

SMART AIR FILTER SOLUTION BASED ON AI FOR BUILDING ENERGY SAVING

- NAOM Inc.
- Presented by: Soonbark Kwon



NAOM INC. – OUTDOOR AIR PROCESSING SPECIALISTS!

- **NAOM Inc. – fine particle ESG solution provider**
 - **2024:** Commercialization of DEMC high-efficiency filters/ IoT platforms for HVAC systems
 - **2023:** Selected as a procurement innovation product for outdoor air purification equipment
 - **2022:** Development of a smart fine dust management system for subways
 - **2017:** Spin-off startup from a government-funded research institute (KRRRI)

- **Key Products**

- DEMC filters: patented air filter for HVAC
- IoT devices: filter condition monitoring
- AI Platform: SaaS, AI management system
- NAOM TUBE: stand-alone outdoor air purifier



COLLABORATION: AREAS OF INTEREST

■ Background

- The need to reduce building energy consumption to decrease greenhouse gas emissions
- Approximately **50% of a building's energy is used for heating, cooling, and ventilation** systems
- Cost savings through **enhanced air filter performance and smart management**

■ Areas of Interests

- Localization of the smart air filter solution for entry into the European market
- Expansion of management services through extended IoT functionalities
- Development of a business model for global market entry

COLLABORATION: PERFORMANCE IMPROVEMENT + SERVICE LOCALIZATION → NEW MARKET ENTRY

Filters replaced on a fixed schedule rather than based on their condition.



Simple Purchase

On-site management by assigned personnel.



Periodic Management

Function-centric management with inadequate data.

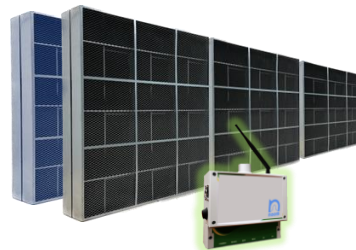


Simple on/off

Due to manual management of individual components and a lack of integration, unified operation is unachievable, leading to challenges in cost reduction.



High efficiency filters
(high capacity/ low pressure drop)



AIoT device
(real-time condition monitoring)

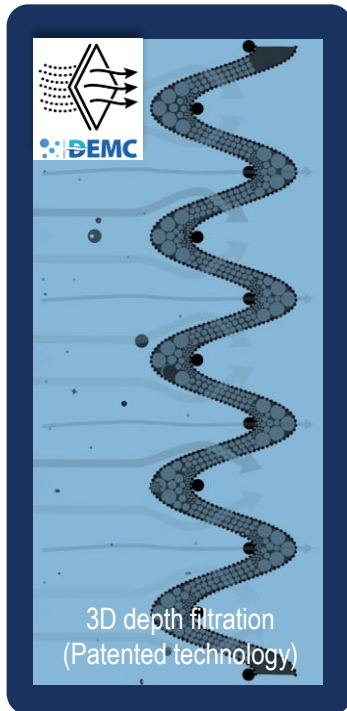


AI platform
(data driven management)



AIoT Air Filter Operation

Integrating organically connected individual components into an "Outdoor Air Processing Solution" achieving cost reduction.



Organization name : NAOM Inc.
Your name : Soonbark Kwon
Position title : CTO
Email address : ksb@naom.ai
Phone number : +82-10-7228-5375
Website : www.naom.ai



Strategic partner: Korea Railroad Research Institute (KRRI)

