



Kevin LAB

Introduction of Energy Management System

Sangyeon An



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Innovating to address global energy challenges

Focus to our customers' needs remains at the heart of everything we do.



KOREA



경기도유망중소기업

No. 1

- *Apartment complex
- *Zero Energy Building

9 Countries

Global Market

US\$ 17M+

Order Backlog

Pre A

US\$ 3.3M+

Cum. Investment
Attraction

Innovative Startup

- ◆ Promising Energy Innovation Company (MoTIE)
- ◆ Carbon Neutral Innovative Company (MoSME)
- ◆ National Representative 1,000 Companies (FSC)
- ◆ D.N.A Innovation Company (MoST) ◆ Eco Startup (MoE)

68+ **Patent**

76+ **Certificated**

32+ **Awarded**

US\$ 3.8M+

Sales

CAGR 63.4%

Remarks

255,000+
Household

6,518+
Buildings

3,273+
Business
Customers

Work on

Energy ICT

Encompasses a wide range of technologies and systems designed to improve energy efficiency

SaaS & Cloud

Offers numerous advantages and benefits such as cost saving and maintenance

Drive to



Demand Response



Virtual Power Plant



Energy Trading



Voluntary Carbon Market



V2G, V2H, V2B

Digitally Identify Energy Consumption Source

Quick & Accurate Metering

Reduce Cost of Installation by 80%

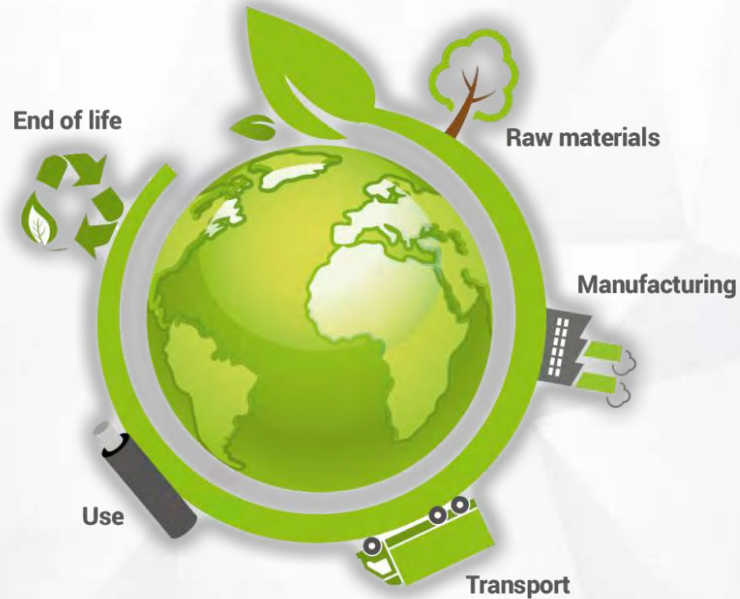
Improve Work-efficiency of Manpower

Real-Time Abnormalities Check

Proven Energy Auditing Data

Ease Decision Making - Reduce Energy





Net Carbon Zero
(2030' NDC 40% ~ 45%)

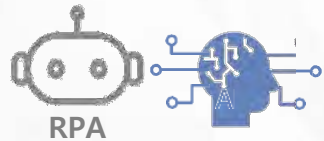
Energy Efficiency &
Conservation Act (EECA)



Are you ready to follow and respond to rules and regulations such as the Energy Efficiency And Conservation Act guidelines?

Is it possible to

- quickly identify and respond when a problem occurs?
- predict the future based on past data?



RPA
Energy Efficiency

Subscription energy management
and user-customized modular
(widget) platform



SaaS Energy Platform

IIoT Devices

A.I. Analysis
Forecasting
RE100 Platform
O&M Service

Net Zero-Energy
Virtual representation of a physical
object, system, or process that is
created using real-time data and
simulations

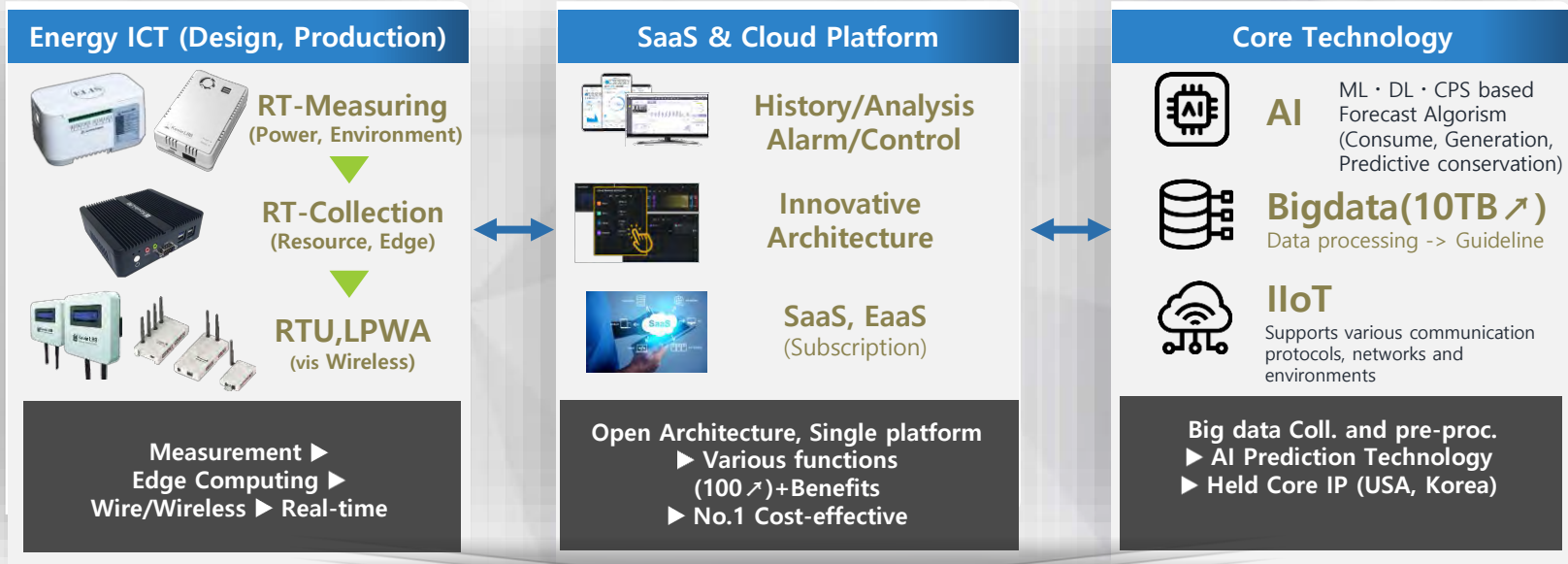
Sustainability
Resilience





Energy + DX based Energy Platform Provide as EaaS and SaaS

The intelligent components of SaaS & D.N.A



Optimizing energy use leads to significant cost savings while reducing environmental footprint

Track real-time

Energy usage across all operations, identifying inefficiencies and potential energy savings.

Comply with regulations

Standards for energy efficiency, positioning the business as a leader in sustainability.

Implement automated

Controls to reduce energy waste during non-peak hours or when machines are idle, and response and control Maximum Demand from analyze energy flow data

Reducing operational costs

By optimizing energy usage, automating controls, and minimizing energy waste.

Analyze energy patterns

To pinpoint high-consumption areas, allowing for targeted upgrades or process improvements.

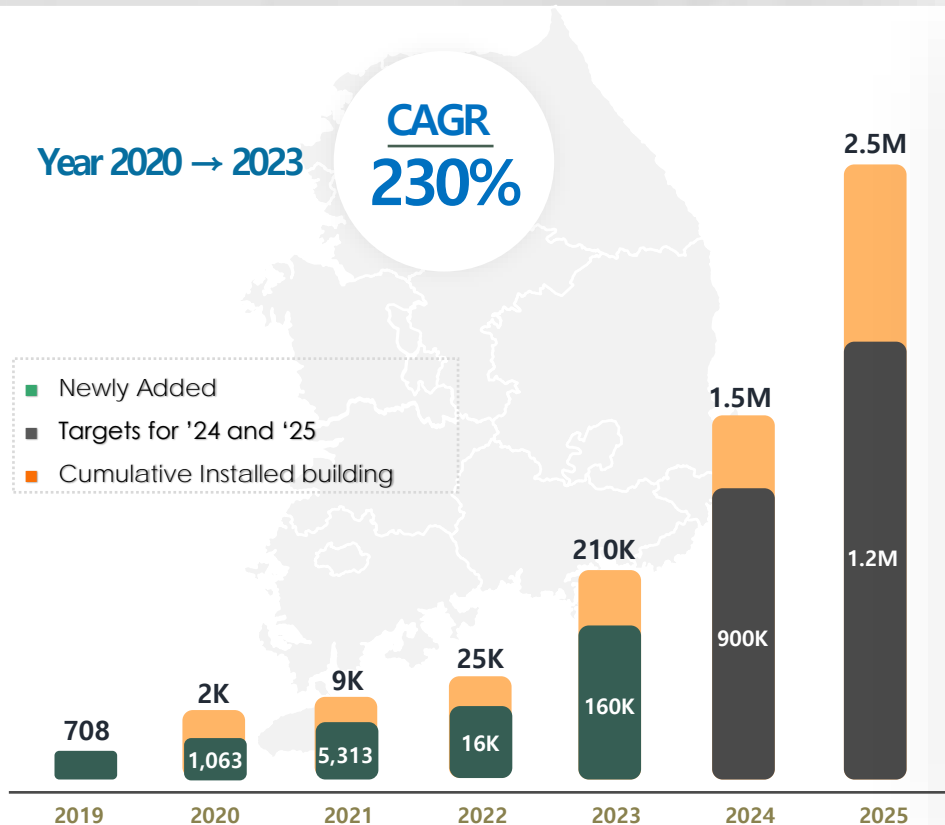
Integrating renewable energy

Sources and optimizing their usage within the existing energy framework, reducing dependency on conventional power.



"Developing Industry Energy Efficiency through Energy Management Systems"

Target to supply 2.5 million households by 2025



The Market Size of Residence building



※ Based on USD 0.30 x 12 /household

Securing partnerships based on Energy DX and cost-effectiveness

Small Sized – Single building / below 1,000m²



Medium Sized – Complex / below 3,000m²



District – Area / above 15,000m²



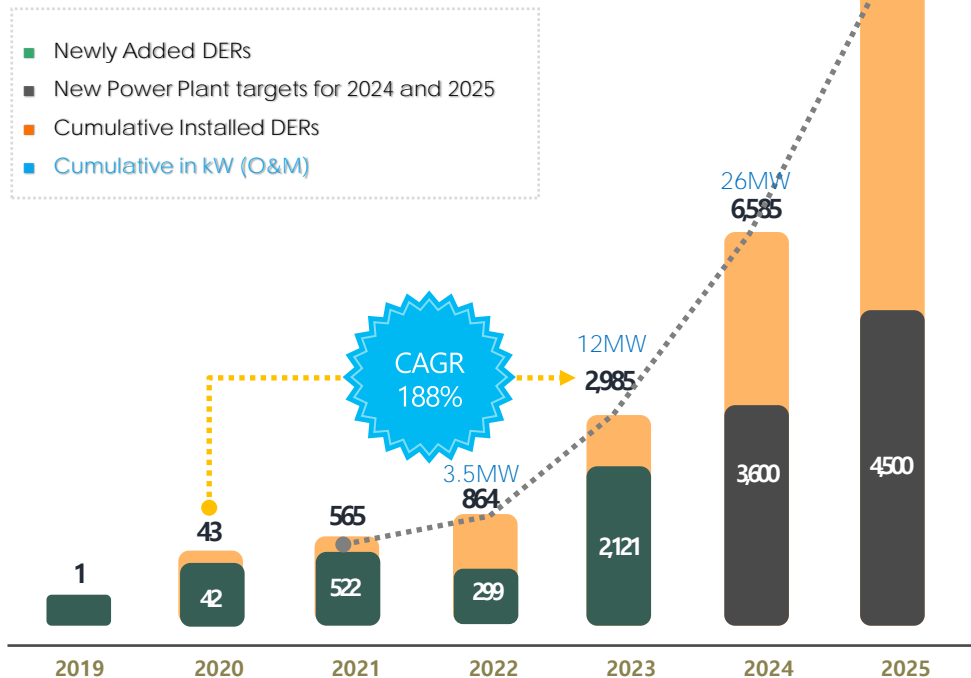
The Market Size of Zero Energy Building



※ 15% of infrastructure construction cost per building

Source: : Korea Energy Agency (2019.12)
Zero Energy Convergence Alliance (Estimated)

Securing a stable profit market and sustainable O&M market

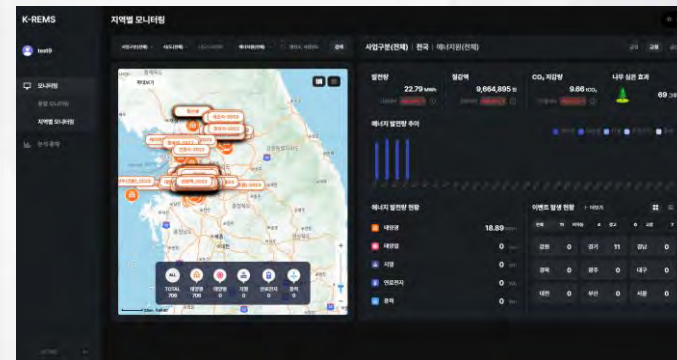


※ Integrated Control and O&M order status and plans for Renewable Energy

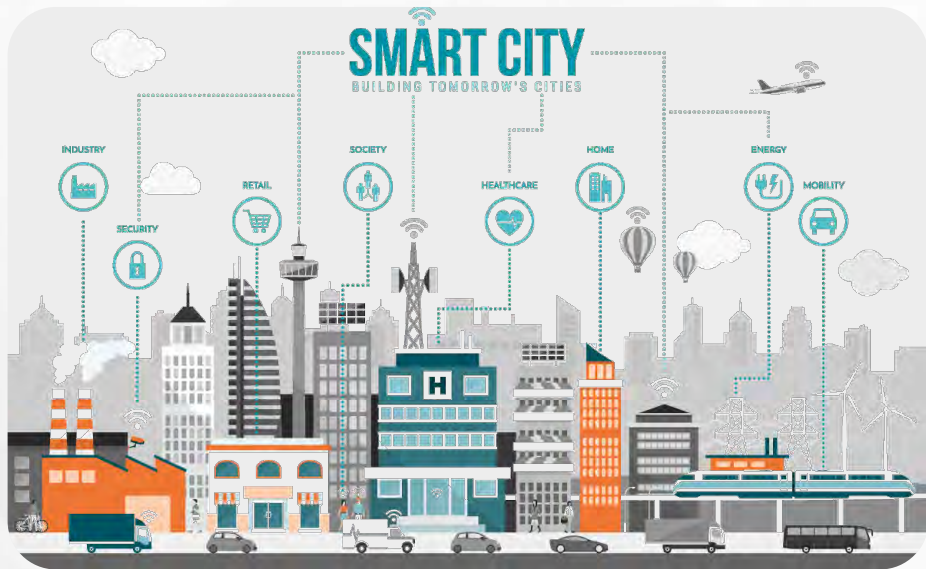
CAGR
188%

From 2020 to 2023

Integrated Control Center



The Smart City for Energy Optimization



| Ongoing Smart City & Carbon Neutral City Project on 3 location



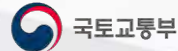
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SUWON NET-ZERO Green City



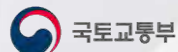
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ULSAN Smart City



Hosted by



PYEONG TAEK Smart City

Unique and tailored solutions platform to fit any and every needs

Specific needs require specific solutions.



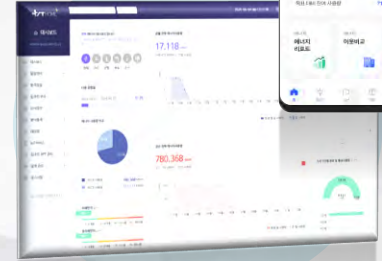
MOSAIC
EMS



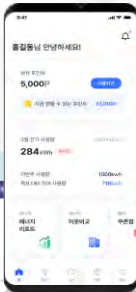
K-REMS



L-BEMS



4ST HOME



We also design and build IoT device

The equipment specialized for industrial sites helps collect data without loss and ensures reliability.



Power Quality
Analyzer



RTU &
LPWA Device



Environmental
Sensors



Edge
Gateway

Growing Demand for EE

As energy prices continue to rise, businesses and consumers are seeking ways to reduce their energy consumption and costs. Companies are adopting sustainability initiatives, which include improving energy efficiency as a core component

Regulatory Compliance

Organizations need EnMS platforms to comply with these regulations and avoid penalties

Government Incentives

Incentives and subsidies are offered for adopting energy-efficient technologies and practices

Technological Advancements

IoT devices allows for more precise and real-time monitoring and control of energy consumption. AI and ML can analyze large volumes of data to optimize energy use, predict maintenance needs, and identify further opportunities for energy savings

And keep demand on Renewable Energy Integration, Market Expansion in Emerging Economies, Corporate Social Responsibility (CSR) & Brand Image





Energy Audit

Regularly conduct energy audits to identify inefficiencies and areas for improvement



Optimize Processes

Streamline operations and processes to minimize energy waste



Improve Energy Efficiency

Upgrade to energy-efficient appliances, lighting, HVAC systems, and machinery



AI & RPA

Automate repetitive and rule-based tasks typically performed by human workers with the analyzed by A.I.





Malaysia (HQ)

- Malaysia Team (10people)
- Modularized SaaS Platform 'MOSAIC' development
- BM : Platform supplier to factories and buildings
- Key clients: TNB, SIRIM, public sector



ASEAN

- Vietnam, Singapore, and Indonesia
- BM : Implementation and SaaS
- Factories and buildings
- DR, EV charger platforms, CDM
- key clients : ASIA Networks Energy, CEP, Taspen etc.

Global market through modularized energy platform



Building



Factory



Residence



Smart farm



EV charging



ICT hardware development & export

Modularized Energy Management Platform



Serbia

- Serbia (KOTRA Jisahwa Program)
- Succeed of ODA project (2022)
- BM : AMI implementation SaaS
- Smart grid project
- Key Clients: RVBA, EDS, EPS, Elektrozapad, etc.



UK

- National R&D project with Ministry of land, Infrastructure and Transport
- Research with UK team about energy data sharing between 2 countries and develop energy infrastructure
- Enhance Energy data processing methods



Kyung Hak, Kim (CEO)

- Director of Korea Energy Small and Medium Innovative Business Association (KEMIA)
- Director, Power Technology Division, Korean Institute of Electrical Engineers
- Director of AI Carbon Neutrality, Korea Institute of Production and Manufacturers
- Former GM of New Biz Team from Aegis Hyosung
- Former CEO of LogOn Soft (1998 ~ 2002 M&A Exit)



COO

JongBeum, Lee

Former 26 years in SAMSUNG
(MD, SEC Oversea Corp.)



CIO

SungHwan, Choi

Former CTO of ECOSENSE
23 years experience



CTO

YoungJae, Kim

Former GM of PARKINGGO
Certified Special Software Technician



CMO

Woosik, Sim

Former GM of HERIT
27 years experience



Head of R&D

SangBong, Lee

Former GM of R&D of HANYANG Securities
25 years experience



COO, Malaysia

Seo Jeong Ho

Former MD of SSANGYONG Construction
30 years in ASEAN development projects



R&D Overseas

Angelin Kang

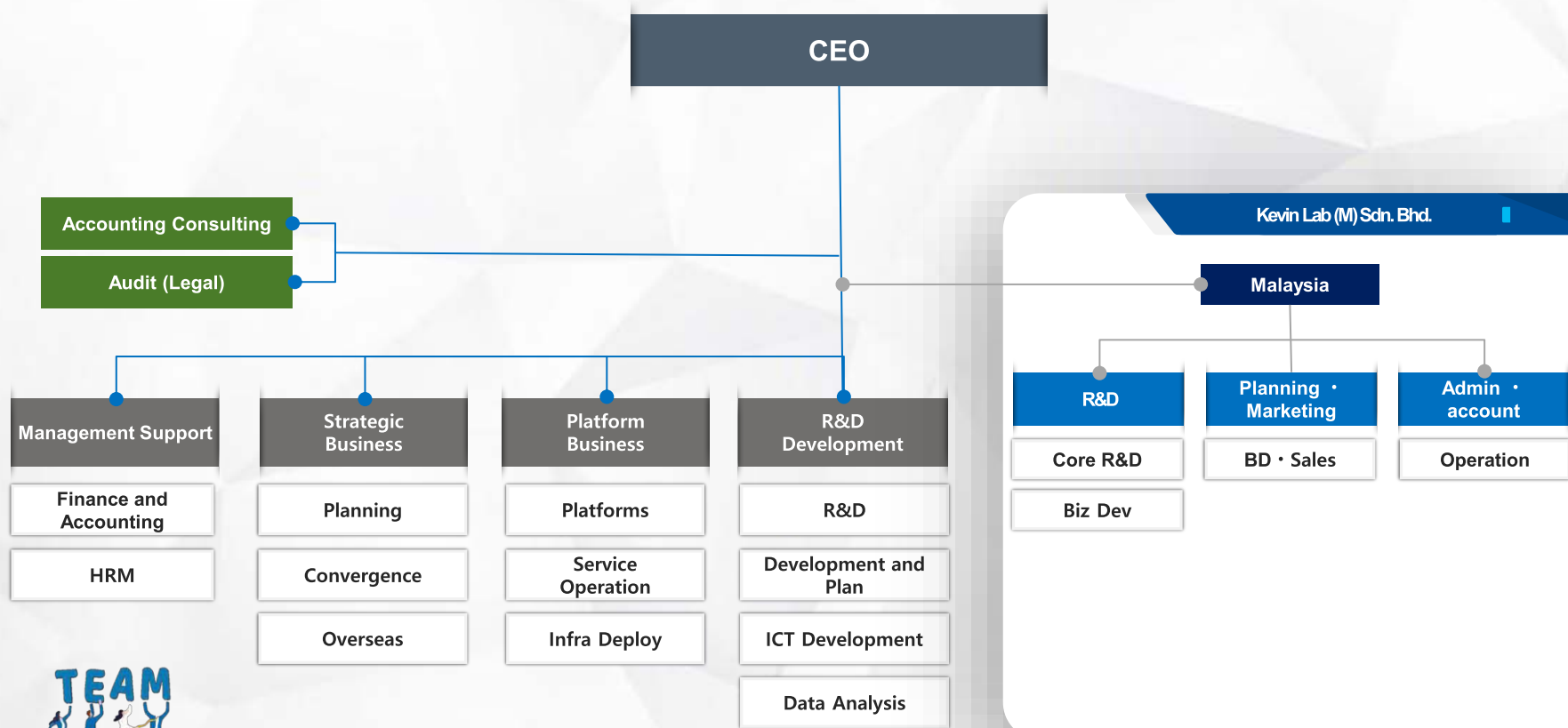
Master's in Computer Engineering
Nanyang University, Singapore



AI • Data Scientist

JeeHo, Song

Master's Degree in Electronic
Engineering from KAIST
Data analysis and AI specialist



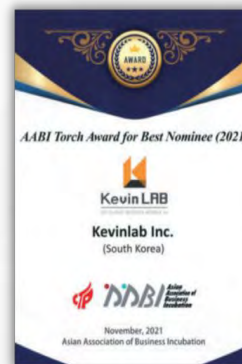
68+ Intellectual Rights, Design and Patent

32+ Awards and commendations

76+ Certificates for New technology, innovative startups, qualifications

Our technology has obtained not only patents and intellectual property rights but also the recognition from the Korean government.

- ISO 14001
- EU DECLARATION OF CONFORMITY
- PMS (PRODUCTIVITY MANAGEMENT SYSTEM)
- TRADEMARKS, PATENT





Thank you



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