

Smart Innovative Daejeon City

Technology-Community Co-evolution towards Carbon Net-zero

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STEP

SCIENCE AND
TECHNOLOGY POLICY
INSTITUTE

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Introduction to Daejeon Metropolitan City

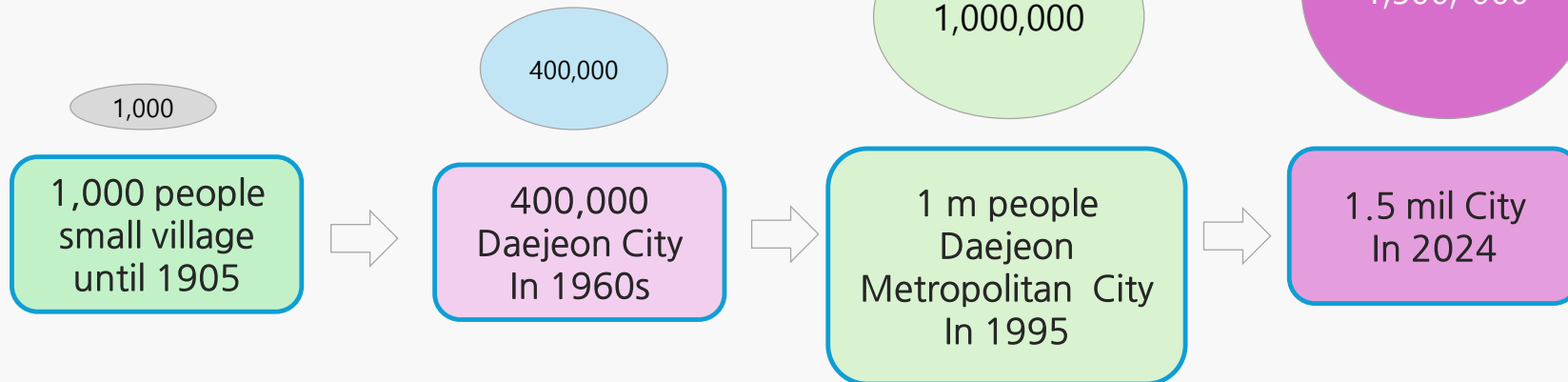
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Introduction to Daejeon Metropolitan City

1-1 Growth with Open & Collaborative Culture as a modern city



Became Hub of
Transportation
between
1905~1926~1970s



1.5 m mix = From Seoul + South east + South west + Middle area + abroad

1 Introduction to Daejeon Metropolitan City

1-2 Science and Technology friendly City

1905~1970s
Surround
Daejeon Station

Printing, Ironworks, Oriental medicine, Financing,
Architecture, Logistics

Top 25 S&T cities by WIPO
in 2023

1973~2024
Daeduck Innopolis

Korea's biggest Research & Innovation Cluster
with 80,000 researchers & engineers
- Technologies for Korea's major Industry

International Science Business Belt



Rank per-capita*	Cluster name	Economy
1	Cambridge	GB
2	San Jose-San Francisco, CA	US
3	Oxford	GB
4	Eindhoven	NL
5	Boston-Cambridge, MA	US
6	Daejeon	KR
7	Ann Arbor, MI	US
8	San Diego, CA	US
9	Seattle, WA	US
10	Munich	DE
11	Kanazawa	JP
12	Raleigh, NC	US
13	Göteborg	SE
14	Beijing	CN
15	Stockholm	SE
16	Helsinki	FI
17	Zürich	CH
18	Tokyo-Yokohama	JP
19	Basel	CH/DE/FR
20	Copenhagen	DK
21	Nuremberg-Erlangen	DE
22	Stuttgart	DE
23	Minneapolis, MN	US
24	Pittsburgh, PA	US
25	Seoul	KR

2000s~
& Next 50 years

Hub of high value-added industries such as
System semiconductor, Bio-medical, New Space, Defense,
Quantum, and Climate change etc.

1 Introduction to Daejeon Metropolitan City

1-3 Strong Communities and Living Lab City

2014

Korea's first Roadmap for solving regional problems using living lab concept and methodology

2015

1st Community-led Living Lab Project in Korea

2016~2024

Expansion of Living lab actors to universities, research institutes, communities, organizations, companies, local governments etc.

2021.6 ~
Daejeon Network
of Living Labs

DNoLL by 75 member organizations

1

Introduction to Daejeon Metropolitan City

1-4 Renowned as Korea's Brain City

21 Universities

24 Government-funded Research Institutes

More than 2,000 R&D based Innovative companies

More than 7,000 foreign students & scientists from abroad

More than 10 Central Government Departments

2

Innovation Strategy of Daejeon City

2 Innovation Strategy of Daejeon Metropolitan City

2-1 Vision, Objectives and Strategies



2

Innovation Strategy of Daejeon Metropolitan City 2-2 Comprehensive Plan for Carbon Net-zero City

40% Reduction of Green House Gases By 2030

Transition to
Green Building



Eco-friendly
Transportation



Circular Economy City



Low Carbon Agriculture
& More Carbon Sinks

Global Cooperation

3

Sectoral cases

3

Some Cases 3-1 Green Building Plan

**93% green house gases reduction from buildings
By 2033**

- ✎ Mandatory green remodeling of public buildings
- ✎ Zero-energy building construction
- ✎ New and renewable energy provision to house
- ✎ Low carbon green life education
- ✎ Carbon neutral incentive points

3

Some Cases 3-2 Green Transportation Plan

**36% green house gases reduction from transportation
By 2033**

- ➡ Expanding green transportation culture
- ➡ More convenient public transportation like hydrogen tram
- ➡ More provision of eco-friendly cars like EV & HV

3

Some Cases

3-3 Smarter waste management for circular economy

**52% green house gases reduction from waste
By 2033**

- ➡ Reduction of daily life waste
- ➡ Renewable energy production from waste site
- ➡ More recycling waste and upcycling as resources

3

Some Cases

3-4 eco-friendly agriculture and more forest

**23% reduction from agriculture
& 45% reduction using sinks like forest
By 2033**

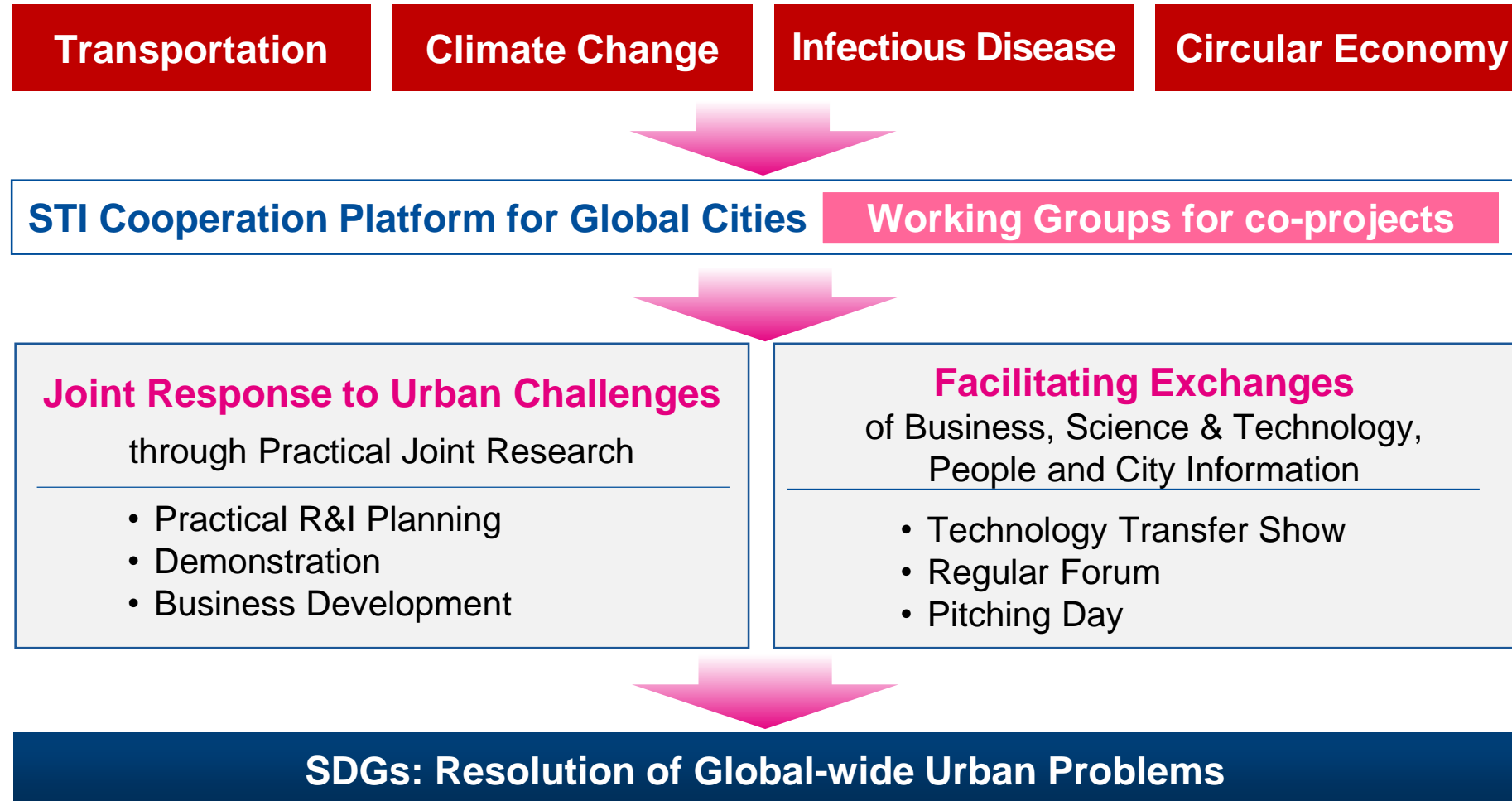
- ➡ More provision of smart agriculture technology and facilities
- ➡ Developing city agriculture & eco-friendly agriculture
- ➡ Greenbelt and forest in City

3

Some Cases

3-5 Global Innopolis Network Initiative (GINI)

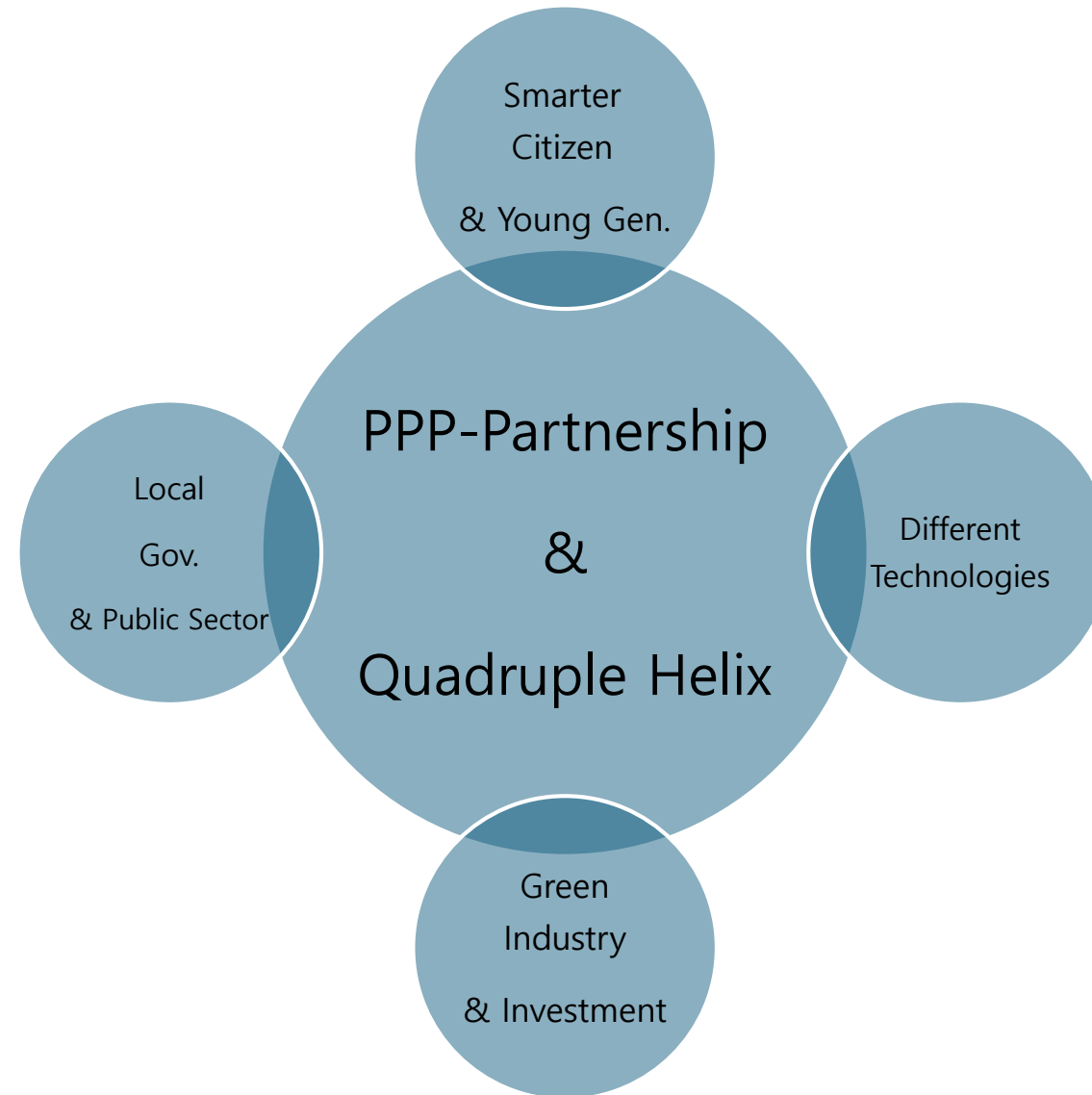
[Global Innopolis Network Initiative (GINI)]



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Conclusion

4 Conclusion



Thank
You.