



From Frustration to Hope in Korea Industry 4.0 Association



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Lessons learned from Success and Challenges in



INTREE 4.0 FORUM

Korea Industry 4.0 Association



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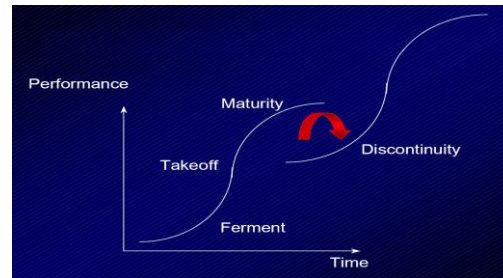
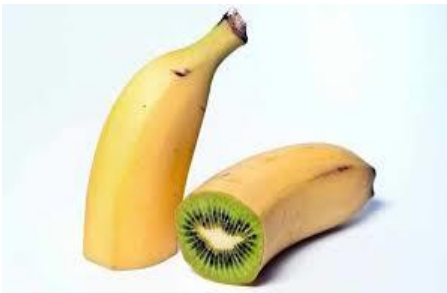
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- Challenges
- Lesson Learned
- From Frustration to Hope

About My Life

Identity

Research

Practice



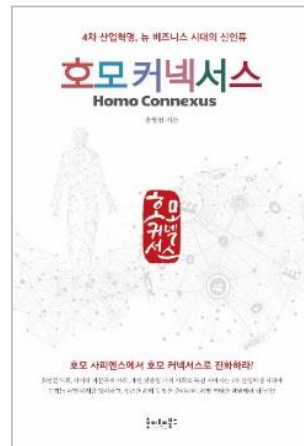
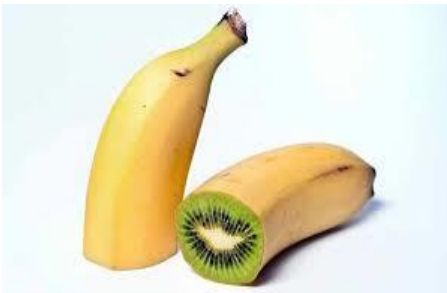
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Hung Song, Co-Author

Identity

Practice

Curiosity

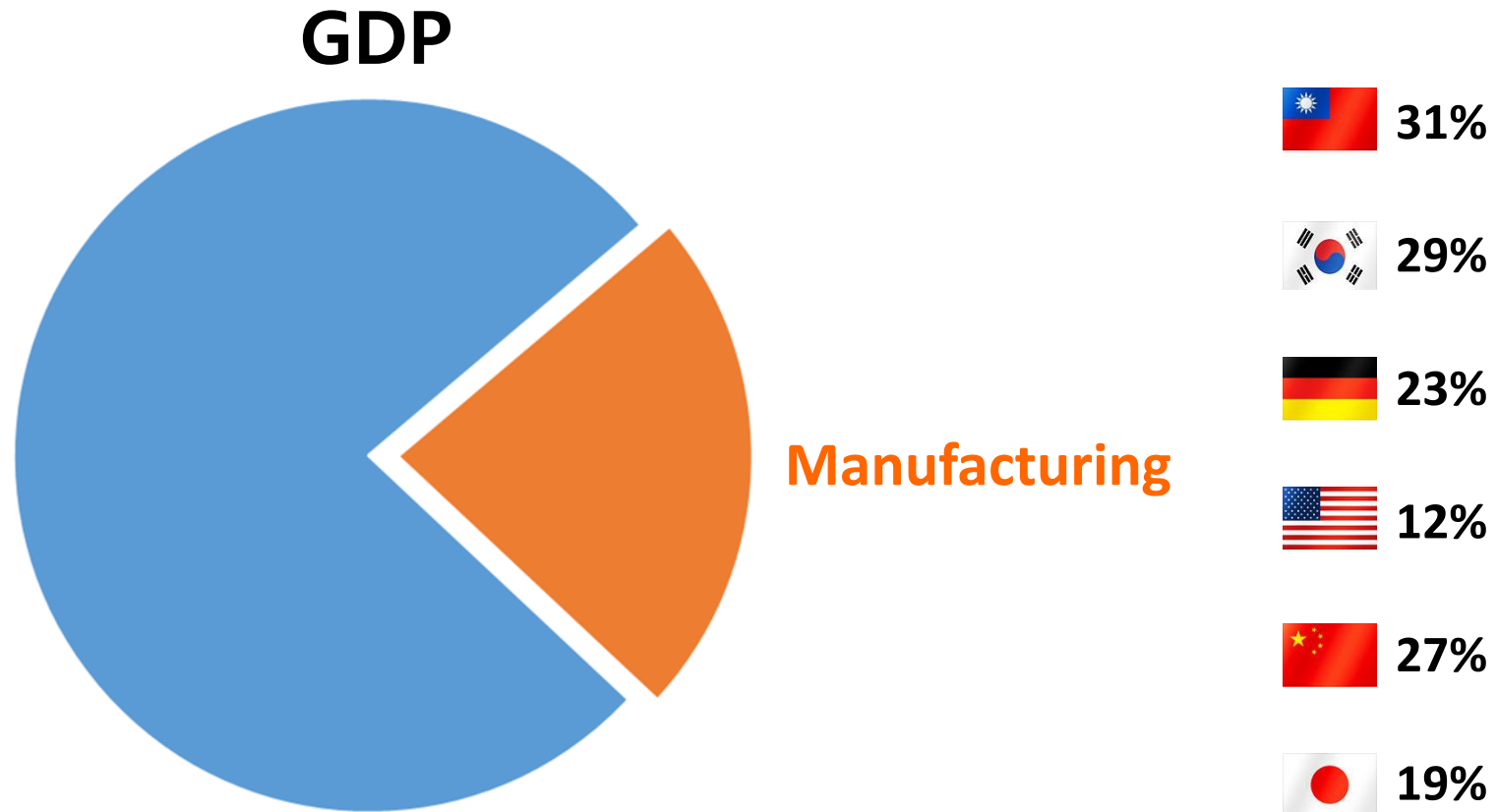


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Introduction to

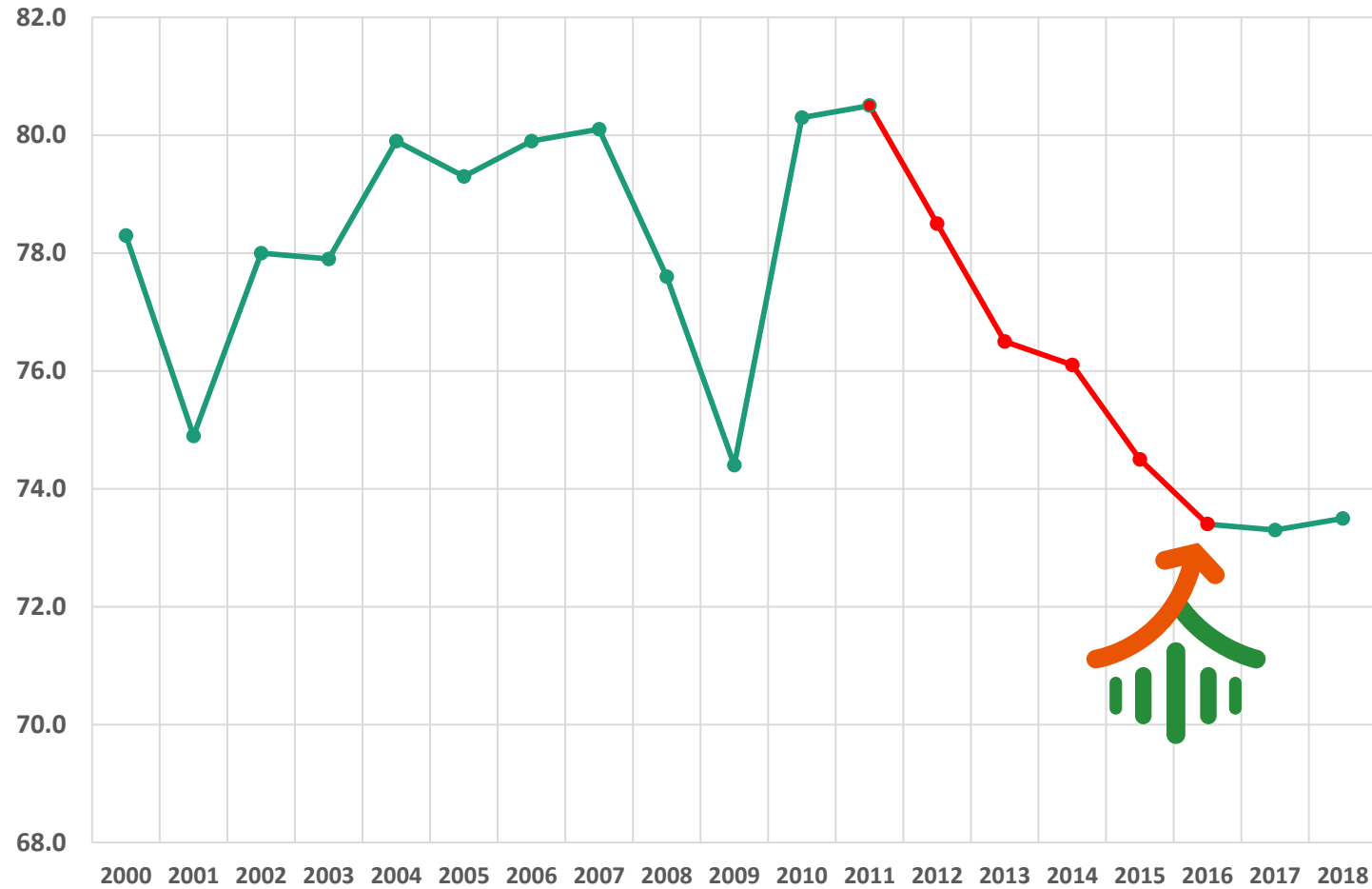


Manufacturing Output as % of GDP @ 2015



Source: **Chris Rhodes**, House of Commons Library, Manufacturing: international comparisons, 2018. 01. 05.

Avg Operating Rate in **Korean** Mfg Industry



Global Manufacturing Competitiveness

Global Manufacturing Competitiveness Index 2016

Current Competitiveness Index

Country	2016		2013 Rank	Trend
	Rank	Index score		
China	1	100.0	1	=
USA	2	99.5	3	▲
Germany	3	93.9	2	▼
Japan	4	80.4	10	▲
South Korea	5	76.7	5	=
United Kingdom	6	75.8	15	▲
Taiwan	7	72.9	6	▼
Mexico	8	69.5	12	▲
Canada	9	68.7	7	▼
Singapore	10	68.4	9	▼
India	11	67.2	4	▼
Switzerland	12	63.6	22	▲
Sweden	13	62.1	21	▲
Thailand	14	60.4	11	▼
Poland	15	59.1	14	▼
Turkey	16	59.0	20	▲
Malaysia	17	59.0	13	▼
Vietnam	18	56.5	18	=
Indonesia	19	55.8	17	▼
Netherlands	20	55.7	23	▲

Competitiveness Index in Five Years

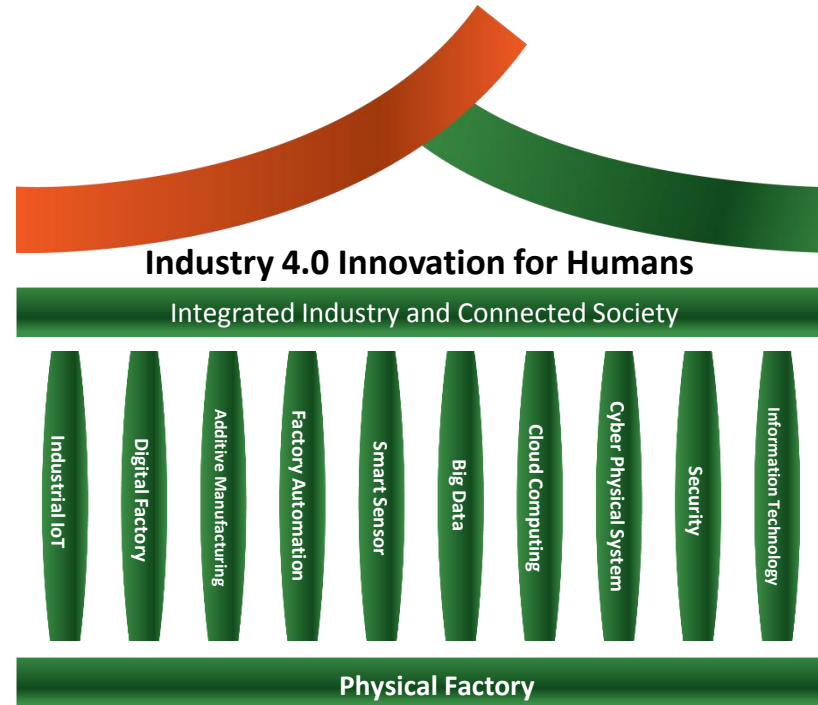
Country	Rank	Index score
USA	1	100.0
China	2	93.5
Germany	3	90.8
Japan	4	78.0
India	5	77.5
South Korea	6	77.0
Mexico	7	75.9
United Kingdom	8	73.8
Taiwan	9	72.1
Canada	10	68.1
Singapore	10	67.6
Vietnam	12	65.5
Malaysia	13	62.1
Thailand	14	62.0
Indonesia	15	61.9
Poland	16	61.9
Turkey	17	60.8
Sweden	18	59.7
Switzerland	19	59.1
Czech Republic	20	57.4

Mighty Five

Source: Deloitte Development LLC, Mar 24, 2016

Vision and Mission Statement

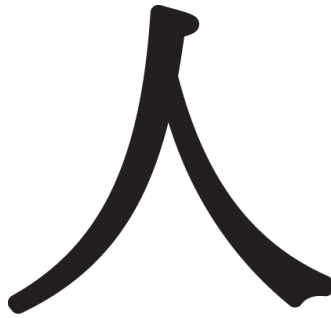
Vision



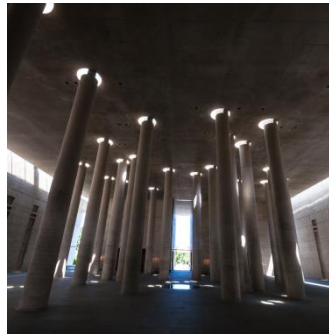
Mission

- Promote Asian values to Industry Innovation contributing to people's better life in the world
- Serve people with insight, intelligence, inspiration and innovative minds for Industry Innovation
- Foster the next generation to grow, lead, and contribute to our industries
- Offer activity platform for advancement of Korean Industry 4.0

Brand Story



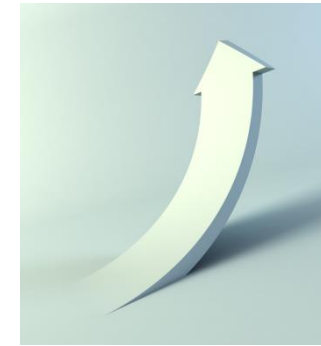
Human



Pillars



Mobile



Growth

Brand Story



INTREE 4.0 FORUM

Korea Industry 4.0 Association



INTREE 4.0
WORLD FORUM

Co-Founders



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Korea Industry 4.0 Association



Activity Platform

- **Network of Expertise**
- **Collaboration Platform**
- **Industry de facto standards activities**
 - Reference Architecture
 - Interoperability on Integration
 - Use cases and Best Practices
 - Testbeds

Business Model

- Experts from various industries
- Voluntary work based
- Independent from Government Agencies
- Membership fees
- Consulting, Education and Publications

Achievements

Monthly Meetings



KMAC 2016 Annual Conference on Manufacturing and Innovation



KMAC 2017 Annual Conference on Manufacturing and Innovation



산업일보



INTREE 4.0 WORLD FORUM

Intree 4.0 World Forum 2017, Seoul, Korea



Evangelist of Radical Change

New Manufacturing Campaign since 2018

- Service driven manufacturing
- Internet driven manufacturing

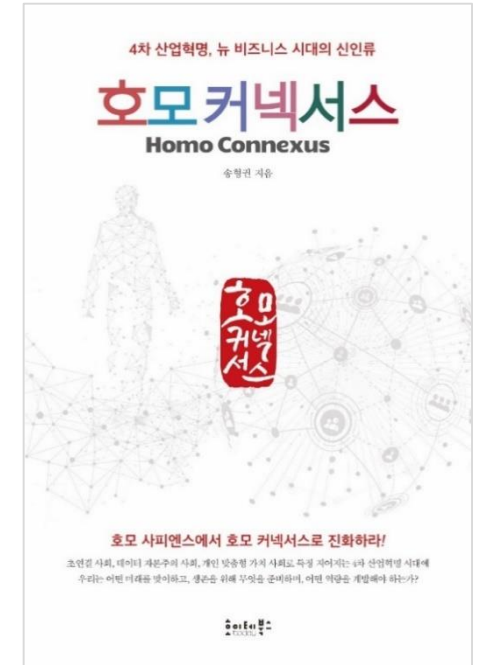
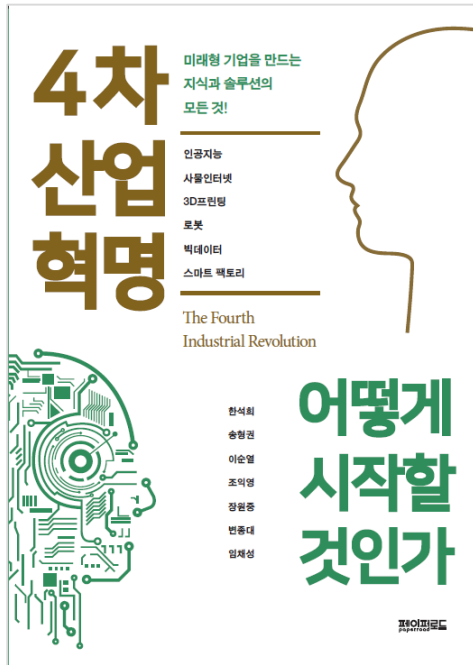


- newmanufacturing.org

Smart Factory Expert Certification Program



Publications



Global Collaboration



innovationszentrum
für industrie 4.0

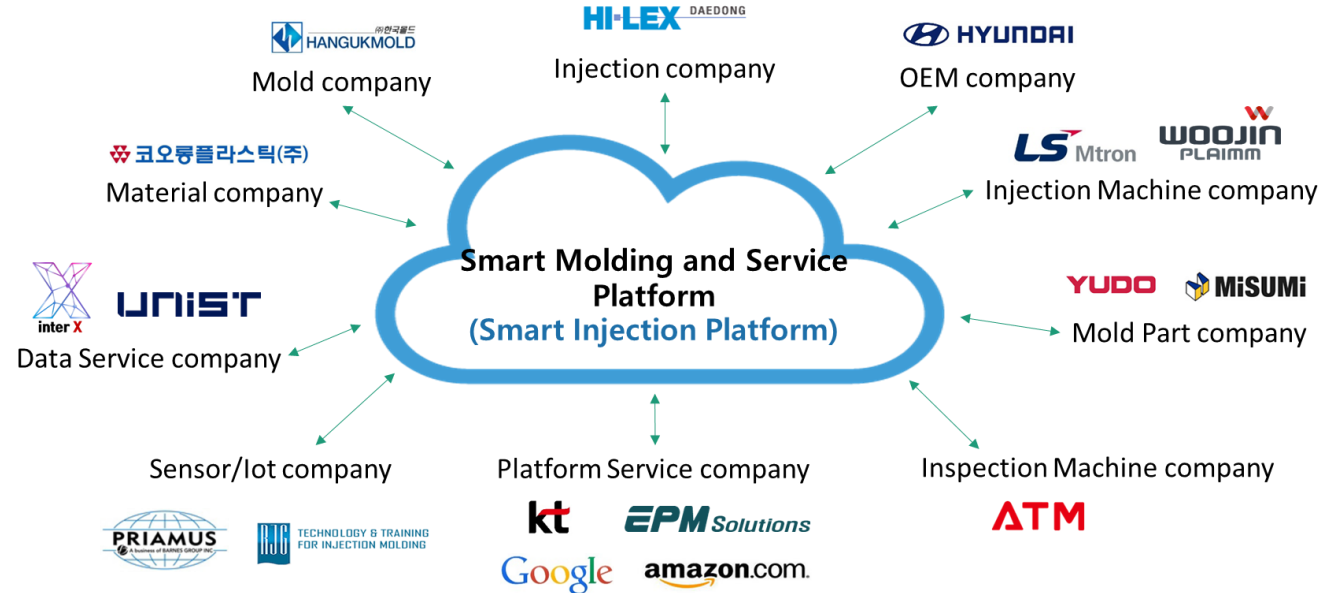
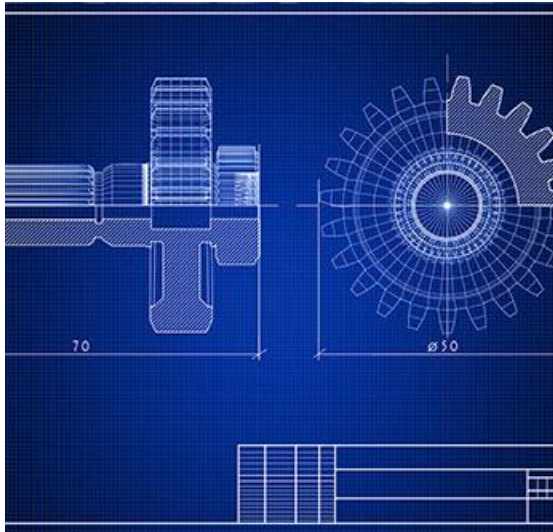


IIC Korea Regional Team



IIC Testbed

IIC Testbed Workshop
Seoul, Korea
2019. 10. 7



Thai Collaboration



Thai Electrical, Electronics and
Telecommunication Industries Association



Challenges

Joining Large Corporation Members

Limited Activities of Experts

Limited Contribution to Gov't Policy

Limited Global Collaboration

Lessons learned

Focus on Korean Industry Strength



**Corporation Collaborative Body
Strong in Software and Data**



**Gov't and Corporation Collaborative Body
Strong in Machines and Shop Floor Software**



**Experts Collaborative Body
Strong in Manufacturing Operations**

Corporation Initiatives



Independence from gov?

Free to Focus on

- Offering objective insights from world leading concepts & practices.
- Avoiding “spokes-association” activities of government policy
- Exploring radical issues in manufacturing industries
- Interacting with corporations mainly, rather than with government
- Building network of expertise as a community

More focused to i4.0 Platform

Activity

- **Collaboration Platform**
- **Industry de facto standards activities**
 - Reference architecture
 - Interoperability
 - Use cases and Best Practices
 - Testbeds

From Frustration to Hope

Intree 4.0 World Forum 2017 and...



INTREE 4.0 WORLD FORUM 2017 SEOUL, KOREA

“대한민국 제조업의 부흥을 위하여” Towards A Korean Manufacturing Renaissance

대한민국 제조업의 미래를 위해 “인간을 위한 인더스트리 4.0”의 가치를 걸고
창립한 한국인더스트리 4.0 협회가 창립 2주년을 맞이했습니다.
그동안 협회에 아낌없는 지원을 해주신 협회원 여러분들에게 감사의 뜻을 전하고,
대한민국 제조업의 부흥을 염원하며 특별 세미나를 준비했습니다.
지난 40여년 간 대한민국의 경제 부흥을 이끌어 온 제조업이 날로 치열해지는
제조업의 글로벌 경쟁 시대에 어떻게 대응하고 있는 가에 대한
현주소를 점검하고 미래에 어떻게 대응할 것인가를 토의하는 자리에
여러분들을 초청합니다. 어려운 때일수록 손에 손을 잡고 협업하는
집단지성으로 세계 최고의 제조업으로 향하는 길에 동참하여 주시기를 진심으로 바랍니다.

일시 : 2017년 11월 18일 (토), 9:30 ~ 16:00

장소 : 강남 파이낸스센터 9층 KPMG 대회의실

시간	내용	발표자
09:30 ~ 10:00	등 록	
10:00 ~ 10:30	창립 2주년 기념 축하	임채성 회장
10:30 ~ 11:00	4차 산업혁명 완전정복	한석희 사무총장
11:00 ~ 11:30	독일, 스마트공장	박원주 이사
11:30 ~ 12:00	4차 산업혁명 - 중국제조 2025	윤태화 이사
12:00 ~ 13:00	Lunch and Networking	
13:00 ~ 13:30	Digitization : On the way to a digital company	김환휘 이사, Phoenix Contact
13:30 ~ 14:00	Big Data - 제조업 적용 사례	김태영 박사, KPMG
14:00 ~ 14:30	인공지능, 머신러닝, 딥러닝	민광기 대표, ECminer
14:30 ~ 15:00	Coffee Break and Networking	
15:00 ~ 15:30	새로운 에너지의 시대	김재동 대표, CiTopia
15:30 ~ 16:00	새로운 물류	박종석 대표, Asetec
16:00 ~ 16:10	폐 회	

 한국인더스트리 4.0 협회

Manufacturing Renaissance Vision



Made in Korea

Targets

	2018	2030
Manufacturing as % of GDP	25%	30%
New Growth Sectors in Manufacturing *	16%	30%
Global Leading Companies	573	1200
Export Ranking	#6	#4

* New Growth Sectors: non-memory chips, hydrogen cars, bio healthcare, etc.

- **30,000 Smart Factories @ 2020**
- **2,000 AI Factories @ 2030**
- **10 Smart Industrial Parks @ 2030**

Source: Ministry of Trade, Industry and Energy, 2019. 06.19.

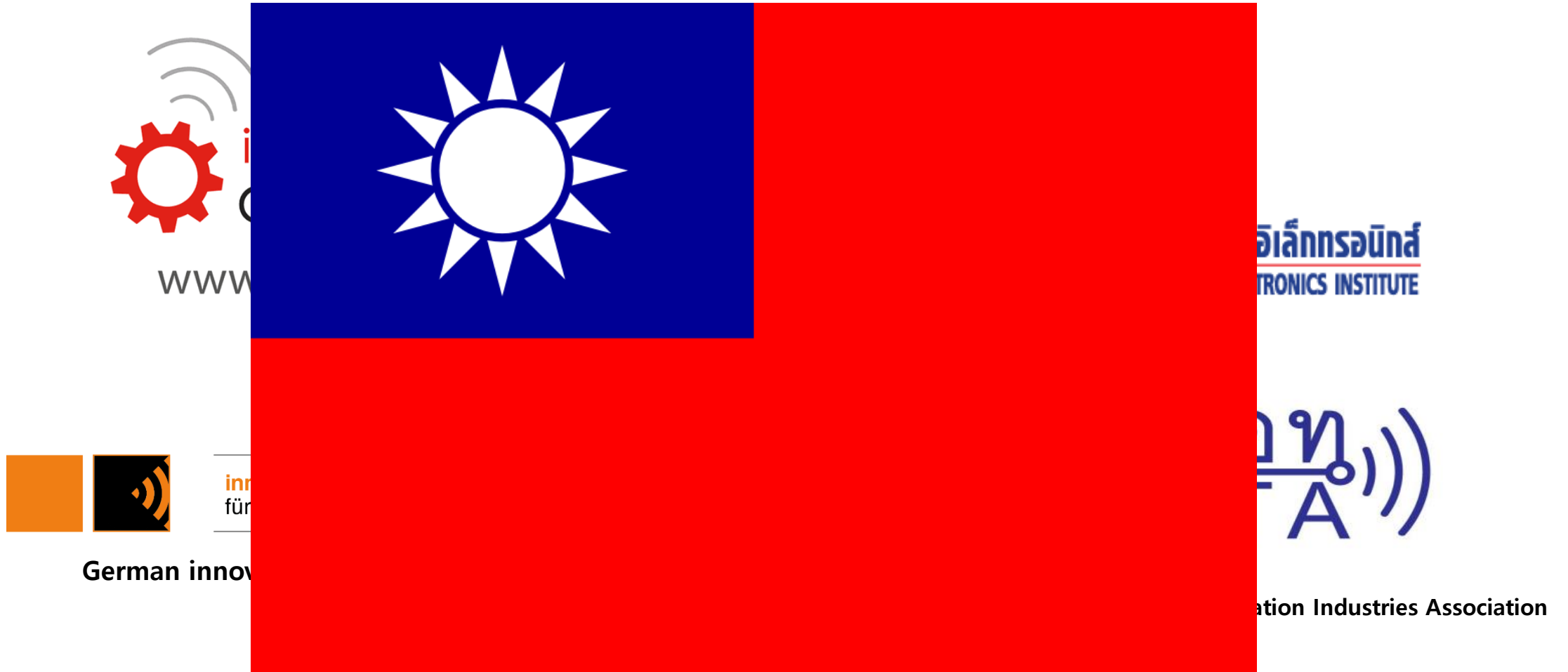
More Contributions expected



Manufacturing
Renaissance



Expanding Global Collaboration



Intree 4.0 World Forum 2020



감사합니다
Thank you~!

谢谢!

