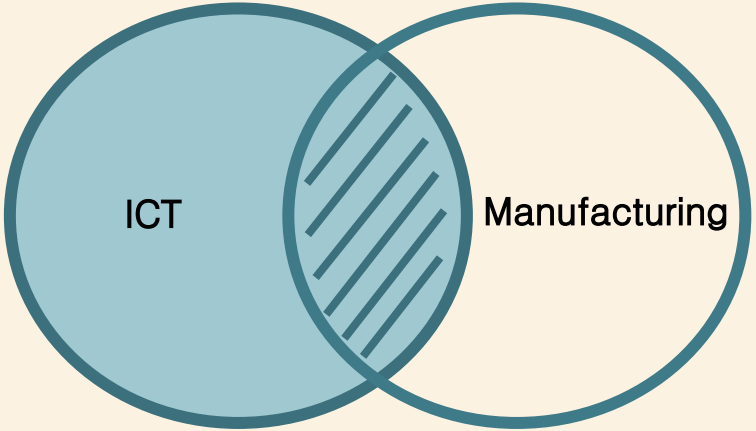


Seoyon TopMetal

- Korean company **manufacturing molds** for automobiles
- Headquarter and R&D is located in Korea
- **Offshored** to **Mexico and China**

What should government do?

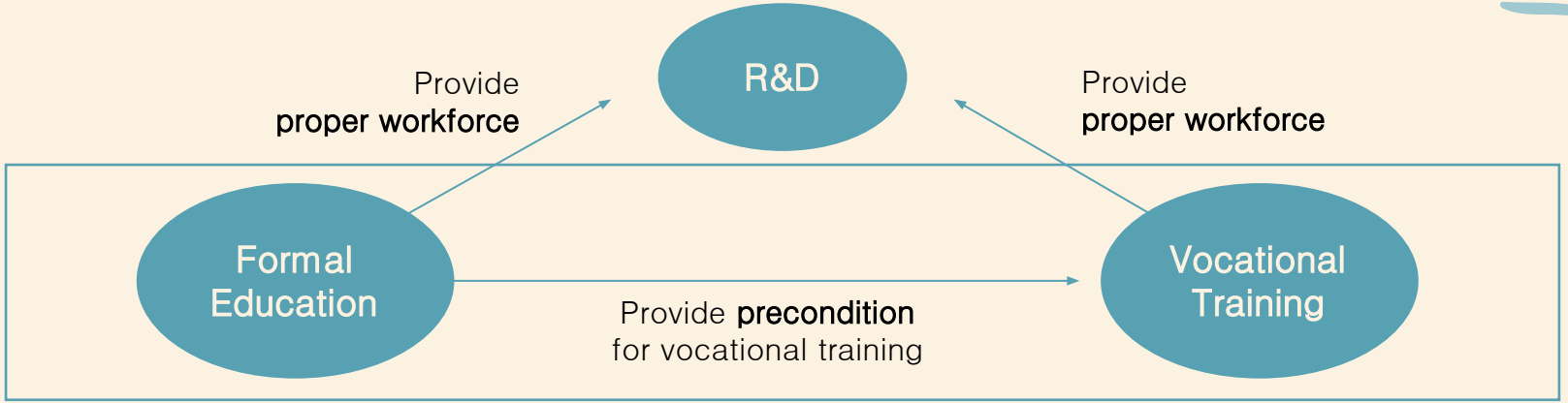
Connected expertise = key



Connected experts who have expertise in **ICT** and **manufacturing as a whole** are required.

- It is necessary to train human resources with connected expertise.

National HRD System



- Education by the school organization established to carry out intentional educational activities
- Primary, secondary, tertiary education

- Training that make people who intend to get a job or people who are employed acquire or improve the skills necessary for performing their duties
- Public training, private training

- **Vocational education:** Education in formal education to acquire the knowledge, skills and attitudes required by the job with the aim of getting a job.
- Vocational education institutions: vocational colleges, vocational high schools

Link Industry and Education

Existing Smart factory expert courses: **No** distinctive **difference** from manufacturing courses

Based on **acquiring knowledge**

No deep learning about either ICT or manufacturing

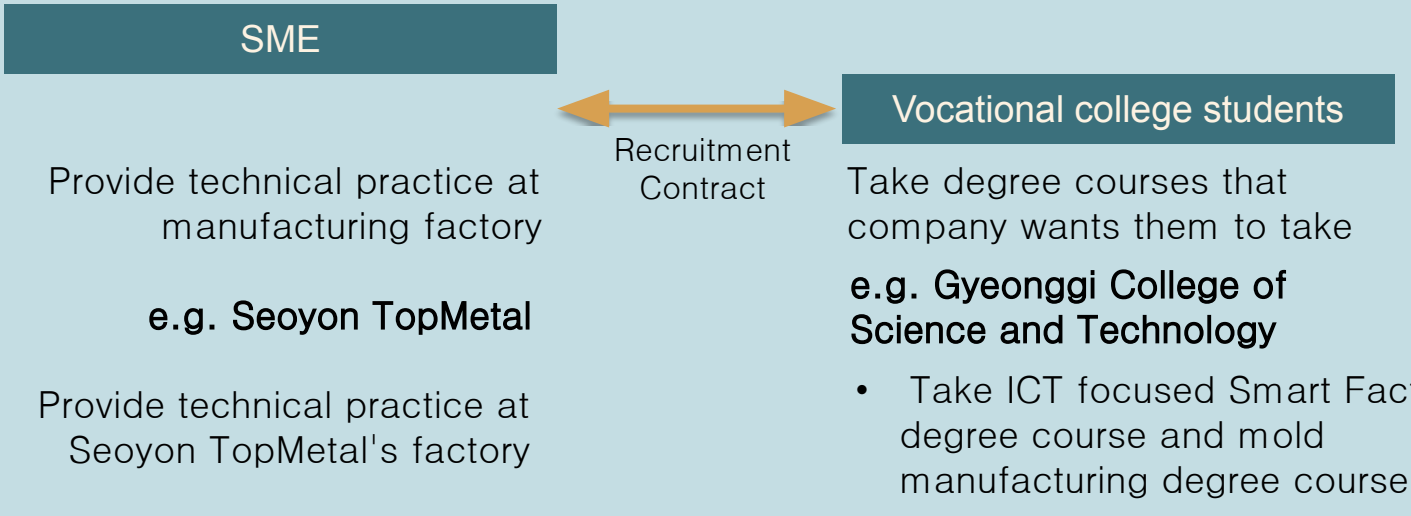
Solution 1: **Linked major system** in vocational education institutions

Taking full length of enrollment course ▶ Linked major with their own major

- Provide **'Smart factory expert course' as a linked majors** for the **ICT-related or manufacturing-related courses**
  ▶ having one expertise first and then **extend it to related area**

e.g., For ICT-related department students or ICT experts:
Provide **'Smart Factory Expert Course Specializing in mold manufacturing'**
For manufacturing experienced students or experienced employees:
'Smart Factory Expert Course Specializing in ICT'

Solution 2:
Industry-academic cooperation programs in vocational colleges



SMEs like Seoyon TopMetal can **secure employees with connected expertise** based on **experience**
▸ **Willingness to reshore will be increased** with labor infra for the smart factories

What should companies do?

: Solutions to the changes enterprise will experience with the introduction of smart factory

1. Training & Development

On the job training	Off the job training
• Many things to learn in the field • Technical training should be performed • Hands-on training Between employees who are… specialized in manufacturing industry ↔ specialized in ICT technology	• New skills to learn from applying smart factory • Public vocational training related to smart factory provided for free

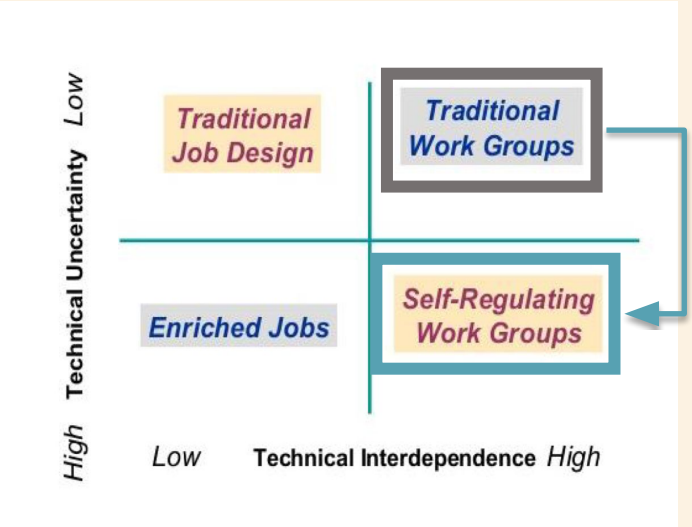
On the job training: 60%

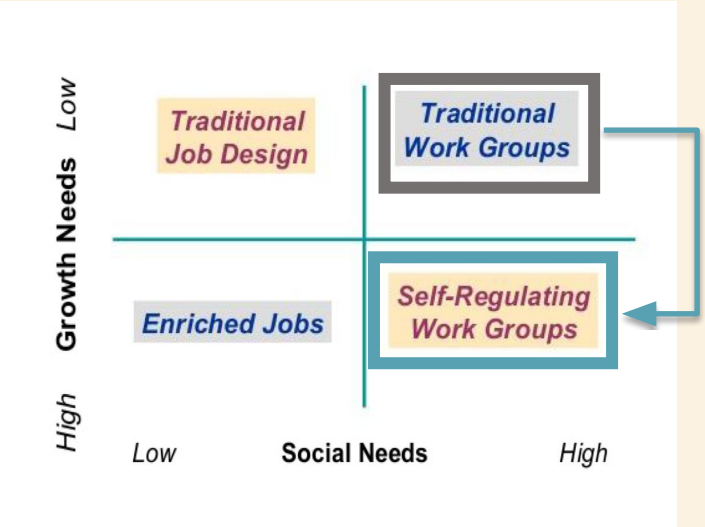
Off the job training: 40%

2. Organization Development

Building expertise is **not enough to change the reality**
: We have to make them want to learn and apply it **with Organization Development**

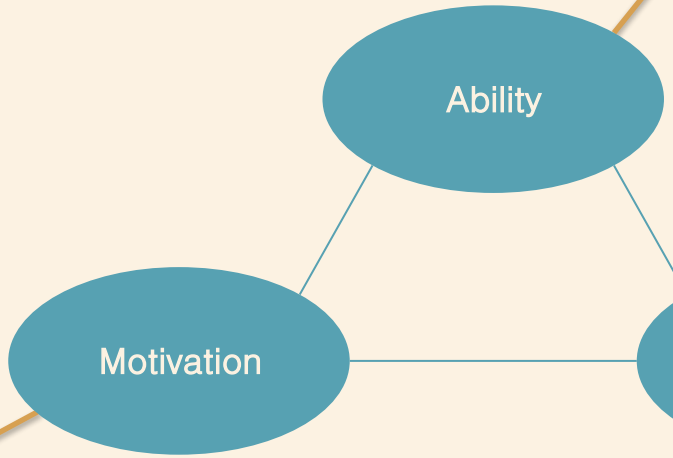
Higher technical uncertainty ▸ **Higher Personal growth need** is needed





Joint optimization using AMO model

: to improve employees' growth need



It's important for Seoyon TopMetal to **hire employees with the required skill.** They have to hire people **who are willing to learn** about both **Smart factory system** and the **overall mold manufacturing process.**

To make their employees **want to grow and make learning culture** , they should apply **MBO for the appraisal instrument.** MBO will improve empowerment and make their employees want to grow.

Seoyon TopMetal should **hold town hall meeting** with all employees once a week or month, so their employees **can suggest more creative and connected idea** that employees from other department couldn't think of.

05

Conclusion



Conclusion

- Due to the deindustrialisation of Korea many manufacturing companies moved outside the country.
- (2017) Korean government wants them to come back, as reshoring has many benefits.
- Low numbers of companies are reshoring to Korea, unwillingness because of higher risks.

How can Korean Government make Companies reshore with Human Resource Development strategies?

Solution

- Smart Factory.
- Target SMEs in the mold manufacturing industry, like Seoyon TopMetal.
- Solution 1: Linked major system in vocational education institutions.
- Solution 2: Industry-academic cooperation programs in vocational colleges.
- Important that employees want to learn: Joint optimization using AMO model.
- Government implementation and collaboration with companies.



Thank you for listening!

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