HANCOM InSpace

### Business Area.

### **All-in-One Space Data Fusion Decision Support**

Earth Observation Image Data + Geospatial Data + Open Source



## Business Area.

Comprehensive Solutions for Multi-Intelligence Systems Integrating Spatial Information and Multi-Domain Data for Advanced Services								
	Earth Observation		GIS & Spatial Analysis	Positioning & Navigation				
Hardware	CubeSat (Sejong series), Drones, Drone-in- a-box, long-range surveillance cameras		<ul> <li>InStation: Multisource data management, processing, analysis, and visualization platform</li> </ul>	Systems	Maritime PNT systems, enhanced long- range navigation (eLoran), and mission			
Software	OBC(On Board Computer with RTOS + FSW)	Products	ORCA: A lightweight ecosystem of modular software, each dedicated to a	Operational Focus	System deployment, maintenance			
Systems	Control and data management system for satellite constellations and drone operations		specific core function of InStation					
Operational Focus	Product development, customization, maintenance	Operational Focus	Product sales, system deployment, maintenance					
Data Ana	Ivsis Security and Patrol Support			Eacility Mon				

### Business Workflow.

End-to-End Cloud-Based Integration Solutions from Spatial Data Collection to Analysis, Storage, Search, and Visualization								
Collection		Analysis		DB Integration		Search		Visualization
Multi-Domain Data Sources		egrated Multi-Intelligence	1.17	Big Data Storage		High-Speed Search		

# Core Business.

Ground Station Subsystem Development for Danuri: Korea's First Lunar Exploration Orbiter(KPLO)

• Satellite mission design, LUTI image data processing, and the development and operation of management systems for five scientific payloads (observation equipment) (2022-present)

eral Resources

- Participation in deep space exploration research as Korea's first private company
- Danuri's Scientific Payloads and Partner Organizations

Optical Telescope (LUTI)	Korea Aerospace Research Institute
Polarized Camera (PolCam)	Korea Astronomy and Research Institu
Magnetic Field Measurement (KMAG)	Kyung Hee University
Gamma-ray Spectrometer (KGRS)	Korea Institute of Geoscience And Mir
ShadowCam (SHC)	NASA (ASU)



Major Ground Station Subsystem Developed and Operated by HANCOM InSpace
Meteorological Satellite GK-2A Data Management System (Ground data management for the Korea Meteorological Administration)
Environmental Satellite GK-2B Ground Station Subsystem (Global environmental monitoring and analysis)
Water Resources Monitoring Ground Station Subsystem (Drought monitoring)
KOMPSAT Series Ground Station Subsystem (Control, mission planning, scheduling, and data management)
Nanosatellite Ground Station Subsystem (Operation of nanosatellite constellation and data management)



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# Core Business.

Development of Global Surveillance and Reconnaissance Software

- Independently developed satellite image collection, management, and analysis software to replace reliance on overseas solutions
- Al-powered analysis of optical and infrared imagery
- Capabilities for AI model retraining and dataset creation and management
- Overlay and presentation of analysis results using a terrain database
- Deep learning-based SAR image analysis services, operable in all weather and lighting conditions









Advanced Image Analysis Software Developed by HANCOM InSpace

 Multi-Source Image Fusion System: Tailored for military surveillance and reconnaissance
 InStation: Web-based multisource image processing and analysis platform

 InStation: Web-based multisource image processing and analysis platform
 InExplorer: GS-Certified solution for image cataloging

 InViewer: GS-Certified solution for image visualization and processing
 InSight: GS-Certified solution for image analysis







# Core Business.

### Sejong-1, Korea's First EO Commercial Satellite

Name HANCOM Sat (Sejong-1)									
Size	100 x 200 x 300 mm (6U Cubesat)								
Weight	10.8kg								
Altitude	500km								
Swath	20km								
VNIR	7Bands	7Bands							
Band	1	2	3	4	5	6	7	A CARDON	
Center Wavelength	490	560	665	705	740	783	842	and the second second	
Resolution	5m GSD								
Revisit Time	5-7Days								
Orbital Lifespan 3Years						· · · · · · · · · · · · · · · · · · ·			

- Offers satellite image sales services through a comprehensive system for ordering, imaging, and distribution
- Equipped with a red-edge band, optimized for vegetation index analysis of crops and forests
- Delivers change detection analysis services tailored for specific areas of interest
- Applicable across various fields, including agricultural environment analysis, forest resource management, disaster monitoring, and urban change detection



#### Sejong-2 (Launch Scheduled: June 2025)

- Same size and resolution as Sejong-1
- 8 multispectral bands
- Specialized in marine and agricultural monitoring as well as urban change detection missions

#### Sejong-3 (Launch Scheduled: October 2025)

- Same size and resolution as Sejong-1
- 32 hyperspectral bands
- Specialized for analyzing wildfire damage, air pollution, and river water quality assessment

#### Sejong-4 (Launch Scheduled: November 2025)

- Same size and resolution as Sejong-1
- 8 multispectral bands
- Incorporates a domestically developed OBC (Real-Time Operating System : NEOS + FS)

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