

Reality of DX Human Resources at SMEs

- Current WFD Challenges and Ambitions for the Future -



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Reality of DX Human Resources at SMEs

- Current WFD Challenges and Ambitions for the Future -

Section 1.

- Challenges of human resources development in Japanese SMEs
- How to pass down manufacturing skills from generation to generation
- Solutions for key HR development challenges

Section 2.

- Macro trend and people's values after COVID-19 (SME viewpoint)
- Industry-government-academia collaboration for HR development

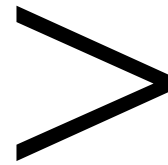
Closing

- To achieve Kitakyushu - A “Sustainable” City of Manufacturing

□ HR development in Japanese SMEs

Section 1.

- Challenges of human resources development in Japanese SMEs
- How to pass down manufacturing skills from generation to generation



Tacit knowledge
is mainstream



Traditional WFD style in Japan

- Sensory expression
- “Watch and learn” type of technology inheritance & guidance

Generation gap issues



- Disconnecting technology inheritance
- Delay in Multi-skilled development
- Decreasing ability to think
- Continuous employee outflows



Productivity



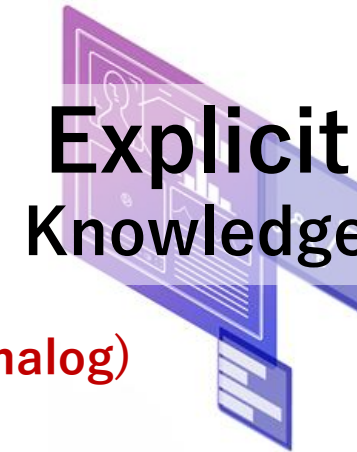
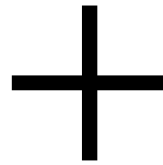
Analog inheritance approach and time-consuming training
(Negative reaction to digitalization / lifetime employment system)

Declining productivity might be
a critical issue for SMEs

□ HR development in Japanese SMEs

Section 1.

- Challenges of human resources development in Japanese SMEs
- How to pass down manufacturing skills from generation to generation



**Goal: Digital merges with legacy (analog)
(not just replaced by digital)**

- Apprenticeship system
- The era of mass production
- IT/Digital allergies
- Lifetime employment system
- Economic growth / stable period

GAP



- LMS※ / Simulated training
- Diversification of consumer needs
(less mass production items)
- Digital natives
- Work-life balance
- Long-term economic stagnation

- Solution for key HR development challenges

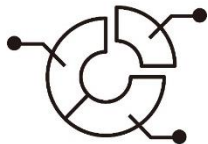
Actions for filling the gap ①

Action Assign several IoT projects to the next generation

- Promoting original IoT system
- Initiating sales of German-made EVO software
- Organizing drone salesforce team

Action Internal training programs for changing mindset

- Industry 4.0 Training for management
- Improve manager's DX literacy
- Accumulate small DX success stories



Episode



This summer, we held “Brain games and riddles” online as an internal team building event. All of us witnessed that the younger generation with their flexible minds led the team in answering the questions. What the team leader had to do was to provide opportunities for the younger generation to maximize their performance.

- Solution for key HR development challenges

Actions for filling the gap ②

Action Develop human resources
by SMEs collaboration

- Sharing and pointing out WFD issues
- Eliminating 「ask for the moon」 mindset
- Skill map sharing and mutual complement

北九州  ネットワーク

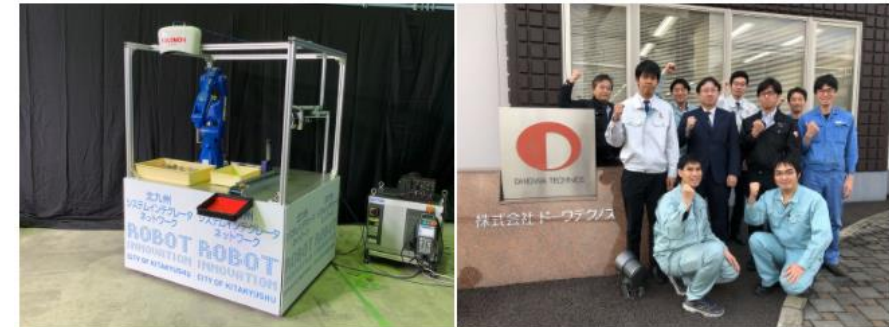
Kitakyushu System Integrator Network
established in 2018

「ask for the moon」
= 「ないものねだり」



Action Facilitate extended same-generation
networking

- Providing opportunities to belong to the external community
- Providing chances for projects to be completed by the same generation

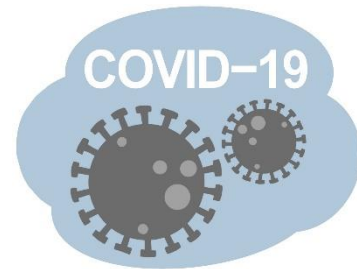


System Integrators from multiple SMEs worked together and built a robotics demo system for the exhibition event

□ After COVID-19 trend (SME viewpoint)

Section 2.

- Macro trend and people's values after COVID-19 (SME viewpoint)



- 「Leave no one behind」 mindset
- Impact of COVID-19 on values & lifestyle
- Concept of De-growth in business
- Threat from global natural disasters

- Legacy system issue - "2025 digital cliff"
- DX challenges in the manufacturing industry
- Widening DX gap by size of company

The changes in the social environment surrounding business are significant and their speed is increasing

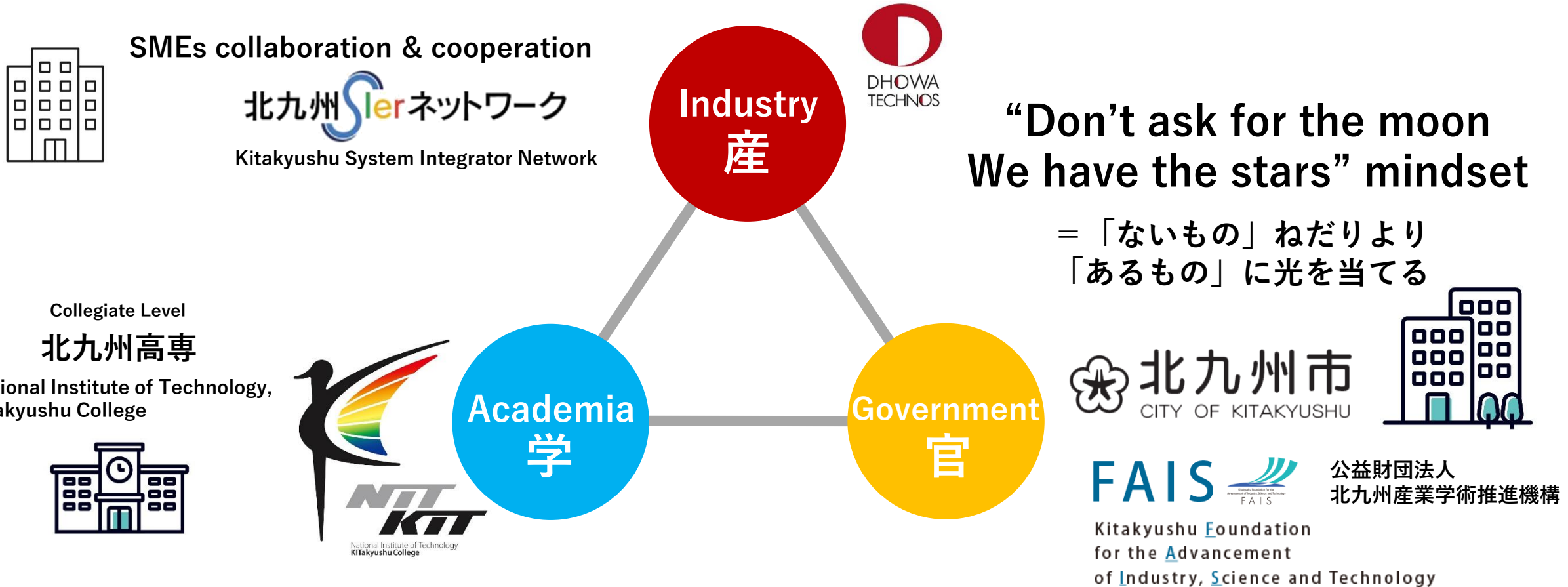
□ Role of SMEs for the future

Section 2.



- Industry-government-academia collaboration for HR development

Agile response to changes in business and social environments
Problem solving through regional cooperation



□ Role of SMEs for the future

Section 2.



- Industry-government-academia collaboration for HR development



Learning for business side

- For manufacturing SMEs management “Industry 4.0 executive business school” program

Attend 30 people/period
Including the members who will lead the next generation of management

Learning from business side

- Cooperative education program 「Compass」
Lessons by person in charge of business

Instructor from more than 10 companies
mainly from regional SMEs

- The Consortium of Human Education for Future Robot System Integration <CHERSI>



北九州高専

National Institute of Technology,
Kitakyushu College

Practical learning through collaboration
More practical and dynamic learning



□ Role of SMEs for the future

Section 2.



● Industry-government-academia collaboration for HR development

- Companies where you can improve your skills
- Companies where you can contribute to the local community
- Diversification of industries & jobs
- Diversification of career paths

“Learning” leads to “Work”
Providing diverse work styles and WFD
Fostering an attractive corporate culture



< Current >

Approx. 90% of graduates go outside of Kitakyushu for work/study



あたらしいことを、はじめやすい都市。



□ Our ambitions for the future

- To achieve Kitakyushu - A “Sustainable” City of Manufacturing

Diverse Work Style

Corporate Culture

Industry-Government-Academia Collaboration

Practical Learning

Mindset

Beyond Generations

DX Merge with Legacy

**「Kitakyushu - A city of manufacturing」
where DX human resources grow
with a lively work environment**

“Don’t ask for the moon, SMEs have the stars”

Contribute to the development of a “Sustainable city”



Thank you for your kind attention

DHOWA TECHNOS



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