

# FOODPOLIS

2016 / No. 013

## COVER STORY

### Providing the Optimal Environment for Food Companies

Transportation Infrastructure of the Korea National Food Cluster – the Silk Road to the Northeast Asian Market / Water Supply Infrastructure Ensuring Food Safety / Solar Photovoltaic System – an Advanced Power Supply System Designed to Lower Energy Costs / Food City – a Satellite City Designed to Accommodate the Lifestyle Needs of Korea National Food Cluster Professionals

## EXPERT COLUMN

**The Role of the Korea National Food Cluster in the Development and Growth of the Korean Food Industry**  
Horst-Christian Langowki (Director of Fraunhofer IVV)

**Need for Establishing and Reinforcing the Quality Control Support System**

Noh Bong-su (Professor of Food Science & Technology at Seoul Women's University)



Ministry of Agriculture,  
Food and Rural Affairs



**FOODPOLIS**  
KOREA NATIONAL FOOD CLUSTER



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## 04 COVER STORY

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- Transportation Infrastructure of the Korea National Food Cluster – the Silk Road to the Northeast Asian Market
- Water Supply Infrastructure Ensuring Food Safety
- Solar Photovoltaic System – an Advanced Power Supply System Designed to Lower Electricity Bills
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**Website** [www.foodpolis.kr](http://www.foodpolis.kr)  
**Korean blog** <http://blog.naver.com/foodpolis1>  
**English blog** <http://foodpolis.info>  
**Facebook** <https://www.facebook.com/foodpolis.kr>  
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## CREDITS

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## 2016, a Golden Opportunity to Take an Innovative Leap Forward The Korea National Food Cluster Is Our Cornerstone!



It is a great pleasure to send you my greetings and best wishes at the outset of the Year of Red Monkey – a symbol of passion and wisdom – through the 13th issue of the FOODPOLIS newsletter. The year 2016 will witness the realization of full-scale globalization of the Korean market, which will be connected to three-quarters of the world's markets through FTAs. Now is the time for us to renew our determination and step up combined efforts for innovation to foster the global competence of Korea's agrifood industry and reinforce its foothold worldwide.

The completion of the Korea National Food Cluster at this point in time, after years of preparations and continued support from the Korean people, is all the more significant. It is expected to serve as the advance base for agrifood exports in Northeast Asia and the center of collaboration between the agricultural and food industries. It will also serve as a critical turning point that determines the direction of Korea's agrifood industry for the next three decades.

Many overseas media organizations and food industry players are showing great interest in and high expectations for the world's first government-led food cluster project, with its six business support facilities (including the Food Quality and Safety Center, Functional Food Evaluation Center, and Food Packaging Center) to be completed in July 2016 and the cluster site construction to be completed by the end of 2016.

It is projected that the Korea National Food Cluster will meet such expectations by contributing to the co-prosperity of the agricultural and food industries through helping them develop high-value-added products with local produce and secure more export channels and by bolstering the local economy through creating new jobs, thus garnering worldwide acclaim as an original success story and laying the solid foundation for Korea to rise as a global leader in the food industry.

I would like to offer words of encouragement and appreciation for those who are working hard to prepare for the successful launch of the Korea National Food Cluster. I would also like to thank and offer my best wishes to all who have continued to send their support for the Korea National Food Cluster.

**Lee Jun-won**

Deputy Minister of Food Industry Policy at the Ministry of Agriculture, Food and Rural Affairs

*Junwon Lee*

# Providing the Optimal Environment for Food Companies

## What is the Korea National Food Cluster?

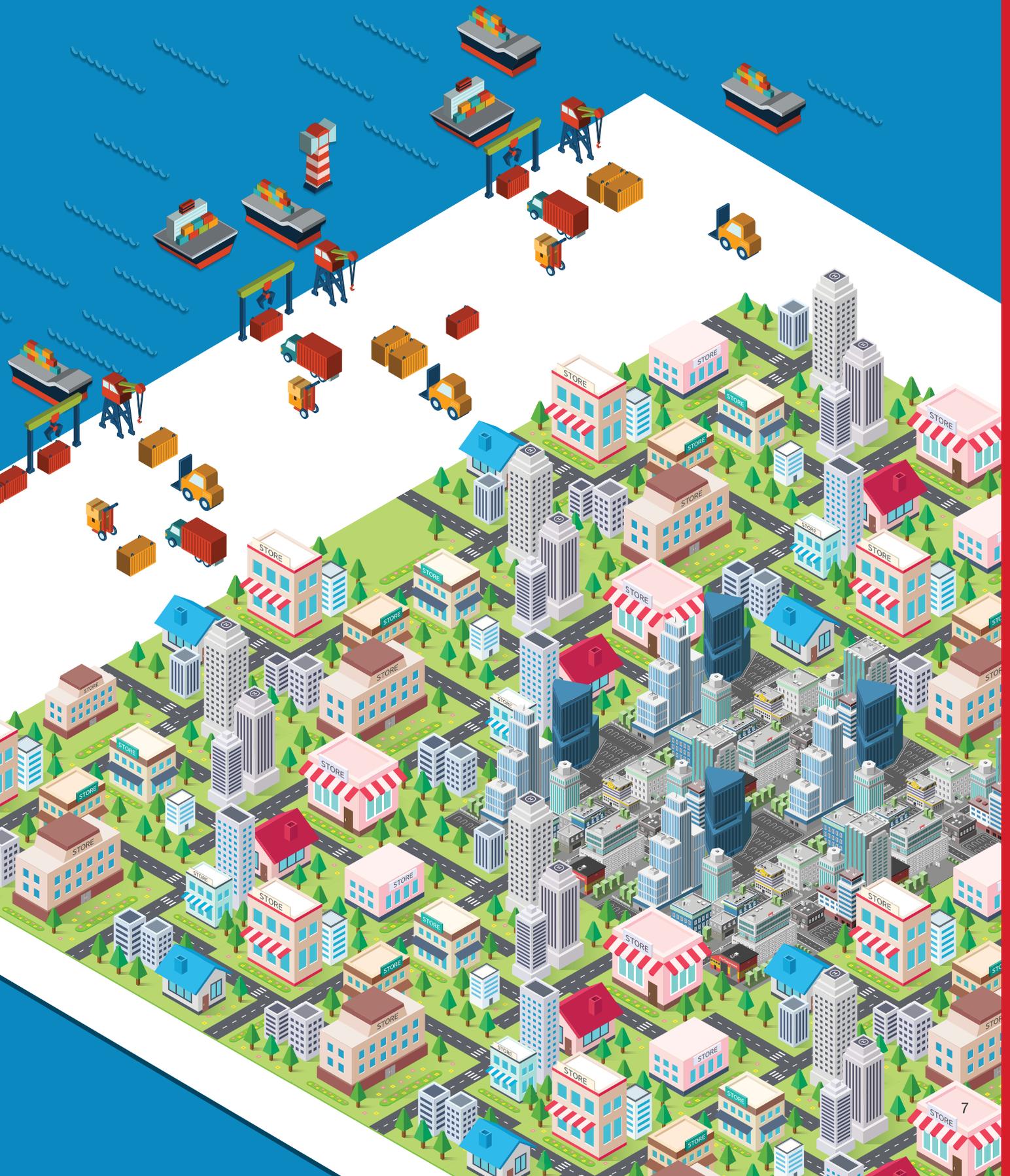
It is the world's first government-created industrial complex dedicated to food and aimed at boosting R&D and the exports of food companies. It is equipped with a wide range of business support facilities, such as the R&D Center, and one-stop, all-encompassing services, offering the optimal environment for food companies to reinforce their global competitiveness.

Amidst today's fast-changing economic conditions, especially with FTAs with an increasing number of countries taking effect, the food industry presents opportunities for the government to unearth new growth engines for the future as well as challenges in providing effective, well-thought-out support to food companies. In order to aid domestic-market-centered food producers to advance into the global market, it is crucial to come up with policies that can provide business conditions tailored for their needs and support for management.

In accordance with the 2015 Survey of Demand for and Awareness of the Korea National Food Cluster, which targeted Korean food industry professionals, 78% of all the respondents pointed to R&D support as one of the most critical tasks for the Korea National Food Cluster. As such, the Korea National Food Cluster is striving to create the optimal environment for resident companies by ensuring the supply of high-quality agricultural produce, equipping itself with R&D support facilities that can stimulate the development of competitive products, and introducing cutting-edge technologies and marketing techniques.

The cover story of the 13th issue of FOODPOLIS features the progress report on the construction of the transportation infrastructure, the water supply system, and the energy supply system within the cluster, as well as the creation plan for Food City – a satellite city to be built nearby to cater to the lifestyle and cultural needs of professionals working at the cluster.





Providing the Optimal Environment for Food Companies

# Silk Road to the Northeast Asian Market Transportation Infrastructure of the Korea National Food Cluster

An advanced transport system is a must for the food industry as it is highly important to deliver food within the shortest possible period of time and at the right temperature. Ready access to ports and major roads must also be ensured so that agricultural produce to be used as ingredients can be delivered without delay and finished products can be transported with ease. The top priority of the Ministry of Agriculture, Food and Rural Affairs during the selection process for the Korea National Food Cluster site in 2012 was the quality of the transportation network. A wide-area transportation system is currently under construction at the Korea National Food Cluster site to enable resident companies to handle any volume of commercial traffic without any obstacles.

At the time of the location screening in 2012, Iksan was considered to be the optimal choice due to its outstanding transportation network. It provides easy access to fertile agricultural land, including Gimje Plain and Honam Plain, thereby making it more convenient to secure high-quality agricultural produce. It takes only three minutes to Iksan IC and 40 minutes to Gunsan Port. The Honam High-Speed Railway (a part of Korail's KTX system) completed in 2015 brought Iksan and Seoul within one hour's distance from each other. Wageningen is the location of Food Valley NL, a globally recognized food cluster in the Netherlands. It has remained strong in the livestock industry and agricultural industry. It is about 102 kilometers away from Rotterdam

Harbor, thereby offering easy access to the sea in addition to roads and railways. It is also close to Germany's Düsseldorf Airport (112 kilometers) and the Netherlands' Schiphol Amsterdam Airport (85 kilometers). The combination of a solid agricultural foundation and optimal transportation system is the key to its remarkable productivity.

The total commercial traffic of the Korea National Food Cluster's resident companies is expected to reach approximately nine million tons by 2020 (FOODPOLIS Master Plan, 2012). As such, the Ministry of Agriculture, Food and Rural Affairs will continue to join hands with local government bodies to further improve the accessibility of roads, ports, and railways.



Providing the Optimal Environment for Food Companies

## 2 Water Supply Infrastructure Ensuring Food Safety

A consistent, adequate supply of clean water is a prerequisite for food companies that must remain on guard to ensure food sanitation and safety. In particular, water used for food manufacturing and processing has to comply with the government's standards for drinking water. If underground water is used, water quality inspections should be carried out at least once a year across all areas of such standards. Failure to ensure food sanitation may directly lead to the loss of consumer trust, which can have an immense adverse impact on the operation of the businesses at the complex. Therefore, it is imperative to properly complete pipework and drainage work. It is also important to use water tanks and pipes made of non-toxic materials and install locking devices to prevent any possible inflow of outside pollutants and maintain optimal water quality. Water supply and drainage systems are currently being constructed at the Korea National Food Cluster site to ensure a reliable supply of water for resident companies in accordance with the FOODPOLIS Basic Plan.

### The catchment area for first-grade residential water secured / Residential-grade service water sourced from Yongdam Dam

Unlike existing industrial complexes, the Korea National Food Cluster is designed to supply first-grade residential water via the



wide-area waterworks system of the Jeonju region based on the Master Plan for Water Supply System Maintenance (2010) using Yongdam Dam located in Jinan-gun, Jeollabuk-do, as the catchment area. Yongdam Dam is responsible for the supply of 92 million tons of water for living, agricultural use, and industrial use for factories, farms, and roughly 1.5 million residents in Jeonju, Iksan, Gunsan, and Gimje. It is a multipurpose dam serving as a major water source for the entire province of Jeollabuk-do. Water from Yongdam Dam will be supplied to the Korea National Food Cluster using the part of the wide-area waterworks system of the Jeonju region completed in November 2003.

### Construction of water reservoirs and installation of water and drain pipes to ensure a stable supply of quality water

The construction of a water reservoir and installation of water and drain pipes are currently in progress at the Korea National Food

Cluster site located in Dongyong-ri, Wanggung-myeon, Iksan-si, Jeollabuk-do, to ensure a stable supply of first-grade residential water. The Wanggung Water Reservoir is being built from 2014 with a budget of KRW 8.4 billion, along with an access road and water supply and drainage systems. It is scheduled to be completed by the end of 2016 and aims to create an environment that ensures a reliable supply of water. This water reservoir is expected to cover the demand of the cluster and its surrounding areas including Wanggung-myeon and Chunpo-myeon.

#### Water Reservoir Construction Plan for the Korea National Food Cluster

Construction of water reservoirs	V = 8800m <sup>3</sup> (Under construction) V = 2200m <sup>3</sup> (To be constructed)
Installation of water pipes	D = 600mm L = 0,15km
Installation of drain pipes	D = 500mm ~ 600mm L = 1,5km

#### Water Usage Status of Food Companies

The water supply needs of food companies within existing industrial complexes have been fulfilled with both residential water and service water for industrial use. Industrial service water is intended to be used for manufacturing. It is used after distilling impurities without undergoing the filtering process. Some agricultural industrial complexes draw on underground water for industrial use. However, such cases are continuously decreasing as the quality of underground water is often substandard due to pollution and as its reliable supply cannot be guaranteed. Major Korean food companies, such as Samyang Foods, Orion, and Harim, filter service water using their own systems to achieve the desired water quality for each food product.

Providing the Optimal Environment for Food Companies

# 3 Solar Photovoltaic System

## An advanced Power Supply System Designed to Lower Energy Costs

Solar photovoltaic power generation has made rapid progress over the past several years. It has high growth potential as Korea has limited land space and is connected with a complex network of roads. It is increasingly sought after in Europe – with its concentration of countries leading the renewable energy industry, North and South America, and the newly rising markets of Japan and China.

The Korea National Food Cluster is preparing to introduce a solar photovoltaic power generation system, one of the most acclaimed re-

Eco-friendly, cost-saving solar photovoltaic solution unique to the Korea National Food Cluster designed to help suppliers and users thrive together

newable energy sources, to ensure a reliable supply of energy for resident companies in an optimal manner and to realize an eco-friendly, energy-saving green industrial complex. Solar energy is environmentally harmless and solar energy generation facilities are easy to maintain and repair. However, it is not easy



for most businesses to introduce this system due to the high initial-stage investment and power generation costs.

As such, the Korea National Food Cluster is focusing on offering a solar photovoltaic business solution that will be both cost-saving and mutually beneficial to suppliers and users. Based on this solution, photovoltaic power generation businesses can install solar photovoltaic power generation facilities at a rented building and sell the electricity generated to

electric power companies. The building owner can benefit from rent payments for 12 years, at which point the ownership of the power generation facilities is transferred to the building owner. In accordance with Article 21 of the Enforcement Decree of the Industrial Cluster Development and Factory Establishment Act, solar photovoltaic power generation facilities can be installed on factory rooftops for business purposes and the necessary approvals must be attained. However, the criteria are hard to meet. The Korea National Food Cluster concluded a facilities installation contract for the solar photovoltaic power generation business with a renewable energy company in September 2014 to realize the solar photovoltaic power generation business using the rooftop spaces of the buildings within the cluster and to share part of the profits from the generated power with the resident companies.

Global Solar Photovoltaic Power Generation Market



Source: European Photovoltaic Industry Association (2010)

Providing the Optimal Environment for Food Companies

# 4 Food City

## A satellite City Designed to Accommodate Lifestyle Needs of Korea National Food Cluster Professionals

In order to accommodate the residential population brought in by the creation of this industrial complex and the population flowing in from other regions, to attract high-caliber professionals, and to ultimately improve its brand value, the Korea National Food Cluster plans to build the neighboring Food City consisting of a residential district, a commercial district, an education district, and a culture and tourism district.

### **Food City – a City for Lifestyle Needs within Commutable Proximity of the Korean National Food Cluster**

Food City, consisting of a residential district, a commercial district, an education district, and a culture and tourism district, will be fostered into a city boasting a world-class cultural and residential environment.

#### **Residential District**

The residential district, equipped with cutting-edge IT infrastructure and ubiquitous smart technology, will feature a hanok village, a residential complex for international residents, and complexes with apartment buildings of different heights. Various incentives will be given to move-in employees to help them more stably relocate and settle down. Also, a certain number of newly built houses will be set aside for sale to international

residents who will move in as employees of multinational corporations. Urban farms and ecological education sites will be created near residential facilities to bring nature into the urban cityscape.

#### **Commercial District**

The commercial district will feature a food street mall, a shopping center offering foods of different countries, guesthouses, and other accommodations. For employees working at the cluster and residents of Food City, a healthcare town will be created, and services for international residents, such as interpretation service, will be provided. Themed streets, such as Hansik Street and Global Food Street, will be constructed as well as a commercial complex with a concentration of global food brands and accommodation complexes for longer-term stays.

#### **Education District**

The education district will house a food-related special-purpose high school, a university, and an international school, as well as an English-learning village. A graduate school offering food-related courses and a culinary academy of international cuisine and Korean cuisine will also be established. World-class institutions for children of employees of multinational corporations and research institutes

will be brought in and established in this district.

#### **Culture and Tourism District**

The culture and tourism district will feature a food exhibition and experience center, a convention center dedicated to food, a global food hall, a food museum, cutting-edge restaurants, and other cultural and tourist attractions all based on the theme of food. Spaces dedicated to foods of different regions and themes will be created along with a culinary culture complex celebrating the historical, cultural, and festive aspects of food. A K-Pop-themed festival and an international food expo will also be staged in this district.

For details, please refer to the FOODPOLIS Master Plan (2012).



# The Role of FOODPOLIS in the Development and Growth of the Korean Food Industry

**Dr. Horst-Christian Langowski**

Director of the Fraunhofer-institute for Process Engineering and Packaging IVV, Freising



Consumer demands in the food sector are as broad as they are diverse. In industrialized countries, the basic needs of consumers have been hitherto widely satisfied, with available food products ranging from low-priced basic commodities on the one side, to craft or artisanal products on the other. In view of this, the areas of research and development in the private sector are generally distributed accordingly, with commodities manufacturers focusing on process optimization and the use of cheaper raw materials, and the craft product sector preferentially directing their efforts towards specific product innovations. Moreover, the types of enterprises involved – and clearly also the scale of their revenue from successful innovations – differ: the commodities sector is predominantly the domain of larger, often global companies whose main target is cost-cutting. Here, even small improvements can result in large effects due to the sheer mass of production of commodities. By comparison, the specialized products sector is dominated by SMEs (small and medium enterprises), the basis of whose success is frequently the creation of new and innovative products to ensure that they remain ahead of the market. Here, profit margins, growth rates and publicity for the individual products may be much larger, but so too are the number of unsuccessful products which simply fail to captivate the market. Thus, true product innovations in the food sector are regarded as being more attractive, yet in turn carry a far higher risk.

So, what do we now observe in the current research infrastructure with respect to supporting both ends of the innovation spectrum? First, research and academic education strive to delimit basic and applied research with a common distinction between universities and polytechnic colleges. This scheme, which is especially embraced in the European culture, supplies process development departments in the commodities sector with well-trained specialists, but fails to support true product innovators who gain most of their skills as autodidacts. Consistent with this, universities and research institutes are highly capable of helping companies that seek assistance for process innovations and optimization, yet it is nevertheless hard, especially for SMEs, to find support for product innovations.

This situation dictates clear demands on funding policy and the overall structure of funded research in the food sector, namely that basic and applied

research should not be given different rankings, and moreover the interactions between them should be improved and intensified. In fact, there is a great need for funding and other forms of support for product innovations to be enforced, especially to the benefit of small or medium-sized companies. This clearly presents a challenge, with the range of subjects to be covered by an appropriate research infrastructure being extensive, from the classical areas of food process engineering, materials engineering and packaging, up to questions of consumers' preferences. Moreover, successful innovation cannot occur unless the adequate food quality and safety requirements are met, so these competencies must also be incorporated in the development processes throughout all stages. At Fraunhofer IVV, the specialized food and packaging institute of the Fraunhofer-Gesellschaft, Europe's largest applied research organization, our daily business is to gather this range of expertise in order to address the challenges of the diverse projects currently underway. Often external expertise is sought, whereby we collaborate in many cases with different institutions from the academic sector, as well as other research institutes and industrial partners, often throughout Europe. This has its distinct advantages, as we are within a process of permanent exchange and renewal of our own expertise. On the other hand, this search for new partnerships can slow down rather than speed up the innovation process. Until now, it was hard – if not impossible – to find a food research infrastructure capable to fulfil these needs and offer the necessary access to combined competencies at a single location.

In this respect, the clustering of cutting-edge facilities in the Korean National Food Cluster, incorporating food processing on a pilot plant scale, food quality evaluation, food packaging and other dedicated facilities that can be actively utilized by interested companies, sets a worldwide standard. The efforts of the Korean government are unprecedented, initiating a prodigious large-scale experiment for integrating research and industry that will be surely shared by many international partners.

Personally, I have no doubt that any partner participating in this pioneering endeavor will benefit greatly and I will eagerly follow the progress of this world-class innovative cluster.



### Photo Sketch

## Vision of Growing into the Hub of the Northeast Asian Food Industry Shared with the World

Reporters from various overseas press organizations have visited the Korea National Food Cluster site throughout 2015. FOODPOLIS accompanied reporters from the eight countries of Japan, China, the US, Germany, Singapore, the Netherlands, Italy, and Malaysia on their tours around the site. Below are the illustrated records of these tours.

Many press organizations in Korea and beyond are displaying interest in the Korea National Food Cluster with its scheduled completion in 2016 just around the corner. Reporters from eight countries, including Japan, China, the US, the Netherlands, and Italy, have visited the site to witness the construction of the world's first gov-

ernment-led industrial complex dedicated to food. Their in-depth coverage focused on the entire cluster planning and development process, the benefits for resident companies, and the scope of support provided through the temporary research centers. Expectations are high regarding the new business model presented through the cluster

and the cluster's growth potential. Singapore's Asia Food Journal featured a three-page article about the cluster and its resident company BTC in its November-December 2015 issue after its visit to the site in August.

Photo Sketch



1. Reporters Duan Yu Feng and Du Chang Yong from China taking a look around the site at the Observatory of the Korea National Food Cluster 2. Reporters Duan Yu Feng and Du Chang Yong from China taking a guided tour around the Promotion Hall of the Korea National Food Cluster 3. Reporter Ishikawa Toru from Japan visiting the temporary research center 4. Reporters Dionne Irving from the Netherlands, Alberto Chiriotti from Italy, and Behonce Beh from Malaysia visiting the Ministry of Agriculture, Food and Rural Affairs in Sejong City 5. Professor Kwon O-ran of Food Science & Engineering at Ewha Woman's University interviewing reporters Dionne Irving from the Netherlands, Alberto Chiriotti from Italy, and Behonce Beh from Malaysia 6. Reporters Dionne Irving from the Netherlands, Alberto Chiriotti from Italy, and Behonce Beh from Malaysia taking a tour around the Korea National Food Cluster site 7. Reporters Dionne Irving from the Netherlands, Alberto Chiriotti from Italy, and Behonce Beh from Malaysia visiting an on-site temporary research center 8. Reporters Dionne Irving from the Netherlands, Alberto Chiriotti from Italy, and Behonce Beh from Malaysia visiting the Ministry of Agriculture, Food and Rural Affairs in Sejong City 9. Reporter Ishikawa Toru interviewing CEO Kim Jae-hwan of Neocrema 10. Dr. Kwon Dae-yeong, Senior Researcher at the Korea Food Research Institute 11. Reporters Duan Yu Feng and Du Chang Yong at the 2015 Korea Food Trend Fair

After Visiting the Korea National Food Cluster Site

Focus of Foreign Reporters

Paving the Path towards Success in the Northeast Asian Market

Food Navigator and Food Processing, US

The Korea National Food Cluster is the product of the government's ambitious plan to create an industrial hub accessible to 50 cities, each populated with over one million people and within the distance of a two hours' flight. It provides an advanced transportation system that enables companies to ship their products to China, Hong Kong, and Japan in just 24 hours and an optimal business environment and diverse benefits powered by FTAs concluded with over 50 countries of Europe, North America, and ASEAN.



Northeast Asia – Full Opportunities for Food Businesses!

Focus Malaysia, Malaysia

Korea created Asia's first government-funded industrial complex dedicated to food inspired by the Netherlands' Food Valley NL. This 232-hectare food cluster located in Iksan, Jeollabuk-do, will serve as the trading center of the food industry and a cultural hub.





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11. Reporters Dave Fusaro and Richard Whitehead from the US visiting the Sempio Foods Company R&D Center at the invitation of the Sempio Foods Company 12. Reporters Dave Fusaro and Richard Whitehead sampling innovative food products at the Sempio Foods Company R&D Center 13. Editor Denice Cabel of Singapore's Asia Food Journal listening to the guide's explanation about the design plan of the Korea National Food Cluster 14. Reporters Dave Fusaro and Richard Whitehead visiting the Korea Food Research Institute 15. Reporter Ian Healey from Germany taking a look around the construction site of the Korea National Food Cluster's supporting facilities 16. Editor Denice Cabel of Singapore's Asia Food Journal visiting the temporary Functional Food Evaluation Center 17. Reporter Ian Healey from Germany visiting the production plant of Harim, a resident company of the cluster 18. Editor Denice Cabel of Singapore's Asia Food Journal visiting BTC, a resident company of the cluster, and listening to CEO Kim Tae-yong's introduction of the company's products 19. Reporter Ian Healey from Germany at the signing ceremony of the MOU between the Korea National Food Cluster and Fraunhofer IVV



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## The Advance Base of Exports for Asia – Korea National Food Cluster

Chiriotti Editori, Italy

It is the gateway to Korea's food industry and the golden opportunity for Italian food makers. Food companies of the world can utilize the Korea National Food Cluster as their base for exporting to Asia and capitalize on its low-cost, streamlined customs procedure to reach out to both Asian and non-Asian regions.



## Reasons Why You Should Invest in Korea

Asia Food Journal, Singapore

Any food company wishing to build its presence in the rapidly growing Northeast Asian market must solidify its foothold in the Korea National Food Cluster.



## To Advance into the World – Creation of the Korea National Food Cluster

Food Chemistry Newspaper, Japan  
Tang Yan Zhu and China Economic Net, China

China and Japan are both Korea's neighboring countries and biggest trading partners. If Chinese companies decide to invest in the Korea National Food Cluster, they will be given ample business opportunities in Korea, China, and the entire world.

November 12, 2015 - 10p



## Need for Establishing and Reinforcing The Quality Control Support System

**Noh Bong-su**

Professor of Food Science & Technology at Seoul Women's University



The success of the Korea National Food Cluster hinges upon whether it is capable of pinpointing resident companies' needs and rapidly providing necessary support to help them attain competence. In this sense, the Food Quality and Safety Center is aimed at providing across-the-board quality control support. Some of the tests required for quality assurance are component analyses for nutrition labeling, microbiological analyses to test food hygiene, food safety inspections, self-led quality control tests by resident companies, and foreign substance identification tests. Tests to determine the shelf lives of products; special analyses individually required by importing countries (such as tests for acceptability as halal food); and inspections for exposure to radiation and highly controversial new toxins, such as GMOs, norovirus, endocrine-disrupting chemicals (i.e. dioxin), heavy metals, fungal toxins, antibiotics, and allergens, must be carried out as well.

The key elements that determine the quality of a product are its flavor and consumer preferences. Products to be exported must be evaluated based on the standards of the destination country, not those of the exporting country. The quality of food must be assessed with all five senses of taste, smell, hearing, sight, and touch in a holistic manner. Some products are manufactured with ingredients sourced overseas. In this case, it is easier for corresponding overseas corporations to deal with the situation than Korean corporations that have to start from the very beginning of identifying and understanding the nature and characteristics of each ingredient sourced from abroad to be able to provide tailored support. In addition, it is necessary to keep abreast of the preferences and dietary habits of the consumers in the destination countries to improve the competitiveness of products.

A flavor has a highly complicated composition. It takes time and effort to master testing techniques for different components of a flavor. Therefore, it is important to not only recruit and train sensory testers but also build a system to objectify the analytical values produced by

such sensory testers. It will take an extended period of time to prove the correlation between the results of testing with electronic devices (electronic noses, electronic eyes, electronic tongues, GC-O, and GC/MS) and the analytical values produced by sensory testers. Preparations for this must take place even before the facilities are completed and researchers move in.

As the flavors, colors, and designs preferred by the consumers of importing nations and their dietary habits should be taken into consideration to produce food products that can be popular with such consumers (especially traditional foods such as kimchi), extensive consumer surveys in individual markets are a must. However, many food companies find it difficult to execute such surveys on their own. The Korea National Food Cluster should be able to provide sensory testing and consumer trend analysis services in a systematic manner and share the findings with resident companies. It should closely follow and keep track of the latest developments of global consumers and offer the information to resident companies at a low cost.

To reach quality standards recognized in the international arena, the cluster should build and maintain strong bonds with various overseas research organizations that can offer valuable information. However, the mere signing of an MOU does not promise much. Koreans are often misled that the conclusion of an MOU is an important achievement. However, an MOU is viewed as no more than an insignificant formality to launch preparations for a project in many countries. It is important to take action and produce visible outcomes from such MOUs. We must not be deluded into thinking that the conclusion of an MOU itself signifies progress. An MOU becomes significant only when the project specified therein takes shape and generates mutual benefits. I sincerely hope that the Korea National Food Cluster will be equipped with an ideal, all-around support system as planned and contribute to the advancement of all resident companies and Korea's food industry.



Overseas Corporations Registered as Foreign-Invested Companies with  
The Korea National Food Cluster

# The Place to Do Business! Welcome to the Korea National Food Cluster!

With Gold of Prague – a traditional Czech beer maker – registered as a foreign-invested company in May 2015, a total of six overseas-based food companies from Europe, Asia, and North America have selected the Korea National Food Cluster as their base for reinforcing their presence in the global market.

They point to the convenience in sourcing superior quality local ingredients and easy access to many Northeast Asian markets as the leading strengths of the cluster.



Hampton Grains



Gold of Prague



Goldrock International



Clever Mama

 Hampton Grains

 Hampton Grains



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Aiming to promote co-prosperity with Korean farms through the new business model and taking part in bringing the vision of the cluster into reality

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Hampton Grains is equipped with facilities for the production, distribution, and processing of food like major companies and thereby is capable of competing against global players. It began to build a network of ingredient suppliers as soon as it concluded the contract to move into the cluster. With support from the cluster, Hampton Grains partnered with several local suppliers including Pureume and the Korea Grain Processing Plants Association. Pureume is a multi-grain product maker located near the cluster site. Hampton Grains is planning to source grains from Pureume and also co-develop products made with non-grain crops. The Korea Grain Processing Plants Association will be supplying high-quality grains to Hampton Grains based on an ingredient purchase agreement.

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Currently working to develop a business model to process grains at the reliable, government-led Korea National Food Cluster and re-export the products to the US

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oil, flour, and cookies, but usually outsources the job to original equipment manufacturers. As the grain market is closed and exclusive, it is hard to identify the current position of Hampton Grains on the global stage. About 80-90% of the global market is dominated by major grain distributors such as Cargill, ADM, ConAgra Foods, and Japanese companies, and the rest is occupied by smaller companies such as Hampton Grains. However,

Hampton Grains is an exporter of grain products such as wheat, corn, soybeans, oats, and barley. Although the company has a directly-run, small-scale farm in the US, it mostly purchases produce through contract farming (such as almonds) or ingredients produced by cooperatives. It sometimes processes grains for the production of cooking



 **Gold of Prague**



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## A beer maker from the country that invented the world's first lager beer builds a production plant in the cluster to tap into the Northeast Asian market

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At a point when Korea's imported beer market is recording explosive growth with the previous year's beer imports reaching an all-time high, Gold of Prague – a Czech beer maker from the country that invented the world's first lager beer – decided to move in and build a production plant within the Korea National Food Cluster. Gold of Prague adheres to the brewing method preserved and handed down for generations by Břevnov Monastery established in the 10th century. It plans to build a small-scale beer brewery (brewing capacity of five million liters per year) in the cluster within this year and also open a facility for visitors to experience and learn about Czech's beer tradition. Gold of Prague's brewery to be constructed in the cluster will be managed directly by trained brewing technicians from the Czech Republic and produce super-premium-grade products made only from hops, malt, and water in compliance with the traditional Czech beer-brewing method. The company staged

a tasting event at Seoul Food 2015 International Food Industry Exhibition Seoul held at KINTEX in May 2015 and received high evaluations from visitors. CEO Lukas Mikeska said that the cluster is well equipped with a superior R&D system and facilitates networking and creating synergy with other resident companies. He expressed high expectations about raising the status of traditional Czech beer across Northeast Asia with the joining of the cluster serving as momentum.

 **Goldrock International**

Kenya, Africa's leading coffee producer, is known for its globally trusted auction system that determines prices of different grades of coffee beans and is continuously expanding its market share by supplying coffee beans that cater to tastes of discerning consumers. Gold Rock International is one of Kenya's renowned coffee companies highly preferred in Europe with a wide range of its house blend-

ed coffee brands such as Masai, Shimba, and Cadrosia. Its unique, original packaging is touted as the industry benchmark.

Gold Rock International completed the registration as a foreign-invested company with the Korea National Food Cluster in November 2014 and plans to create a facility with an area of 20,000 square meters and staffed with 100 employees in the cluster. The company's decision to invest in the cluster, aimed at reinforcing its presence in the Northeast Asian market, is said to have been driven by the cluster's advanced support programs.

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## Selected the Korea National Food Cluster due to the cluster's advanced support facilities and programs

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 Clever Mama

 Clever Mama



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Planning to re-export products made in Korea to China with superior-quality ingredients and cutting-edge technology

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China's Clever Mama became the 99th overseas-based corporation to conclude an investment MOU with the Korea National Food Cluster and the fifth to register as a foreign-invested company. Clever Mama is well known for its fruit pudding made with natural fruit juice and its walnut-flavored beverage. Thanks to its differentiated product strategy and innovative marketing activities such as the development and sales of collectibles, it reached the KRW 120 billion mark in sales in just five years since its inception in 2009 and continues to achieve rapid growth. Clever Mama focuses on building a premium brand image by drawing on the fact

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Aiming to build a premium brand image among China's upscale consumers by drawing on Korea's prestige as a manufacturer of reliable products

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that Korean food is highly trusted by Chinese consumers and by applying Korean design elements to its product packaging. CEO Xu Shu Shu said that he aims to expand the company's franchises to over 3,000 by 2017 to sell products made within the cluster and re-exported to China. He plans to further improve the company's brand value in China by emphasizing the fact that its products are made in Korea with Korea's quality agricultural produce and state-of-the-art technology. Clever Mama is also planning to open stores specializing in high-end Korean agricultural products (tentatively named I Love Seoul) in major cities of China.

# How the Korea National Food Cluster Plans to Change the Landscape of the Food Industry in 2016

With the Korea National Food Cluster site construction to be completed by the end of 2016 and the construction of the six support facilities to be completed by the end of July 2016, the Korea National Food Cluster project continues to sail smoothly. To step up support for resident companies and ensure the successful opening of the cluster, the Agency for Korea National Food Cluster will be put into operation, dedicated to providing one-stop service from making contracts to moving in. The agency will also take charge of pushing ahead with diverse support programs, such as the deregulation of the recruitment of international employees for foreign-invested companies and the expansion of technological development support. The cluster is working hard to realize an optimal environment for businesses by providing tailored support for food companies across the board, from moving in to investing in equipment, launching overseas promotions, fostering and securing human resources, and conducting business ventures. The following infographic describes the cluster's step-by-step plan for 2016.





### Korea National Food Cluster site construction

Completion of site construction

The Korea National Food Cluster site construction, which broke ground in March 2014, will be completed by the end of 2016, and the site will be ready for the construction of facilities of individual resident companies.

### Completion of the cluster's support facilities

Six support facilities\* to be completed by the end of July 2016

Upon their completion, the Agency for Korea National Food Cluster, currently being operated in Gwacheon and Iksan (as the temporary research centers), will be relocated to the cluster.

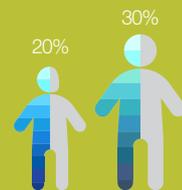
\*The six facilities are the Food Quality and Safety Center, Functional Food Evaluation Center, Food Packaging Center, Pilot Plant, Food Venture Center (Rental Factory), and Agency for Korea National Food Cluster.

### Recruitment of international professionals to be expanded

Regulations regarding the recruitment of international professionals by foreign-invested companies within the cluster to be eased

The ceiling for the percentage of international professionals\* at a foreign-invested company will be increased from 20% to 30%.

\*For international sales and interpretation/translation



### Expansion of technological support for food companies

Expansion of the budget for technological support to enable further collaboration with other food companies



The budget for technological support will be increased to KRW 800 million, up by KRW 300 million from 2015, and encourage joint research projects in the areas of functional foods, food quality and safety, and food packaging.

\*Supported areas: functional food standardization and effectiveness evaluations; evaluations of taste, flavor, and texture; food packaging safety evaluations; packaging design; etc.

\*Number of supported companies: from six to 11 companies

## Establishment of a one-stop support system for resident companies

Agency for Korea National Food Cluster to take charge of cluster management

The Agency for Korea National Food Cluster will replace the Korea Industrial Complex Corporation to manage the cluster and provide one-stop service for resident companies.

\*To go into operation with the enforcement of the Special Act for the Designation and Operation of the Regulation-Free Zone (tentatively named)

## Opening of the FIZ for resident companies to move in

Foreign-invested companies moving into the cluster's FIZ

Part of the cluster's global food zone with an area of 116,000 square meters was designated as the FIZ on October 12, 2015, in which foreign-invested companies are permitted to build production plants.

\*Qualifications to move in: companies with the percentage of investment by foreigners reaching 30% or higher, companies with investments of KRW 100 million or more by foreigners, and companies registered as foreign-invested companies with the Korea National Food Cluster

## Support for overseas promotional activities

A wider range of support for overseas promotional activities of resident companies

Support to be provided for resident companies engaged in overseas exhibitions and promotions through the cluster's investment promotion booth set up on site



## Establishment of a support system for securing and fostering human resources

Support for fostering food experts and providing an expert-company pairing service



Three courses (short-term skills course, intensive course, and CEO course) to be operated to help foster food professionals and strengthen their expertise

Providing support for resident companies taking part in job fairs and holding employment presentations\* to recruit young job seekers

\*To join hands with companies and visit nearby high schools and universities

## Establishment of a support system for food ventures

Discovering and supporting outstanding food ventures and holding technology presentations



Outstanding food ventures to be selected through contests and given support to move into the Food Venture Center

Seminars on venture business certification and technology presentations to be held for resident companies and prospective entrepreneurs

Featured Korea-Based Resident Company

## Discovering the Way Forward for Innovative Functional Foods at the Korea National Food Cluster

# Neocrema

CEO Kim Jae-hwan



Since its inception in 1999, Neocrema has been producing over ten functional ingredients, including functional peptide and high-purity galacto oligosaccharide. It is a small yet strong company that recently won the Three-Million-Dollar Export Tower awarded in celebration of Trade Day. In Japan, a weight-loss product that contains one of Neocrema's functional ingredients has captured the leading market share.

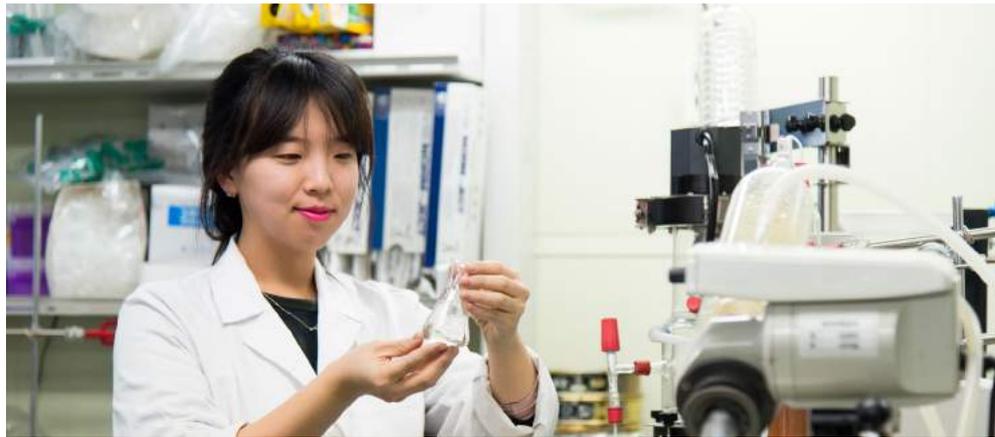
The name Neocrema is derived from "the creation of a market", mirroring the company's determination to bring its vision to life by creating a new market, instead of being a late follower in a red ocean. Neocrema became the Korea National Food Cluster's sixth valuable addition just before Christmas in 2015. FOODPOLIS interviewed CEO Kim Jae-hwan about Neocrema's mutually beneficial partnership with the cluster and the company's future plans.

**Tell us how you came to decide to join the Korea National Food Cluster.**

First, I took note that the cluster is the only industrial complex tailored to meet the needs of the food industry. It is designed to keep out pollutants from the outside, encourage collaboration with similar companies located nearby, and help us benefit from information exchange and reduced logistics costs from such collaboration. Second, experts, research equipment, and production facilities provided by the cluster are expected to enable us to conduct research projects and innovate production methods that would be impossible on our own.

**What is it about Neocrema's functional weight-loss ingredient that is garnering such wide acclaim?**

Weight-loss supplements are mostly aimed at suppressing calorie absorption or speeding up



Neocrema is a small yet strong developer and exporter of a functional food ingredient that suppresses the appetite and thereby induces gradual weight loss. This ingredient is used in a product that currently boasts the highest market share in the functional weight-loss ingredient market in Japan.

the metabolism. However, the intake of such supplements does not lead to the desired result unless it is accompanied by dietary control and adequate exercise. Eatless, developed by Neocrema, is a functional ingredient that induces gradual weight loss by suppressing the appetite and the creation of body fat. We have been conducting various clinical trials and working on publishing a paper in order to testify to its functionality and safety. A product containing Eatless is currently holding the largest share in Japan's weight-loss supplement market.



CEO Kim Jae-hwan of Neocrema points out the superior infrastructure and the food safety-assuring system as the top two reasons why he decided to move into the cluster.

**Neocrema was involved in technological cooperation with the cluster even before the conclusion of the contract to move in. Please explain how it helped Neocrema's advance into the global market for other Korea-based food companies to refer to as an example.**

We developed Duoligo, which is effective in improving senile constipation, through a painstaking process but had reached an impasse; for sales and export, we had to prove that the components indicated were actually contained in the product. Duoligo is a product that contains two components, and we were struggling to quantitatively analyze one of the components. We searched for ways to prove the presence of this component in our product and succeeded in establishing the right analyzing method through collaboration with the cluster's temporary research center.

**What are the plans for Neocrema after moving into the cluster?**

We plan to continue to expand our production facility and achieve a yearly production capacity of more than 3,000 tons within two years. Based on this facility, we will manufacture a wide range of functional ingredients, mainly functional sugars and peptides, at competitive costs and grow into a strong player in both the domestic market and the global market. We will manufacture a wide range of functional ingredients, mainly functional sugars and peptides, at competitive costs and grow into a strong player in both the domestic market and the global market.

Power Interview

# **Korea National Food Cluster? a Platform Designed to Help Businesses Pioneer Firsts and Reach New Heights!**

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A total of three-quarters of the world market will be fully opened to Korea through FTAs this year. Against this backdrop, in order for Korea to remain at the forefront of areas such as food safety, convergence technology, and the development of premium products at this point, a close-knit industrial-academic-research-government network is critical.

FOODPOLIS spoke with Professor Lee Ki-won at the Advanced Institute of Convergence Technology of Seoul National University about the Korea National Food Cluster's vision and the challenges to be overcome to discover future growth engines in the food industry.



**What significance does the food cluster in Korea hold, especially in terms of the Northeast Asian market?**

The food cluster being completed in Korea is projected to serve as a strategic point where companies can develop new products using new technology and roll them out into Northeast Asia, including China, within the shortest period of time possible. Furthermore, it can help companies make innovative attempts and collaborate on diverse areas, such as culture, education, tourism, and healthcare, based on Korea's superior information and communications technology.

**Could you elaborate on the ideal model for industrial-academic-research-government cooperation to better aid food companies to advance into the global market?**

As a researcher, I believe a differentiated model is a must to help companies set the standards in the market, instead of running after them. To this end, industrial, academic, research, and government organizations each should clearly establish goals and action plans to become the best at what they do. Corporations should strive to take the lead in the global market. Researchers should develop cutting-edge technology that can propel such corporations forward. Academic institutions should generate human resources who can take full advantage of such technology. Lastly, the government should be able to back them all up with infrastructure and systems.

**What should be taken into consideration when trying to develop highly marketable products through industrial-academic-research-government cooperation?**

To achieve marketability and ensure suc-



cess in the market, the product should be the first or the best of its kind. "The first of its kind" can definitely be a point of differentiation. It is important to pioneer the very first to attain competitiveness. However, it is equally difficult to persuade consumers to switch to something new from something familiar. Anyone can come up with a new product, but not everyone can persuade the user to use that specific product in a specific situation. In addition, it is crucial to provide the convergence technology and the necessary platforms that can realize affordable prices and flavors and designs that are appealing to consumers. In conclusion, it is important to pioneer the first and to utilize the right platforms to develop highly marketable products.

**How do you think the cluster will affect the landscape of the agricultural industry?**

Thanks to the advancement of information and communications technology, the entire process from the sourcing of ingredients to the manufacturing, processing, distribution, and sales of finished products has become transparent. This has led consumers to place a heavier focus on individual ingredients. Foods of different regions become unique and original when they are made with ingredients produced locally and based on local tradition. The Korea National Food Cluster, Northeast Asia's largest industrial complex dedicated to food, is locat-

ed in a non-metropolitan region. It is easy to access and create networks with diverse producing areas of superior quality ingredients. As such, the cluster can and should push ahead with the development and commercialization of food products that mirror the characteristics of each area and strive to raise awareness on the value of locally produced ingredients. It will create even greater synergy if the cluster can build a business platform connected with not only the regions in Korea but also overseas.

**What is the role of the Korea National Food Cluster in Korea's food industry?**

It is an industrial cluster run by the government, and thus it should be able to function as such and remain faithful to its *raison d'être*. The Korea National Food Cluster must provide an optimal environment for resident companies to grow and prosper. To this end, institutional support must be provided, but a differentiated food company model must also be proposed. Such a model can only be perfected through many trials and errors experienced and overcome on the business frontier. The cluster should ensure an environment in which companies can rise from failures and reach new heights to take the lead in the market.





Featured Overseas-Based Resident Company

## **Taking On a New Global Challenge with Korean Organic Ingredients**

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# **Hampton Grains**

**Director Ahn Ji-heon**

President John Kwak of Hampton Grains is a Korean-American. He first learned that the US is the world's biggest producer of agricultural products ten years ago when he was working as a mathematics professor and came across the analysis data of CBOT's grain market carried out by his students. He then established Hampton Grains and has developed it into a robust company that supplies wheat to Korean flour mills using its own 30,000-50,000-ton bulk carriers. It is the first company with Korean heritage to operate its own bulk carriers to transport grains. Hampton Grains aims to expand its foothold in the global market by building a production line on a level normally unattainable by small-scale grain distributors through the system provided by the Korea National Food Cluster and by sourcing Korea's top-quality organic ingredients. FOODPOLIS met with Director Ahn Ji-heon of Hampton Grains, a company that continues to set milestones in the grain distribution market dominated by large corporations.



**What is Hampton Grains' market share and strategy against its rivals?**

It is hard to pinpoint where Hampton Grains currently stands in the global grain market because the grain market operates on a closed structure. Major grain distributors including Cargill and ADM (Archer Daniels Midland Company) of the US, Bunge of Brazil, and some Japanese trading firms dominate 80-90% of the global market, and the rest is occupied by smaller companies, including Hampton Grains. Such smaller companies are striving to equip themselves with infrastructure that can handle all the necessary processes from the production to the distribution and processing of grains to increase their market share and combat the major players.

It is crucial to source grains of outstanding quality to be able to supply processed grains, which are used as ingredients for other food products. Hampton Grains is widely known as a company that only uses high-quality organic agricultural produce. Do you have any specific plans to produce grains or conduct R&D projects through the Korea National Food Cluster?

**We know of Hampton Grains as a grain distributor that owns a directly-run farm. Tell us about your main products and distribution process.**

In short, Hampton Grains is a trading service provider focused on wheat, corn, soybeans, oats, and barley. We do run a farm in the US, but only on a small-scale. We normally purchase grains through contract farming or grains produced by cooperatives and export them. We also process grains to be made into cooking oil, flour, and cookies, if necessary, but we mostly entrust these jobs to the original equipment manufacturers. The grain distribution industry has a higher entry barrier than other industries, and the gap between major corporations and minor distributors is exceptionally large.



Director Ahn Ji-heon of Hampton Grains stresses the company's plan to reinforce its global presence based on Korea's top-quality organic agricultural produce.



We discovered that grains needed to manufacture functional ingredients to be sold in the US market could be sourced in Korea. Korea's agricultural produce is much sought after due to its outstanding quality and safety. Thus, we decided that the Korea National Food Cluster was the best fit as the site for our functional food ingredient production and R&D activities. Furthermore, the cluster provides easy access to the Northeast Asian market and world-class logistics conditions. Grain distribution is not a technology-intensive business, and we have been confronted with difficulties in product development and the construction of a production line. The R&D facility dedicated to serving resident companies and providing one-stop service was also a decisive factor in our decision to move in. We knew it would be very reliable as the creation of the cluster has been led by the government.

**In April 2015 when you came to Korea to check the site construction progress, you mentioned that Hampton Grains was**

**working on the development of a business model to process Korea-sourced organic produce in the cluster and export it to the US. How is that coming along?**

At that time, we were planning to process Korea's agricultural produce into powder and export it to the US. At present, we are involved in a research project to extract certain components from grains and arrive at the optimal content of each component with support from the cluster's temporary research center. The supply plan has already been set, and we are expecting that notable results will be generated once our production equipment is put in place with the completion of the cluster in 2016.

**You have been holding discussions with several nearby grain processors to ensure the stable supply of fresh ingredients. Please provide an update on the latest developments of these discussions (i.e. working-level talks with Pureume and the ingredient purchase agreement with the Korea Grain Processing Plants Association).**

We pushed ahead with building the network of ingredient suppliers simultaneously with the conclusion of the move-in contract with the cluster. The cluster helped us locate and talk

with suitable local partners including Pureume and the Korea Grain Processing Plants Association. Pureume is a multi-grain product manufacturer located near the cluster. We plan to source ingredients from Pureume, while also seeking to partner with it in a project to co-develop products containing non-grain crops. The Korea Grain Processing Plants Association will be our supplier of locally produced high-quality grains such as brown rice based on an ingredient purchase agreement.

**As a resident company, could you describe your perspective on the future of the Korea National Food Cluster?**

Currently, Korea's food industry heavily depends on imports. As a company that is overseas-based yet has Korean heritage, we sincerely hope that the cluster will develop into a success case and join the ranks of globally celebrated food clusters such as Food Valley NL of the Netherlands and Napa Valley of the US. The cluster has many strong points from its geographical location to the surrounding environment. We believe the cluster can more than simply compete with world-class food clusters if its advantages are well highlighted and the business conditions for resident companies are nurtured as planned.



Research Report

 2015 Survey of Demand for and Awareness of the Korea National Food Cluster

# 41.5% of food industry professionals demonstrate the highest level of interest in the R&D support of the Korea National Food Cluster

The Korea National Food Cluster conducted a survey to learn about the public's awareness of and demand for the cluster, factors that promote investment in the cluster, and the public's preferences for promotional messages and to utilize the findings in taking the cluster project to the next level and establishing promotional strategies. As in the previous year, an online survey targeting a total of 400 respondents (200 food industry professionals and 200 non-professionals) was carried out in 2015 in an aim to better the public's understanding of the cluster and learn about public sentiment regarding the developments of the project.

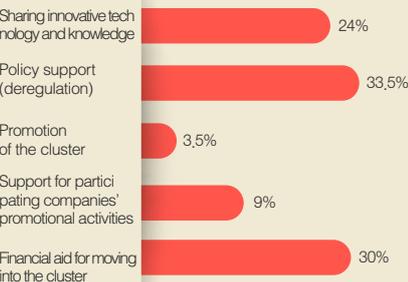
**Title** 2015 Survey of Demand for and Awareness of the Korea National Food Cluster  
**Period** 31 days from December 1-31, 2015  
**Target** food industry professionals - 200 employees of food companies and food-related research institutes  
 non-professionals - 200 adults from across the nation  
**Conducted by** Research Lab

**Q. What about the Korea National Food Cluster project draws your attention the most? (For food industry professionals)**



The percentage of the respondents who pointed to "R&D support" stood at 41.5%. Many food companies are small-scale and are mostly operated with short-term contract employees taking part in the manufacturing and processing of food products. They lack the manpower, technology, and facilities to come up with competitive products and services. As if mirroring this reality, the highest number of respondents selected support for R&D, an area that requires a large investment to conduct projects and foster necessary specialists, as the most appealing benefit provided by the cluster. For the other responses, 20.5% picked "Support facilities", while 13.5% picked "Support for purchasing agricultural produce", testifying to the fact that most food companies are concerned about further improving the quality of their products.

**Q. What type of support is most necessary for the resident companies scheduled to move into the cluster? (For food industry professionals)**

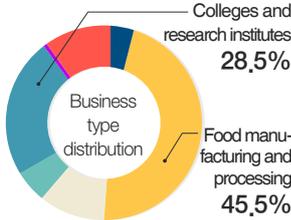


Of the respondents, 33.5% selected "Policy support (deregulation)". It is projected that the cluster will be able to generate maximum results once R&D support, consulting services, grants, support for promotional activities, and aid for pioneering new markets are provided in accordance with related policies. The fact that food industry professionals, who are direct stakeholders in this project, placed the most significance on policy support clearly shows their expectations about such progress.

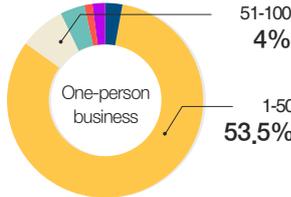


**Survey for Food Industry Professionals Respondent Information**

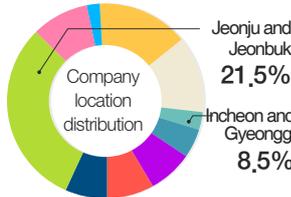
The online survey for food industry professionals was completed by 200 respondents selected from 1,026 candidates from across the nation.



Food ingredient manufacturing	2.5%
Food manufacturing and processing	45.5%
Food packaging and delivery	8%
Food-related R&D	3.5%
Colleges and research institutes	28.5%
Food packaging and delivery	0.5%
Government agencies and pertinent organizations	8.5%

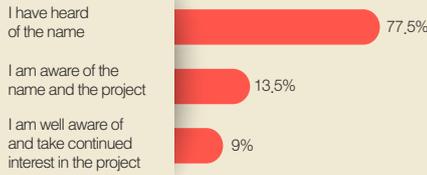


1	1%
1-50	53.5%
51-100	4%
101-200	2.5%
201-500	3.5%
more than 500	1%



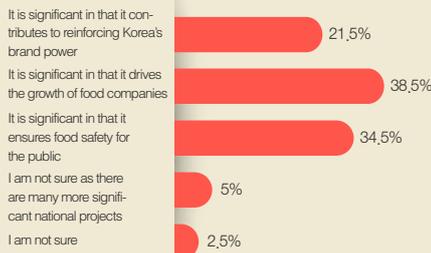
Seoul	7.4%
Incheon and Gyeonggi	8.5%
Gangwon	1.5%
Chungju and Chungbuk	2.5%
Daejeon and Chungnam	5%
Daegu and Gyeongbuk	5%
Busan and Gyeongnam	4%
Jeonju and Jeonbuk	21.5%
Gwangju and Jeonnam	6.5%
Jeju	0.5%
Others	0%

**Q. Do you know what the Korea National Food Cluster is? (For non-professionals)**



Of the non-professional respondents, 77.5% were aware of the Korean National Food Cluster brand, while 13.5% were aware of the project as a government-led industrial complex dedicated to food. In accordance with the name awareness survey conducted in 2014, 54% of the non-professional respondents thought that the name Korea National Food Cluster was proper. Promotional measures that can increase brand awareness and convey the details and vision of the project on a continual bases are critically needed at this point with the cluster's completion just around the corner.

**Q. What do you think is the significance of the Korea National Food Cluster? (For non-professionals)**



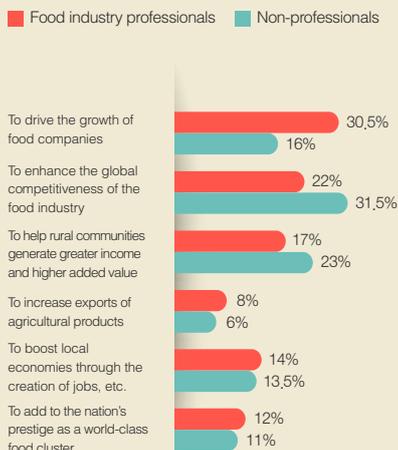
The respondents were found to believe that the significance of the cluster lies in its capability to drive the growth of food companies, although they are non-professionals not dedicated to the food industry. Of the respondents, 38.5% selected "It is significant in that it drives the growth of food companies". As this result demonstrates the public's high expectations for the cluster's role in helping Korean food companies grow their competitiveness and reinforce their global presence, it is viewed that the promotion of the cluster in the future should center on this aspect.

**Q. What do you think is required of the cluster to raise the interest of and draw support from the public? (For non-professionals)**



Of the respondents, 31.5% chose "Needs to focus on the facilities". The respondents appear to place greater weight on sharing the practical information needed by companies scheduled to move in, rather than on trying to make the project more appealing through background stories, which has become a recent trend in PR and marketing. This is noteworthy in that these respondents are non-professionals, not food industry professionals who are stakeholders. A notable number of the respondents also selected "Needs to promote success cases of overseas food clusters" (21%) and "Needs to draw on communication with experts" (16.5%).

**Q. What do you think is the most important goal of the cluster? (For food industry professionals and non-professionals)**

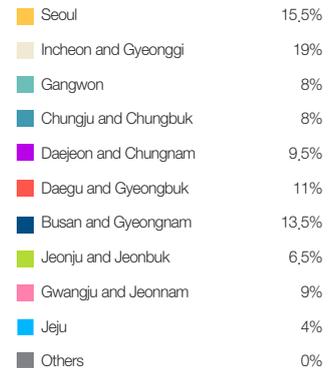
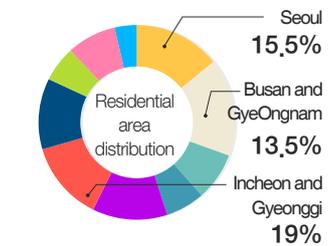
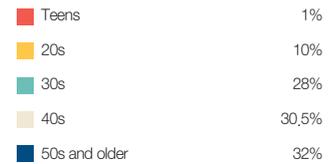
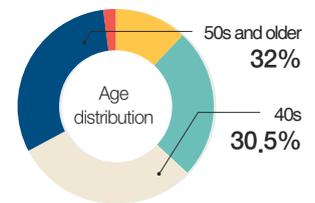
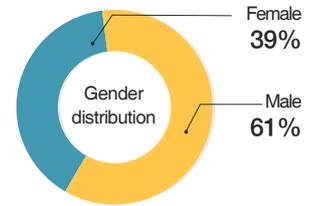


Of the food industry professionals, who are comparatively well informed about the cluster, 30.5% pointed to "To drive the growth of food companies". This result reflects their belief that the cluster can be successful as a food-specific industrial complex only when the growth of participating companies is ensured. It is parallel with the argument that the cluster's support policy should be focused on developing globally competitive products and staging effective marketing activities. Also, 17% of the food industry professionals chose "To help rural communities generate greater income and higher added value", mirroring their expectations about the cluster's presence in responding to FTAs and the opening of the world market. As for non-professionals, 31.5% chose "To enhance the global competitiveness of the food industry" as the most important goal of the cluster. This signifies that they place the most importance on the growth of Korea's brand power.



**Survey for Non-Professionals Respondent Information**

The online survey for non-professionals was completed by 200 respondents selected from 2,755 candidates from across the nation.



## FOODPOLIS NEWS BRIEF

**5th International Food Cluster Forum 2015. 11. 17**

The Korea National Food Cluster organized the 5th International Food Cluster Forum in association with the Ministry of Agriculture, Food and Rural Affairs under the theme “Convergence of Food and Scientific Technology”. The forum was attended by over 480 guests and participants, including Agriculture, Food and Rural Affairs Minister Lee Dong-phil, the German and Czech Ambassadors to Korea, and related food

experts. The event provided a platform for discussions on the future direction and role of the cluster. It opened with congratulatory addresses by Minister Lee and the foreign ambassadors and proceeded with the awarding of the Commendation of the Minister of Agriculture, Food and Rural Affairs; a keynote lecture by the director of Fraunhofer IVV; an introduction to state-of-the-art technologies in functional food,

food quality and safety, and food packaging sectors; and one-on-one technology consultations tailored to meet the needs of the participating companies.

Fraunhofer IVV, Germany's institute for process engineering and packaging, took part in the forum to organize lectures about the latest food R&D technologies for food product commercialization and ways to actually put them to use on the industrial frontier for Korea food companies. The keynote lecturer was Dr. Horst-Christian Langowski, with four technical lectures given by Drs. Carolin Hauser, Christian Zacherl, Klaus Noller, and Roland Franz. The lectures were followed by one-on-one technology consultations for Korean food companies. The 5th International Food Cluster Forum is evaluated to have contributed to highlighting the direction that the cluster should take in terms of R&D by introducing cutting-edge R&D technologies for food product commercialization.

**Anuga FoodTec in Germany 2015. 10. 10~14**

The Agency for Korea National Food Cluster took part in Anuga FoodTec held in Köln, Germany, and carried out extensive promotional activities through the operation of an investment promotion booth and visits to the booths of other participants. Anuga FoodTec, touted as the world's largest food fair, provides a business platform for companies from across the globe. The agency provided investment consulting service for about 60 German food companies, including Reinert Gruppe and Mon-te Pizza Crust.

**14th World Korean Business Convention 2015. 10. 13~15**

The Agency for Korea National Food Cluster participated in the 14th World Korean Business Convention and met with various food companies and pertinent organizations at its investment promotion booth. The agency carried out diverse activities to promote the cluster, provided one-on-one in-depth consultations with companies interested in the cluster, and delivered promotional materials to the participating companies through booth-to-booth visits. The agency also staged an investment presentation for the member companies of the Korean-American Grocers Association during the convention period.

**Investment presentation for the Korea Food Service Industry Association 2015. 11. 5**

In order to keep abreast of the rapidly changing food service industry and promote food service providers' interest in the Korea National Food Cluster, an investment presentation was held for the major member companies of the Korea Food Service Industry Association – an organization for food hygiene education designated by the Ministry of Food and Drug Safety. The background of the cluster project and benefits given to resident companies were explained in detail for about 80 representatives from various food service companies present on site.

**Commercial attachés and counselors at foreign embassies in Korea invited to a conference**

2015. 12. 3



A conference for commercial attachés and counselors at foreign embassies in Korea was held at The Westin Chosun Seoul to promote overseas food companies' interest and investment in the Korea National Food Cluster. The attendees were given a presentation on the latest developments of the cluster construction and the cluster's vision. They showed great interest in the many benefits provided to overseas-based resident companies such as lower land rents and an exemption and reduction of national taxes. A photo exhibition illustrating past promotional events for the cluster also took place and received a favorable response.

**Asia-Pacific Food Expo in Singapore**

2015. 11. 20~23



The Agency for Korean National Food Cluster took part in the Asia-Pacific Food Expo organized by the Singapore Food Manufacturers' Association and operated a booth for investment promotion. Investment consultations were given to over 40 food companies, including Chew's Agriculture, and diverse promotional activities were staged for visitors to the booth. The agency sought ways to form a solid network with these companies and increase exchanges with them in the future.

**Neocrema signs the contract to move in 2015. 12. 23**



Neocrema, established in 1999 as a manufacturer of functional food ingredients, signed the contract to move into the Korea National Food Cluster. Neocrema produces over ten different functional food ingredients, such as functional peptide and high-purity galacto oligosaccharide, and retains advanced technology for the production of functional sugars. It recently developed an oligosaccharide product effective in relieving senile constipation for export to Japan but met with the difficulty in proving the actual inclusion of the components indicated. Neocrema joined hands with the R&D team at the Agency for Korea National Food Cluster and successfully proved the presence of the component through joint research. Neocrema plans to complete its production facility within the cluster by 2017 and start rolling out new products in the second half of 2017.

**Business presentation for local food companies**

2015. 11. 25



A business presentation for over 60 representatives of local food companies in the Gyeong-sangbuk-do region was hosted jointly by the Agency for Korea National Food Cluster and the Korea Chamber of Commerce and Industry. Major local companies including Hansung Food, Cheonghak F&B, and Jaim Tree participated and shared information about the cluster's background and land rental status.

**MOU for technological cooperation with Fraunhofer IVV**

2015. 11. 17



The Agency for Korean National Food Cluster concluded an MOU for technological cooperation with Fraunhofer IVV of Germany. Fraunhofer IVV is a research institute specializing in the development of food materials, processed foods, food treatment processes, and packaging materials; safety evaluations of food packaging containers and packaging materials; the recycling of packaging waste; and the development of packaging processes and packaging equipment. It opened its Korean branch in Gangneung in 2010. With its attendance at the 5th International Food Cluster Forum serving as momentum, Fraunhofer IVV concluded an MOU with the Korea National Food Cluster to realize joint research and technology development projects centered on product commercialization and joint seminars.

**2015 investment presentation in Tokyo, Japan**

2015. 11. 27



The Agency for Korea National Food Cluster staged an investment presentation at Keio Plaza Hotel in Tokyo, Japan, on November 27, 2015. The cluster's support system for resident companies, research support programs, and incentives were explained in detail for 35 Japanese food companies that showed great interest in the benefits provided by the cluster.

Investment Guidance

# FOODPOLIS

## Frequently Asked Questions



The questions most frequently asked by corporations during their inquiries about the Korea National Food Cluster (concerning the facilities and districts to be included in the cluster, the qualifications required of resident companies, the living conditions, etc.) have been selected and listed below. We hope the provided answers will help prospective resident companies more effectively draw up their future plans regarding the cluster. For more details and inquiries about moving into the cluster, please call 1688-8782.

### **Please explain about the support facilities of the Korea National Food Cluster.**

The Korea National Food Cluster consists of four specialized facilities for technological support: the Food Quality and Safety Center, the Functional Food Evaluation Center, the Food Packaging Center, and the Pilot Plant. The Food Quality and Safety Center provides food safety testing and quality evaluations based on sensory characteristics. The Functional Food Evaluation Center offers support for attaining the functional food certification and the commercialization of functional food products. The Food Packaging Center conducts packaging material testing and research on distribution conditions. The Pilot Plant is where prototypes of functional foods are manufactured.

### **Please explain about the scope and extent of technological support to be given by the Korea National Food Cluster in the future.**

The Korea National Food Cluster adopted the R&BD (research and business development) support system to better cater to the demands of food companies. This system is designed to help companies tackle and resolve pending issues through their network with other companies and enhance their analysis and research capabilities. The R&BD support system will be reinforced on a continual basis by carrying out joint research projects with global counterparts.

### **How does the cluster plan to form and foster the academic-industrial-research network in Korea and beyond?**

The cluster-based academic-industrial-research network will first be formed with food companies, universities, and research institutes from the Jeollabuk-do region and be expanded to encompass other such institutions in Korea and beyond. This network will be fostered to function as a close-knit cooperative system that can effectively and flexibly help companies resolve their difficulties. The cluster will also encourage food companies, universities, and research institutes to form a community, share information about independently led research projects, and create synergy through this information sharing.

### **How is food safety verified?**

With the food safety regulations of many countries being tightened, food companies are required to equip themselves with the necessary human resources and devices for food safety verification. The Korea National Food Cluster will provide a world-class food safety verification and analysis support system to cater to the needs of resident companies. The Food Quality and Safety Center's food hygiene testing facility is designed to support a diversity of tests to ensure food safety, from self-led quality tests to special tests for the detection of GMOs, norovirus, and other substances toxic to humans. Resident companies can save quality control testing costs and reduce lead times for the release of products through fast-track testing..

### **How will local agricultural produce to be used as ingredients be procured?**

To ensure a reliable supply of local agricultural produce, the Korea National Food Cluster is planning to bring resident companies and growers together. The cluster will soon come up with a system that can identify the demands of resident companies and connect each company with the right cooperatives and producers. In particular, the local agricultural producer information system will be linked to the cluster's online network to make sure resident companies can easily access information

about local agricultural produce. The cluster is also seeking ways to utilize reclaimed land, such as Saemangeum, to serve as the ingredient supply base of resident companies.

**What qualifications must companies meet to move into the cluster?**

The Korea National Food Cluster will consist of five districts, which will house industrial facilities, R&D facilities, business support facilities, a theme park, and other facilities. A candidate company will be given approval to move into the desired district if it falls under the appropriate category (food manufacturing industry, beverage manufacturing industry, food-related industry, etc.).

**What conditions must be met to move into the cluster's Foreign Investment Zone?**

The Foreign Investment Zone (FIZ) refers to the part of a national or local industrial complex designated for medium- and small-scale foreign-invested companies. It is divided into lots and rented out to such companies. In compliance with Article 12 of the Foreign Investment Zone Operation Guidelines, a company wishing to move into the zone must be invested with KRW 100 million or more by foreign investors or have the percentage of foreign investment retained at 30% or higher. Also, it must be registered as a foreign-invested company at the point of the conclusion of the move-in contract and must build a new production facility on site. The lease period can be renewed every ten years up to the maximum of 50 years.

**What are the benefits provided to a company that moves into the Foreign Investment Zone?**

National taxes (corporate tax and income tax) are exempted 100% for five years and reduced by 50% for two years for companies moving into the Foreign Investment Zone (FIZ) if the qualifications are met. As for local taxes, acquisition tax is fully exempted, while

property tax is exempted 100% for five years and reduced by 50% for two years. Customs duties are exempted from capital goods only. In addition, land rents are exempted and an employment subsidy and an education and training subsidy are provided if the preset qualifications are met. Of the companies currently scheduled to move in, Gold of Prague (Czech Republic), Hampton Grains (US), Well Spring (US), Gold Rock International (Kenya), Clever Mama (China), and Weihai Unisplendour Biotechnology Development (China) are registered as foreign-invested companies.

**Do the benefits given to resident companies of the Foreign Investment Zone vary in accordance with the percentage of foreign investment?**

All companies permitted to move into the Foreign Investment Zone are exempt from land rents, customs duties, and value-added tax and are given an employment subsidy and an education and training subsidy. However, the extent of benefits regarding other taxes is determined by the percentage of foreign investment. A joint venture established by a combination of local and foreign investors is given less incentive than a company 100% established and owned by a foreign investor.

**What should be taken into consideration when hiring foreign employees, especially regarding visas?**

The visa types issued to foreign manual workers are E-9 (for non-professional employment) and H-2 (for visiting employment). D-4 (for general training) and D-8 (for corporate investment) issued to high-ranking professionals such as department heads and E-7 (for special activities) issued to skilled workers are also available for foreign workers of foreign-invested companies. Companies wishing to hire foreign workers are required to register as a Company Permitted to Hire Foreigners with the Ministry of Em-

ployment and Labor. Company owners must submit the Application for the Certification of Foreign Worker Recruitment to the Job Center under the Ministry of Employment and Labor to receive approval for the hiring of foreign workers and must report their recruitment results. Also, those foreign workers on E-9 or H-2 must receive employment training at an employment training center for foreigners within 15 days from the date of entry into Korea. The employment contract for a foreign worker takes effect on the day of his/her entry into Korea.

**Please explain the cluster's residential environment and cultural facilities.**

A satellite city catering to various lifestyle and cultural needs with an area of 1.2 square kilometers is to be built to the west of the Korea National Food Cluster. This city will comprise a residential district, a commercial district, a culture and tourism district, a food business park, and a district of educational and recreational facilities. The residential district will have a hanok village (to allow tourists to experience a traditional Korean dwelling), a European village, and a slow-food village. The commercial district will feature a global food street mall, while the culture and tourism district will house an experience center, an exhibition hall, and a museum related to food. Educational facilities, including elementary schools and special-purpose high schools, and parks will also be built within the city. Once completed, it will become a self-reliant city equipped with advanced infrastructure and the Korea National Food Cluster within commutable proximity (FOODPOLIS Master Plan, 2012).

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**For free consultations  
on investment in the cluster**

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