

Proposal for a Circular Economy Cluster

GREEN-TECH PARK

Hybrid Recycling System

World's First Carbon-Neutral City

2023. 04

3.4 GREEN-TECH PARK Air view



The Importance of GREEN-TECH PARK

Through the creation of a GREEN-TECH PARK where citizens and local governments work together for a circular economy

Establishing the 'World's First Carbon-Neutral City' in S. Korea

CIRCULAR ECONOMY GREEN-TECH PARK

Circular Economy



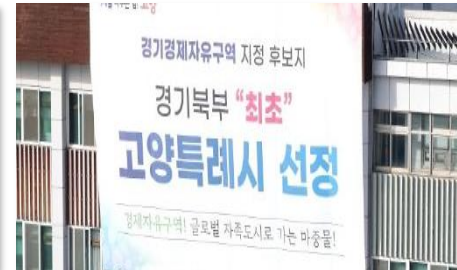
Education & R&D



Culture & Tourism

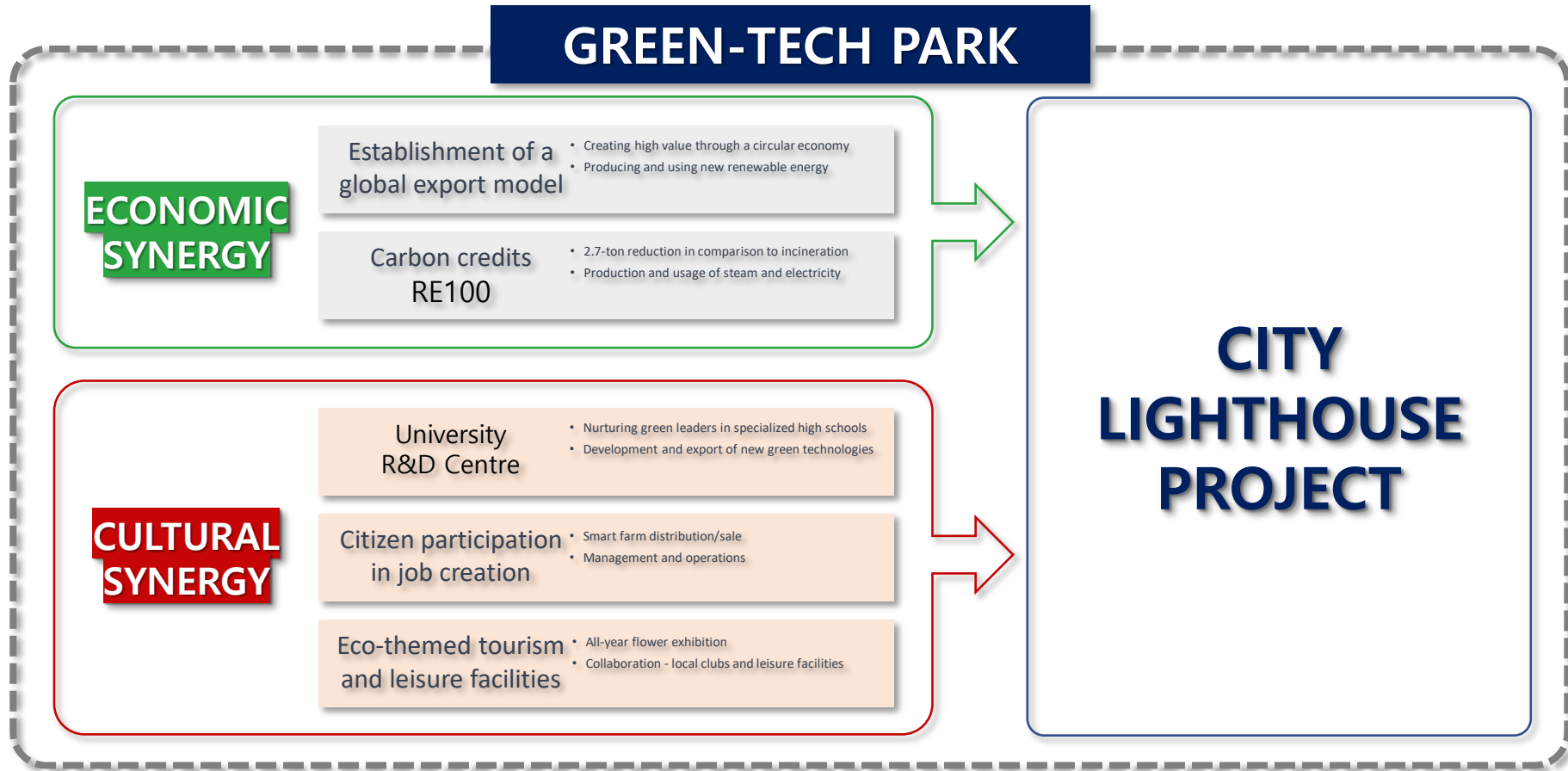


Local Economy



Establishing the First Cluster Export Model through Energy Production from Waste Treatment and an International Tourist Facility

Transitioning from individual facilities to a cluster formation
Strengthening collaboration between eco-friendly technologies and local government



World's first carbon-neutral premium city

Proposing a global landmark export model by realizing a circular economy cluster

Establishment of a global export model

Non-incineration environmentally friendly
waste disposal
Production of new renewable energy
(electricity, biofuel)

Recycling of resources

Completion of the world's first leading model

Carbon emissions permits & RE100

2.7-ton reduction of greenhouse gases
compared to incineration
Electricity production and use through
thermal energy

Acquisition of carbon emission permits
and achievement of RE100

Generating profits and achieving carbon neutrality

CULTURAL SYNERGY

Job creation through public facilities, production facilities, and tourist facilities for local residents
Expansion of a global tourist city through a flower exhibition that can operate 365 days a year

<p>Public facilities such as parks and sports centres</p>	<p>Activation and linkage of existing sports club associations</p>	
<p>Production facility – smart farm</p>	<p>Local residents farming of vegetables and fruits, and selling them at a food court</p>	
<p>Tourist facility – 365 days a year garden</p>	<p>Utilization of generated energy, minimizing operating costs, attracting global tourists</p>	

CULTURAL SYNERGY

Establishment of specialized schools for nurturing the next generation of green leaders
Collaboration with domestic and international educational institutions for domestic new green tech development and export

<p>Vocational high school and experiential learning</p>	<p>Promotion of resource circulation culture through education, experience, and tourism</p>		
<p>R&D Centres</p>	<p>Collaboration with prestigious universities such as Cambridge Birmingham and Seoul National University for R&D and export support</p>		

Why COF?

Environmental policy direction and institutional changes by the Korean Ministry of Environment are planned
Banning of direct incineration following the prohibition of landfilling in 2026
Introduction of recycling processes is the only response

Starting from January 1st, 2026, direct disposal of household waste will be prohibited in the Seoul Metropolitan Area, Incheon Metropolitan City, and Gyeonggi Province

Revision of [Appendix 5] of the Enforcement Regulations of the Waste Management Act

Urge to install incinerators to 10 mayors in the Seoul metropolitan area

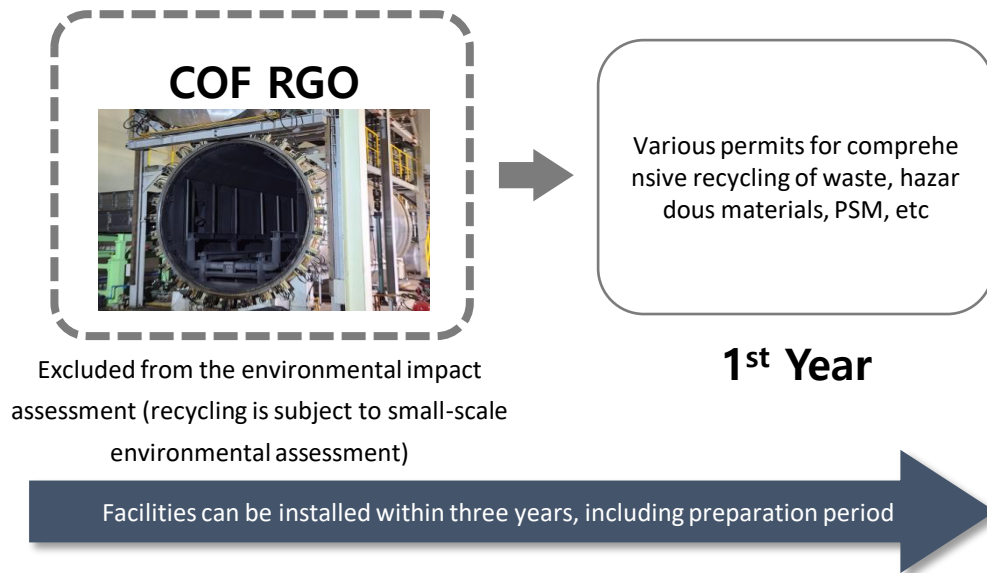
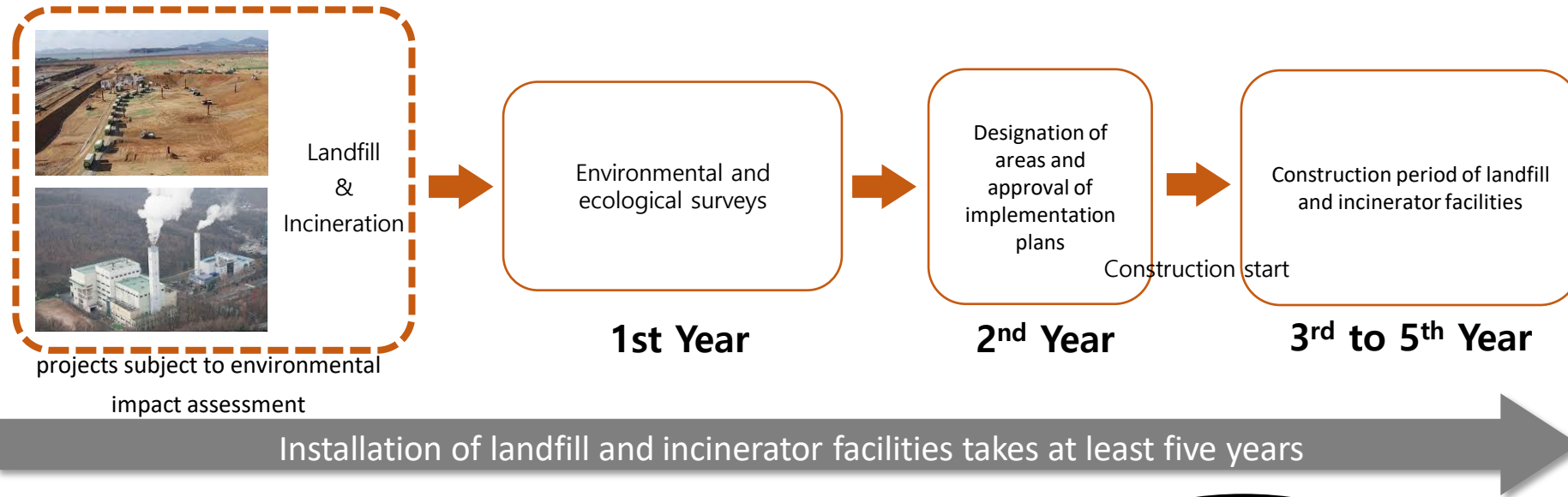
Seoul, Incheon, Goyang, Bucheon, Ansan, Namyangju, Anyang, Hwaseong, Gimpo, and Gwangju

Urge to install incinerators by December 2025

The current rate of thermal decomposition of plastic waste is 0.1% (as of 2020), but a plan to lead carbon neutrality by increasing it to 10% by 2030 was announced

Carbon Neutrality Leadership

Why COF?



Using COF technology to reduce construction period
Completion by the end of 2025
Creating economical and cultural value

Why COF?

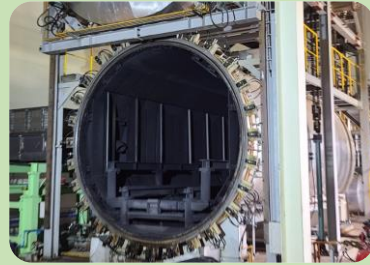


Unsorted & non-recyclable waste: **100 %**
- Vinyl, plastics: c. **40 %**
- Mixed waste: c. **60 %**



환경유해물질
Environmental pollutant

Generating 9tons of carbon monoxide per 1ton of plastic waste



Incinerating mixed waste without vinyl and plastics (main reason of generating harmful substances)



Making profits by producing plastics or selling fuel oil



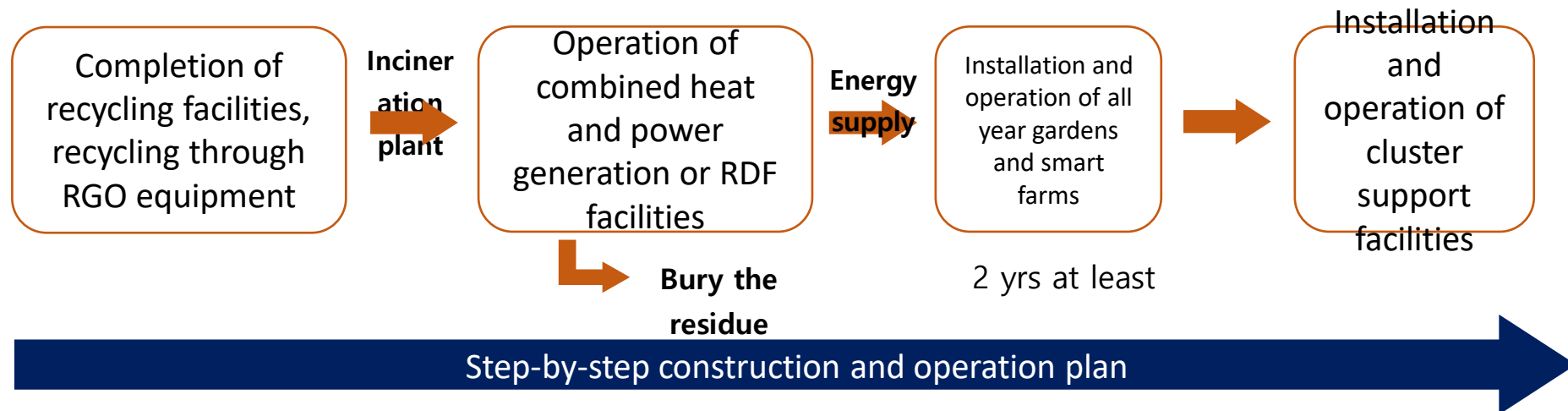
After the process: 60% of mixed waste remain as residue



40% reduction in incineration

**With COF technology,
No need for more incineration plants**

Why COF?



RGO Increasing recycling rate through equipment introduction, producing refined fuel oil for resource independence, presenting innovation through high-efficiency and high-profit business

World's First Carbon-Neutral City World's First Circular Economy Cluster in Metropolitan City

A role model and pioneer not only for other domestic local governments
but also for cities worldwide

ECONOMIC SYNERGY

10% of
profits for a
shared
growth fund

Generating
revenue
through
specialized
local business

CULTURAL SYNERGY

Achieving
3 million
domestic and
foreign
tourists
attracted

Creating
employment
opportunities
for more
than
100 people

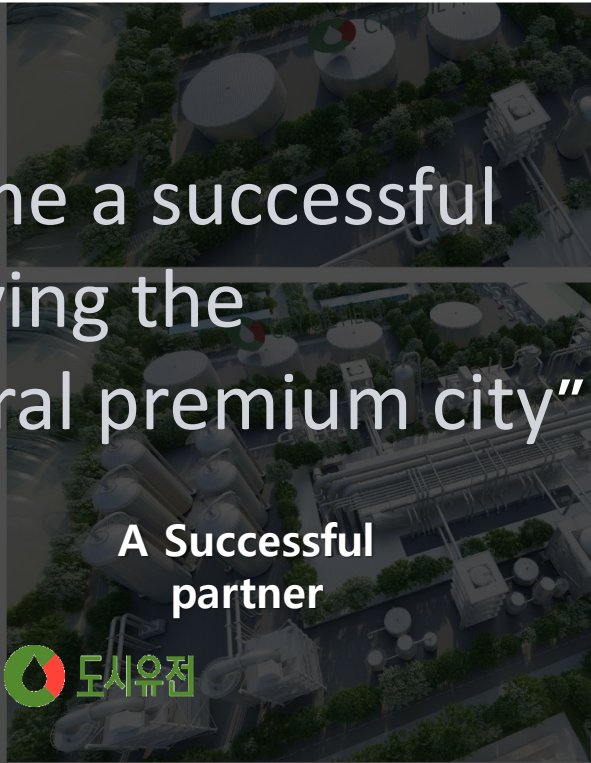
Completion and presentation of a cluster export model –
Starting in the UK and USA

Top

“City Oil Field will become a successful partner in achieving the “world's first carbon-neutral premium city”

The power to change the Future **고양특례시**

A Successful partner



City Oil Field RGO Plant



Renewable Energy Plant



GoYang Global Flower garden



Naturalistic Smart Farm



Ecological Landfill Area