

CREATE NEW VALUE

The landscape of the manufacturing technology is evolving.
KITECH is spearheading the creation of new value through:
Establishing an autonomous manufacturing system to enhance customer value,
Expanding the manufacturing industry business model to amplify added value,
Contributing to the realization of the hydrogen economy and carbon neutrality.

1

Intelligent Manufacturing & Materials Technology

KITECH is proactively responding to the swiftly changing industrial landscape and the future manufacturing sector, which demand profound transformation.

Adaptive Manufacturing

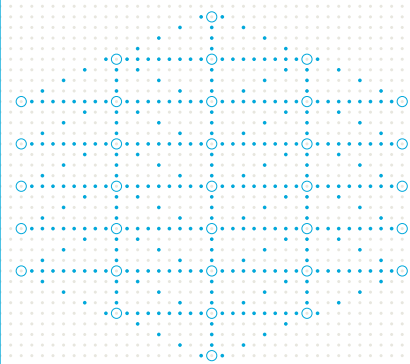
Manufacturing technology that responds to changes in the industrial environment of the present and the near future

Supply Chain Driven Technology Agile Emerging Industry Technology

Flexible Production

Technology for forecasting shifts in forthcoming industries and taking preemptive action

Intelligent System Technology Order-based Joint Technology



2

Human-Centric Manufacturing Technology

Throughout the manufacturing, product design, and development phases, KITECH adopts manufacturing technology that prioritizes human needs, preferences, and the enhancement of quality of life.

Human-Friendly Manufacturing

Robotic, digital, and process technologies that serve as the foundation for manufacturing processes tailored to human needs and comfort

Human-Centric Robot Technology Autonomous Manufacturing Technology

Customer-Oriented Manufacturing

Human-oriented products and services based on user safety and convenience values

User Convenient Technology Safety Convergence Technology

3

Sustainable Development Technology

KITECH implements digital production processes, embraces circular economy principles, and deploys next-generation safety controls to harness sustainable energy and address climate change.

Zero Carbon Emission

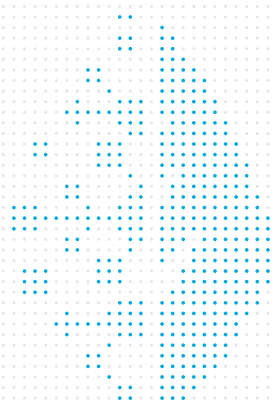
Technology aiming for zero greenhouse gas emissions and minimizing environmentally harmful substances in energy production and utilization, among other areas

Carbon Emission Control Technology Industry Environment Management Technology

Green Transformation

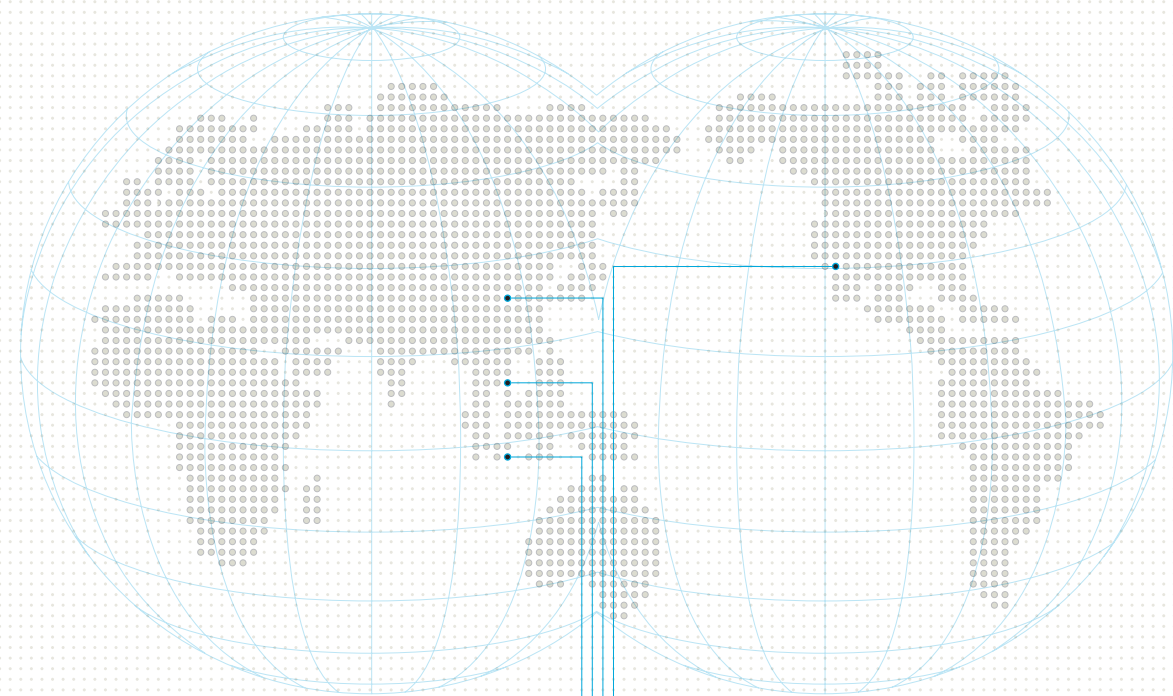
Technology encompassing the circulation of energy and environmental resources, as well as the development of alternative materials to manage environmentally hazardous substances. This is facilitated by employing chemical conversion technology on industrial wastes.

Eco-friendly Resource Circulation Substitution of Harmful Factors



KITECH Heading to the World, World Expanding through KITECH

GLOBAL NETWORK



Indonesia Office(Jakarta)

- Discovers the Korea-Indonesia industrial cooperation agenda based on the manufacturing industry and disseminates ASEAN science and technology
- Provides technical support and information on difficulties faced by Korean companies entering the Indonesian market, focusing on the manufacturing industry ecosystem

U.S. Technology Cooperation Center(San Jose)

- Discovers world-class joint research and builds a global network
- Serves as a global strategic focal point for Korea-US technological cooperation
- Support commercialization technology to improve global competitiveness of Korean companies operating in the US

Vietnam Office(Ho Chi Minh)

- Establishes joint research and a technical cooperation network with experts in Vietnamese industry, academia, research institutes, and government fields
- Implements customized on-site technical support programs for Korean companies entering the local market, focusing on electric mobility, textiles, and renewable energy fields

China Office(Qingdao)

- Activates technological cooperation networks with excellent Chinese research institutes and Korean scientists
- Supports customized technology for Korean companies operating throughout China, focusing on the digital manufacturing sector

KITECH is facilitating the global engagement of Korean SMEs and MMEs by establishing a diverse international network through overseas operations.

KITECH

FROM MANUFACTURING
TO VALUFACTURING

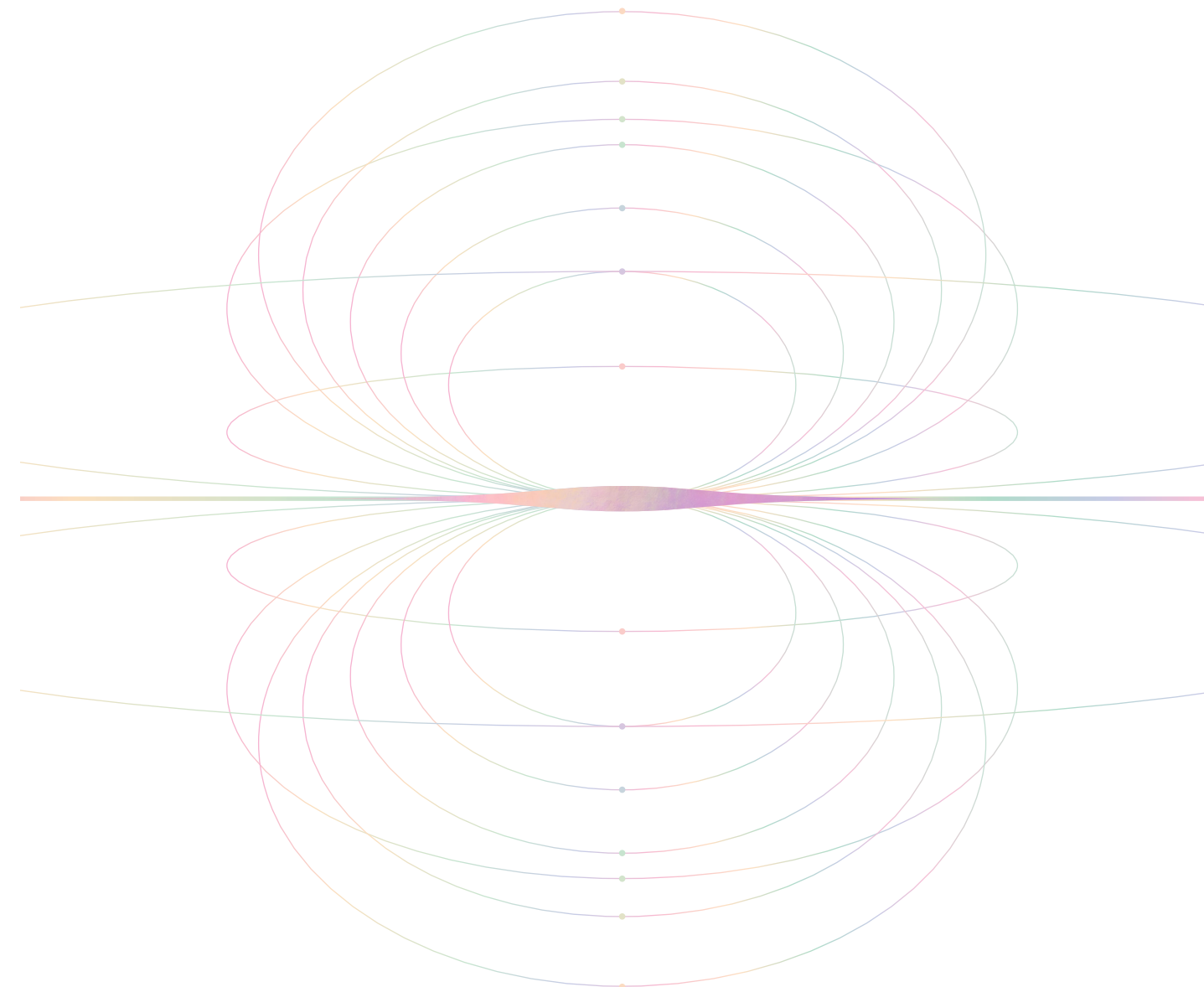
The copyright for the photos and writings in this brochure is with the Korea Institute of Industrial Technology.

89, Yangdaegiro-gil, Ipjang-myeon, Seobuk-gu, Cheonan-si,
Chungcheongnam-do, Republic of Korea

Tel. +82-41-589-8262 Fax. +82-41-589-8120 <http://eng.kitech.re.kr>

KOREA INSTITUTE OF
INDUSTRIAL
TECHNOLOGY

FROM MANUFACTURING



TO VALUFACTURING



KITECH's VISION

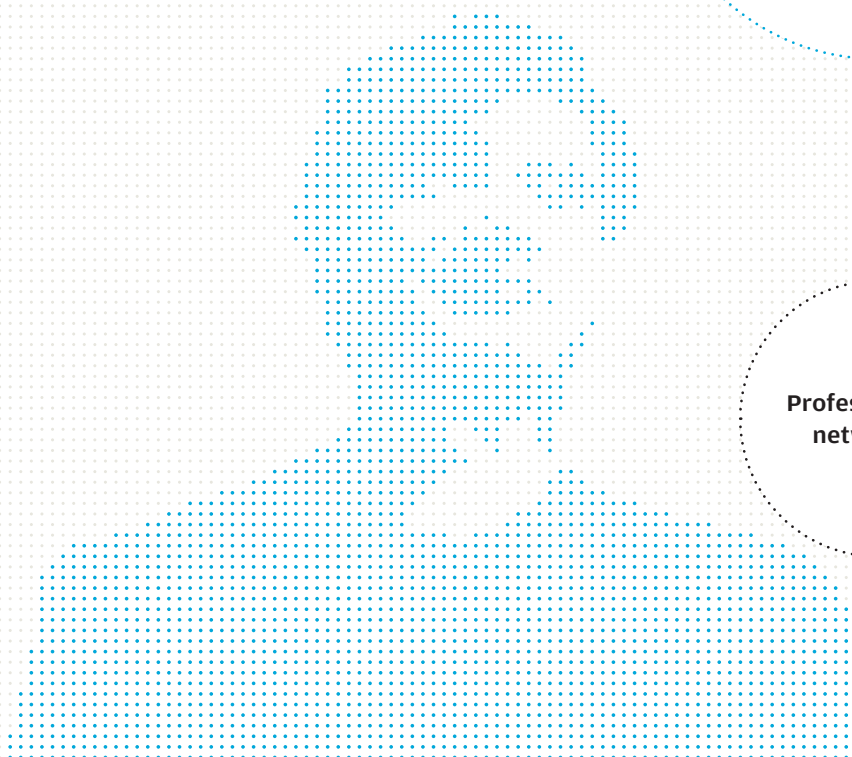
KITECH is advancing toward the great transformation in the Manufacturing technology.

Aiming to revitalize domestic industries facing growth limits, KITECH drives value enhancement within the manufacturing sector.

Leveraging its expertise and network, KITECH is committed to realizing its new vision.

KITECH 2050 :
The Pivot for
the Great Transformation

Based on the SMILE Manufacturing technology, KITECH fosters high-value, sustainable profitability for companies while invigorating local industries.



VISION

The great transformation in the manufacturing technology

MISSION

Advancing the value of the manufacturing industry

Professionalism networking

CORE VALUE











GROW TOGETHER

Mega Program

Realization of Regionally Customized Industrial Innovation through Collaboration among KITECH, Local Governments, and Enterprises

To combat the escalating decline of local areas, resulting from demographic cliff and regional disparities, focal points are researched for each region, along with headquarters, local governments, and companies, for collaboration to foster specialized industries within these respective regions.

• Specialization Industry

| | |
|---|---|
|  Research Institute of Intelligent Manufacturing & Materials Technology Bio-Semiconductors |  Research Institute of Human-Centric Manufacturing Technology Manufacturing Robots |
|  Research Institute of Sustainable Development Technolog Emission Reduction System |  Seonam Technology Application Division Purpose-Based Mobility |
|  Dongnam Technology Application Division Extreme Energy Infrastructure |  Daegyeong Technology Application Division Mobility Components |
|  Gangwon Technology Application Division Metac ceramic Materials/Parts |  Ulsan Technology Application Division Low Carbon/ Hydrogen-Integrated System |
|  Jeonbuk Technology Application Division Purpose-built Mobility |  Jeju Technology Application Division Clean Energy Recycling System |

Digital Platform for Customized Short-Delivery Production

Facilitating the Discovery of Outstanding Technologies and Linking Them with Purchasing Companies to Enhance Profits for Small and Medium-sized Enterprises

Fostering connections between domestic and international purchasing entities(buyers) and promoting technical collaboration, KITECH bolsters corporate sales growth with short-term, customized delivery solutions.

Operation of Partner Company Framework

Providing Services Aimed at Corporate Profitability Based on K-PI (KITECH Partnership Index)

KITECH enhances its partnership framework with companies by offering tailored corporate collaboration digital platforms(for information, equipment, technology development, demonstration, commercialization, etc.) at each stage of growth. Additionally, KITECH furnishes R&D-based technological assistance to its partner companies, fosters technological innovation through its technical community, and offers on-site support. KITECH provides a range of benefits, including hands-on support through business trips.

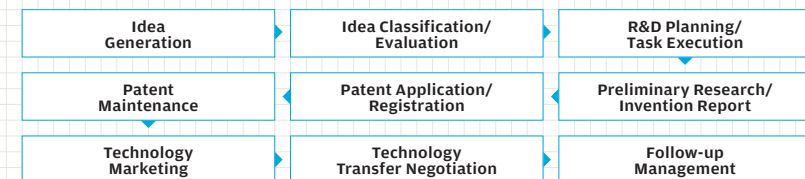
KITECH nurtures local industries and revitalizes the corporate innovation ecosystem through a network promoting shared growth. Moreover, it fosters international joint research through strategic international cooperation and supports small and medium-sized manufacturers in entering the global market.

Technology Transfer Support

Establishment of KITECH's Proprietary R&BD Process to Catalyze Technology Transfers

KITECH discovers and nurtures consumer-centric technologies from the outset of R&D planning to patent application, also providing IP management support services across the entire lifecycle, spanning technology transfer, commercialization, and post-management.

• Process



Operation of Rental Labs: A Research Facility Exclusively for SMEs and MMEs

Strengthening the Research Capabilities of SMEs and MMEs by Operating Rental Labs

KITECH offers research facilities to SMEs and MMEs seeking collaborative research with KITECH or efficient equipment utilization. Through close support utilizing its infrastructure, including labor and equipment, KITECH aids in enhancing productivity and technological competitiveness.

Operation of Open Labs

Open to SMEs and MMEs in Need of Cutting-edge, Expensive Equipment

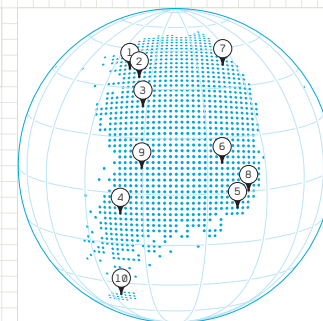
KITECH supports SMEs and MMEs by opening approximately 44 laboratories nationwide, facilitating their convenient access to cutting-edge and expensive equipment. Additionally, KITECH offers services like testing, inspection, and prototype production.

Global Cooperation Program

Enhancing Global R&D Competitiveness and Broadening the Global Market for Industrial Technology

To address global challenges and secure future industrial technology, KITECH supports Korean companies trying to make inroads into international markets. This is achieved through strengthening strategic international joint research, fostering researcher exchanges, and establishing an open international cooperation platform. This platform facilitates collaborations among industry, academia, and research institutes by jointly utilizing overseas offices.

REALIZE IDEAS



Research Institute & Technology Application Division

| | R&D Sector | |
|--|---|---|
|  Research Institute of Intelligent Manufacturing & Materials Technology Incheon | Materials and Supply Chain Research, New Industrial Components Research, Flexible Manufacturing Research, Customized Manufacturing Research, Digital Manufacturing, Regional Industry Innovation(Growth Engine) |  |
|  Research Institute of Human-Centric Manufacturing Technology Ansan | Human-Centric Robotics Research, Autonomous Manufacturing & Process Research, User Convenience Technology Research, Safety Convergence Technology Research, Textile Innovation, Regional Industrial Innovation(Manufacturing Robot) |  |
|  Research Institute of Sustainable Development Technology Cheonan | Low-Carbon Emission Control Research, Industrial Energy Research, Green Circulation Research, Low-Carbon Transition Research, Industrial Transformation Technology, Regional Industrial Innovation(ESH) |  |
|  Seonam Technology Application Division Gwangju | Purpose Built Mobility Group, Energy & Nano Technology Group |  |
|  Dongnam Technology Application Division Busan | Energy System Group, Extreme Process Control Group |  |
|  Daegyeong Technology Application Division Daegu | Advanced Mobility Components Group, Advanced Mobility System Group |  |
|  Gangwon Technology Application Division Gangneung | Functional Materials and Components Group |  |
|  Ulsan Technology Application Division Ulsan | Low Carbon Energy Group, Smart Forming Process Group |  |
|  Jeonbuk Technology Application Division Jeonju | Special Machinery and Robotics Group, Carbon & Light Materials Group |  |
|  Jeju Technology Application Division Jeju | Clean Energy Transition Group |  |

To realize the vision of the great transformation in the manufacturing technology, KITECH will redefine the roles and functions of research institutes in key research fields and regional commercialization headquarters. KITECH aims to realize “ideas into technology” and “technology into reality,” thereby advancing the value of the manufacturing industry.

Government-Commissioned Center

| | Main Activities | |
|---|--|---|
| Korea National Ppuri Industry Center The Backbone of a Sustainable Material Industry www.kpic.re.kr | Cultivating talents and companies required for the material industry Advancement of the material industry Material industry R&D and revitalization |  |
| Korea National Institute of Rare Metals Realization of a Safe Country with the Rare Metal Industry www.kiram.re.kr | Establishment of rare metal industry policy Building a foundation for the rare metal industry Cultivating and supporting companies specializing in rare metals Laying the foundation for international leadership by establishing a rare metal network |  |
| Korea National Industrial Convergence Center Control Tower for Industrial Convergence Development and Expansion www.knicc.re.kr | Industrial convergence policy research and strategic planning Response to industrial convergence regulations and difficulties Creating a new market for industrial convergence and strengthening the convergence capabilities of small and medium-sized enterprises Spreading industrial convergence culture and activating exchanges with affiliated organizations |  |
| Korea National Engineering Center Digital-based Engineering Industry Innovation www.bigdata-eng.or.kr | Establishment of engineering industry promotion policy Creating a manufacturing innovation ecosystem foundation for new industries Developing a plan to build a cooperative network |  |
| Korea National Cleaner Production Center Establishment of a Cleaner Production System for an Eco-friendly Industry www.kncpc.or.kr | Discovering industrial environmental policies Support for responding to international environmental regulations Promoting, disseminating, and supporting cleaner manufacturing technology Support for carbon neutral transition in the industrial sector Promoting a circular economy in the industrial sector Support for establishing a green management system |  |