



NEULPUREUN I.T

Company Profile

From System to Data, We Complete AI



The logo consists of a green diamond-shaped icon made of four smaller diamonds, followed by the word "Index" in a bold, sans-serif font. "Index" is colored green for the "I" and "n", and blue for the "d", "e", and "x".

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01

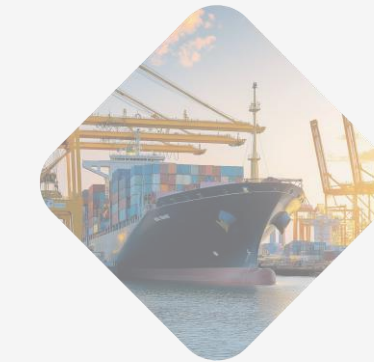
◆ Our Company

- ❖ Company Overview
- ❖ Vision, Mission & Core Values
- ❖ Company History
- ❖ CEO Message



Our Company

Company Overview



NEULPUREUN
INFORMATION TECHNOLOGY

Since its establishment in 1999, Neulpureun Information Technology has accumulated 26 years of technological expertise.

The company provides System Integration and Maintenance services (SI/SM) and is evolving into a specialized AI company leading the marine and shipbuilding industries through Big Data and Artificial Intelligence technologies.

Established

January 1999

C E O

Deokhee Won

Capitals

KRW 150 million

Employees

23

Corporate Spin-off

January 2022 (Neulpureun I.T / Neulpureun C&C)



Our Company

Vision, Misson & Core Values



Mission & Vision

Innovation



We leverage IT technologies to support our customers' business success and contribute to building a better tomorrow.

Vision



As a leading IT company in the Busan-Ulsan-Gyeongnam region, we grow together with the community by integrating Data, Artificial Intelligence, and System Integration & Operations.

Core Values



Built on innovation and trust, we collaborate, grow together, and create sustainable value.

Judgment



Individuals who act with integrity and demonstrate the judgment to distinguish between personal and professional responsibilities.

Responsibility



Individuals who continuously strive to improve the quality and efficiency of their work.

Consideration



Individuals who respect and care for the people they work with.

Our People



Our Company


Company History



26 years of Growth

Based on 26 years of IT expertise and field experience, Neulpureun I.T has led innovation in the AI era and grown into a trusted IT specialist in the **marine and shipbuilding industries**.

Through continuous technological innovation and quality-driven services, we are opening the path to the future.



Expansion of IT Business
Expansion of Marine & Shipbuilding Business



Expansion of Big Data Business
Expansion of Smart Factory Business

1999

2019

2020

2022

2023


2024~




Establishment of IDID Co., Ltd.



HPE Partnership Established
Execution of IT SM Projects
HD Maintenance Office Established



Construction of Big Data Innovation Center
Corporate Spin-off



Expansion of AI Business



Our Company

CEO Message



CEO
Neulpureun I.T. Co., Ltd. **Deokhee Won**

For a chick to be born, it must break through the shell that surrounds it. Even if the chick begins pecking at a weak point, it cannot break the shell alone unless the mother hen pecks at the same spot at the same time.





This idea is expressed in the Korean proverb "**Jultakdongsi (喙啄同時)**", which means that success is achieved when two efforts come together at the right moment.

The spirit of *Jultakdongsi* represents the mindset we share with our partners and customers as we work together to achieve meaningful results.

We hope that the values and technologies we have developed will evolve in step with your needs and, together, create new opportunities in the era of the Fourth Industrial Revolution.

Neulpureun I.T will continue to pursue innovation and improvement, listening carefully to our customers and striving to deliver the best possible value.

Thank you.

2019		<p>Feb 2019 – Present CEO, Neulpureun I.T. Co., Ltd.</p>
2001		<p>Nov 2012 – 2018 Executive Vice President, Enterprise Group Commercial & Public Sector (Regional Business)</p> <p>Nov 2010 – 2012 Executive Vice President, Enterprise Commercial Regional Business (South of Daejeon)</p> <p>Nov 2008 – 2010 Manager, Enterprise Commercial Sales</p> <p>Nov 2005 – 2008 Director, Manufacturing & Distribution Industry Sales</p> <p>Mar 2003 – 2005 Sales Manager, Shipbuilding, Steel & Heavy Industries</p> <p>Feb 2001 – 2003 Sales Manager, Heavy Industry & Public Accounts</p>
1987		<p>Aug 1995 – 2001 Manager, Regional Business Division, SI Headquarters, Daewoo Information Systems</p> <p>Oct 1992 – 1995 CAD/CAM Team, Systems Division, Daewoo Shipbuilding & Marine Engineering</p> <p>Jan 1990 – 1992 ILS Team, MIS Division, Daewoo Shipbuilding & Marine Engineering</p> <p>Jan 1987 – 1989 Structural Design & Analysis, Daewoo Shipbuilding & Marine Engineering</p>
1982		<p>Aug 2001 MBA (CRM), Graduate School of Business, Pusan National University</p> <p>Feb 1987 B.S. in Naval Architecture, Pusan National University</p> <p>Feb 1982 Busan Nam High School</p>



02

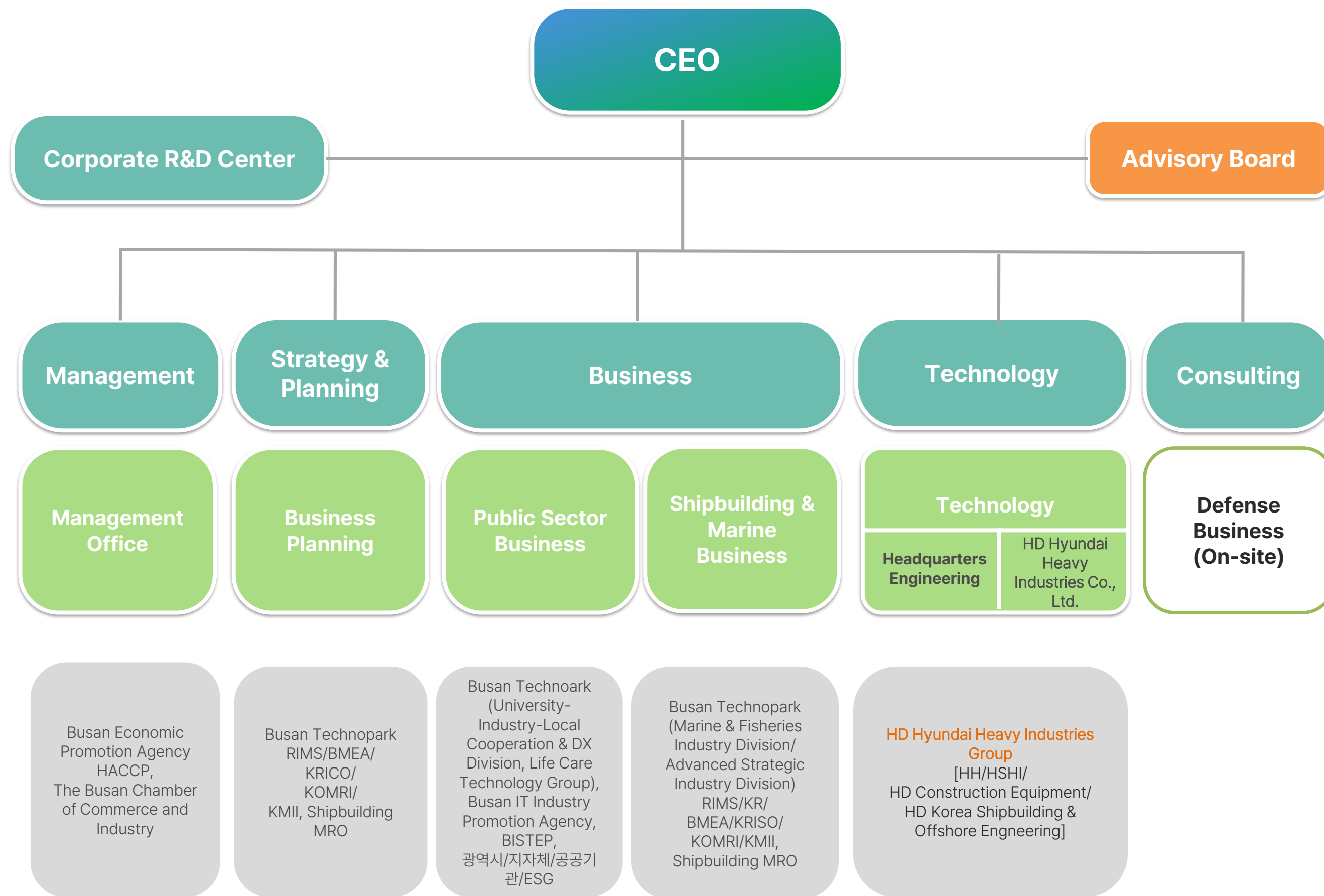
Overview

- ❖ Organization & Workforce
- ❖ Marine & Shipbuilding Experts
- ❖ Financial Highlights
- ❖ Certifications & Awards
- ❖ Key Partners

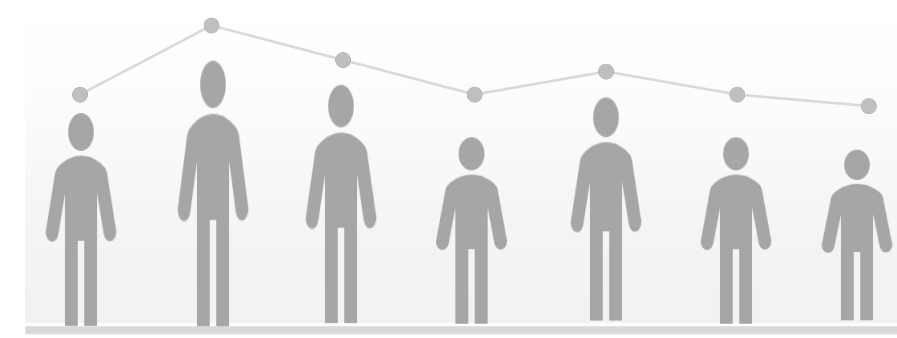


Overview

Organization & Workforce

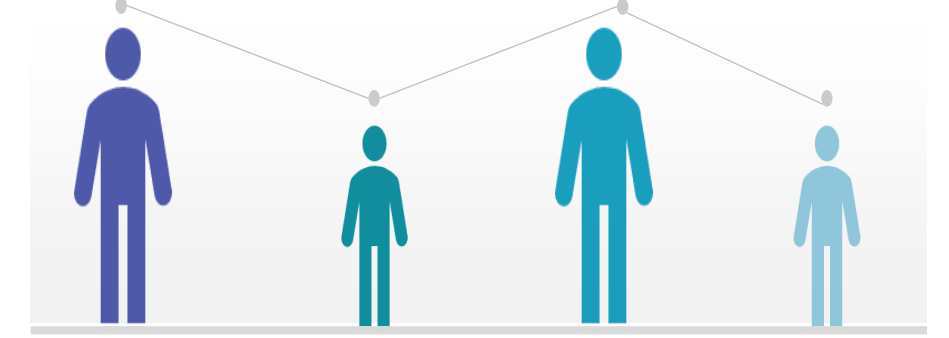


Workforce Distribution by Role



Shipbuilding/Marine (8%) | Big Data/AI (30%) | Development (SI) (20%) | Infrastructure (SM) (8%) | Planning/Sales (16%) | Management (8%) | Audit (4%)

Workforce Distribution by grade



Executive (32%) | Senior (18%) | Mid-level (32%) | Junior (18%)

Technical Workforce Status

Category	Shipbuilding / Marine	Big Data/ AI	Development (SI)	Infrastructure (SM)	Planning / Sales	Management	Audit	Total
Executive	2	1	2	1	1	-	1	8
Senior	-	2	1	-	1	1	-	5
Mid-level	-	4	-	-	1	1	-	6
Junior	-	1	2	1	1	-	-	5
Total	2	8	5	2	4	2	1	24

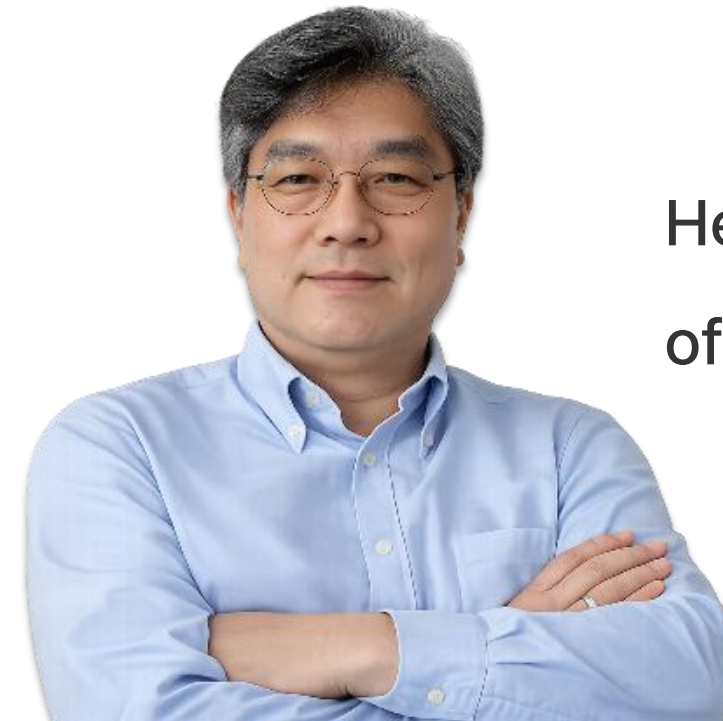


Overview

Marine & Shipbuilding Experts



Advisor



Head
of Shipbuilding Division



Head
of Marketing Division

- Present**
 - Full Member, The Society of Naval Architects of Korea(SNAK)
 - Ombudsman, Regulatory Free Zone for SMEs
 - Columnist, International Newspaper
 - Advisory Member, Defense Industry Cost Management
 - Mentor, Smart Factory DX Program
- 2019-present**
 - Data Curator, KASAD
 - Adjunct Professor, Department of Naval Architecture & Ocean Systems Engineering, Pukyeong National University
- 1997-2019**
 - President, Korea Research Institute of Medium & Small Shipbuilding
- Education**
 - Ph.D., Naval Architecture & Ocean Systems Engineering, Pukyeong National University, 2005
 - B.S., Naval Architecture, Pusan National University, 1986
- Certifications**
 - Professional Engineer (Shipbuilding)
 - ESG Assessment Specialist
- Publication**
 - Shipbuilding Technology*, SNAK, 2011
 - Practice Guide for Small & Medium Ship Trials*, 2007
 - Ship Construction* (National Textbook), Ministry of Education, 2003
 - Practical Guidelines for Small & Medium Shipbuilding*, 1999

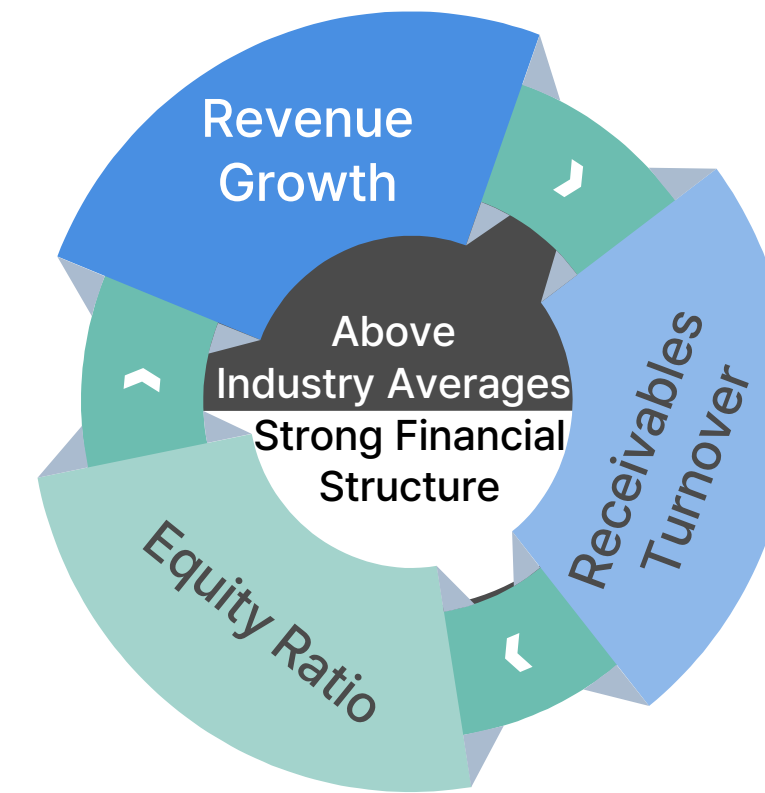
- 2022-Present**
 - Head, Shipbuilding & Marine Business Division, Neulpureun I.T**
 - Busan Data Analysis Projects ('23, '24, '25)
 - Development of Big Data Innovation Center & Pseudonymized Data Utilization Support Center
 - Defense Signal & Frequency Dataset Project (Ministry of National Defense)
 - Smart Factory Advancement (HJ Shipbuilding, YNV)
 - Implementation & Operation of KR / Rescale R&D Program
- 2015-2022**
 - Founder & CEO, DIO Tech**
 - Ship & BWTS Component Design and Development
- 2004-2015**
 - Head of Shipbuilding Sales Office, KEYSTONE**
- 2000-2004**
 - Founder & CEO, DIO System**
 - Pharmaceutical 2D Barcode System Development
 - 2D Barcode Encoding/Decoding Technology Development
- 1997-2000**
 - Head of Software Development, HN Inc. -**
 - ERP Consulting for a Tier-1 Supplier of Renault Samsung Motors
 - Terminal Operations System Design for Hutchison Ports
- 1987-1997**
 - Business Process Digitalization for an Affiliate of Gangnam Group (Gangnam Shipbuilding)**
- Education**
 - M.S. Coursework Completed, Business Administration, Pusan National University
 - B.S., Naval Architecture, Pusan National University

- 2024~Present**
 - Head, Consulting Business Division, Neulpureun Information Technology**
 - AI-based analysis and marine anode installation project, Korea Maritime University (BISTEP)
 - Busan Data Analysis Projects (2024~2025)
 - Regional Specialized Block Chain Quality Management Projects (2024~2025, Busan TP)
- 2012**
 - Director, SI Business Division 2, IOTech**
- 2009~2012**
 - Deputy General Manager, Public Sector Division 2, Daewoo Information Systems**
 - Defense logistics & ammunition system performance improvement project management (MND)
 - Integrated call center 구축 PM
 - HR system planning
 - Standard DR link 구축 PM (KRIHS)
 - Integrated cost management system 구축 PM (Korea Cooperative Federation)
- 1989~2009**
 - Deputy General Manager, Special Services Division, Daewoo Information Systems**
 - Information systems 구축 (Daewoo Motor, Daewoo Bus)
 - Engine plant information system 구축 (SsangYong Motor)
- Education**
 - B.S., Electronics Engineering, Kyungpook National University

Balanced Financial Structure

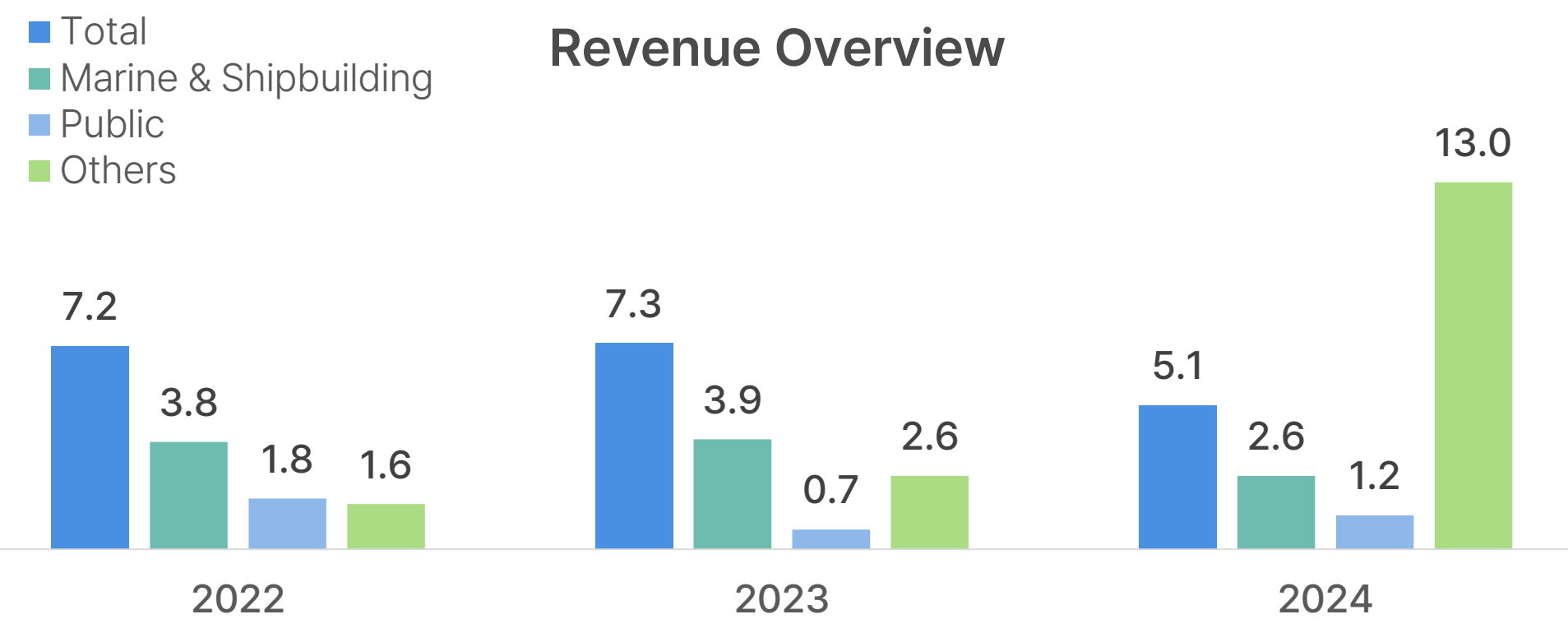
Unit: Million (KRW)

Category	2022	2023	2024
Total Assets	4,073	4,729	4,206
Total Liabilities	3,333	3,926	3,385
Equity Ratio	18.2%	17%	19.5%



Unit : KRW Billion

Revenue Overview



신용평가등급확인서

발급일 : 2025년 06월 18일
발급번호 : KCB-25-0102-006739

(주)늘푸른정보기술 귀중

당사의 신용평가규정에 의거하여 평가한 귀사의 신용평가등급이 아래와 같음을 확인합니다.

기업신용평가등급

BB-

회사채등급 BB-

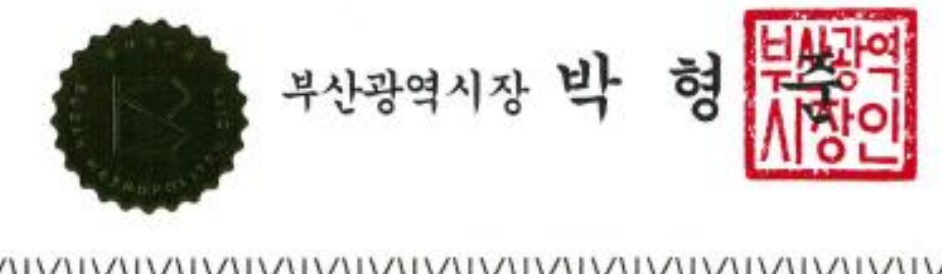
Leading Company in Strategic Industries

선도기업 인증서

- ◆ 전략산업 : 디지털테크산업
- ◆ 업 체 명 : (주)늘푸른정보기술
- ◆ 대 표 자 : 원덕희
- ◆ 사업자등록번호 : 834-88-02113
- ◆ 인증번호 : 2026-디지털테크산업-9
- ◆ 인증기한 : 2026. 1. 1. ~ 2028. 12. 31.

귀 업체를 부산 경제 활성화를 선도해 나갈 부산광역시 전략산업 선도기업으로 인증합니다.

2025년 12월 3일



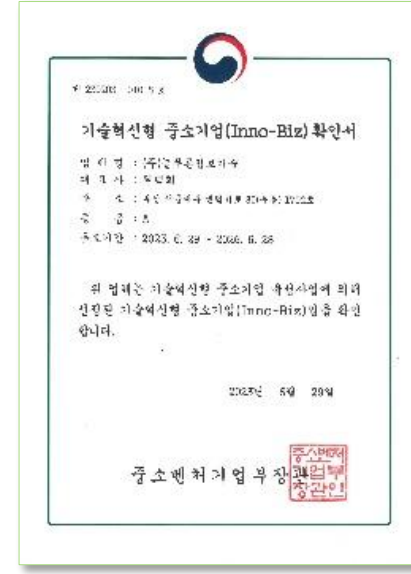
Certificate



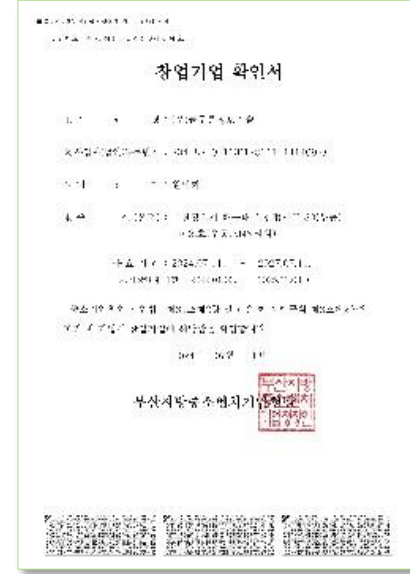
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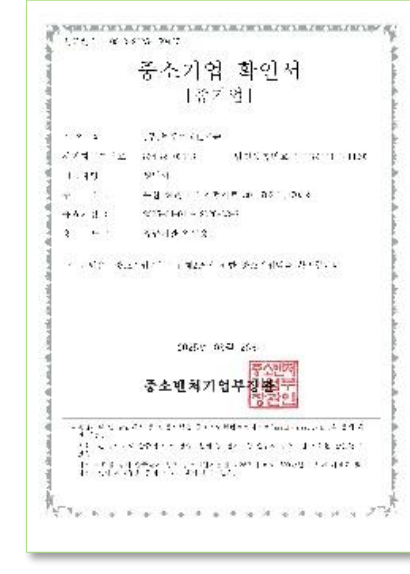
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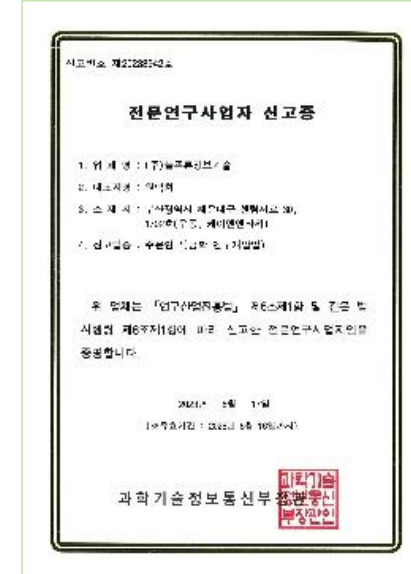
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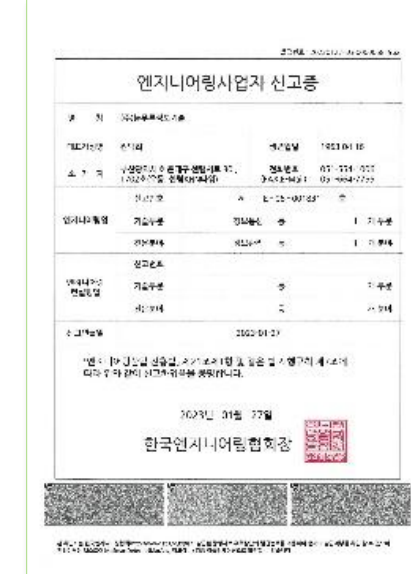
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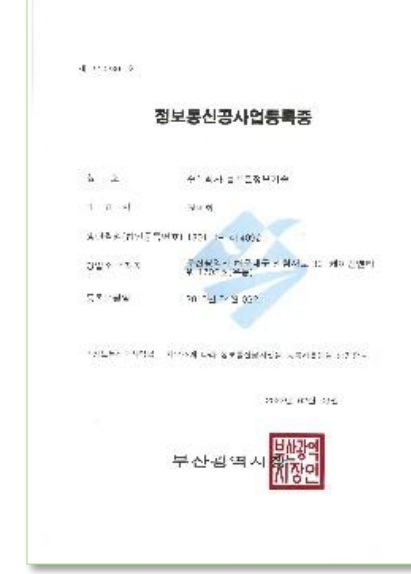
Registration



Certificate



Certificate



Certificate : 14

Patent, Application & Copyright : 8

Patent



Patent



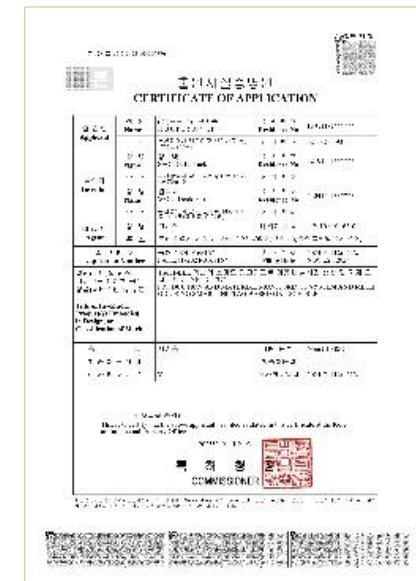
Patent



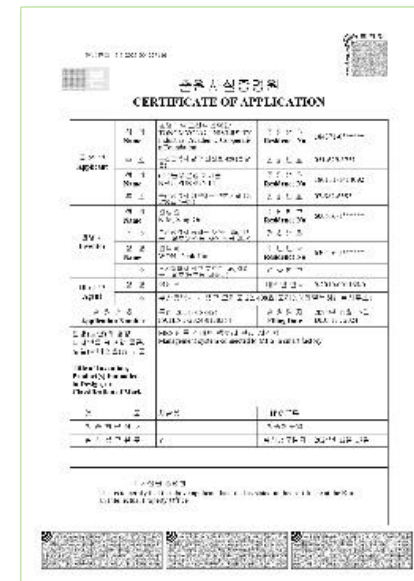
Patent



Certificate



Certificate



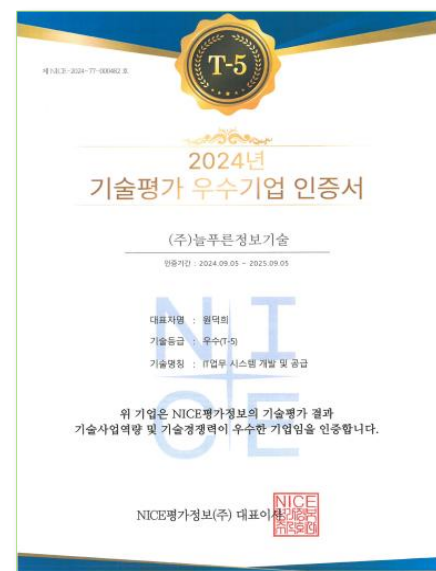
Certificate



Certificate



Certificate



Certificate



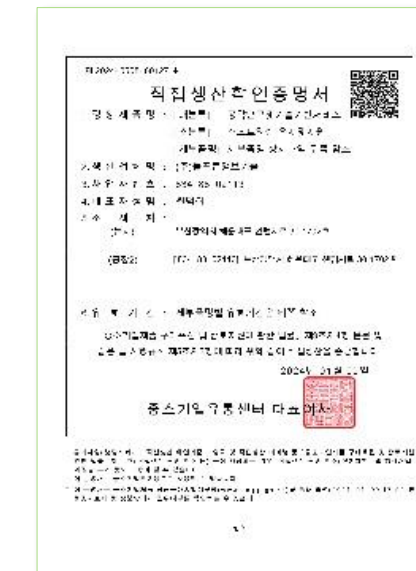
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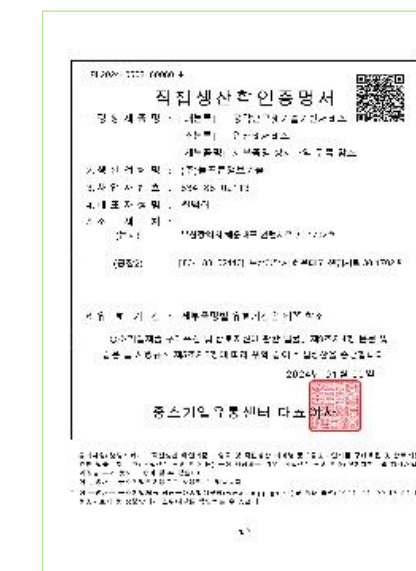
Certificate



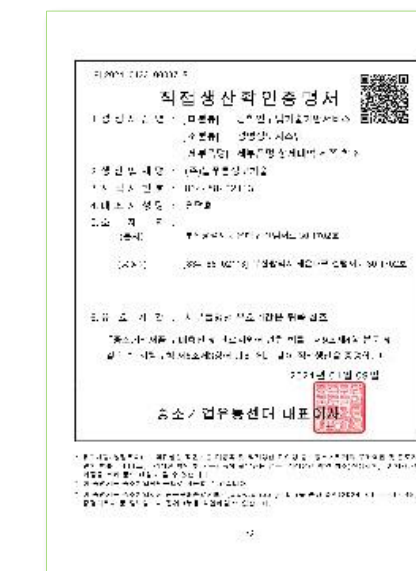
Certificate



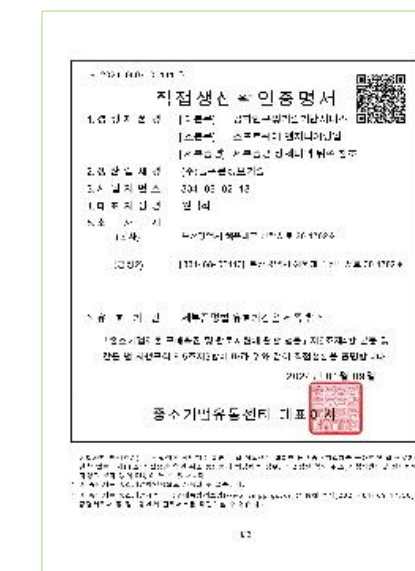
Certificate



Certificate



Certificate



Direct Production Confirmation Certificate : 6



Overview

Key Partners



Business Partnership Network



Industry-Academia Collaboration





03

Business Areas

- ❖ Business Overview
- ❖ Key Project Highlights



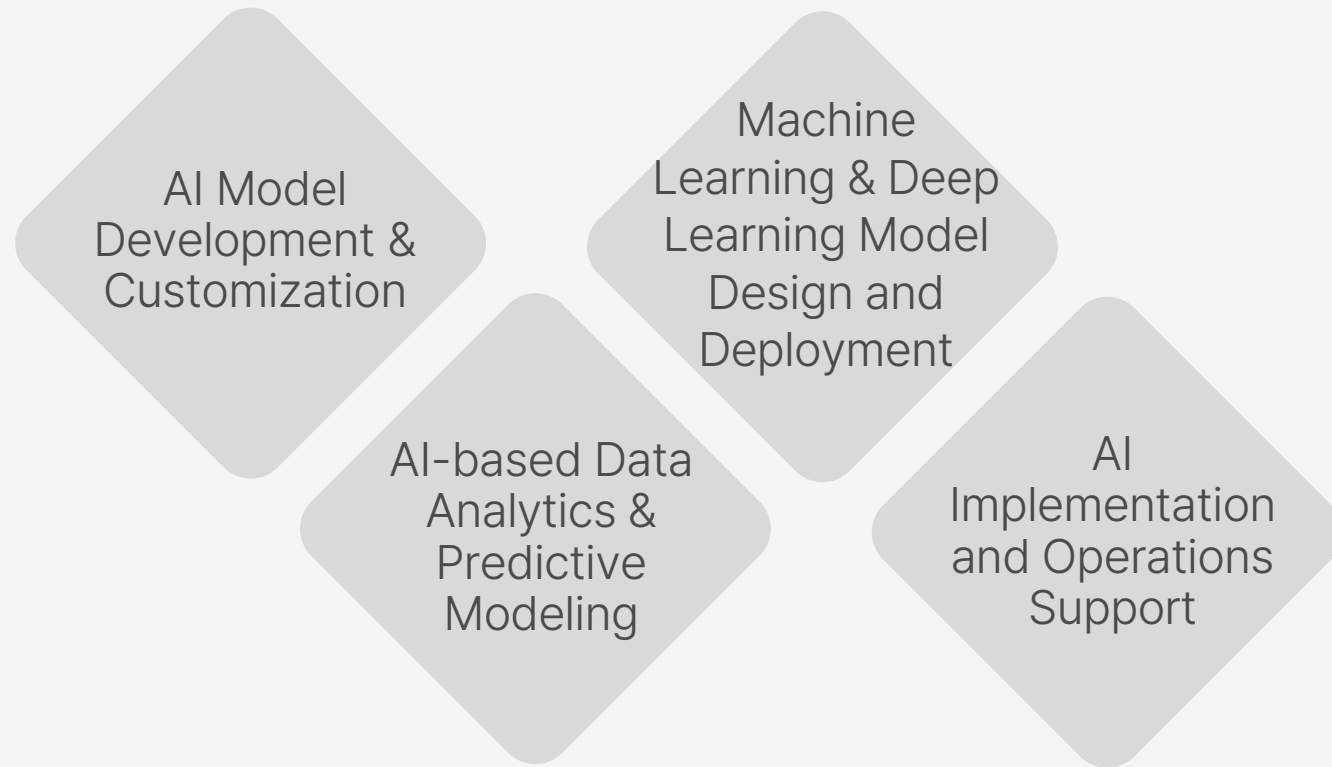
Business Areas

Business Overview

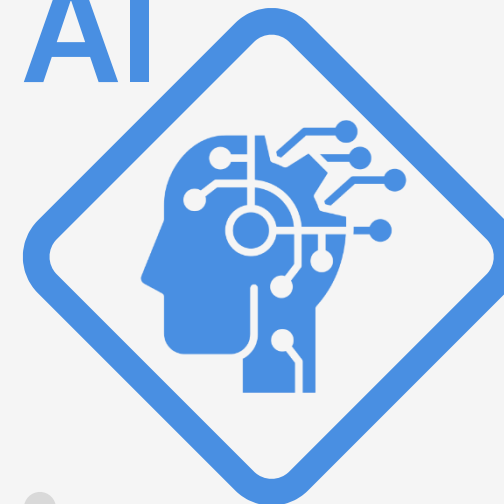


Empowering business innovation and competitiveness through the latest AI technologies

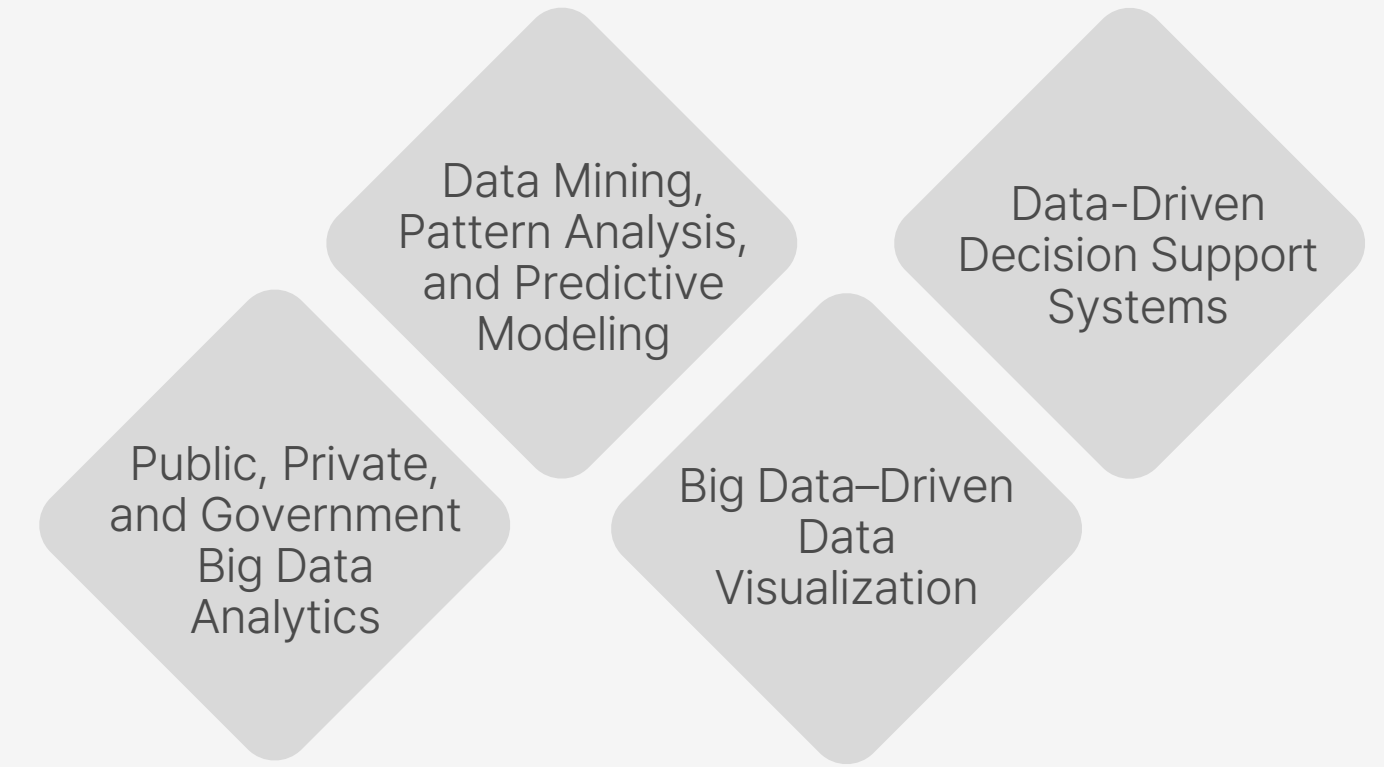
Delivering customized data analytics services based on diverse and well-structured data.



AI



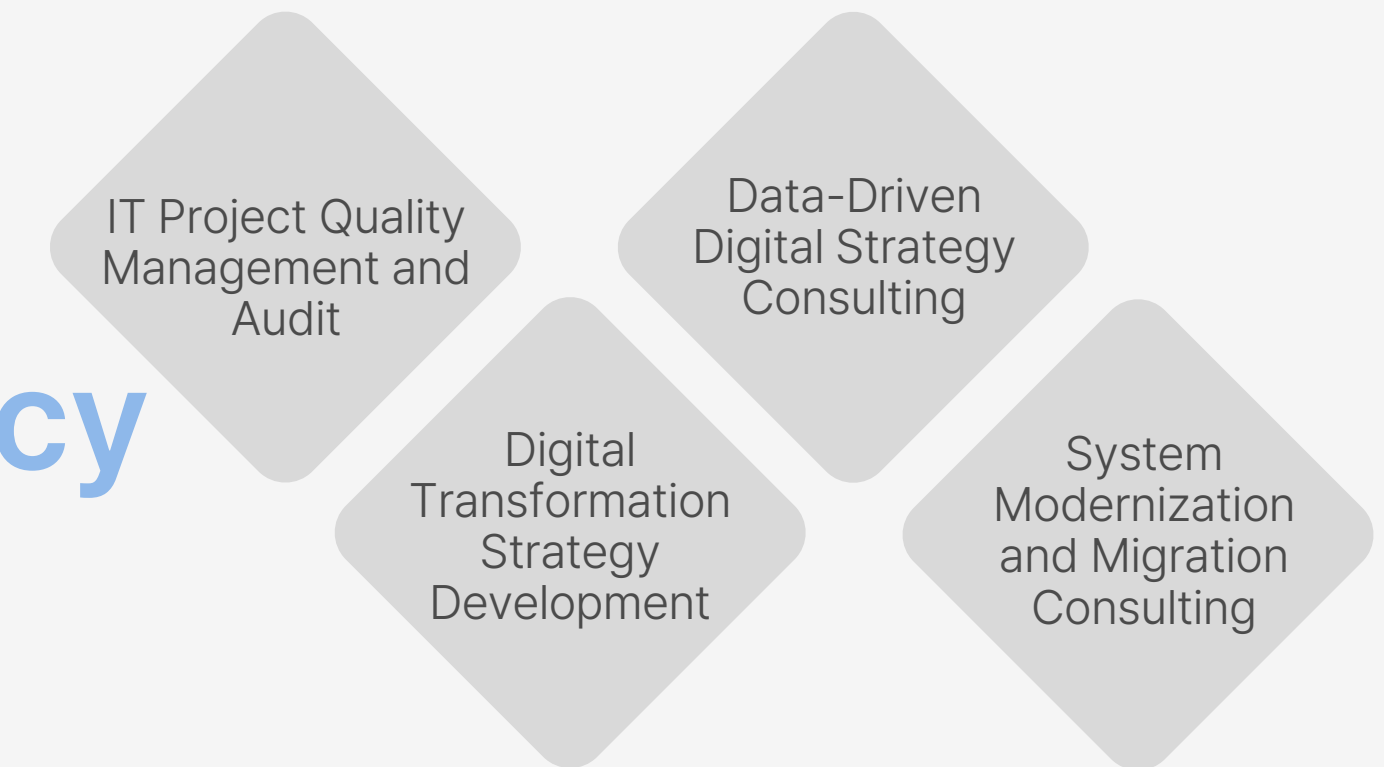
BIG DATA



SI/SM



Consultancy



Maximizing the value of IT services through stable and efficient system operations.

Supporting digital transformation through data-driven strategies based on business environment analysis.



AI

2025 Busan Research Industry Promotion Cluster Development Project

Subject

Development of an Ai-based real-time corrosion monitoring and prediction model for offshore bridges

Duration

Phase 1: Jul 1, 2025 – Dec 31, 2025
Phase 2: Jan 1, 2026 – Dec 31, 2026

Client

Busan Institute of Science & Technology and higher Education Promotion

Objective

Call for research proposals to support the development of a research industry cluster

Scope of Work

Development of a laboratory-based testbed

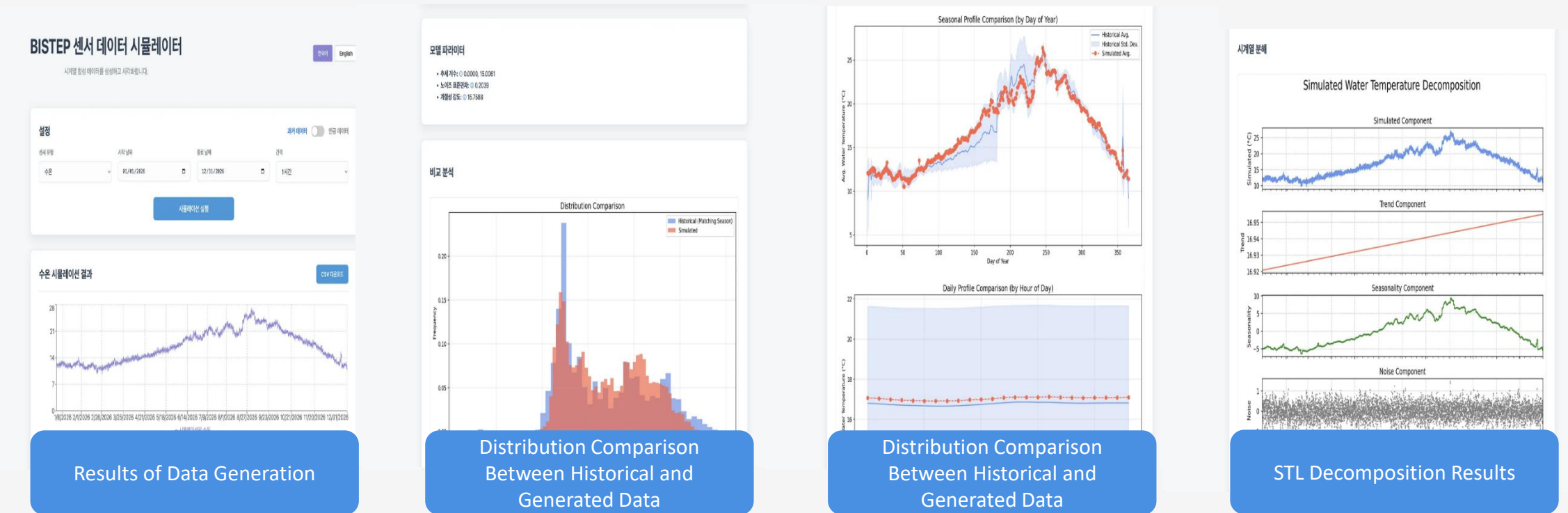
Implementation of an AI-based corrosion prevention monitoring system

Development of an integrated sensor board for heterogeneous data

Development of an AI-based predictive model for corrosion conditions of marine bridges

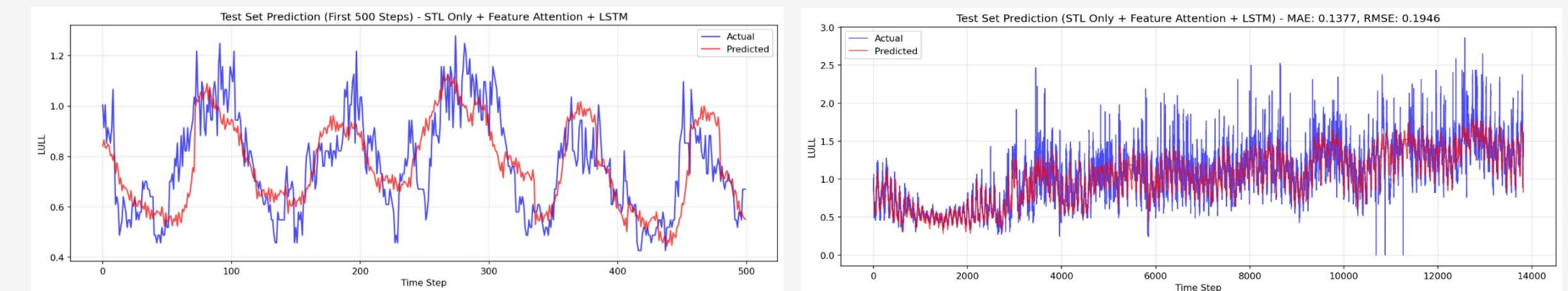
Key Achievements

◆ Simulator Development



◆ Initial Predictive Model Development

Results : STL + LSTM + Attention (Lookback Window: 96, Forecasting Horizon: 24)



	Vanilla LSTM	STL + X + LSTM + Attention	STL + LSTM + Attention
RMSE	0.2335	<u>0.1955</u>	0.1946
MAE	0.1716	<u>0.1389</u>	0.1377



AI

2023 Defense Signal and Frequency Dataset Development Project

Duration 2023 ~ 2026

Client Ministry of National Defense

Objective Construction of a dataset to enhance the completeness of defense signal data

Scope of Work

Data Extraction

Outlier and Missing Data Handling Methods

Exploratory Data Analysis and Visualization

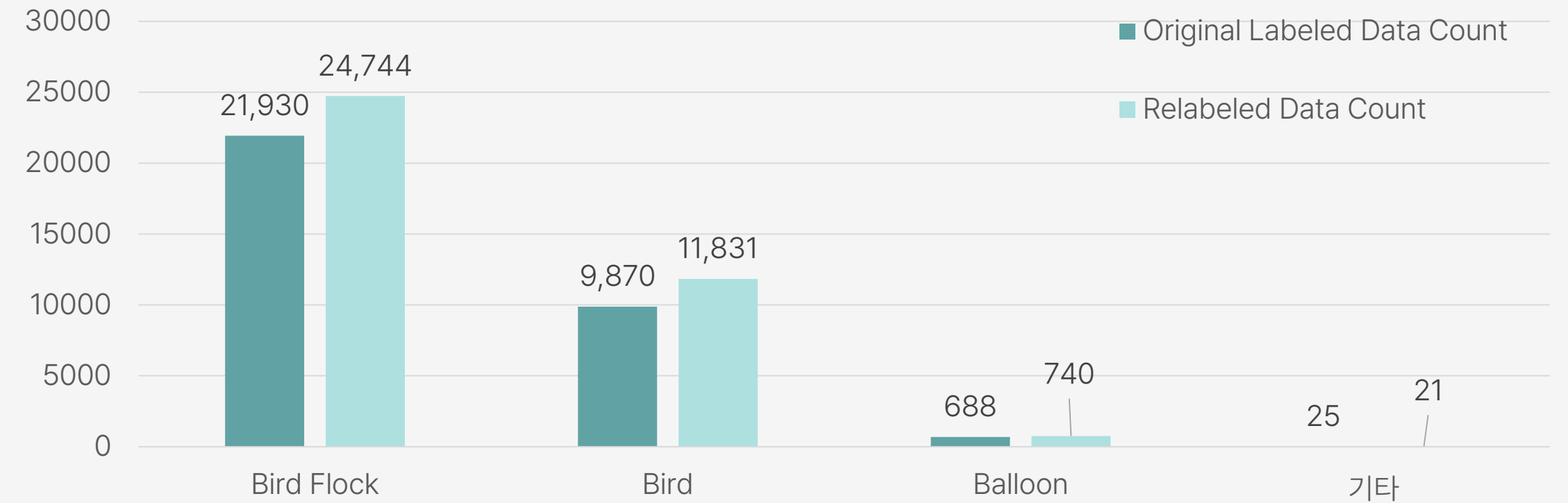
Dataset Development

AI Algorithm Analysis

Delivery of Software and Hardware

Key Achievements

◆ Increase in Labeled Data Volume



◆ Additional Analysis of AI Algorithms

Algorithm	Description
MLSTM-FCN	Captures global sequence information using the LSTM branch Encodes local patterns through the FCN branch and integrates both branches using sequence attention
Inception-Time	Applies parallel convolutional filters of different sizes to learn multi-scale temporal features
Inception-TimeSE	Integrates an SE (Squeeze-and-Excitation) module into the Inception architecture Applies channel-wise attention after extracting multi-scale features
Conformer	Hybrid architecture stacking convolution, self-attention, and feed-forward networks sequentially



Business Areas

Key Project Highlights



BIG DATA

2025 Busan Pseudonymized Data Utilization Promotion Support Project

Duration Apr 21, 2025 – Dec 31, 2025

Client Busan Technopark

Objective Consulting, Analytics, Promotion, O&M, Training

Scope of Work

Consulting for pseudonymized data utilization

Big data analytics services based on pseudonymized data

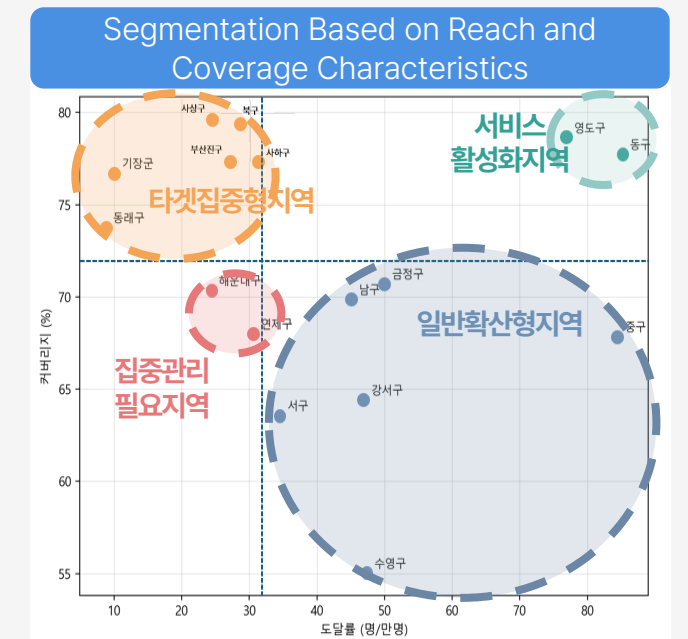
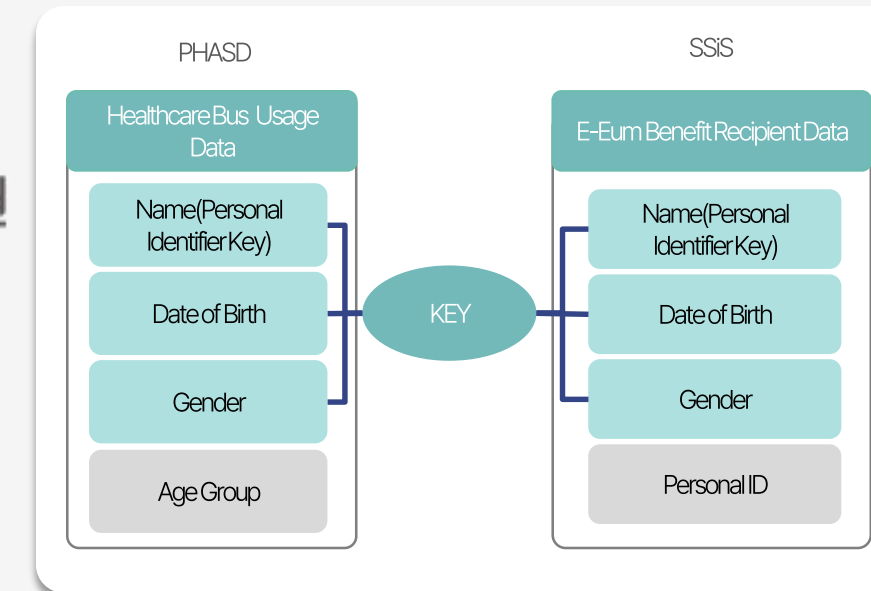
Promotion of the support center

Infrastructure operation and maintenance

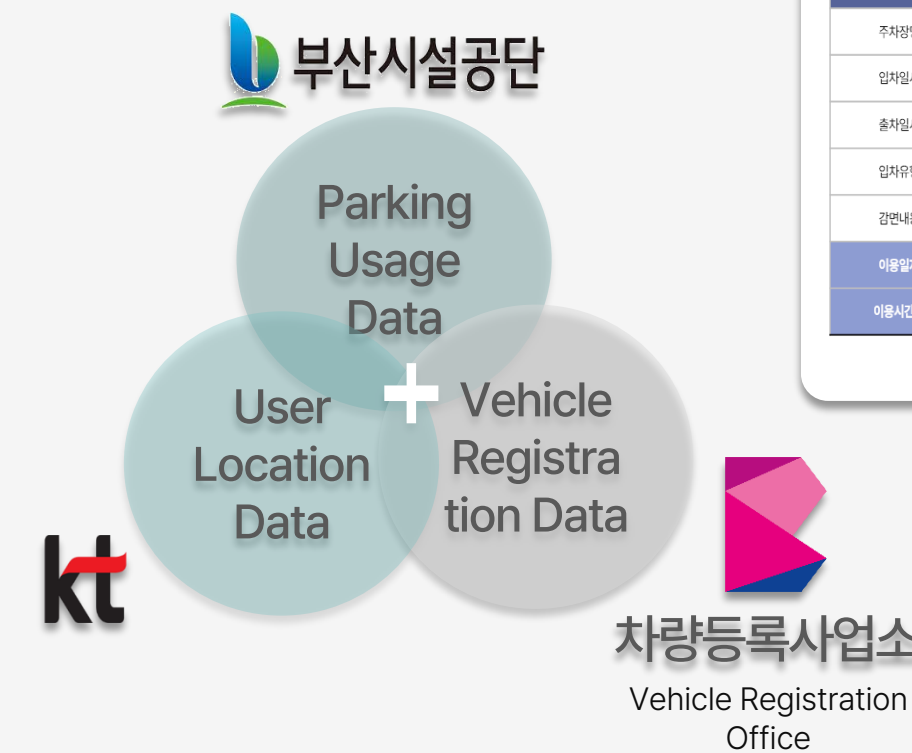
Training and seminar management

Key Achievements

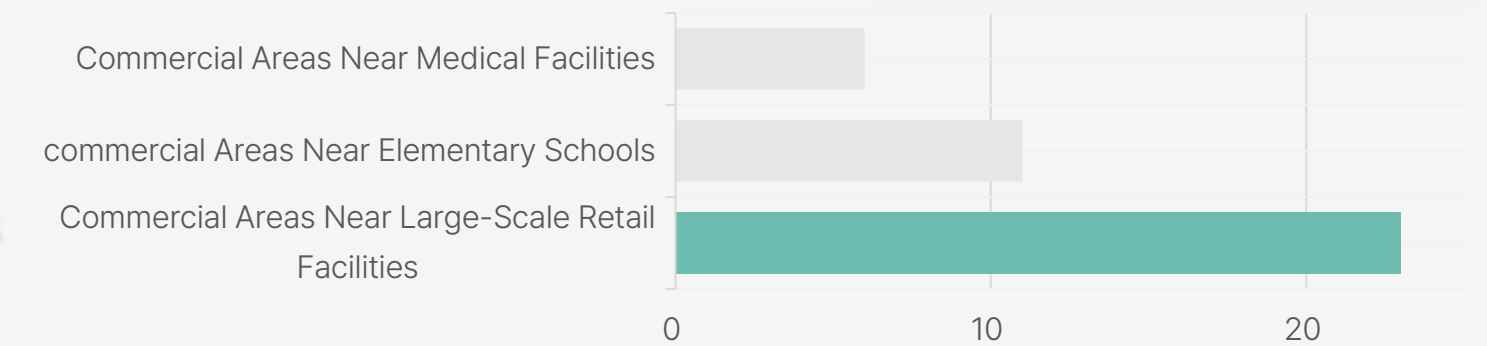
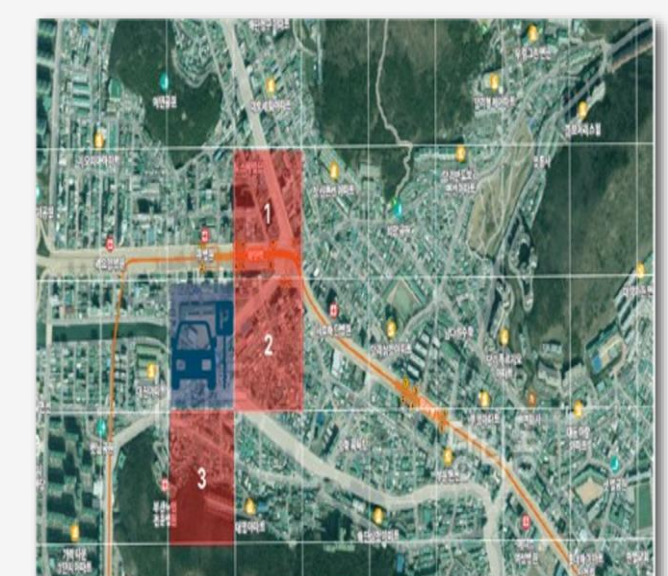
A Study on Healthcare Service Coverage Assessment and Service Operation Optimization Based on User Characteristics of Healthcare Buses



A Study on Operational Efficiency Improvement Based on Public Parking Usage Data Near Subway Stations



Busan Infrastructure Corporation	Vehicle Registration Office	KT
주차장이용정보	차량등록정보	이용차위차정보
차량번호	차량번호	여간상주지
주차장명	성명	성명
입차일시	생년월일	생년월일
출차일시	성별	성별
입차유형	차량종류	연령대
간면내용		계좌ID
이용일자	차량번호	이용일자
이용시간대		이용시간대
		존제목적





BIG DATA

Busan Data Analysis Consulting Project

Duration 2023, 2024, 2025

Client Busan Metropolitan City

Objective Derivation of policy implications based on big data and support for addressing key municipal issues

Scope of Work

Analysis of Current Status in Key Industrial Areas in Busan

Analysis of Changes in Seafood Distribution (Wholesale Market) Supply and Demand

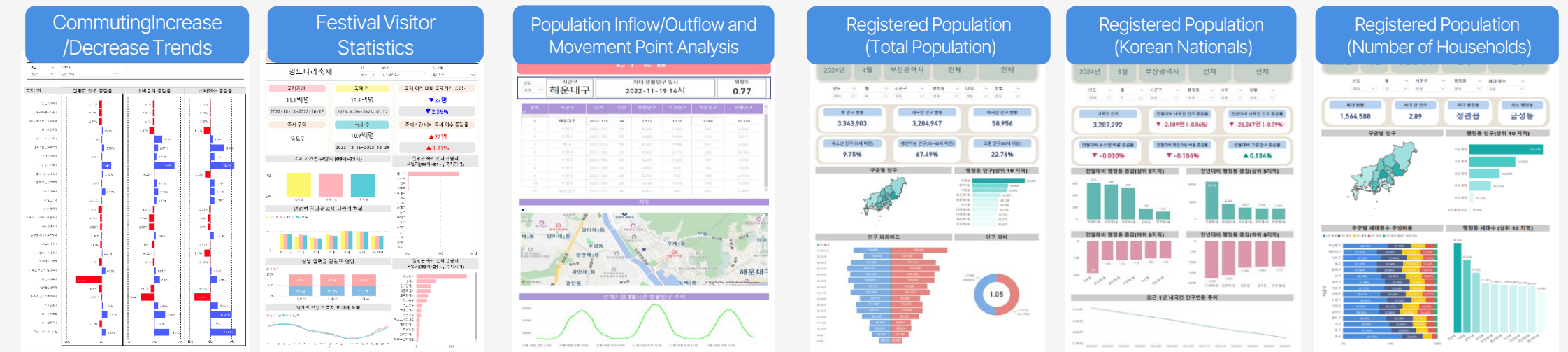
Development of Data Visualization Dashboards

Data Collection and Storage

Data Processing and Storage

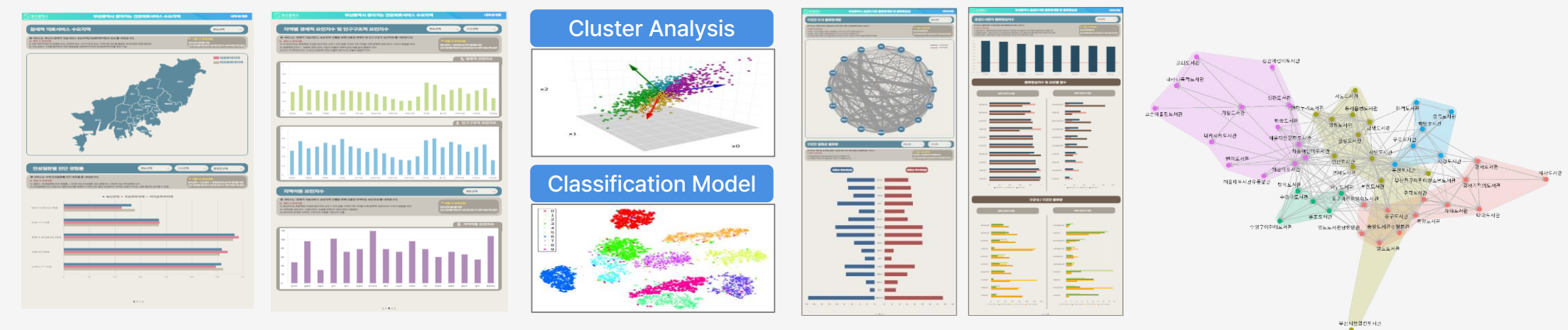
2023

Analysis Topics : Festivals, Crowd Concentration, Population Statistics



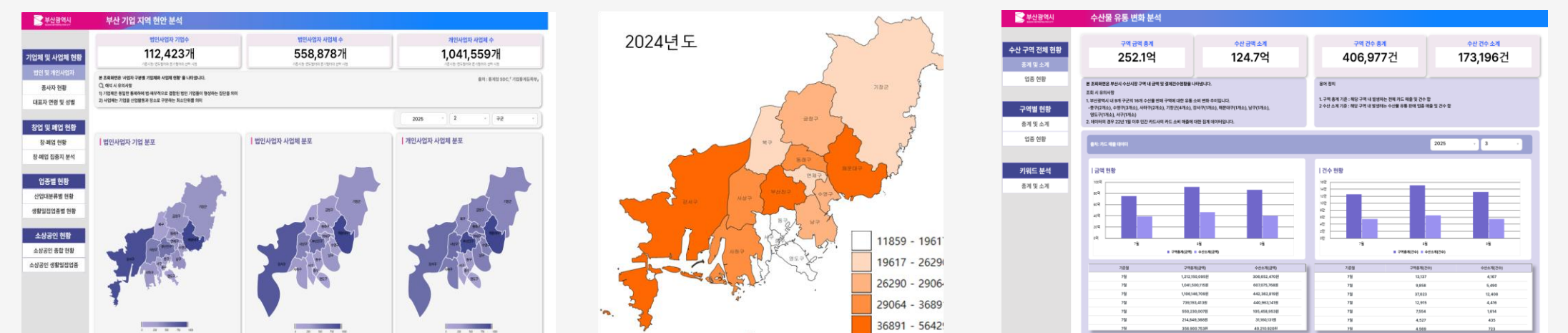
2024

Analysis Topics : Healthcare Bus, Complaint Analysis, Library Logistics



2025

Analysis Topics : Industry, Visitors, Seafood, Seniors, Isolation





BIG DATA

Busan Data Analysis Consulting Project

Duration 2023, 2024, 2025

Client Busan Metropolitan City

Objective Derivation of policy implications based on big data and support for addressing key municipal issues

Scope of Work

Analysis of Current Status in Key Industrial Areas in Busan

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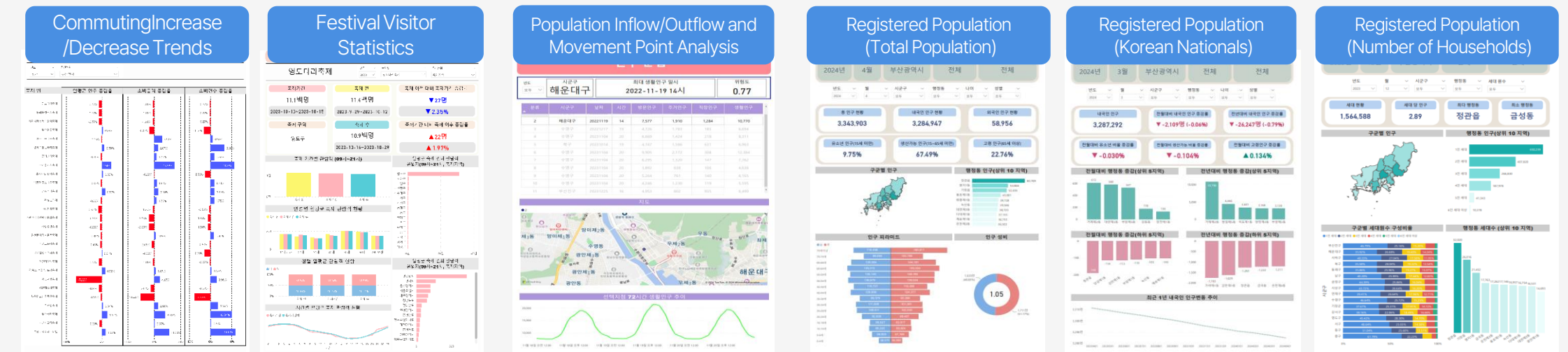
Development of Data Visualization Dashboards

Data Collection and Storage

Data Processing and Storage

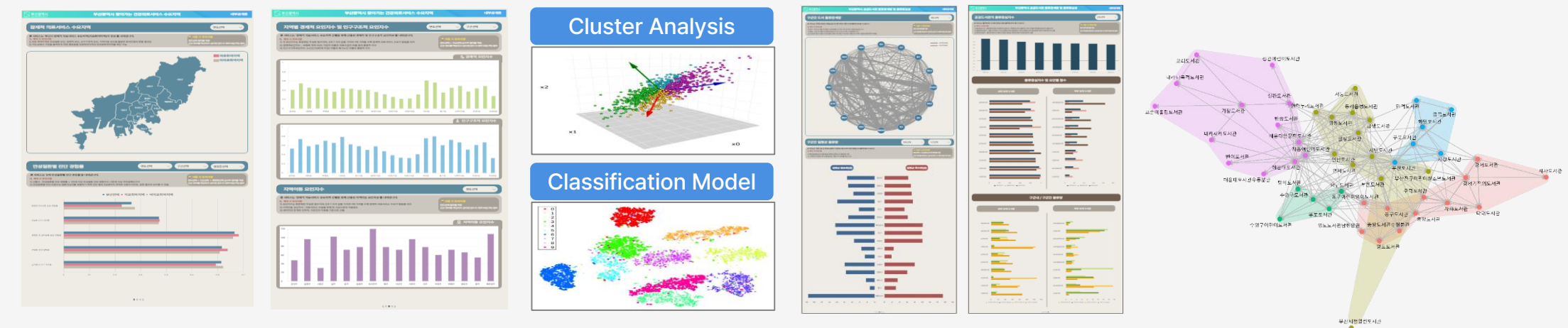
2023

Analysis Topics : Festivals, Crowd Concentration, Population Statistics



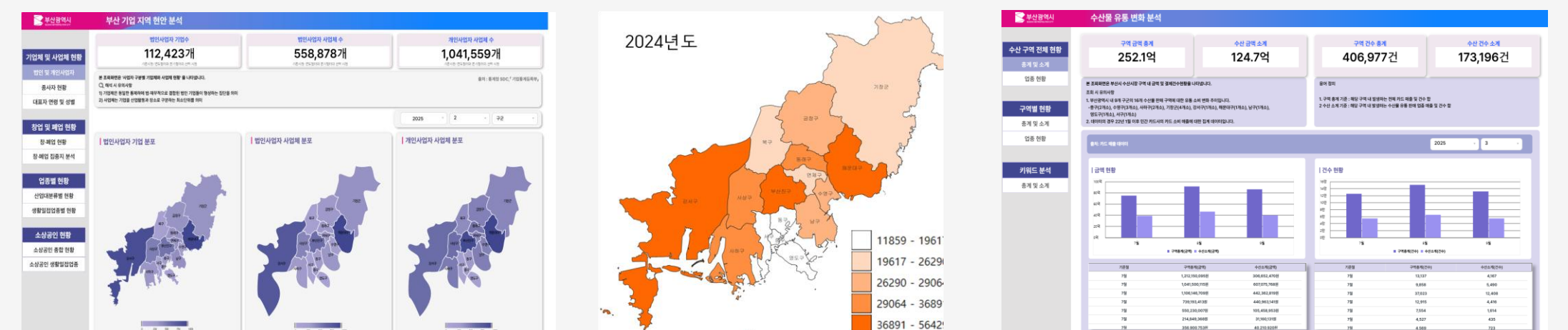
2024

Analysis Topics : Healthcare Bus, Complaint Analysis, Library Logistics



2025

Analysis Topics : Industry, Visitors, Seafood, Seniors, Isolation





Business Areas

Key Project Highlights



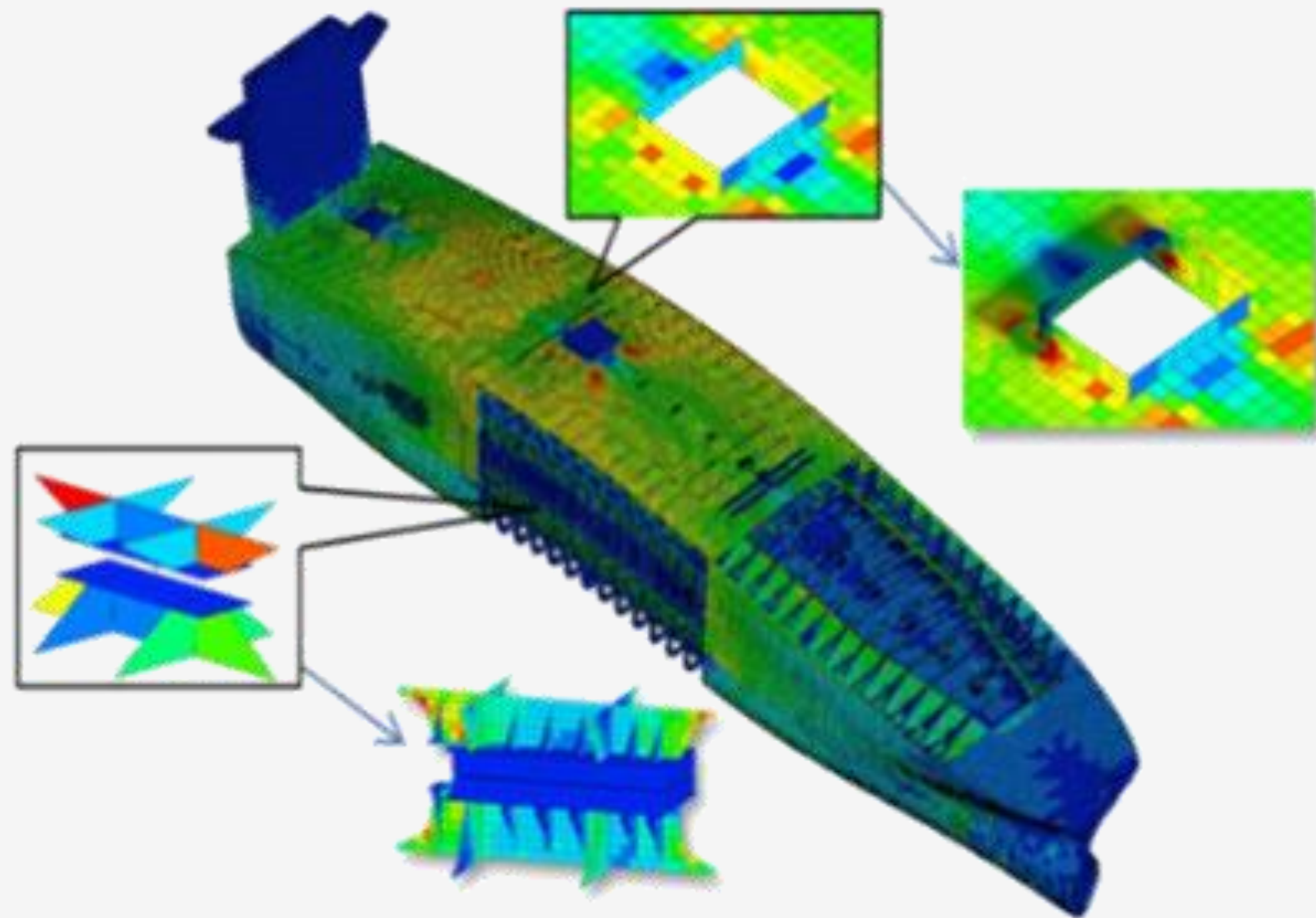
Shipbuilding & Maritime

Korean Register Engineering SW Cloud Service Maintenance (Rescale)

Duration 2023 ~ 2026

Client Korean Register

Objective Maintenance and operation support for the Korean Register engineering SW cloud platform to ensure stable service delivery



Rescale: Cloud-based SaaS HPC Platform

Zero Footprint SaaS Platform

Speed
Remote visualization on the cloud for pre- and post-processing

Collaboration
Store and results and

User Experience
Easy-to-use web-based simulation workflow including pre- and post-processing

Software Templates
Optimized hardware configuration, cloud parameters, and

이름	상태	호스트 유형	포트 수	호스트 맵핑	호스트 클러스터 이름	호스트 클러스터 이름
NEW_ESX11	✓ 온라인	일반	4	아니오		
NEW_ESX12	✓ 온라인	일반	4	아니오		
NEW_ESX13	✓ 온라인	일반	4	아니오		

시스템 하드웨어 - 개요

제어 격납장치 1 ✓ 온라인

격납장치 ID: 1 MTM: 2072-2N4 S/N: 781R1H5 FRU P/N: 03GU893

드라이브

노드 캐니스터 어댑터

파이버 채널 포트 iSCSI 포트

SAS 포트 USB 포트

저널링

NEW_ESX11 ✓

4 포트

1 맵핑된 볼륨

액세스: io_grp0

볼륨 구성

이름	상태	동기화됨	폴
Data1	✓ 온라인		Pool0

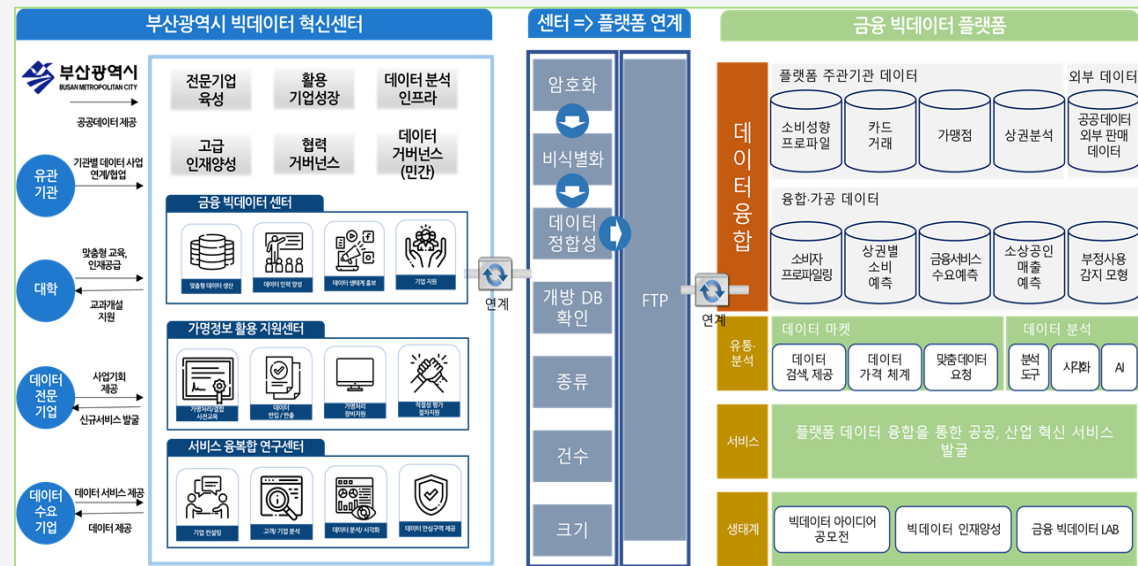


Business Areas

Key Project Highlights



System Integration



구분	목표	실적	달성률(%)	비고
데이터 이용기업	30개	65개	216	초과달성
신규 개방 데이터	9종	9종	100	목표달성
전문인력 양성	30명	71명	237	초과달성
우수성과 사례 발굴	1건	1건	100	목표달성

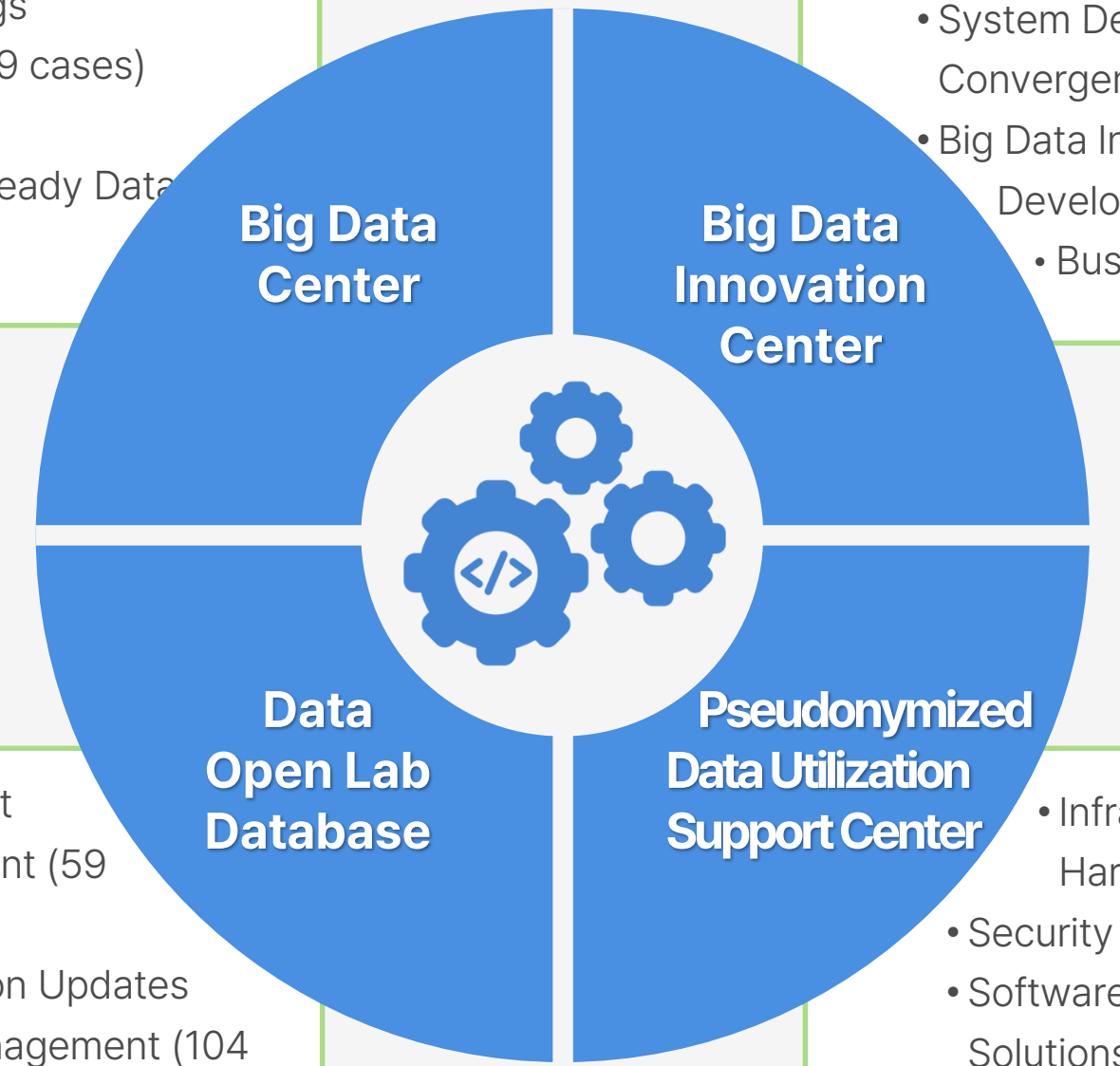
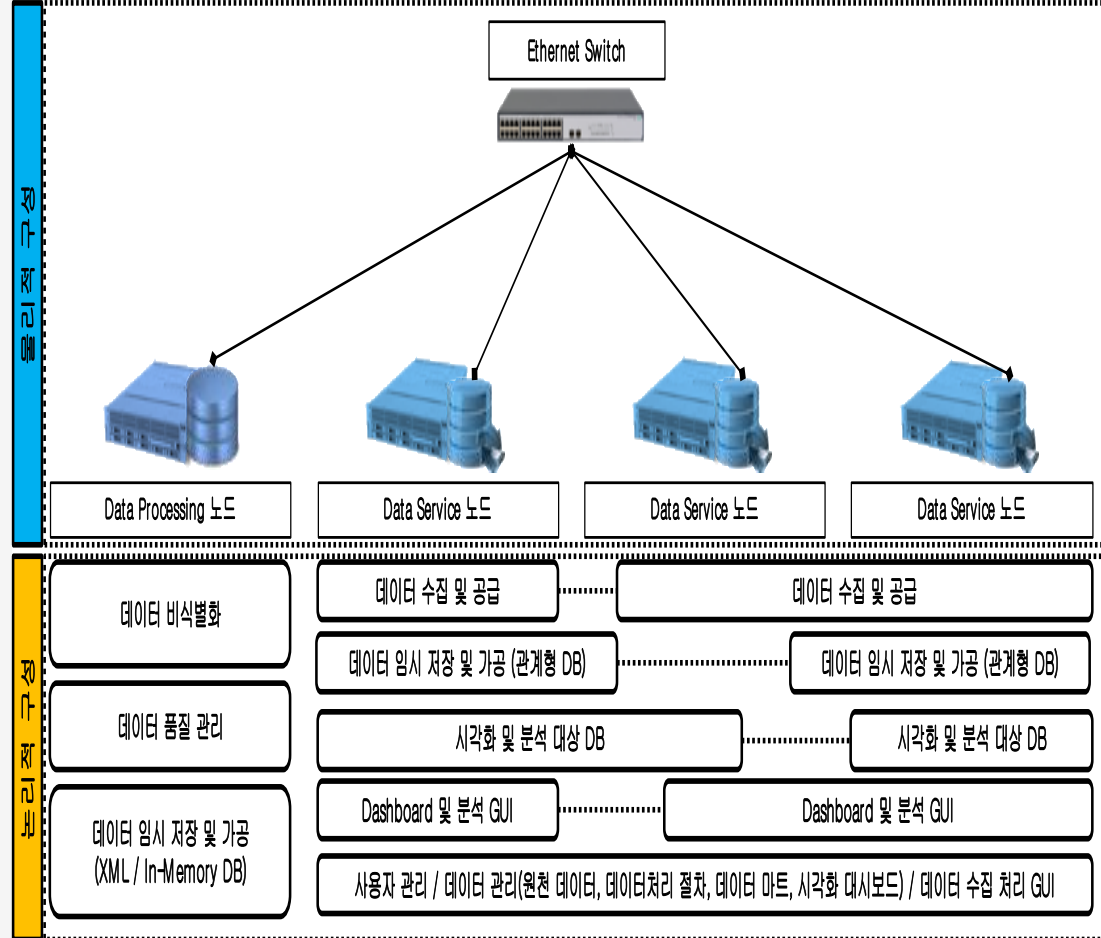


2022 Big Data Center Development Project (Finance Sector)

- Customized Public Data DBs (9datasets)
- Big Data Utilization Briefings
- Public Data Case Studies (9 cases)
- Professional Training
- Development of Industry-ready Data Experts

Busan Big Data Innovation Center Data Development and Consulting

- Commercial Area Analysis (Service Convergence Research Center)
- System Development (Service Convergence Research Center)
- Big Data Innovation Center System Development
- Busan Bank System Development



- Data Quality Management
- New Data DB Development (59 datasets)
- Metadata & Data Definition Updates
- Existing Data Quality Management (104 datasets)
- Open API Development & Operation (62 APIs)

- Infrastructure Setup (Server & Hardware)
- Security System Implementation
- Software Deployment (Office, Security Solutions)
- Pseudonymized Data System DB Development

2024 Data Open Lab DB Development, Quality Management, and Service Discovery

Pseudonymized Data Utilization Support Center Development

2. 오류 원인 별 오류 유형

2.1 데이터 값 오류 유형

■ 허용 값 오류

해당 필드의 허용된 값 외의 다른 값이나 비어있는 오류

오류 메시지	개시일
○ "사내번호" 필드의 허용된 "1", "2"과 외의 "3", "4"와 일치하지 않는 오류	2024.01.15

■ 허용 값 외 오류

해당 필드의 유효한 값의 범위를 벗어난 값이 존재하는 오류

오류 메시지	개시일
○ "2024년" 필드에 유효한 값의 범위를 벗어난 값이 존재하는 오류	2024.01.15

2.2 품질오류 원인

데이터 값 오류

데이터 구조 오류

정상데이터, CHK 1 오류, CHK 2 오류, CHK 3 오류, CHK 4 오류, CHK 5 오류, CHK 6 오류, CHK 7 오류, CHK 8 오류, CHK 9 오류, CHK 10 오류



THANK YOU

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