

Miryang Nanopia is Korea's first industrial cluster exclusively dedicated to the advancement of nanoconvergence technology. With a network reaching other centers of industries in the Daegu-Gyeongsang region, Miryang Nanopia helps industries and businesses discover new sources of future growth in the continued advancement of technology.



Miryang Nanoconvergence Industrial Cluster
| Development Overview |

- Location : Bubuk-myeon, Miryang, Gyeongnam, Republic of Korea
- Area : 3,430,000 m²
- Aim : To establish a center of nanoconvergence technology in southern Korea supporting industries, R&D activities, and educational institutes
- Target businesses : R&D institutes, agencies, and facilities specializing in nanoconvergence; manufacturers utilizing nanotechnology, etc.
- Planned duration of the development project : 2014-2017
- Planned developer in charge : Korea Land and Housing Corporation



A major hub leading you to centers of industrial activity both in Korea and abroad

Miryang is the perfect starting place for your success.

Air Transportation ✈️

- Only 3 hours from the Incheon International Airport.
- Only 50 minutes from either the Gimhae International Airport or the Daegu International Airport.

Roads 🚗

- National expressway linking Daegu and Busan (with ICs at Miryang, Southern Miryang, and Samnangjin).
- National Route Nos. 24, 25, and 58 also as part of the main regional network.
- A new national expressway linking Hamyang, Miryang, and Ulsan, scheduled to be opened by 2017.
- A plan for a new route linking the New Busan Port and Miryang currently under review

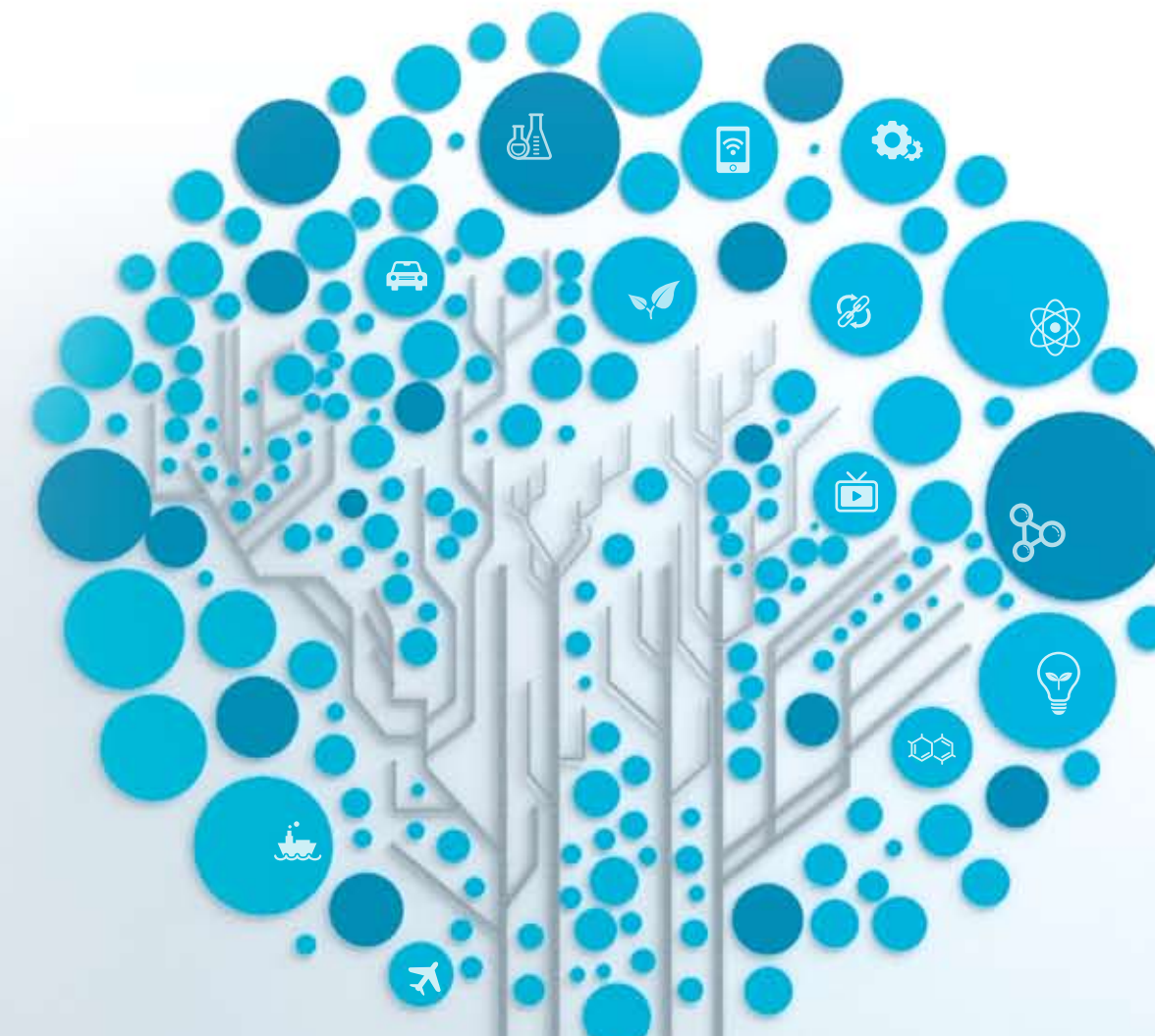
Railway Service 🚆

- Gyeongbu Line Express Train (KTX) : now reachable from Seoul within 2 hours and 10 minutes.
- A new background railway linking the New Busan Port and the Samnangjin Area of Miryang now open.
- A double-lane railway linking Jinju and the Samnangjin Area of Miryang along the Gyeongjeon Line, scheduled to be completed by the end of 2012.
- A double-lane railway linking Suncheon, Gwangyang, and Jinju along the Gyeongjeon Lane, scheduled to be opened by the end of 2015.



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A region abounding with natural blessings



Creating New Values for Humankind

MIRYANG NANO CONVERGENCE RESEARCH CENTER
MIRYANG-NANOPIA



Leading the advancement of nano printed electronics technology worldwide

MIRYANG NANOPIA



Miryang Nanoconvergence Research Center | Development Overview |

- Location : Bubuk-myeon, Miryang, Gyeongnam
- Objective : To develop a main nanoconvergence research center, as well as auxiliary facilities for the research, development, and commercialization of nanotechnology
- Target agencies : research institutes conducting national/public projects on nanoconvergence as well as research agencies working for Korean and international companies
- Area : 124,000 m²
- Planned duration of the development project : 2012-2014





Dreaming of Becoming the World's Best

Miryang Nanoconvergence Research Center

By establishing a new capital of nanoconvergence technology and industry based on a wide-reaching network of various research and development agencies, educational institutions, and manufacturers, Miryang Nanopia is writing a new chapter in the international history of nanoconvergence and creating new values for humankind.

Project Plan	<ul style="list-style-type: none"> Location : Bubuk-myeon, Miryang, Gyeongnam Planned duration of the development project : 2012-2014 Area : 124,000 m² Budget : KRW 130 billion (KRW 171 million for land + 1,129 million for facilities and equipment development).
Areas of Research	<ul style="list-style-type: none"> Developing next-generation display and solar cell technologies. Developing nanotechnology for security, etc.
Future Tenants	<ul style="list-style-type: none"> Korea Electrotechnology Research Institute (KERI) has placed its expanded facilities in the Miryang Nano Center. R&D institutes specializing in the research of nano printed electronics (e.g., Electronics and Telecommunication Research Institute, Korea Research Institute of Chemical Technology, Korea Institute of Materials Science, etc.). Research agencies of Korean and international companies.

Center Plan



Incentive

<p>Rent-Free Land</p> <p>For R&D institutes from Korea and abroad</p> <p>Land will be provided rent-free for 30 years for R&D institutes, corporate research centers, and related educational institutions.</p>	<p>Employment Subsidies</p> <p>For R&D institutes from abroad</p> <p>KRW 1 million will be provided for every new employee in excess of the first 20 employees (hired within six months of opening the facility).</p>	<p>TRAINING SUBSIDIES</p> <p>KRW 1 million will be provided for the training of every employee in excess of the first 20 employees (trained within six months of opening the facility).</p>	<p>FACILITY SUBSIDIES</p> <p>Subsidies for building and expanding research facilities will be provided, for a total value of up to 2% of the cost in excess of the first KRW 3 billion invested.</p>
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Plan

We are ushering in a new chapter of history for nanoconvergence technology!

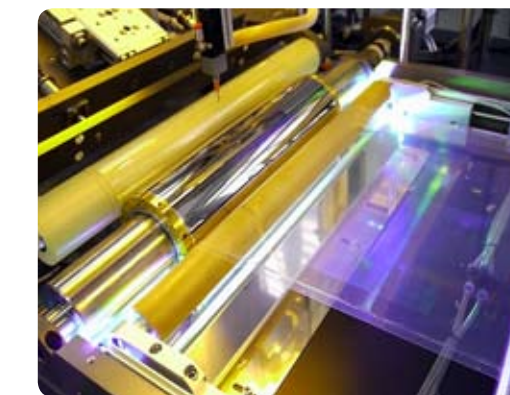
High Tech

Miryang's nanoconvergence technology leads the advancement of industries worldwide!

Vision

The perfect infrastructure and the lofty vision for the future will help you achieve all your aspirations for nanoconvergence technology!

KERI at Miryang Nano Center has succeeded in developing the world's first cylindrical nanomold.



The KERI staff working at the Miryang Nano Center has succeeded, ahead of all other advanced research institutes in Europe and Japan, in developing the world's first nanotechnology that can imprint extremely fine patterns (one-billionth of a meter in length) on large-surface substrates for semiconductors, LCD panels, and solar cells.

- 1 The world's first technology for manufacturing cylindrical, seamless nanomolds.
- 2 The technology enables the manufacturer to imprint nano- and micropatterns into the surfaces of semiconductor circuit boards, display devices, and solar cells without requiring masks.
- 3 The technology will enable Korea to lead the next phase of semiconductor, display, solar-cell, and security industries worldwide.

Main Clientele

- Telecommunication and Smartphone Display**
LG, Samsung, Sony, SK, Kolon, Hitachi, Matsushita, etc.
- New and Renewable Energy**
KEPCO, Doosan, Korea Midland Power, POSCO, LS Industrial System, Unison, etc.
- Semiconductor Manufacturing**
Intel, Samsung Electronics, TI, AMD, Hynix, NEC, etc.

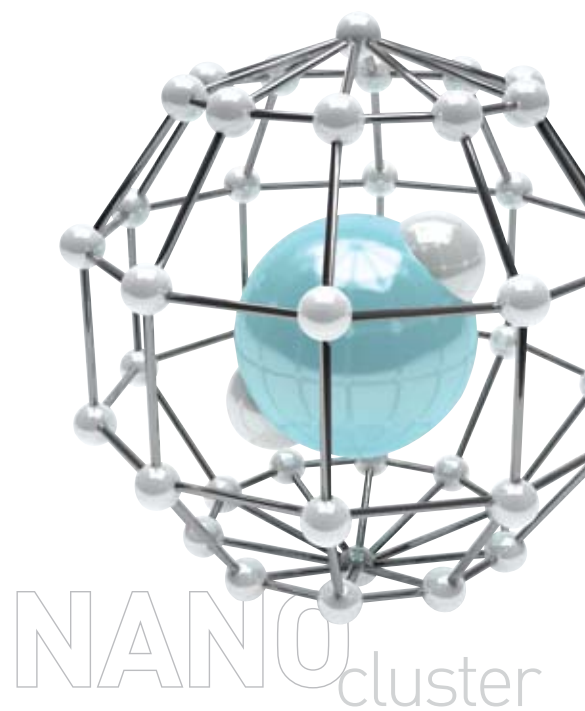


Miryang's Strategy for Fostering the Nanoconvergence Industry

	2012-2013 Phase 1	2014-2016 Phase 2	2017- Phase 3
Objectives	Develop the nanoconvergence industry policy as well as the infrastructure for related research and industries.	Complete the development of the infrastructure for the nanoconvergence industry.	Stimulate and sustain the growth of the nanoconvergence industry.
Tactics	<ul style="list-style-type: none"> Develop a policy for the nanoconvergence industry. Develop a nanoconvergence industry cluster. Develop the sites for nanoconvergence research institutes. Establish a plan for developing and fostering a government-supported nanoconvergence industry cluster. 	<ul style="list-style-type: none"> Complete the Nanoconvergence Research Center as the core of the industrial cluster. Recruit tenants to the cluster, i.e., public, academic, and corporate R&D institutes and agencies specializing in nanoconvergence. 	<ul style="list-style-type: none"> Provide support and assistance for the tenant R&D institutes and companies. Foster the development of new nanotechnologies and products.

Infrastructure for Advancing Nanotechnology

- 1 **Located at the heart of a belt of related industries that can readily benefit from nanotechnology.**
 - Transportation machinery industry : automobile manufacturing, shipbuilding, and aircraft production
 - Mechatronics : precision machinery, machine tools, and electronics
 - Electric and information technology : display devices, semiconductors, and telecommunication devices
 - Biotechnology : herbal medicine, medicine, agricultural technology, and maritime technology
- 2 **Home to Korea's one and only college dedicated to nanotechnology research**
 - Four departments with a faculty of 30 professors (intended to produce 140 highly specialized graduates each year).
- 3 **Surrounded by a wide-reaching transportation network, including airports, expressways, and ports.**
- 4 **Stands at the heart of Gyeongsangnam-do's main plan for industrial development.**
- 5 **Will benefit from the municipal policy of fostering the nanoconvergence industry.**



NANO cluster