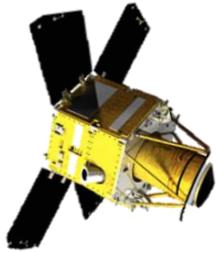


# Mohammed Bin Rashid Space Centre

- Emirates Institution for Advanced Science and Technology (EIAST) was established in February 2006.
- On April 18th, 2015: a decree has been issued to incorporate EIAST in the newly established:

## Mohamed Bin Rashid Space Center (MBRSC)



- **Vision:**

“To be recognized globally as a center of excellence in the field of space science and technological innovation.”

- **Mission:**

“To build a sustainable Science and Technology sector that contributes to the national knowledge based economy, through the launch and implementation of advanced space projects, and prepare a generation of Emirati scientists, to take our country towards a brighter future.”

## Main Objectives:

- Tech and Know-How Transfer for satellite Development
- Continuous Manpower Development
- Meeting the continuous need of spatial information and EO data of the UAE



	DubaiSat-1	DubaiSat-2
<b>Altitude (km)</b>	680	600
<b>Mass</b>	~ 200 kg	< 300 Kg
<b>Spatial Resolution</b>	PAN 2.5m, MS 5m	PAN 1M, MS 4m
<b>Data Quantization</b>	8-bits	10-bits
<b>Mass Storage</b>	64 Gbits	256 Gbits
<b>Imaging Modes</b>	Single Strip	Single Strip Fast Multi-Strip Single Pass Stereo
<b>Data Download Speed</b>	30Mbps	160Mbps
<b>Swath Width (km)</b>	20	12
<b>Launch date</b>	29 <sup>th</sup> July 2009	21 <sup>st</sup> Nov 2013



- KhalifaSat is MBRSC's 3rd Earth Observation Satellite.
- 100% developed by Emirati engineers.
- The four year programme to develop KhalifaSat began in 2013.
- Completed PDR and SDR.
- Completed CDR meeting in Dec 2015.
- Recently signed a launch agreement with Mitsubishi Heavy Industries, Ltd (MHI); to launch KhalifaSat together with GOSAT-2 onboard H-IIA launch vehicle in Q1 2018.

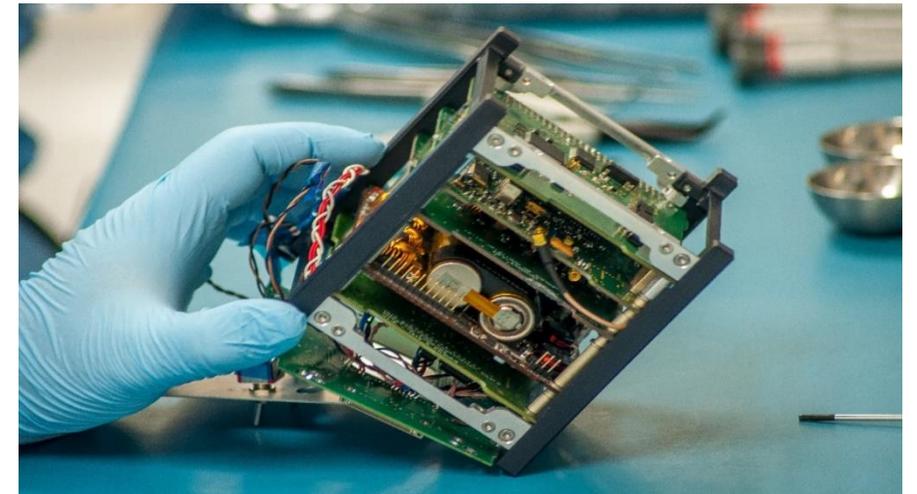
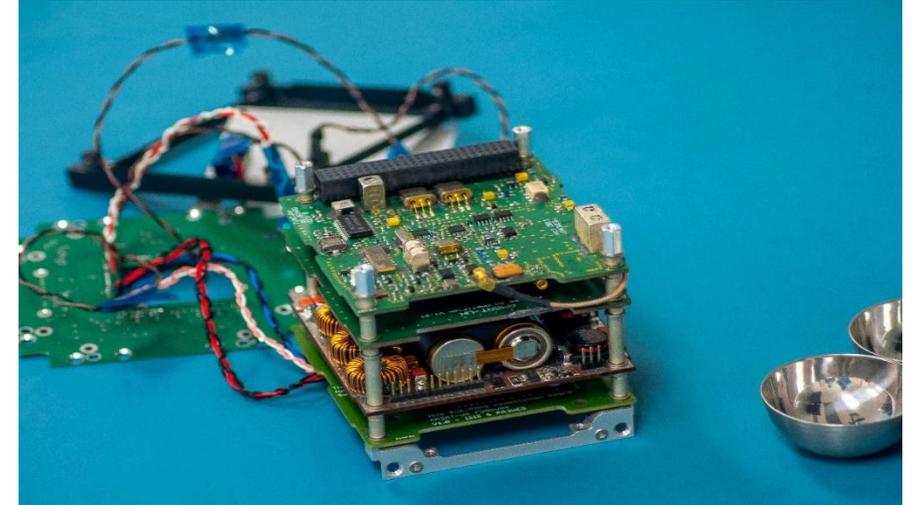


- Engage university students to design, develop, test, launch and operate Nano-satellites.
- Encourage students to apply the knowledge gained from university courses.
- Prepare future Emirati workforce to support UAE's ambitious space exploration missions.
- Support the sustainable development of science and technology in the UAE



# Nayif-1 CubeSat Mission

- Nayif-1 is considered UAE's first CubeSat Mission.
- It will be built in partnership with the American University of Sharjah (AUS) and the implementation partner "Innovative Solutions in Space"
- A Nanosatellite that offers hands-on experience to engineering students in the design, integration, testing, and operation of a communications satellite.



# Satellite Images Usage

## Civil Development and Construction

- Site Surveying
- Monitoring Projects Development
- Engineering and Survey



26/08/2009



18/03/2011

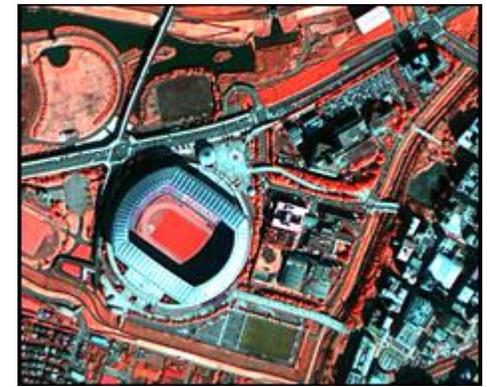
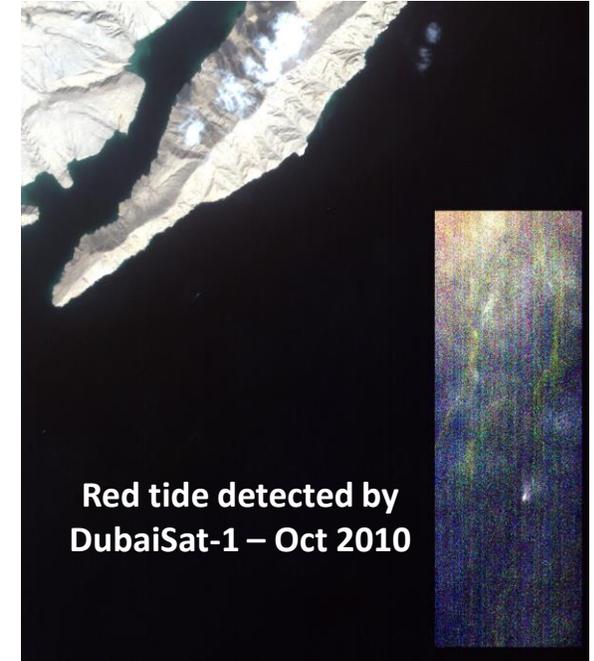


17/11/2012

Terminal 3 Project, Dubai  
International Airport

## Environment

- Detecting oil spills on land
- Monitoring land contamination
- Water quality and water resources monitoring
- Land Cover/Land Change detection



## Disaster Management and Emergency Responses



Courtesy: Google Earth



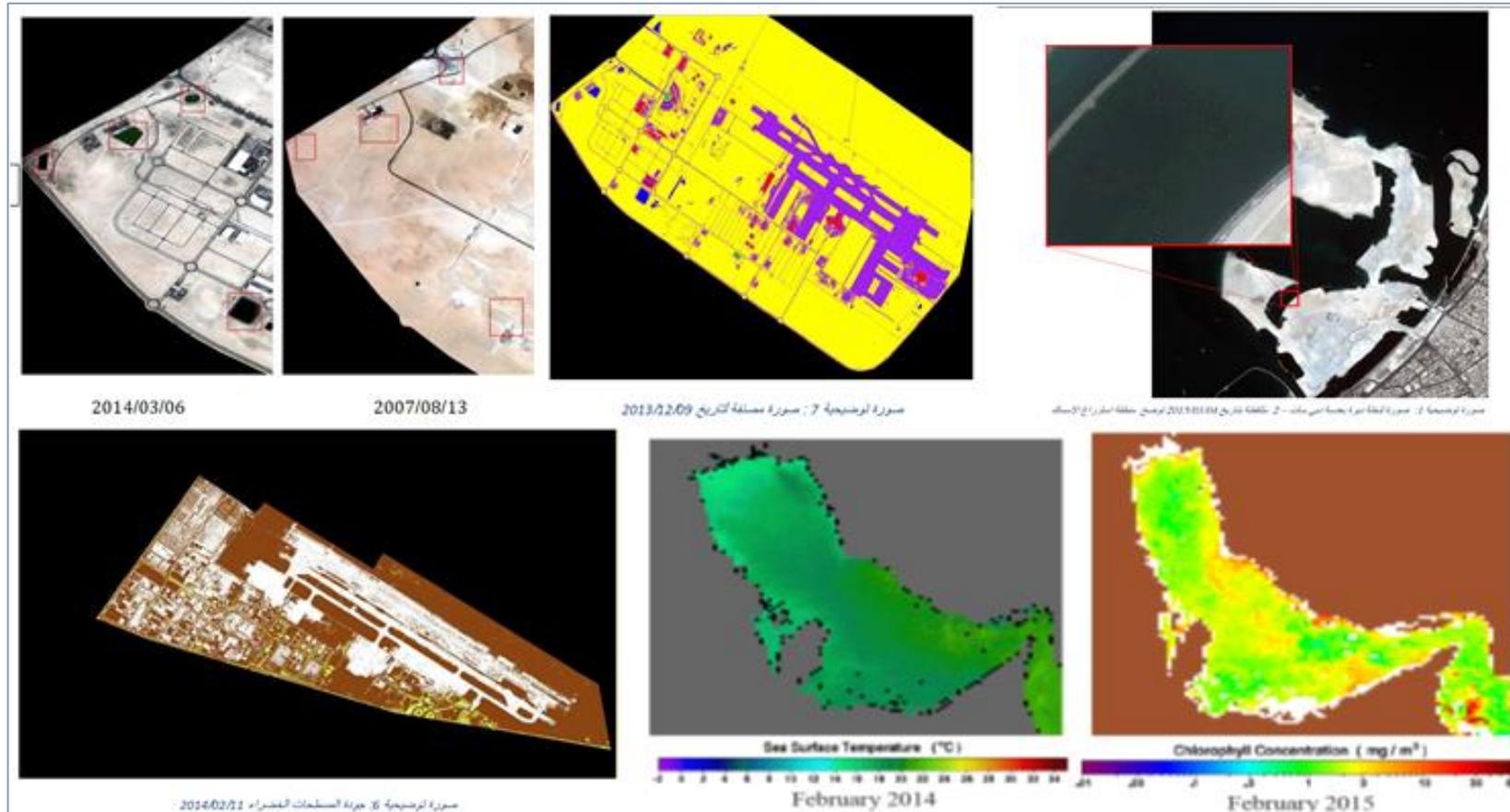
DubaiSat-1 Image: March 2011

- Satellite Images and Dubai Mosaic

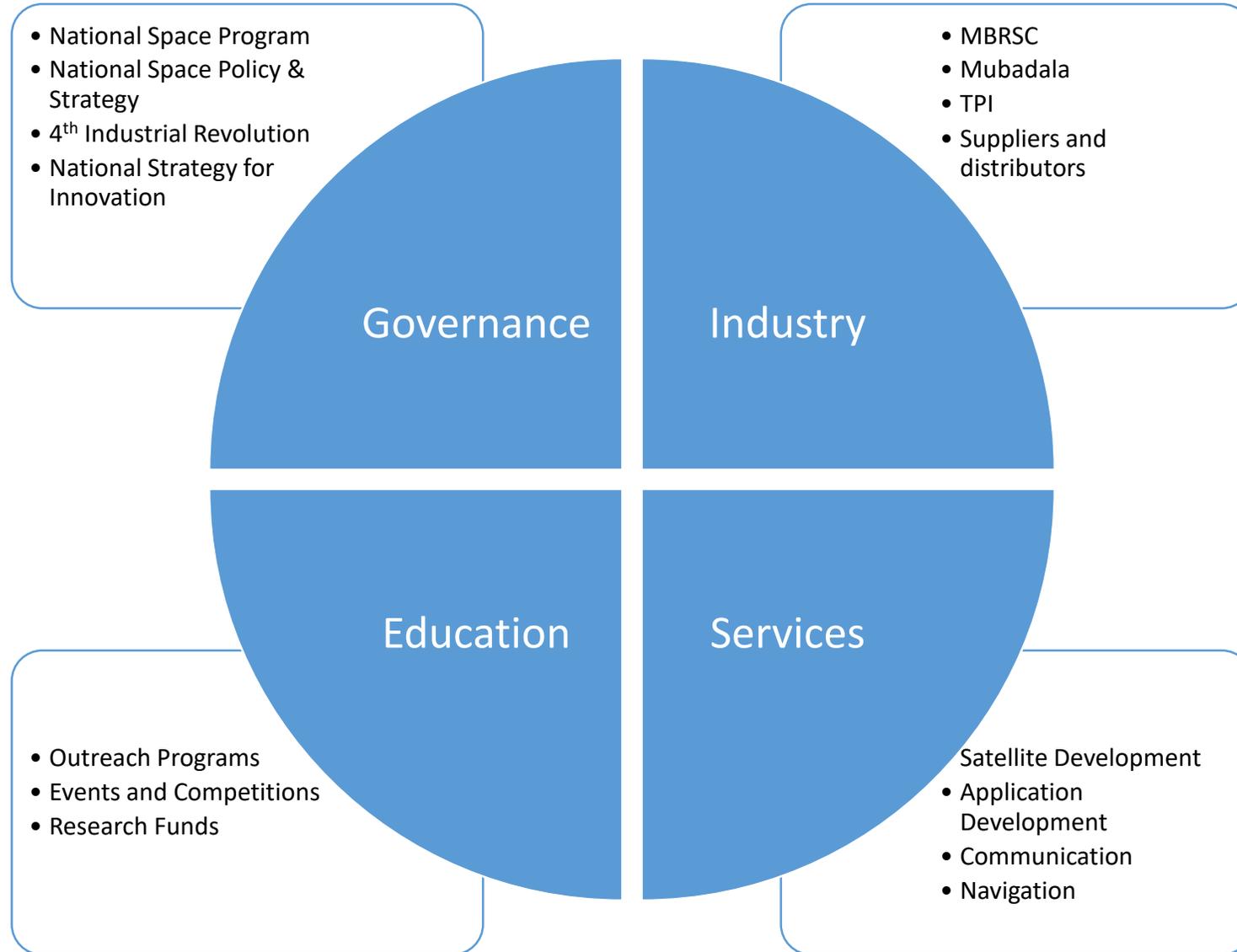


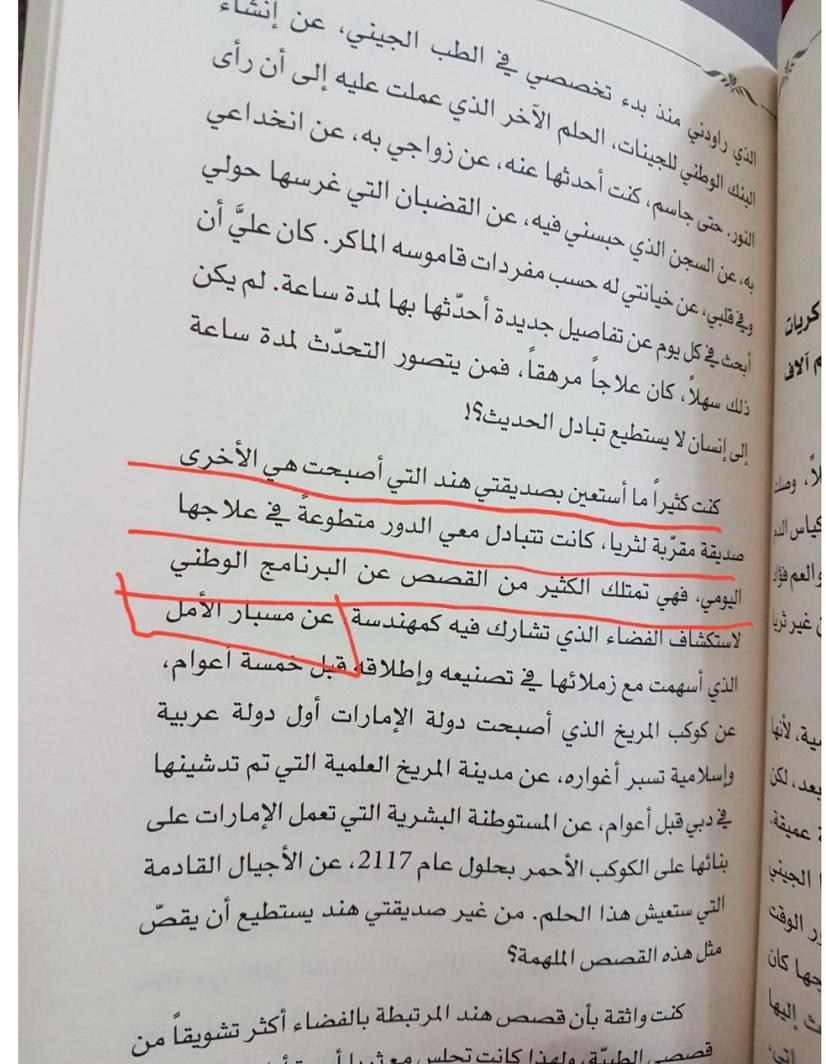
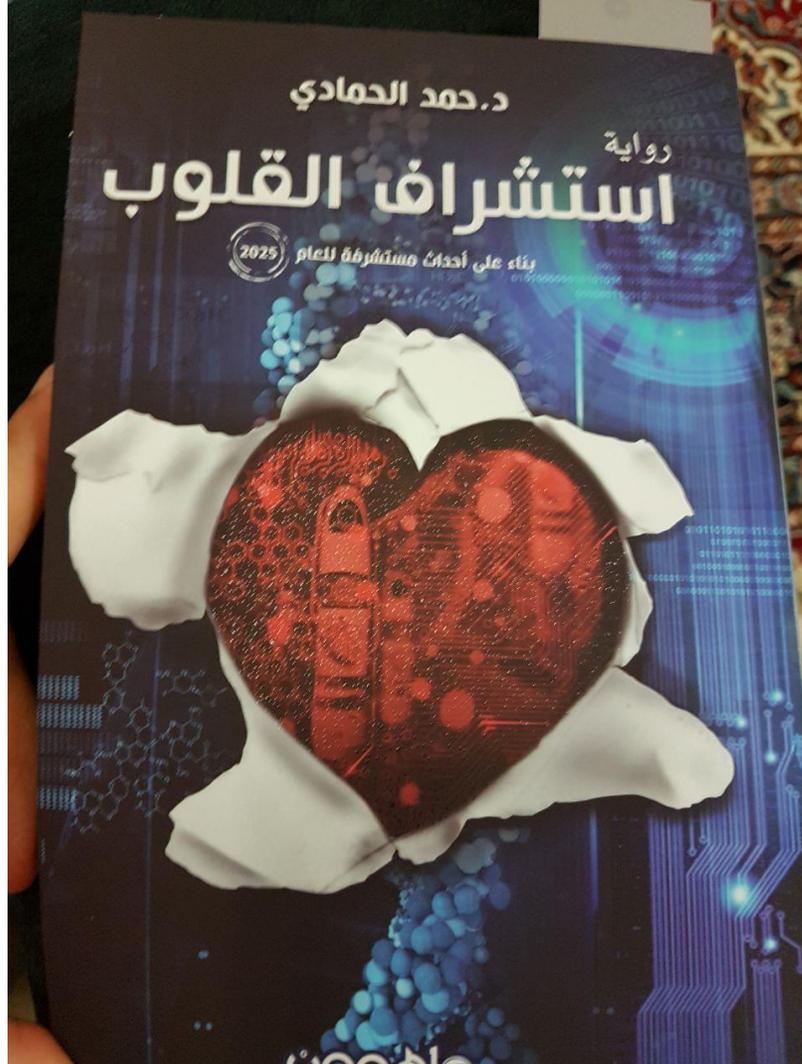
Providing 1 meter full Bundle images (Pan, MS, Pansharpened) to our clients along with added services such as mosaicking.

- Image Analysis Reports



# Why Space?





Thank you!

