Staying Competitive Through Digitalization

May 18, 2017
Toshiyuki Shiga
Vice Chairman
Nissan Motor Co., Ltd.
Chairman and CEO
Innovation Network Corporation of Japan
What will 4th Industrial Revolution bring us?

1st
Steam power

2nd
Mass production & Electricity

3rd
Computer & Automation

4th
IoT, Big data, AI

Enrich people’s life

Accelerate environmental issues & disparate society

?
Japan’s lower Labor Productivity

*Labor productivity = Added value/Labor input

Comparison of Productivity among OECD countries, Japan Productivity Center, 2016
Labor productivity (Industrial section)

Agriculture: 2.5
Service sector: 5.3
Manufacturing: 11

System of National Accounts, Cabinet Office, 2006
Labor productivity (Company Size in same sector)

**Big Co.**


**SMEs**

(MJPY/person)

15
10
5
0

12

▲ 60%

5
Labor productivity (Department in company)

Blue-collar worker

High

White-collar worker

Low
Labor productivity (Age groups in office)
4th Industrial Revolution brings us Productivity Revolution

Social Issues

- Agriculture
- AI Industry
- 4th Industrial Revolution
  IoT, Big data, AI
- SMEs
- Robot
- Service sector
- Digital marketing
- ICT
- Telecommuting
- Working style (Time, place )
Agriculture × AI

AI predicts Cow’s Heat/Disease

Hokkaido
SMEs × AI

Robotics make up for Labor Shortage in SMEs

https://www.yaskawa.co.jp/product/robotics
Small shop × AI
(Service sector)

AI analyzes Sales slump cause & improves sales
Nursing-care Service × AI

AI creates an elder care programs

Care Design Institute Inc.

Create New model

Investment Business support

Care service provider

Investment Management support

Other enterprise
Major issues of venture eco system in Japan

① Low investment for start-up companies

② Luck of Entrepreneurship

③ Inactive collaboration b/w Univ. /Start-up & Big Co.
① Low Investment for start-up companies

Total amount

Total number

Venture white paper 2016, Venture Enterprise Center
## Luck of Entrepreneurship

<table>
<thead>
<tr>
<th>Corporation</th>
<th>Start</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 y/o</td>
<td></td>
<td>60 y/o</td>
</tr>
</tbody>
</table>

### Total Early-Stage Entrepreneurial Activity (TEA)

- **Japan**: 4.8%
- **Germany**: 4.7%
- **USA**: 11.9%

*Global Entrepreneurship Monitor, METI, 2015*
③ Inactive collaboration b/w Univ. & Big Co.

Exchange rate:
1$ = 80 JPY (2012) 100 JPY (2013)
1€ = 100 JPY (2012) 130 JPY (2013)
③ Inactive collaboration b/w Start-up & Big Co.

Univ. Basic study
0 → σ

Start-up Companies
σ → 1

Start-up Ecosystem
1 → 10

Big Companies
10 → 100
Thank you for getting connected