



مركز محمد بن راشد للفضاء

MOHAMMED BIN RASHID SPACE CENTRE



@mbrspacecentre

Introduction to MBRSC



February
2006

Emirates Institution for
Advanced Science and
Technology (EIAST)



April
2015

Mohamed Bin Rashid
Space Centre (MBRSC)





To be recognized globally as a
centre of excellence in the field of
space science and technological
innovation



To enable the UAE to effectively
create, use and exploit space
science technologies and
applications.





MBRSC Team



Emiratization: 100%



More than 200
employees

The UAE National Space Programme



Mars 2117



UAE Astronaut Programme



Emirates Mars Mission "Hope Probe"



Satellite Development Programme

Satellite Development Programme

Tech and Know-How Transfer
for Satellite Development:



Dubai Sat-1: 30%

Resolution: 2.5m

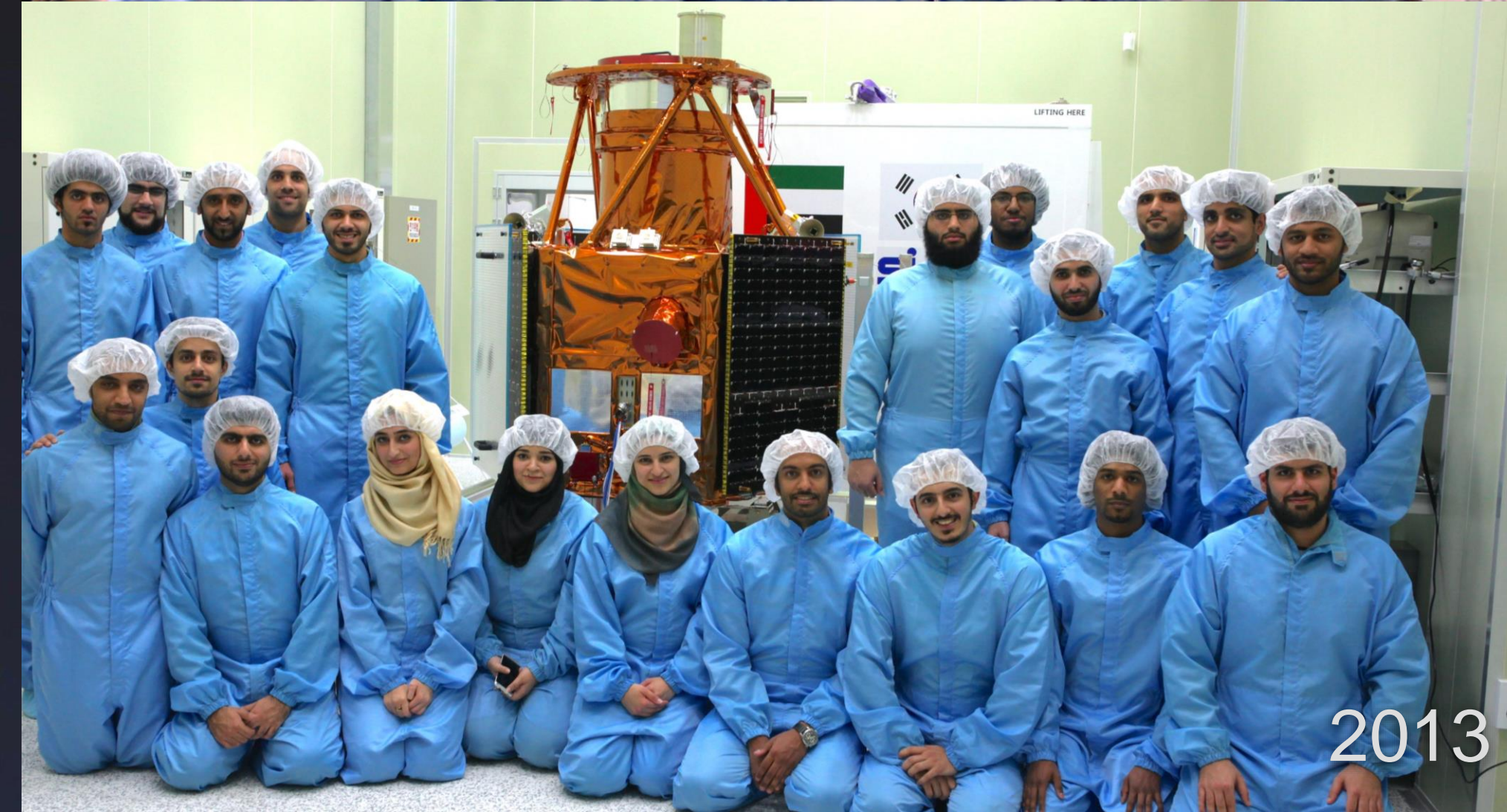
Launch date: 2009



DubaiSat-2: 50%

Resolution: 1m

Launch date: 2013





Khalifa Sat

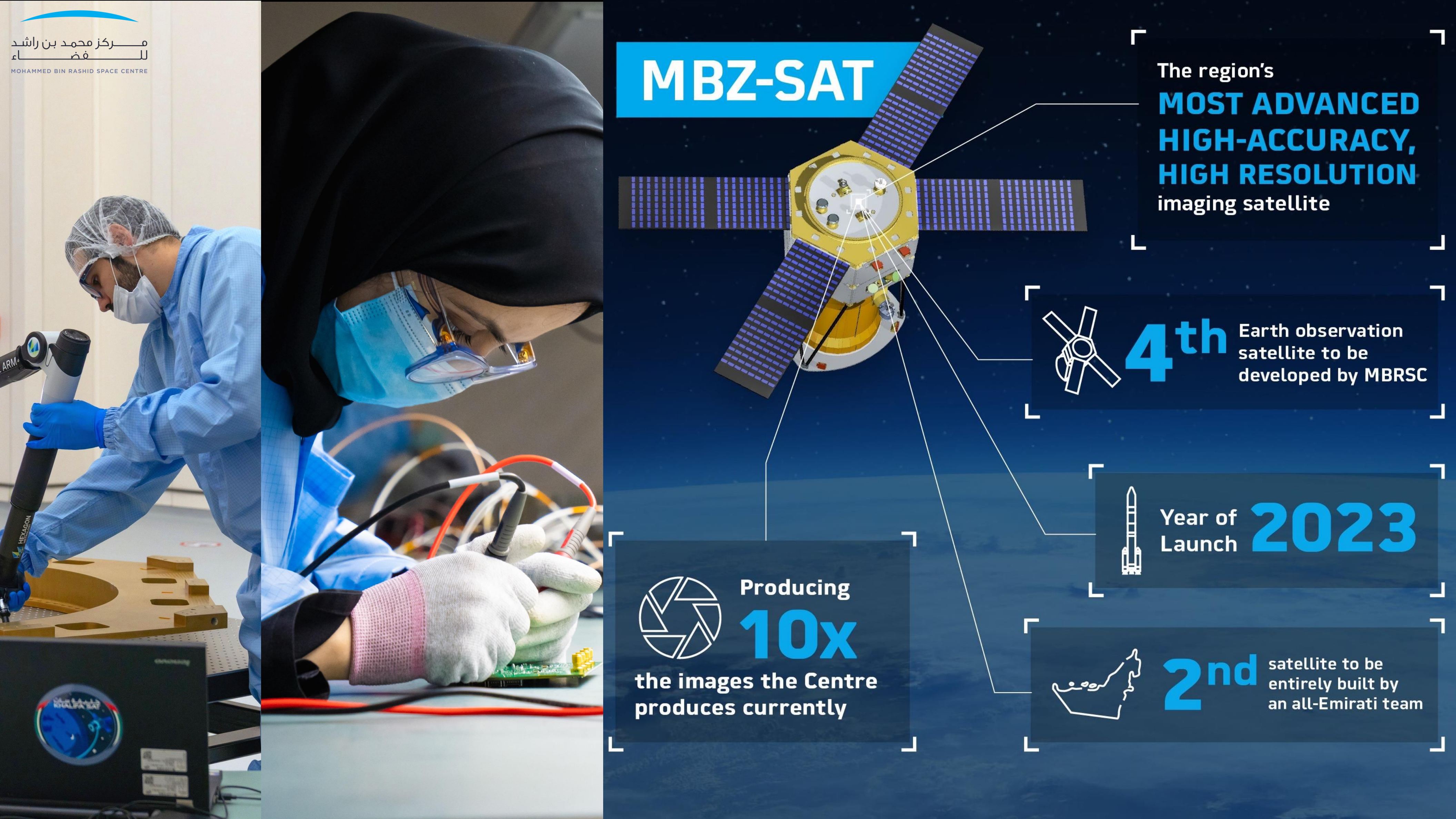


100% developed by Emirati engineers



Launch date:
October 29th, 2018

Resolution:
0.7m



MBZ-SAT

The region's
**MOST ADVANCED
HIGH-ACCURACY,
HIGH RESOLUTION**
imaging satellite



4th Earth observation
satellite to be
developed by MBRSC



Year of
Launch **2023**



2nd satellite to be
entirely built by
an all-Emirati team



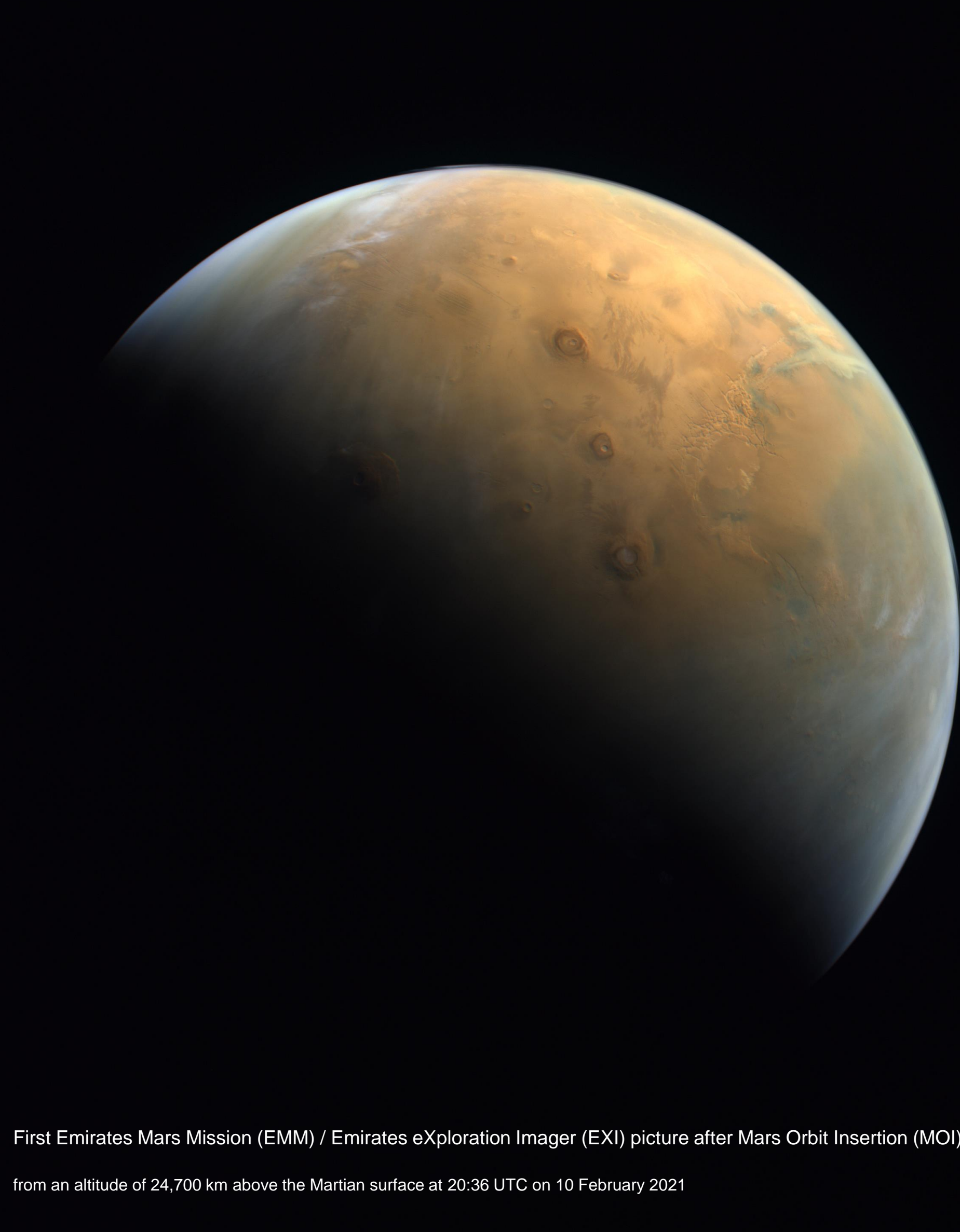
Producing
10x
the images the Centre
produces currently



مشروع الإمارات لاستكشاف المريخ - مسبار الأمل
أول مشروع عربي لاستكشاف كوكب آخر

EMIRATES MARS MISSION - HOPE PROBE
THE FIRST ARAB MISSION TO ANOTHER PLANET

الإمارات
THE EMIRATES
لا شيء مستحيل



9.2.2021

EMM- Mars Orbit Insertion (MOI)

First Emirates Mars Mission (EMM) / Emirates eXploration Imager (EXI) picture after Mars Orbit Insertion (MOI)
from an altitude of 24,700 km above the Martian surface at 20:36 UTC on 10 February 2021

UAE Astronaut Programme

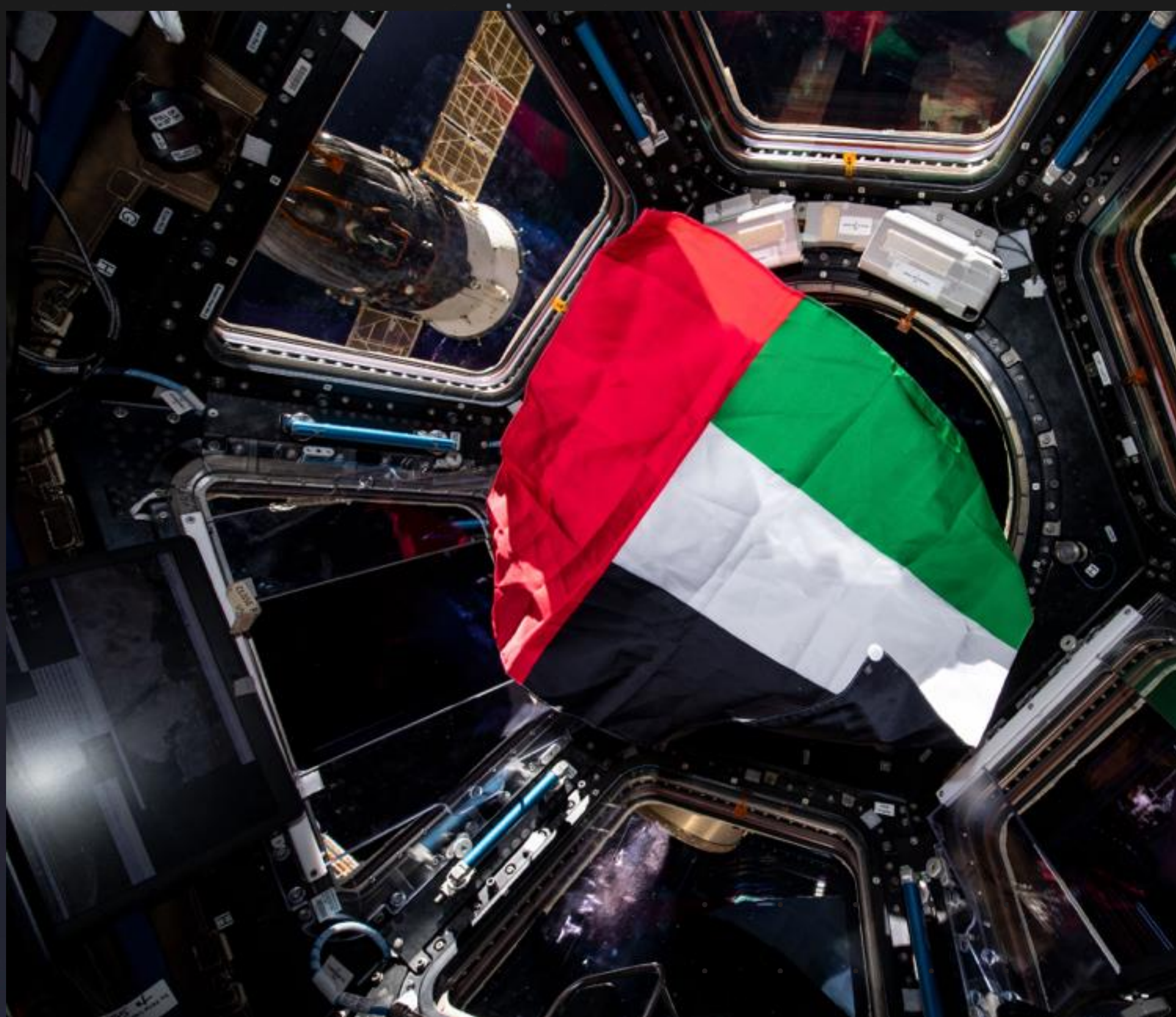
Programme Objectives

Positioning the UAE as an internationally recognized participant in human space flight.

Supporting the UAE's vision of a future dependent upon a knowledge-based economy

Sending Emirati astronauts to space to carry out scientific missions

Promoting a culture of scientific endeavor in the UAE by inspiring new generations



UAE Astronaut Programme

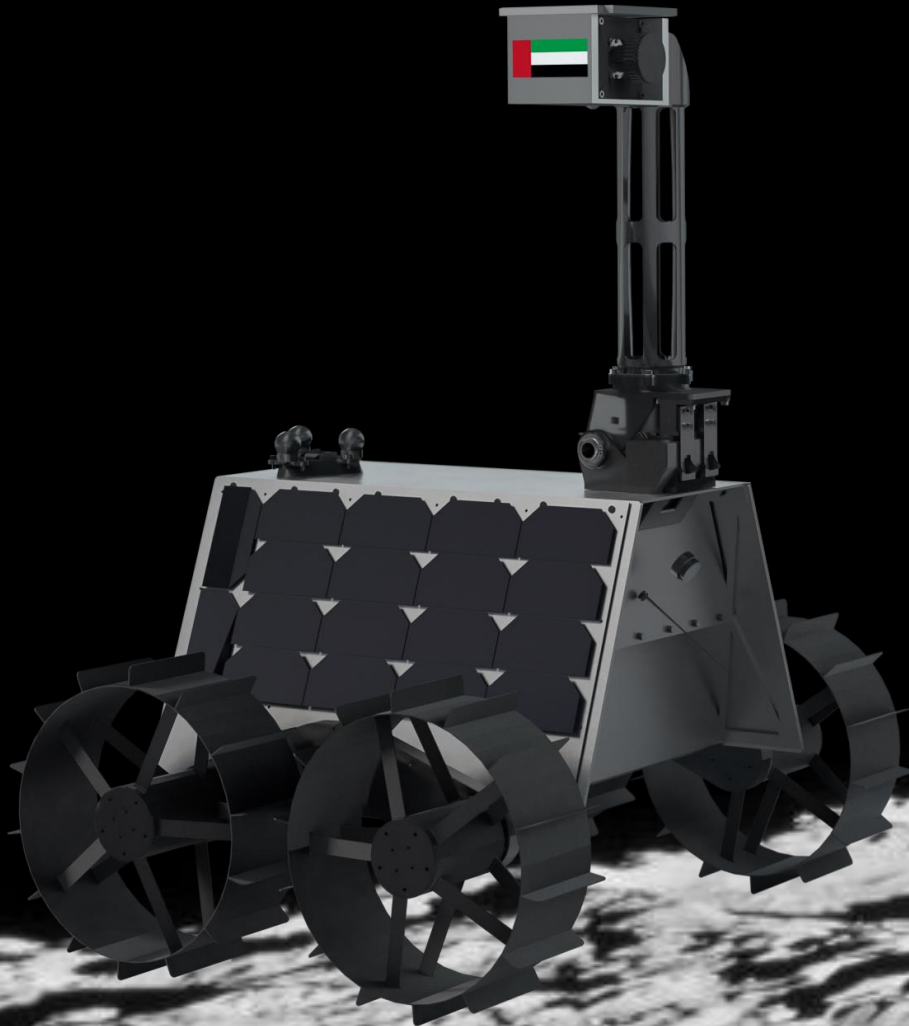




Emirates Lunar Mission

Rashid Rover

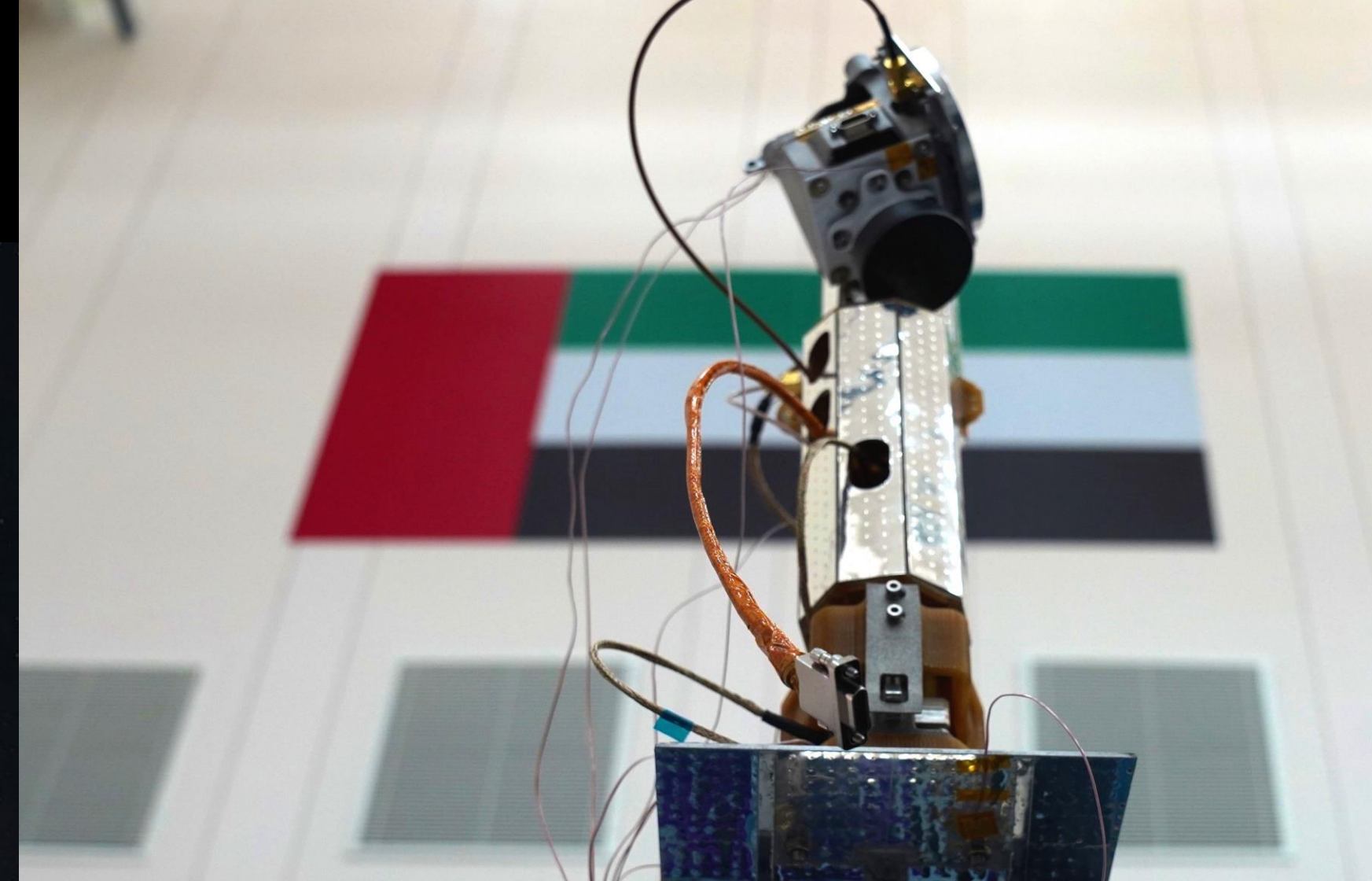
Thank You





The **scientific objectives** of the Emirates Lunar Mission

- Study the **lunar surface soil**
- Study the thermal properties of **lunar surface structures**
- Study the **lunar photoelectron sheath**
- Test different materials for their **susceptibility to adhesion of lunar particles**
- Study **mobility on the lunar surface**



Payload Hosting Initiative

Vision:

Provide a modular satellite platform that foster innovation in space technologies sector and ensure the experience exchange between governmental entities, universities and start up companies. It will consists of a **yearly launch of 1 to 2 satellite missions** in which MBRSC will call for these entities to load their innovative systems and payload and launch them on these satellites.

Objectives:

To test innovative technologies to keep pace with development in space field.

To share knowledge in the field of satellite industry through all stages of design, testing and launch.

To provide opportunities for entities in any country to present and test their new payload technologies in space.

PHI-Demo is a 12U cubesat developed by Mohammed Bin Rashid Space Centre (MBRSC) for innovative technology demonstration.

Primary Payload: PHI-Demo hosts an **IoT communication payload** that Store-and-forward the collected data from **IoT devices** in remote areas, industries and autonomous vehicles using **5G** technology. Developed by **OQ technology**.

Secondary Payload: It hosts a **green** and safe **propulsion subsystem** that uses **water** as the main propellant. Developed by **SteamJet**.



ACCESS TO SPACE 4 ALL

“



Simonetta Di Pippo

Director
Office for Outer Space Affairs

Expanding the Access to Space for All portfolio is critical for advancing the democratization of space benefits. We are thrilled to engage with MBRSC to provide a new opportunity and make a real difference for our Member States through the Payload Hosting Initiative. Working together, there are no barriers to what we can achieve.



Salem Humaid Al Marri

Director General
Mohammed Bin Rashid Space Centre

The collaboration and innovation that has gone into making the Payload Hosting Initiative a reality today in partnership with UNOOSA will not only advance the use of satellite-related technologies but also presents an opportunity for entities and countries alike to deploy and operate their own satellites in space. The results of these efforts will further place the UAE at the forefront of space innovation and assist in making incredible collaborative advancements in science and technology.

”

**PAYLOAD HOSTING
INITIATIVE**

Joint announcement of:



UNITED NATIONS
Office for Outer Space Affairs

مركز محمد بن راشد
للفضاء
MOHAMMED BIN RASHID SPACE CENTRE



مركز محمد بن راشد
للفضاء

MOHAMMED BIN RASHID SPACE CENTRE

Thank you



@mbrspacecentre