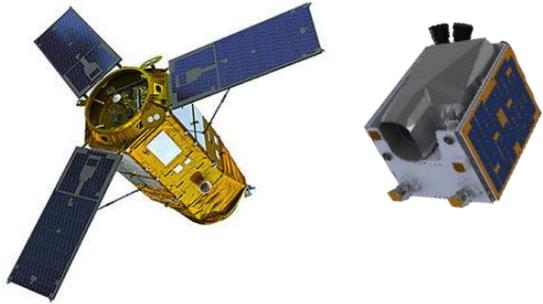
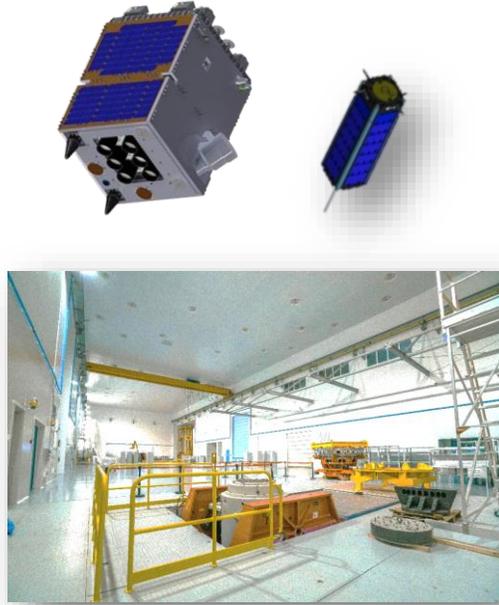


# SPACE SYSTEMS PRODUCTION IN KAZAKHSTAN



## 2009-2014 Engineer training programs

- KazEOSat-1
- KazEOSat-2
- Airbus (Intespace) AITC



## 2014-2018 First steps

- KazSTSat
- KazSciSat
- National AITC & Production facilities



## 2018-2023 Components & sub-systems

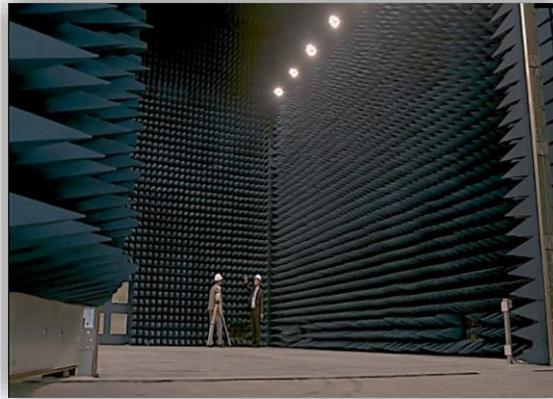
- On-board computer
- Power supply system
- Ground station
- On-board software
- Harness, mech. parts



## 2023-2030 Status & Plans

- KazEOSat-MR / 23-26
- KazSTSat-2 / 23-25
- KazEOSat-HR / 25-27
- KazSAT-3R / 25-29
- KazEOSat-VHR / 27-30

# ASSEMBLY, INTEGRATION AND TESTING FACILITY

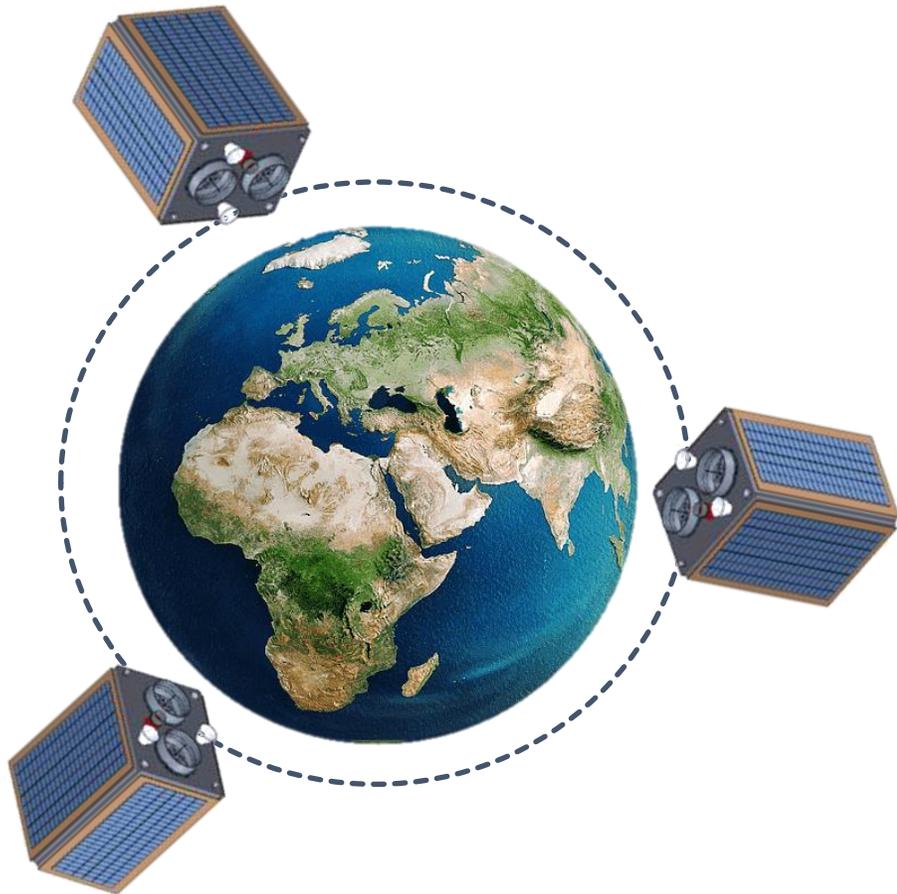


## Assembly, Integration and Testing (AIT) facility:

- Assembly hall for spacecraft with a mass up to 3600 kg
- Testing and manufacturing workstations
- Certified and qualified personnel

**Certified by Airbus Defence & Space**

## MEDIUM RESOLUTION EARTH OBSERVATION SATELLITE CONSTELLATION



### Major objectives

- Application in the agricultural sector, environmental monitoring, natural resources, etc.

### Constellation capacities

- Imaging productivity: 1 400 000+ km<sup>2</sup>/day
- AOI revisit time: 1+ time per day

### MR satellite parameters

- Resolution GSD: 2 m
- Spectral bands: 11 + SWIR
- Swath width: ~ 44 km (nadir)

**Project Timeline- 2023-2026**

## HIGH RESOLUTION EARTH OBSERVATION SATELLITE CONSTELLATION



### Major objectives

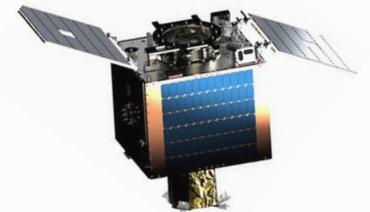
- Application in land use, design and construction of engineering structures, exploration of mineral wealth, creation of topographic maps

### Constellation capacity

- Imaging productivity: 600 000 km<sup>2</sup>/day
- AOI revisit time: 1+ time per day

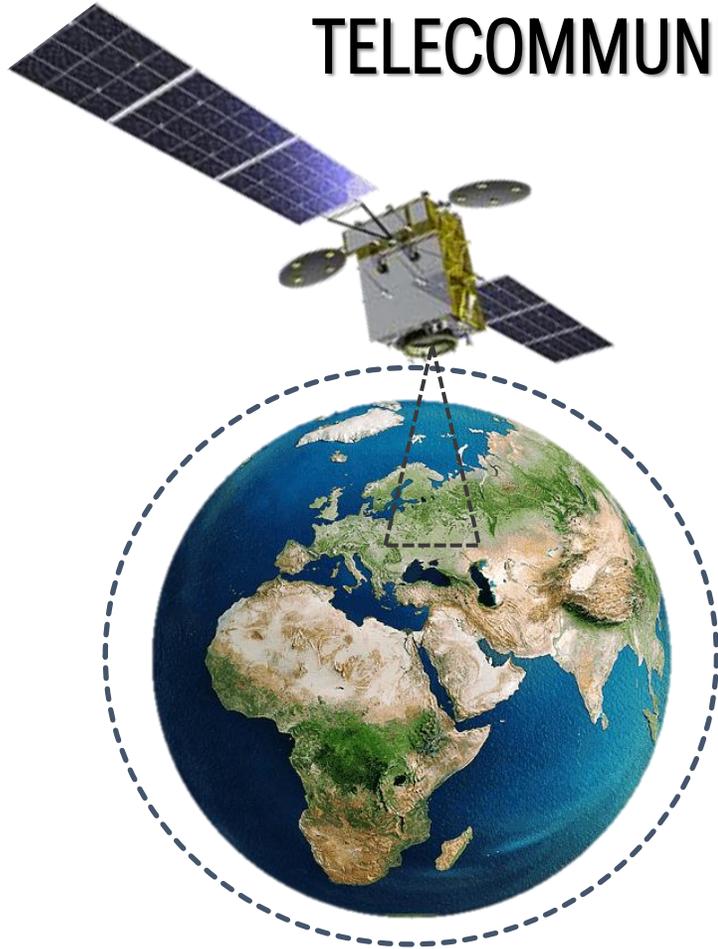
### HR satellite parameters

- Resolution GSD: 0,7 m
- Spectral bands: 5
- Swath width: ~ 12 km (nadir)



**Project Timeline: 2025 - 2027**

## TELECOMMUNICATION SPACE SYSTEM REPLACEMENT PROJECT



### Major objectives

- Replacement of current Telecommunication space systems (KazSAT-2 and KazSAT-3)

### Minor objectives

- Transfer of telecommunication Space system technologies
- Utilization of National AIT facilities

**Project timeline: 2025 - 2029**

# KAZAKHSTAN'S SPACE PROGRAMS



**GHALAM INVITES YOU TO UNITE FOR THE REALIZATION OF COMMON GOALS**