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# CARING FOR YOU & EARTH NEXTON

A cutting edge CEA solution developer and grower in the world.

# NEXTON AG-Tech

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## Global leading Indoor Farming Technology, NEXTON

Nexton is at the forefront of Controlled Environment Agriculture (CEA), combining the best of traditional farming practices with technological innovation. We offer comprehensive indoor farming solutions to lead the future of agriculture with a sustainable and healthy food cultures for current and future generations.



**We farm us**  
**We farm earth**  
**We are farmers**

To create a sustainable future for  
both humanity and the Earth  
through the application of  
innovative agricultural  
technologies.

# NEXTON Core Value



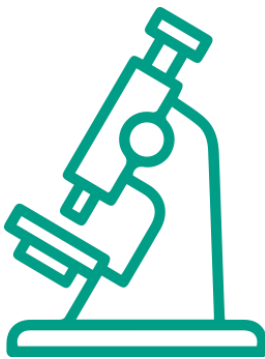
## Lighting System(LED) Technology

Paramount LED-Tech Experience Over 20 years  
Majority tech members from Seoul Semiconductor



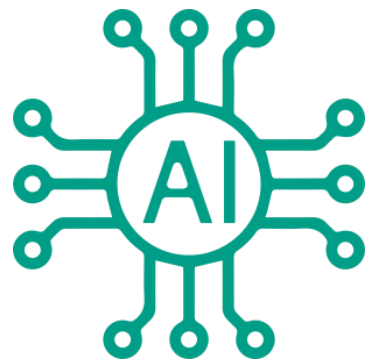
## Crop Management Practices

2021 - Producing leaves and herbs from the void space in the Seoul Metro subway station  
2020 - Succeeded in mass-producing strawberries in the low-temp. indoor farm for the first time in the world  
2018 - Succeeded in operating the tunnel indoor farm at the largest scale in the world



## R&D High Valued Products

Running Biochemistry and Physiology LAB to equalise phytochemicals in any plants  
  
Operating Cannabis Research Centre to optimised CBD and THC components



## Big Data & A.I

Established the cultivation environment to control temperature, humidity level, and water, and created the optimal cultivation environment for collection and analysis of growth information such as plant height and growth speed based on our over 7 years of cultivation experience.



## Enhance CEA Viability (Zero Carbon)

Operating Seoul Metro Farm (5600 sqm) and Highway Tunnel (7000 sqm) to save Energy.  
97% Recycled Water System in Farming irrigation, using UV sterilization

# Overview

2017



- NEXTON Established in January (2017.1)
- Developed photosynthetic specialized LED, low-heat LED
- Commenced Okcheon Indoor Farm Pilot Line (500sqm)

2018



- 42 crop plants certified as Environment -Friendly Agricultural Products(GAP, USD)
- World's first to transform abandoned tunnel into world's largest plant farm
- Series A funded

2019



- Obtained cannabis cultivation license
- Partnership with major retail companies(Starbucks, Galleria, Shinsegae, Lotte, E-mart, Coupang, Market Curly, etc.)
- Selected for Seoul Nambu Metro Urban Farm Establishment Pilot Project (5,600m²)
- Established urban farm specialized subsidiary "Metro Valley Co., Ltd"

2020



- Established biomaterial R&D subsidiary "Chem-Nature Co., Ltd" in Kangwon Province
- Developed high-purity cannabinoid
- Obtained cannabis research permission, Selected for testbed cannabis cultivation
- World's first to mass produce premium strawberry from plant farm (abt. 120Ton/year)

2021



- USDA-NOP Certified (U.S Department of Agricultural National Organic Program)
- Signed MOU with City of Taebaek for "ECO JOB CITY", The City Regenerating Project

2022



- Overseas exports of vertical indoor farms amounted USD 5.4 million
- Signed MOU with IAC(Invest Alberta Coporation)
- Joint venture with Kuwait's biggest investment cooperation, Mawarid Co.

2023



- Established Nexton Mena Saudi Arabia, Contracted to install 16 indoor farms over GCC region by 2024(KRW 300 billion )
- Selected for the exhibiting company at Saudi Arabia Biban Exhibition
- Remodel 6th Industrial Revolution Convergence Cultural Urban Farm (Seoul Nambu Terminal)
- Opened World largest Vertical Indoor Farm for low temperature Premium Strawberry Production (Land area: 17,385sqm, Cultivate area: 4,521sqm)
- Previewed MADBERRY FARMHOUSE(Converged Urban Farm)
- Selected as KSA, UAE, UK, Netherland, Poland Economic Delegates /
- Signed 6 MOUs with overseas companies, MISA, PMI, AL MALAR, QATAR, HO SO GIOI THIEU CONG TY
- Signed 2 Academic MOUs with KyungHee Uni. And Seoul Cyber Uni.

2024



- Established Nexton Asia in Singapore
- Signed an MOU with Daejeon Metropolitan City for the creation of a smart agriculture hub city.)
- Signed an MOU with 'P' Company in Singapore for Smart Farm Cooperation Initiatives
- Selected for and participated in the Singapore Economic Delegation
- Showcased at AFTEA Exhibition in Singapore
- Recorded 59 accumulated patents, ranking worldwide No.1 in Indoor Farm sector

2025



- Grand opening of Urban Farm Complex(4,500m2) at Nambu Metro Station in Seocho, Seoul

# Awards

2017



- Selected for KOSME excellent 'Venture Company'

2018



- Certified as 'Excellent Technology Company' by the Minister of Agriculture, Food and Rural
- Selected as 'First Penguin Venture company' by Ministry of Economy and Finance around Finance around 20 companies per year

2019



- Commendation as an excellent venture start up business by KOSME
- Achievement Awards for employment creation for Elderly workers from the Korea Elderly Association under the Ministry of Health and Welfare

2020



- Selected as K-unicorn 'Baby unicorn 200' by KOSME
- Selected as Korea 'Next unicorn' by KOSME
- Selected as "Korea Innovative Company National Representative 200" by Financial Services Commission

2021



- 2 Minister's Commendation (No. 9644)
- Ministry of Agriculture, Food and Rural Affairs Commendation (No.118976)
- Selected as excellent venture company (No.21 23)
- Selected as an influential future CEO by Ministry of Science and ICT
- Korea CEO Leadership Awards(Ministry of Trade, Industry and Energy)

2021



- Gold Prize at the International Invention Exhibition in Geneva, Switzerland
- Korea Science and Technology Awards
- Ministry of Agriculture, Food and Rural Affairs
- Certified as an excellent venture

2022



- Certified as an excellent venture company from Korea Venture Business Association

2023



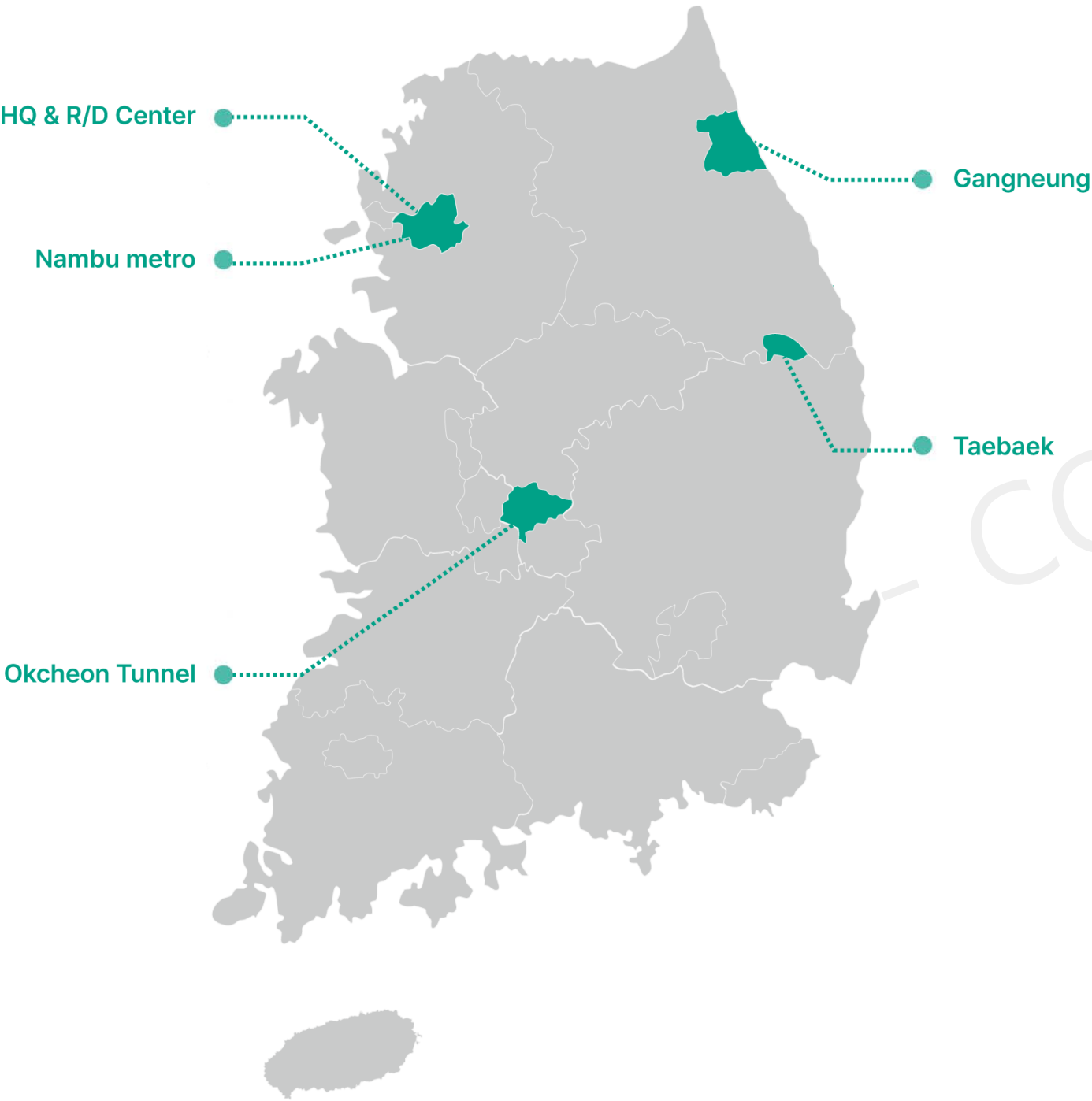
- Designated as UAE Economic Missions(Representative for Advanced Precision Agriculture Industry of Korea)
- Selected as 'Family Company' by Korea Institute of Civil engineering and building Technology

2024



- Awarded the 'Creative Innovator' sector at the HDI Human Management Awards.

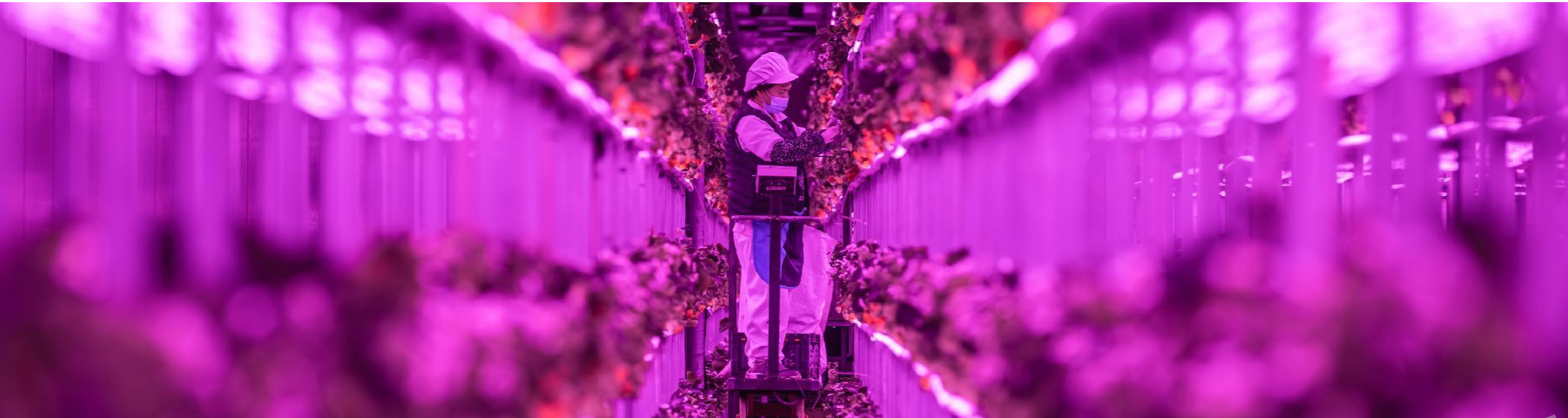
# Indoor Farm ·R&D



Indoor farms	Location	Main Business Area
Taebaek (4,521m <sup>2</sup> )	1756 Taebaek-ro, Taebaek-si, Gangwon-do	Premium strawberry cultivation
Okcheon Tunnel (6,700m <sup>2</sup> )	171-7 Myogeum-ri, Cheongseong-myeon, Okcheon-gun, Chungcheongbuk-do	Biomaterials, Cannabis, Greens, Fruits (strawberries) cultivation
Nambu Metro (4,860m <sup>2</sup> )	31, Seocho Jungang-ro, Seocho-gu, Seoul	Greens & fruits cultivation and research for developing new crops
Myeongdong Pop-up (580m <sup>2</sup> )	30, Myeongdong 6-gil, Jung-gu, Seoul	Urban Farmhouse (Production and Retails)

R&D Center	Location	Main Business Area
HQ & R/D Center	59, Hyoryeong-ro, Seocho-gu, Seoul	CEA solution development, natural product based phytochemicals and bioactivity research
Taebaek	1756 Taebaek-ro, Taebaek-si, Gangwon-do	Premium strawberry cultivation
Okcheon Tunnel	171-7 Myogeum-ri, Cheongseong-myeon, Okcheon-gun, Chungcheongbuk-do	HEMP, Cannabis, Vegetables, Fruits (strawberries) research
Gangneung	222 room, 641-22, Saimdang-ro, Gangneung-si, Gangwon-do	Cannabis and phytochemical research

# Business Landscape



CEA Solutions

## Specialized CEA Solution Indoor Vertical Farm

Automated HVAC System / Irrigation System LED Control System  
Integrated Analysis Applications /Remote Monitoring and Control System DATA & AI Solutions

Seller Market

## Urban Farm Business Platform

Urban Farm Platform to utilize idle land  
Cultivation and sale of premium leafy greens, herbs, strawberries and other healthy food crops  
Branding of processed products using premium harvests Local urban delivery to provide fresher and healthier products

Bio /Industrial /Cosmetics

## Phytochemical Application

Applied to various industrial materials as phytochemicals  
Used in high-nutrition health foods, functional foods, cosmetics, pet food and more

# Strategic Investors



Translink (US Based VC)



KB Investment



Government-run Investment Institution



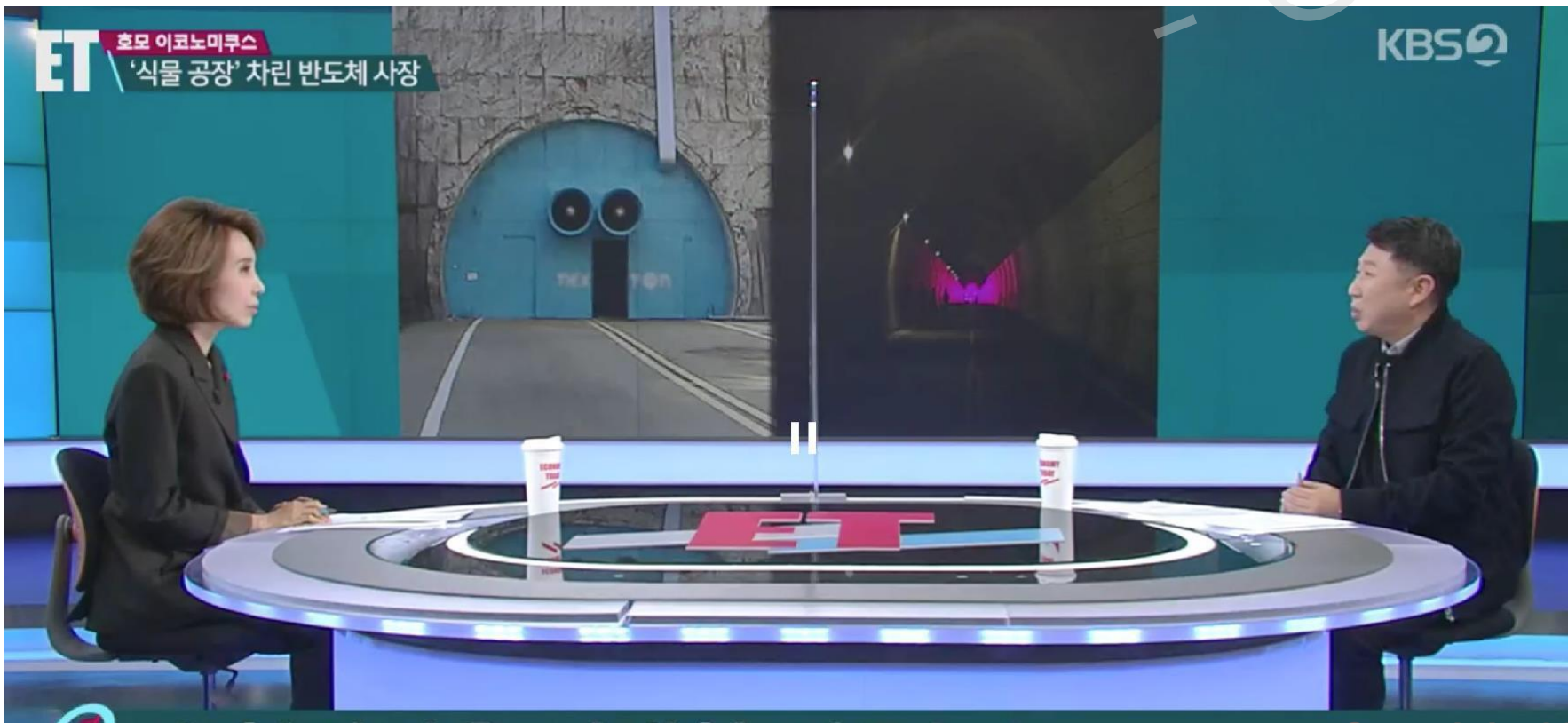
Bio Specialized VC



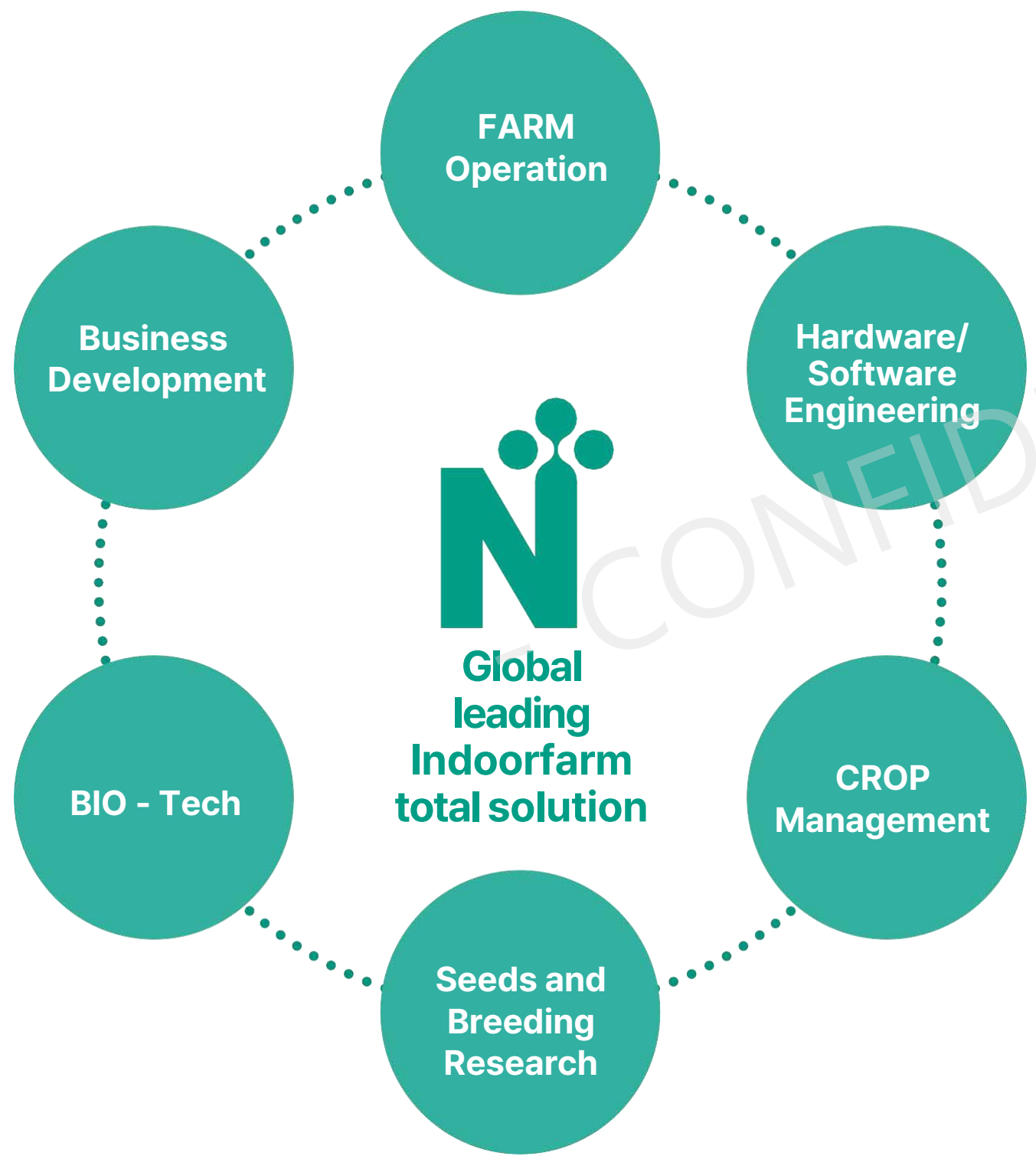
CJ affiliation VC

# Press

With the differentiated technology and innovation, NEXTON have been introduced through 70 medias of domestic and overseas in more than 40 countries.



# AG-TECH Team



**Automated Control & Monitoring System**

- HVAC Control System
- Nutrient Control System

**Application Service (Analysis & Monitoring)**

- PC / Tablet / Smartphone (Variable Device)
- G&D Knowledge Analysis
- Phyto Visioning & Algorithm

**Remote Control System**

- IoT Communication
- Monitoring / Algorithm Control

**Big DATA & AI Solution**

- Machine Learning/Deep Learning Algorithm
- Predicting Production
- Logistics & Sales Forecast



# NEXTON AG-Tech Solution

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# CEA Solution Business Model



## Vessel On Site Model

Vertical Module customized for Vessel  
Fresh and Nutritious food crops even on long voyages



## Hotels & Restaurants

On-site Organic Growing System  
Farm-Fresh food crops to serve healthy menu



## Underground Farm (Nambu Terminal Tube Station)

The Largest Urban Indoor Farm in the World Zero Carbon,  
Utilizing Idle Urban Spaces



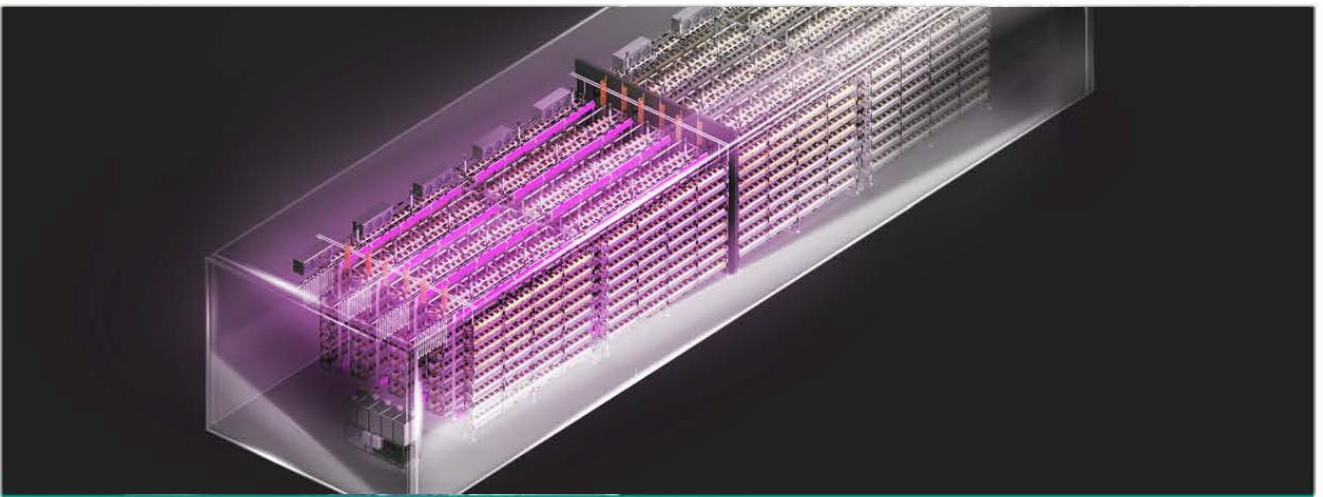
## Tunnel Farm (Highway Tunnel in Okcheon)

World First and Largest Vertical Indoor Farm for Strawberry  
production on a large-scale



## TAE-BAEK ECO JOB CITY

World Largest Vertical indoor farm especially designed to  
produce premium strawberry  
Transforming Old Coal Mine area into K-Smart Farm  
(Jangsung area)



## QVIX-Red/Green(Modular Farm)

Compact, Placeable, Customizable Individual Indoor Farm  
Standard 1 set: 21,600 x 4,600 x 3,700 mm

# NEXTON CEA Solution

The future of sustainable agriculture through innovative CEA indoor farming solutions

Cost Reduction : More than

50%

50% less than other LED investment cost  
Save max. 50% in HVAC investment cost



Less Energy Usage : Save up to

65%

Specialized LEDs for high efficiency,  
low heat plant growth  
35% lower power usage than competitors


\*Based on LED & HVAC Tech



Higher Productivity :

33% UP

Structure Design & Automation Tech.  
Self moving Robot Tech.  
Optimal Working Track



Production Efficiency

365 days

Grow 365 days a year,  
increase crop production and reduce time from  
seedling to harvest

\* Harvest after 20 days for leafy greens  
(100 days to harvest in the field)  
\* 17 crops per year (quadruple crops per year  
for the field grown lettuce)



Scale-Up

7,000 m2

Single large scale indoor farm with  
operation & management know-how  
Successfully mass producing and running crops

- Okcheon Plant: 7,000m<sup>2</sup> (2,100 PY)
- Taebaek Plant: 2,970m<sup>2</sup> (890 PY)
- Nambu Plant: 1,400m<sup>2</sup> (420 PY)



Sustainability Less than

1% Water waste

Utilizing abandoned tunnels, underground malls,  
and abandoned mines  
Zero wastewater discharge  
UV sterilization for nutrient solutions  
Practice less than 1% water waste  
through recycling




High value added technology

Phytochemicals

Functional ingredients extracted from natural product  
Functional compound research and manifestation

Amplification, extraction, separation,  
and purification of active ingredients  
Patenting and commercializing  
extracted material




High value added seed industry

2 years

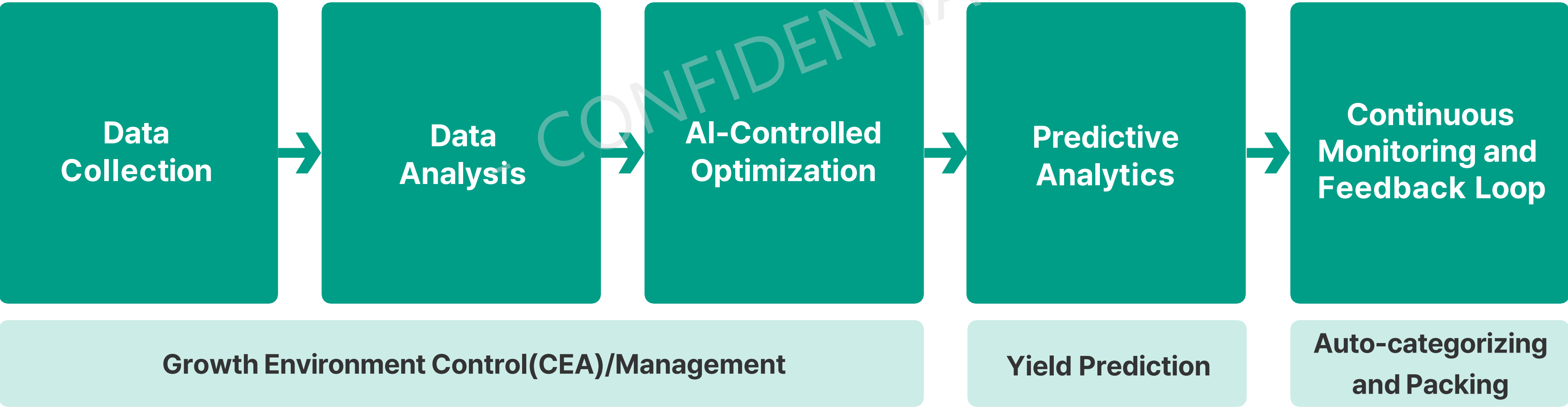
Seed patents and seed development  
research for indoor farming  
Aim to lead in speciality seed development  
Reduce seed development time

\*Indoor farm seed development takes  
2 years (Greenhouse takes 10 years)



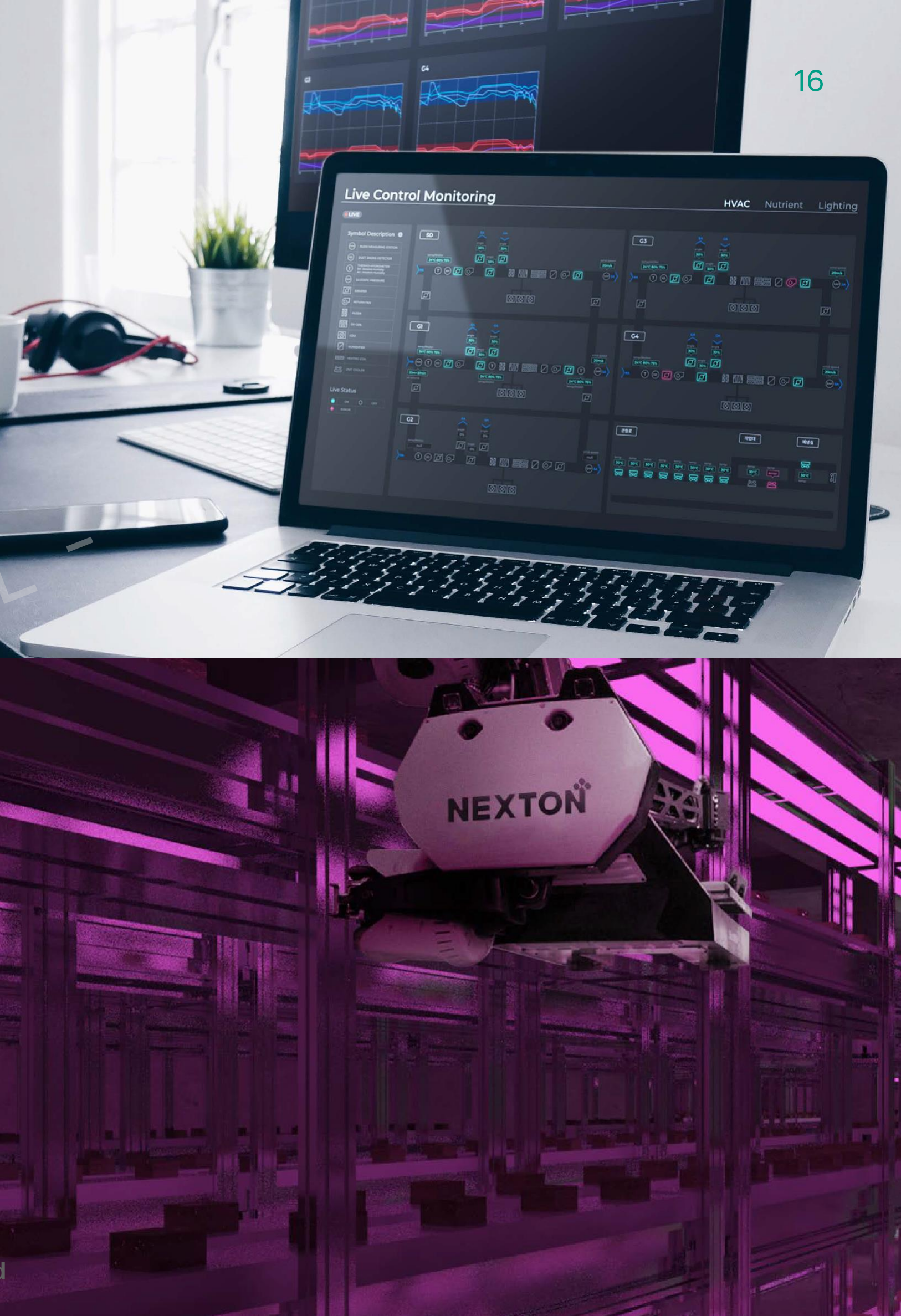
# NEXTON AG-TECH Highlight

AI Data Farming Platform



# NEXTON AG-TECH Highlight

Autonomous Mobile Robot  
Integration of camera-based detection, monitoring, and robotic automation



## Camera-Based Automatic Detection

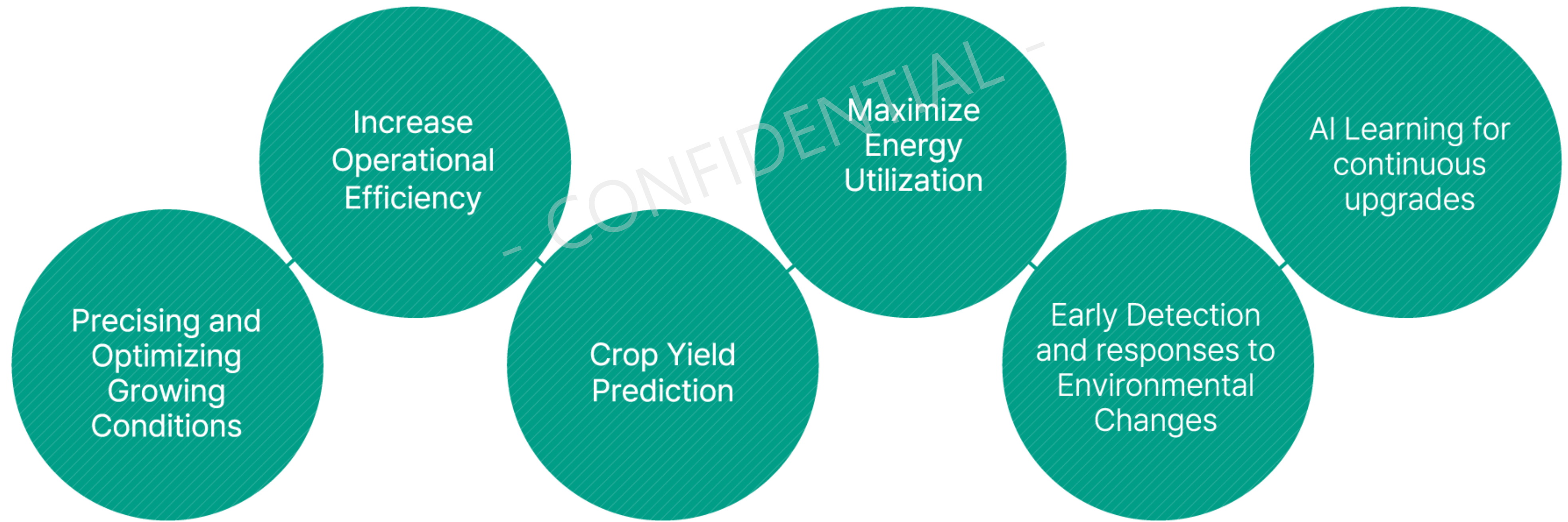
Monitoring and Analysis Data  
Monitoring and Evaluating  
growth state of strawberries



## Autonomous Mobile Robot

Picking up, Transporting and  
Delivering tems  
Smart Logistics robot system  
Unmanned Farming Operation

# NEXTON AG-TECH Highlight



# URBAN FARM PLATFORM

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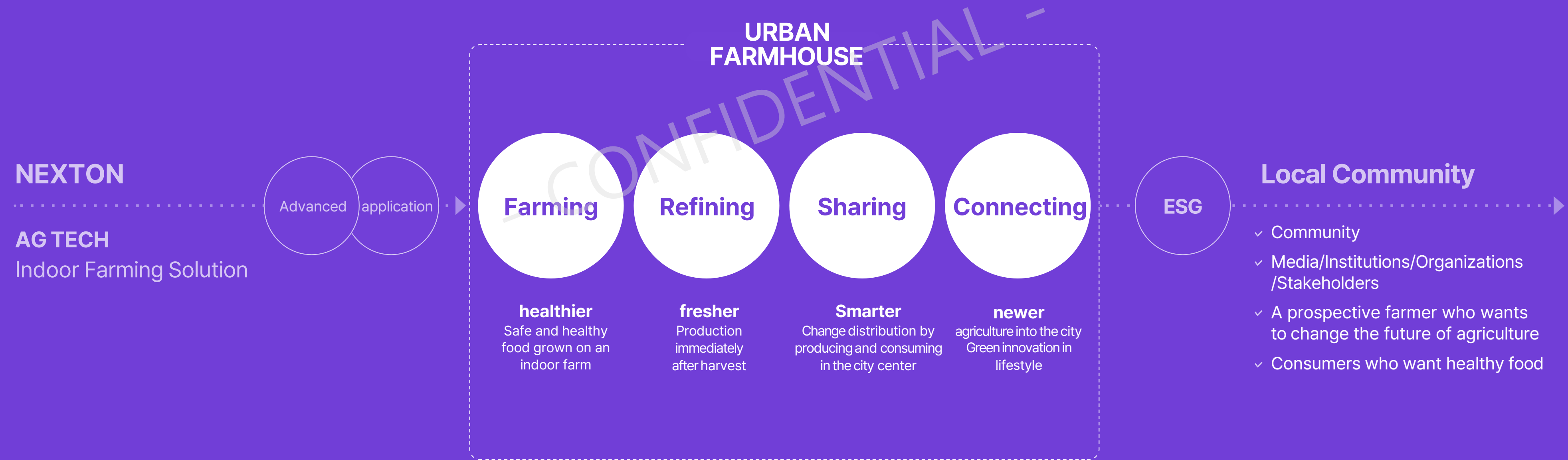
The possibilities of urban farming:

PROJECT 01

Location. Metro Station SPACE. 4950 SQM

PROGRAM. Bar, Cafe, Conference Hall, Garden, Lounge, and Strawberry Farm

# Innovative Life style platform



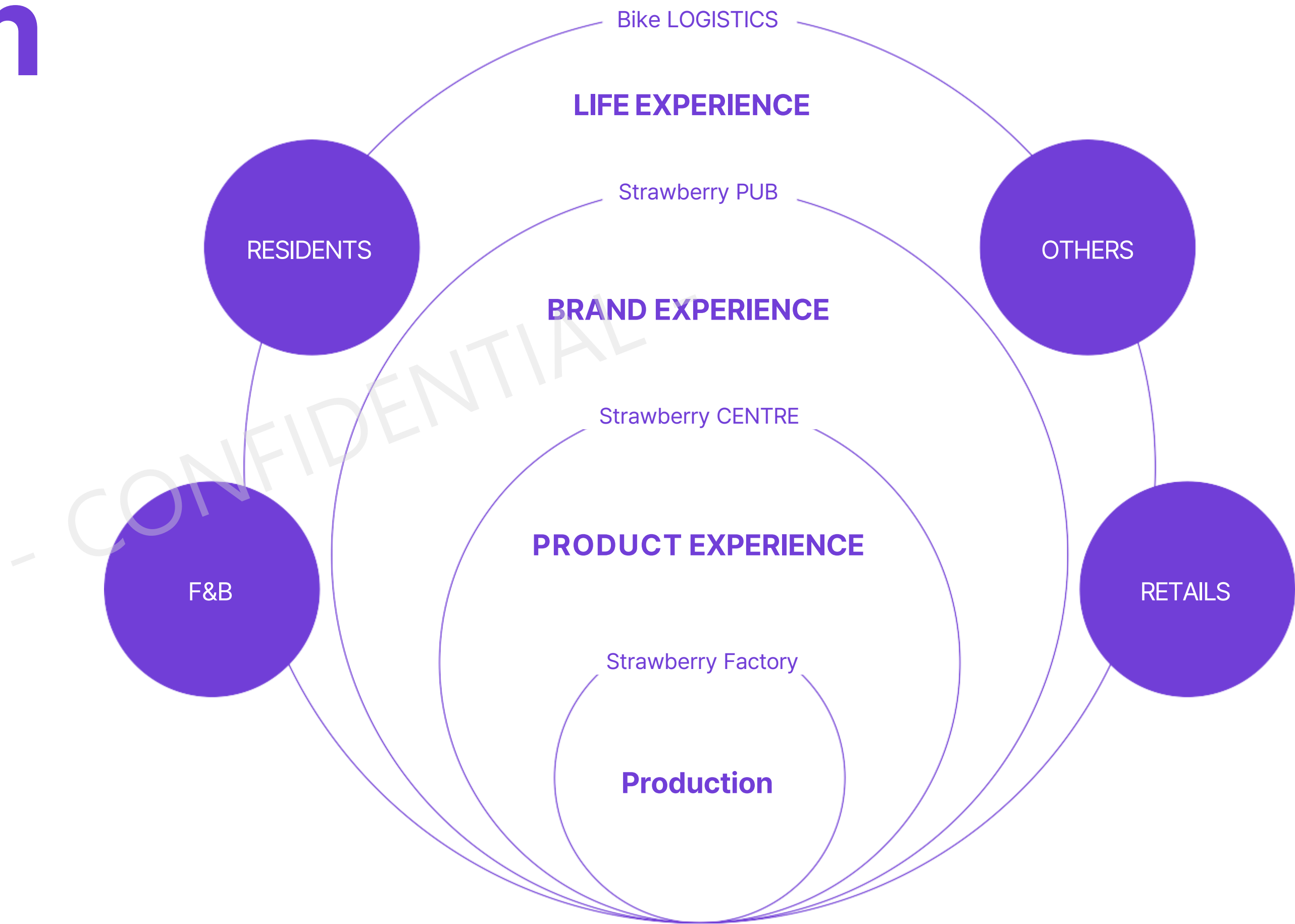
# Urban Farming Society

NEXTON introduces an immersive urban farm lifestyle platform, inviting you to explore the realm of urban agriculture. Our ground breaking initiative involves the establishment of a vertical indoor farm at Seoul NAMBU Metro Station, bringing sustainable agriculture practices to the heart of the city.

As pioneers in global indoor vertical farming technology, we strive to create a harmonious food tech system that embodies a virtuous cycle. Leveraging NEXTON's precision environmental control technology, we cultivate and process premium-grade raw materials, ensuring the highest quality standards are met.

We reimagine the possibilities of urban farming. Experience the integration of nature and technology, where sustainable practices flourish, and the city becomes a thriving hub of agricultural innovation.

# Urban Farm BX Model



# Key Highlights

## SUSTAINABILITY

Sustainability: At the heart of our concept is a commitment to sustainable practices. By implementing vertical strawberry farming on-site, we eliminate the need for conventional supply chains, reducing transportation costs and carbon footprint.

We prioritize resource efficiency, composting organic waste, and utilizing eco-friendly packaging materials. Our goal is to promote a greener and more environmentally conscious approach to food production and consumption.

## FARM to FORK EXPERIENCE

Farm-to-Table Experience: We believe in reconnecting people with the source of their food. Our urban farmhouse provides a unique farm-to-table experience where visitors can witness the growth and cultivation of strawberries right before their eyes. By offering self-produced strawberries, we ensure the freshest, most flavorful fruits reach our customers' plates. This direct connection to the farm fosters transparency, trust, and a deeper appreciation for the food we consume.

## MAGICAL WONDERLAND

Magical Wonderland: Step into a magical world as you enter our urban farmhouse. Drawing inspiration from the whimsical elements of "Alice in Wonderland," we create an enchanting atmosphere that sparks wonder and delight. The immersive ambiance transports guests to a surreal landscape where they can indulge in the captivating beauty of strawberries. Through imaginative design, sensory experiences, and themed events, we aim to create an unforgettable journey into the realm of berries.

# Farm Experience



pop-up  
**MADBERRY 'Myeongdong 0909'**

Farm, Art, Culture



# MADBERRY 'Myeongdong 0909'

Farm, Art, Culture



Site Information;  
+580m2  
+5 stories  
+1.5Ton/annual  
+Daily 200 visitors

# NEXTON THE TABLE



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With a significant increase in productivity, drastic reduction in facility costs and decrease in environmental impacts associated with long-distance transportation of food, Indoor farming methods are booming around the world. Indoor vertical farms create the perfect environment for plants to grow in optimal conditions, promoting their healthy development while simultaneously reducing the overall impact of climate change

# NEXTON The Table

CEA brings optimal production of crops, ranging from leafy greens to high-value added fruits.  
We continuously strive to provide a wide range of healthy and sustainable food crops categories to the table.



**71 Leafy greens**

- Caipira
- Crispiano
- Butterhead
- Isabel
- Kyona
- Arugula
- etc.



**24 Herb plants**

- Basil
- Dill
- Time
- Coriander
- Mint
- Chavil
- etc.



**4 Flower Crops**

- Oxalis Izumi
- Siemens
- Saffron
- etc.



**4 Fruits Vegetables**

- Strawberry
- Ongoing R&D:
  - Tomato
  - Pepper
  - etc.



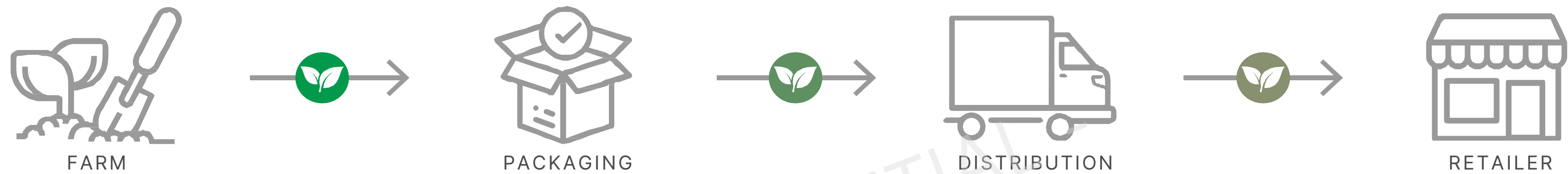
**Functional Food Crops**

- Low sugar & High calcium Salad
- Memory Enhancing Salad
- Low sugar & High Calcium Salad
- Skincare Dressing
- Salad
- etc.

# INDOOR FARM Distribution Network

Our innovative all-in-one supply chain delivers faster, fresher and healthier food crops than traditional distribution.

## Conventional Farming



The more stages of distribution there are, the lower the Freshness, the higher the carbon emissions

NEXTON Indoor Farm

The diagram shows the NEXTON Indoor Farm supply chain. The first three stages—FARM (plant icon), PACKAGING (box icon), and DISTRIBUTION (truck icon)—are grouped within a dashed white rounded rectangle. An arrow with a green leaf icon points from this group to the final stage, RETAILER & CONSUMERS (storefront icon).

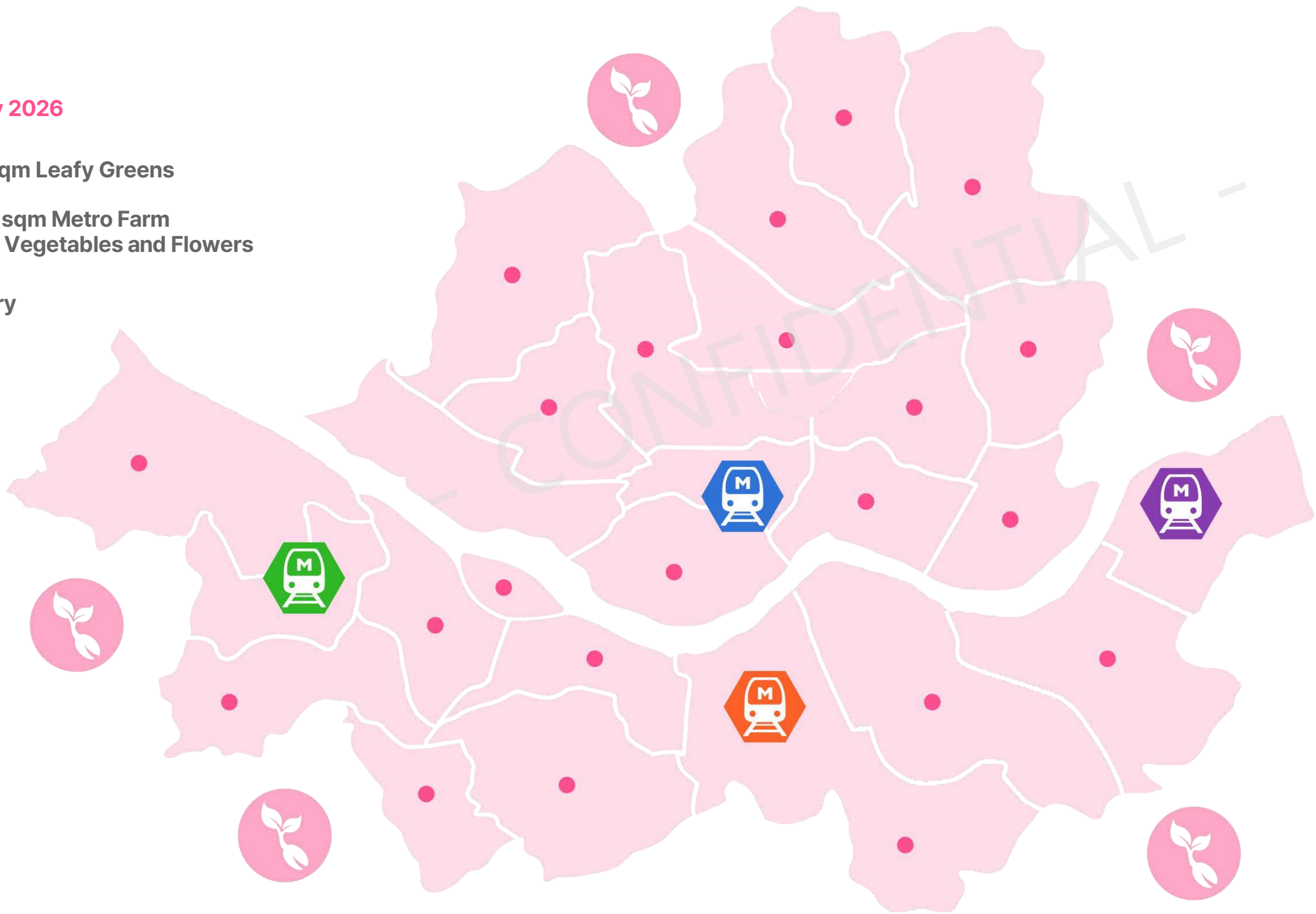
Bringing Fresh products to the Table with Lower Carbon Footprints

# NEXTON Urban Farm Platform

We actively pursue urban carbon-neutrality and present the Urban Farm Platform that integrates farming, processing, distribution, consumption and other contents of agricultural products.

Completing by 2026

- 330 sqm Leafy Greens
- 🚆 6000 sqm Metro Farm  
Fruits, Vegetables and Flowers
- 🌱 Nursery



Delivery distance will be within 2km radius. We all can make a table with the freshest ingredients.

# Our New Brand

MÄD BERRY  LETS YOU  
EXPERIENCE THE BEST   
(*n1*) OF EVERYTHING.

The garden strawberry is a widely grown hybrid species of the genus *fragaria*.  
scent from heaven.

★★★★★

제일 맛나게 먹은 딸기

poc\*\*\*\*\* 2022-02-16

★★★★★

오묘한 달달 상큼함이 남. 비싸지만 재구매  
할거임. 당도가 높고 탄력있고 부드러운...

s93\*\*\*\*\* 2021-12-25

★★★★★

딸기 컨디션 너무 좋았고 아직 일러서 맛있  
는것까진 바라진 않았는데도 맛도 달고 좋  
았어요!

ble\*\*\*\*\* 2021-11-06

“Summer Strawberry?  
Insanely Good!”

Don't believe us? Go ahead, try it, European flavor with  
Japanese sweetness...Genius Nexton

Hana Kim -----N\* Strawberry Review

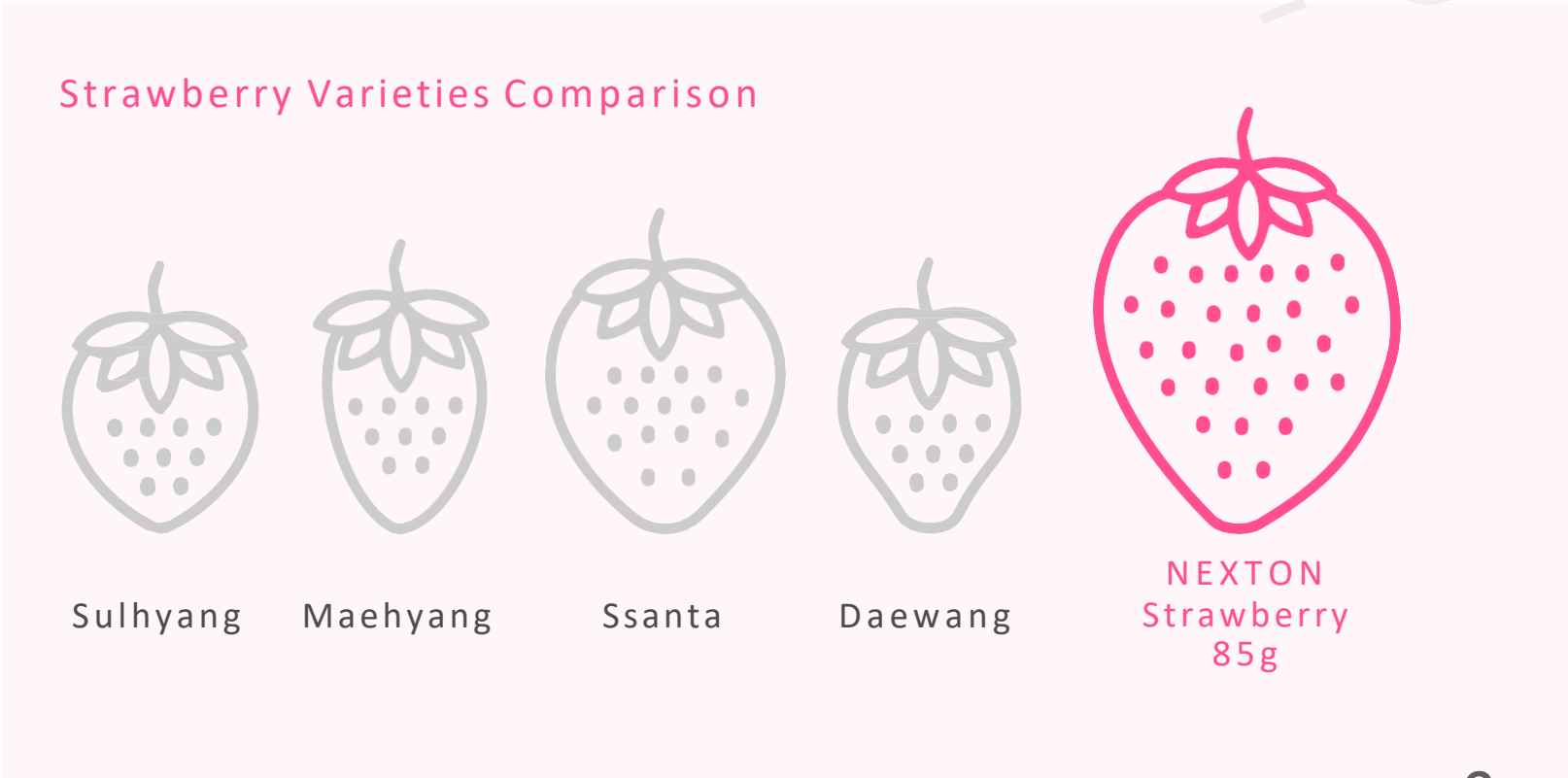
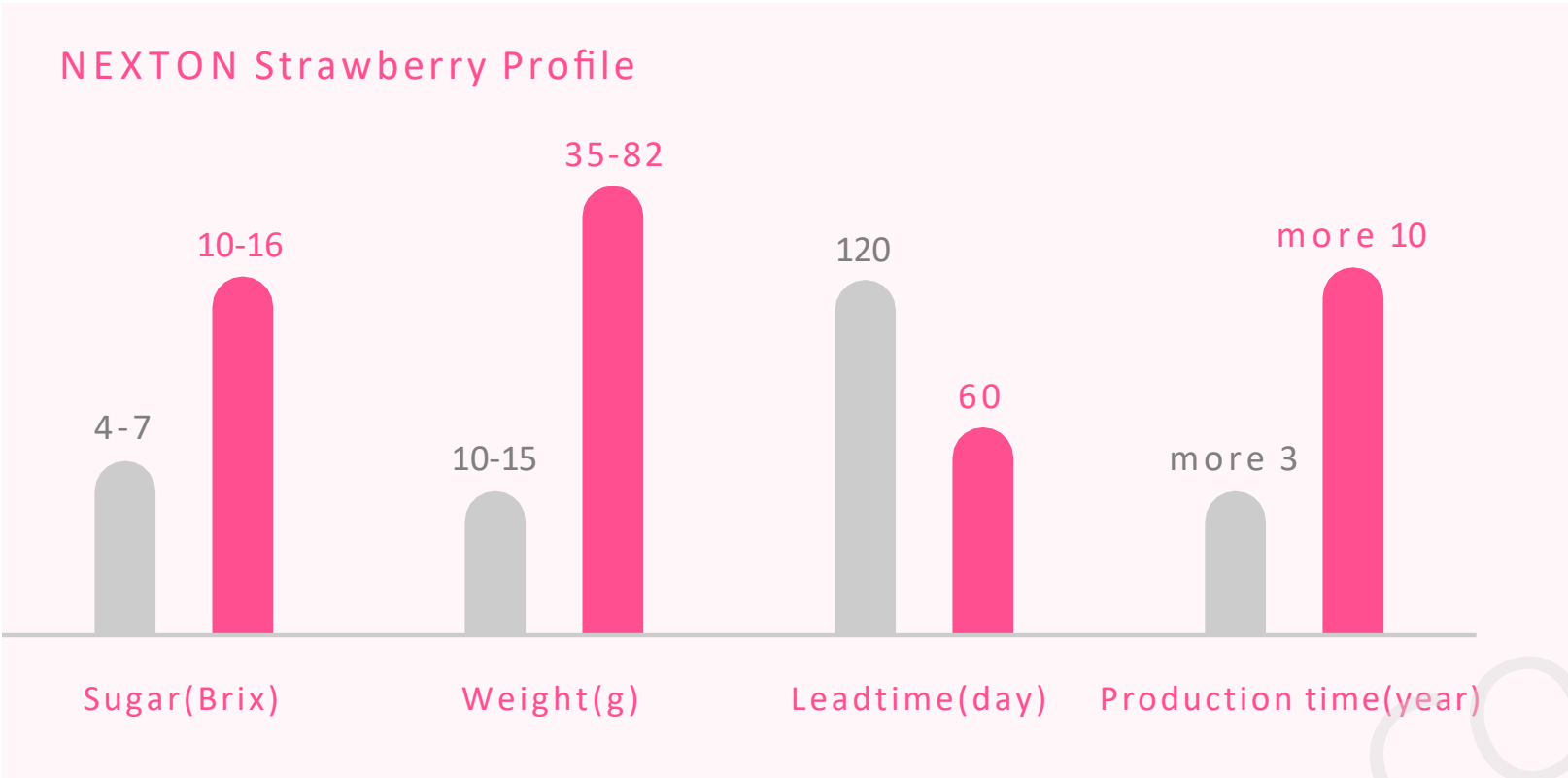
THE  
HYUNDAI  
LOTTE  
DEPARTMENT STORE

theGalleria

SSG.COM

# Global No.1 Indoor Farm Strawberry

Nexton has sucessfully achieved the world's first mass production of low-temperature strawberries in indoor farm (130 tons annually).



Unit : \$/kg, Exchange Rate : \$/1,000won

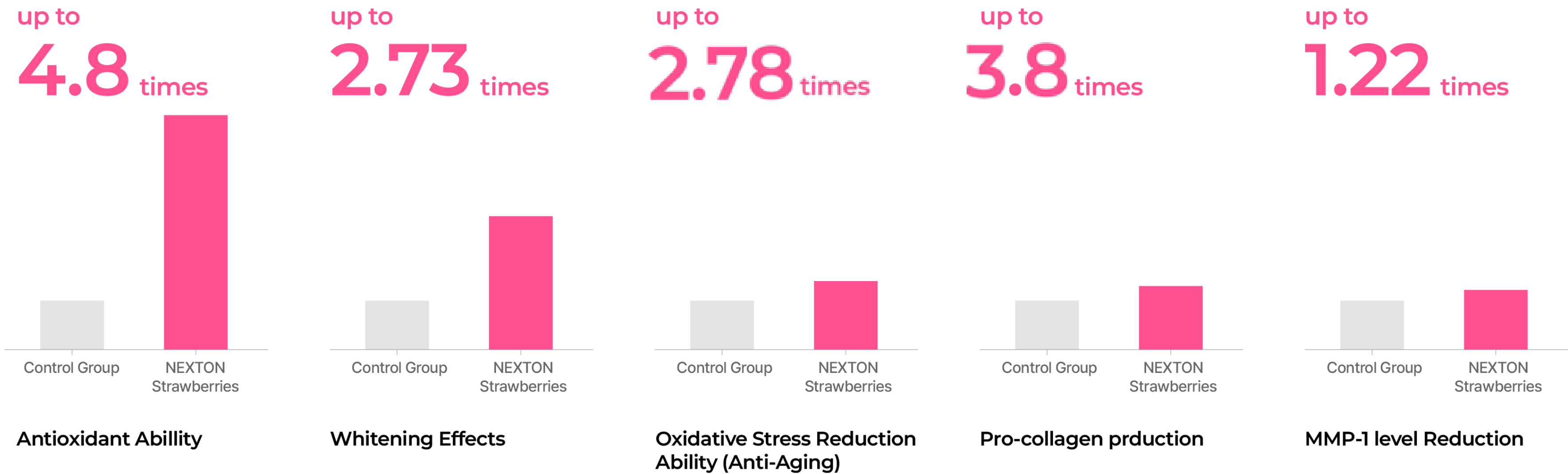
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Stp	Oct	Nov	Dec	Annual Average
2020	11.2	6.9	5.5	5.8	4.8	-	-	-	-	-	-	12.6	7.7
2021	9.9	7.8	5.9	5.2	4.9	All-Season Strawberry						16.0	8.1
2022	16.1	8.8	6.6	6.2	6.8							14.6	9.5
2023	11.4	9.9	6.9	6.1	6.6							16.7	9.7
2024	14.0	12.3	8.5	6.9	6.7							19.1	10.6



Windows of Opportunities  
(Creating a Seller s Market )

# Outperformance of NEXTON Strawberry's Efficiency

NEXTON Strawberry was confirmed to have excellent antioxidant properties, whitening effects, skin aging prevention, and skin wrinkle improvement effects compared to other companies' or other strawberry cultivars.



# MADBERRY with SUM1S (an eco-brand)

## Eco-Fashion Collaboration





# NEXTON NATURAL PRODUCT RESEARCH

We are developing cultivation practices for crops that are rich in functional ingredients by utilizing our system to control various environmental factors, including light wavelength, temperature, humidity, and fertigation and more. This allows us to harvest environmentally-friendly vegetables that are abundant in nutrients and flavors, while ensuring consistent quality throughout the year. Through instrumental analysis like HPLC, LC-MS, we explore functional ingredients, develop new active compounds, and conduct research on crops that encompass diverse bioactive metabolites. As a result, these crops hold significant value as raw materials in the nutraceutical and functional cosmetics industries.

# Phytochemicals

## Development of New Materials

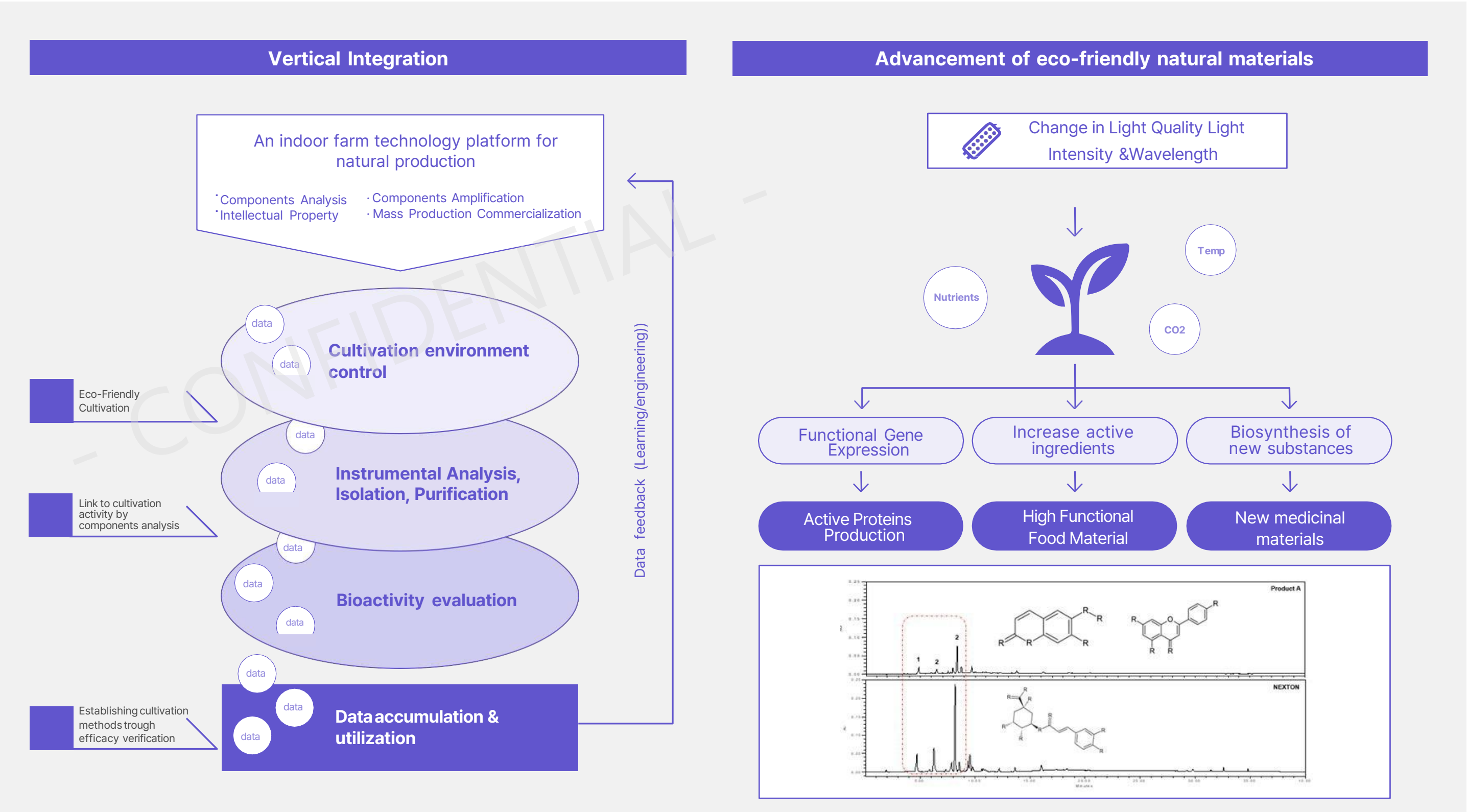
- Preparatory literature review
- Expression and amplification of functional ingredients
- Ensuring material safety

## Extraction-Analysis-Isolation-Purification

- Development of Sample Pre-treatment Methods
- Purification and Structural Elucidation of Compounds
- Investigation of Material Utilization Approaches
- Evaluation of biological activity(anti-obesity, skin whitening, eye health and etc.)
- Networking with universities and institutions (KIST and Jeonbuk National Univ.)
- Development of functional ingredients for food,

## Patenting and Commercialization of the Material

- Evaluation of biological activity(anti-obesity, skin whitening, eye health and etc.)
- Networking with universities and institutions (KIST and Jeonbuk National Univ.)
- Development of functional ingredients for food, pharmaceuticals, and cosmetics

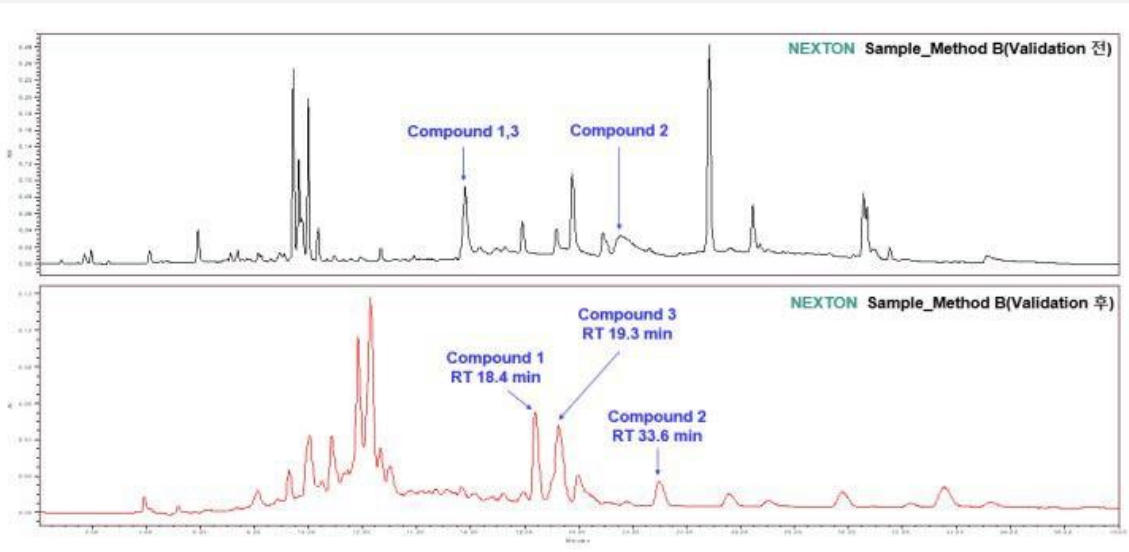


# NEXTON Bio Laboratory

## 1. Natural product chemistry

### Strategies for Phytochemical Material Development

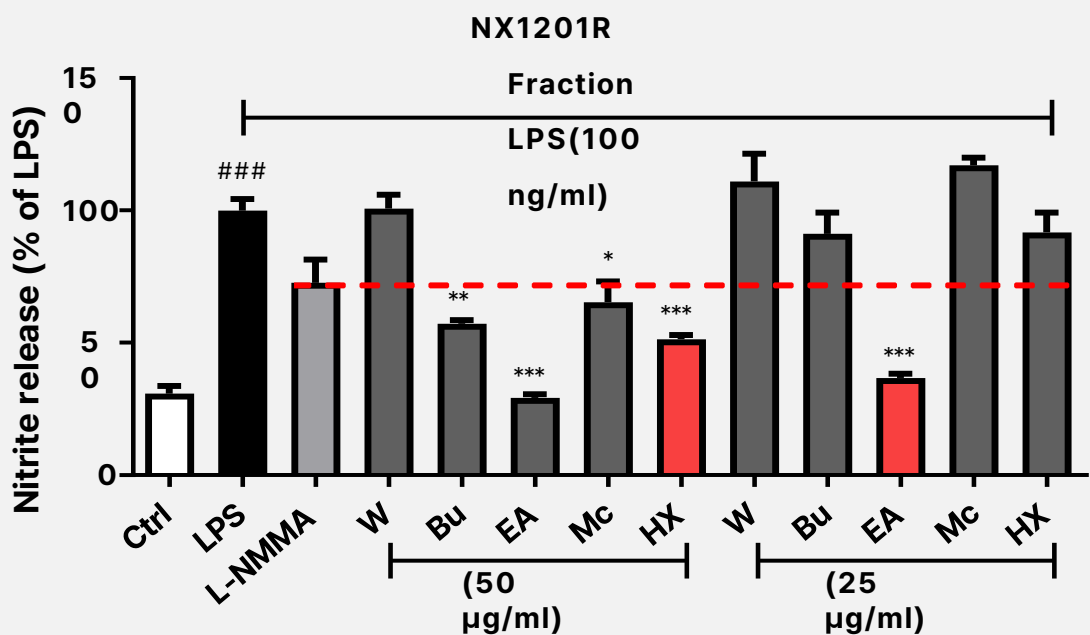
- Internal quality check and explore new functional substance candidates
- Extract-Isolate-Purify-Identify structure the functional substances in crops
- Research components-functional mechanism to enhance the value of crops
- Develop techniques to extract/seperate/purify effective components of medical and industrial cannabis



## 2. Bioactive substances

### Strategies for Patenting and Commercializing Phytochemical Materials

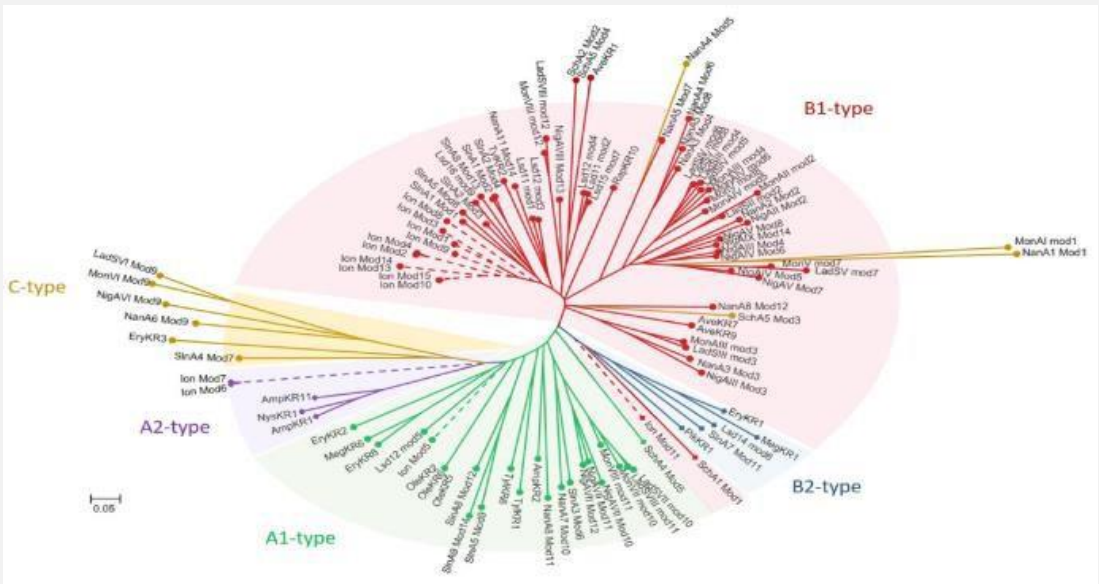
- Screening of functional natural materials for obesity, whitening, eye-health, anti-inflammatory, and more  
Explore bioactive mechanism through cell and molecular biological analysis
- Substantiate the safety and stability of materials
- Propose plans to acquire intellectual property rights for food, pharmaceutical, and cosmetic materials



## 3. Application of Microbes

### Develop high-value products using Microbial Metabolic Engineering

- Isolate and identify valuable microbes/ Discover new microbes species
- Develop new functional foods/cosmetic components through fermentation process
- Enhancing utility value of existing product line-up
- Discover natural antimicrobial substances

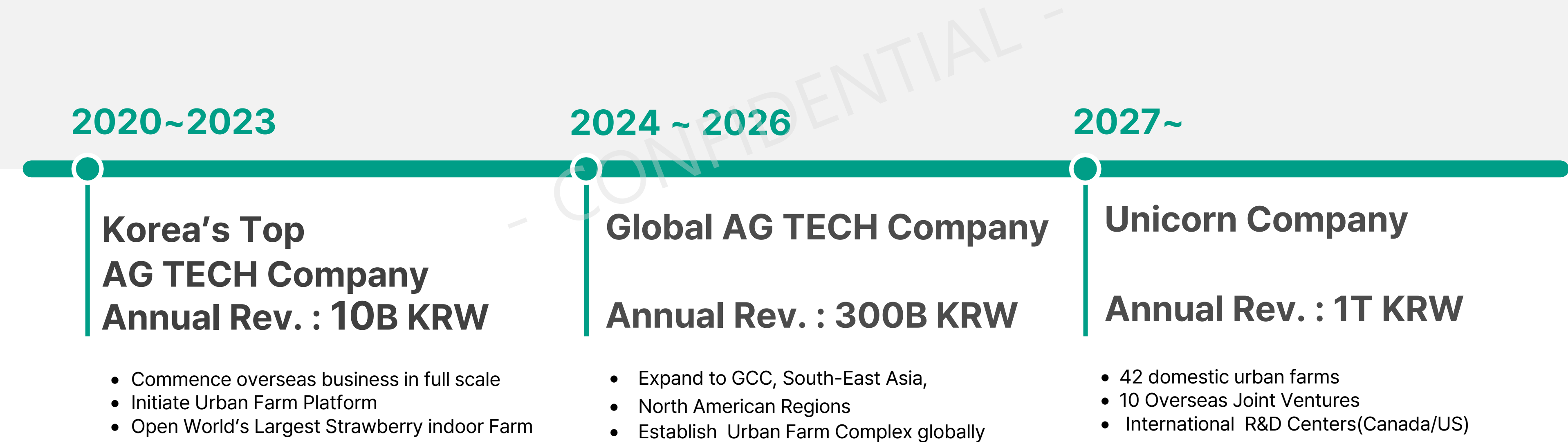




# LONG-TERM STRATEGIC PLAN HIGHLIGHTS

# NEXTON

## Business Roadmap



# NEXTON Global Business

## Canada

MOU with IAC for AI R&D Center, Alberta

## USA

MOU for LA Urban Farm

## GCC

October, 2022, MOA to establish NEXTON-MAWARID Joint Venture (NEXTON MENA)

Plan to build 16 indoor farms (7,933 m<sup>2</sup>, US\$ 27 M each) in GCC, amount to US\$ 400 M

May, 2023, established NEXTON MENA Co.

## Singapore

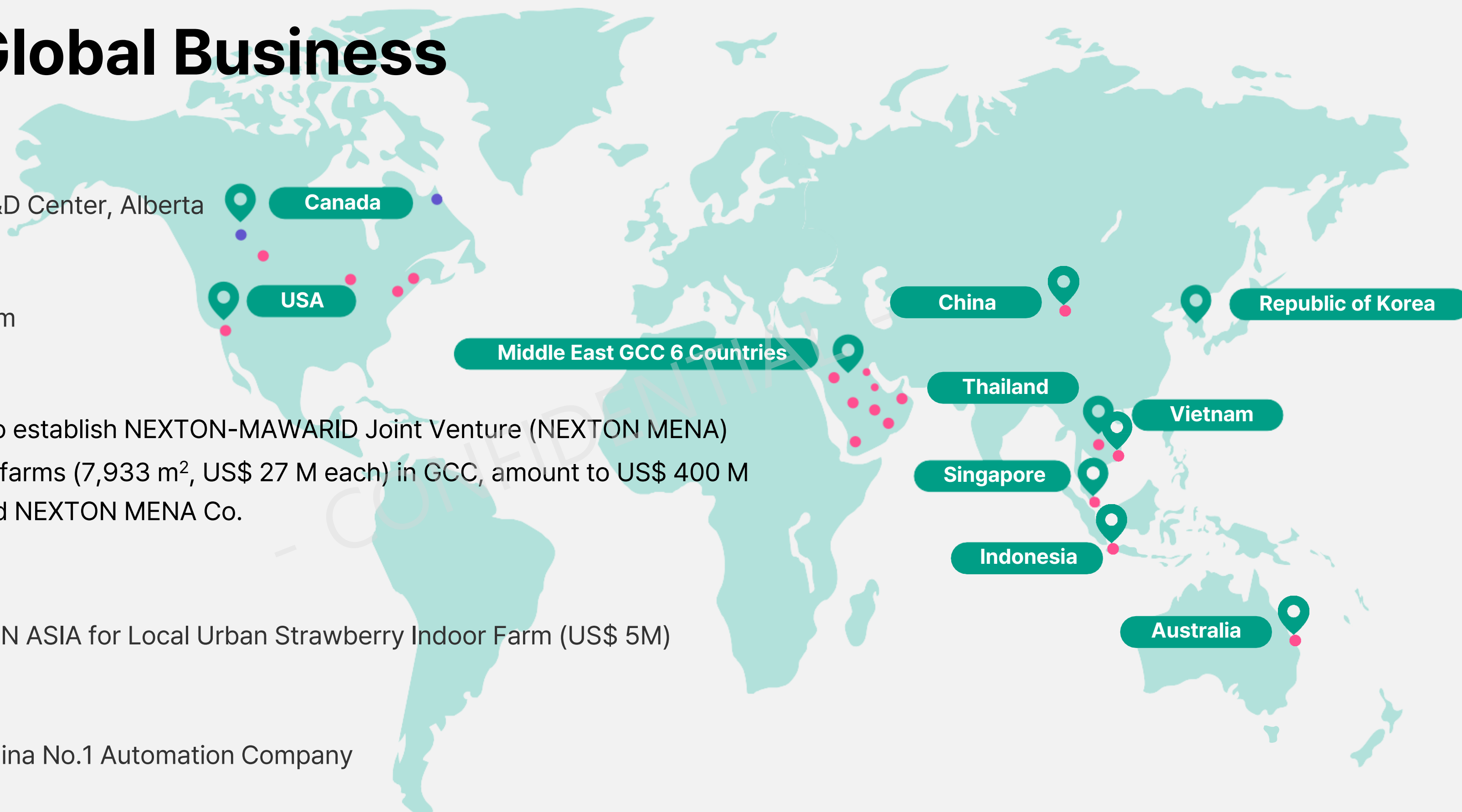
Established JV, NEXTON ASIA for Local Urban Strawberry Indoor Farm (US\$ 5M)

## China

Progressing JV with China No.1 Automation Company

## Thailand, Vietnam, Indonesia

Partnering with major Korean B2B companies to supply QVIX\_R(Strawberry) facilities and own production hub



# Appendix 1.

## NEXTON's Projects

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# 1. TaeBaek Strawberry Indoor Farm

Eco-job city Gallery

Glasshouse Restaurant



The image shows an aerial view of the TaeBaek Strawberry Indoor Farm. The main building is a long, red structure with a red roof and a large white 'N' logo on its side. To its left is a glasshouse with a red frame. In the background, there is a blue building and a tall, blue, lattice-like structure. A road curves through the landscape, and a river is visible in the foreground. A large 'CONFIDENTIAL' watermark is overlaid on the image.

Appendix. NEXTON Project

## 2.Okcheon Tunnel Farm



### 3. Underground Metro Farm



Appendix. NEXTON Project

## 4. Seoul MADBERRY Farmhouse



Appendix.

NEXTON: World No. 1 in Indoor Farm Patents

Rank	Company	Utility #	Design #	Trademarks
1	NEXTON(Rep. of Korea)	59	1	3
2	Indigo Agriculture (US)	17	0	4
3	AeroFarms (US)	14	0	2
4	InFarm-Indoor Urban Farming GmbH (Germany)	10	1	9
5	Plenty Company, LLC (US)	9	0	2
6	Vertical Future (UK)	2	0	0
Unranked	Farm8 (Rep. of Korea)	3	0	18

[<http://www.kipris.or.kr/khome/main.jsp>]

**NEXTON**

