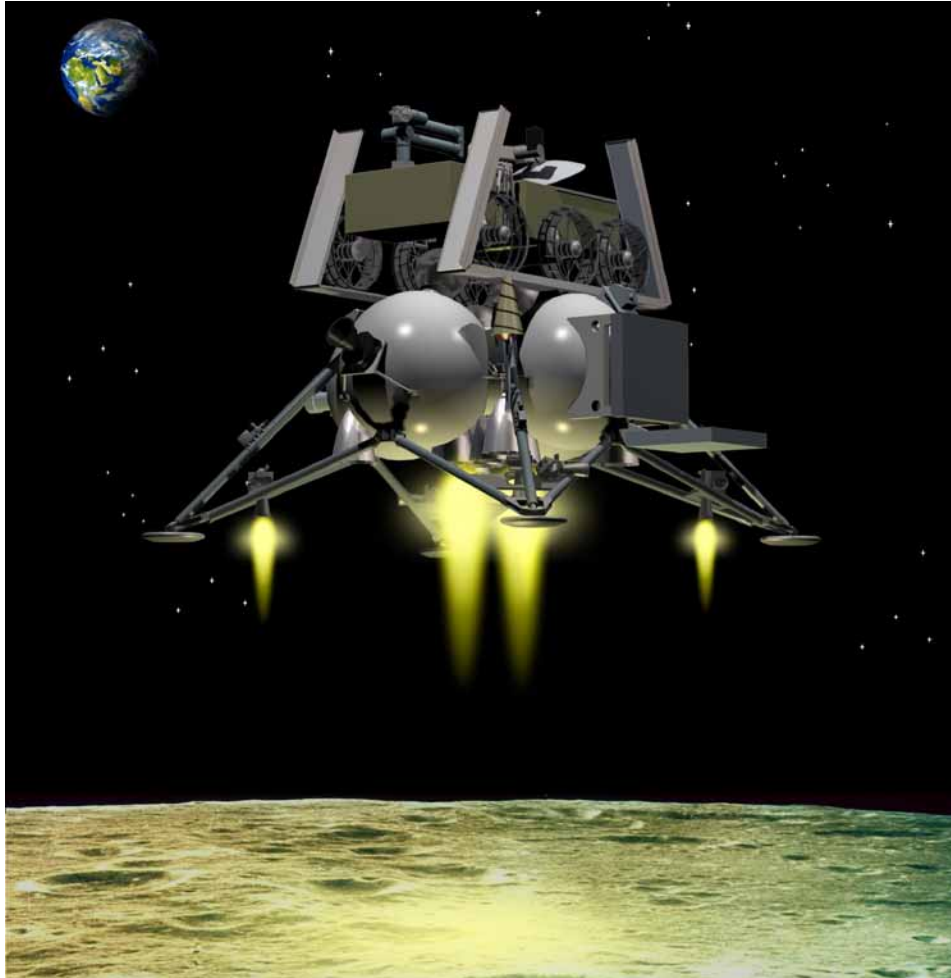


FEDERAL SPACE AGENCY OF RUSSIAN FEDERATION  
LAVOCHKIN ASSOCIATION

## ROBOTIC LUNAR EXPLORATION PROGRAM



November, 2006

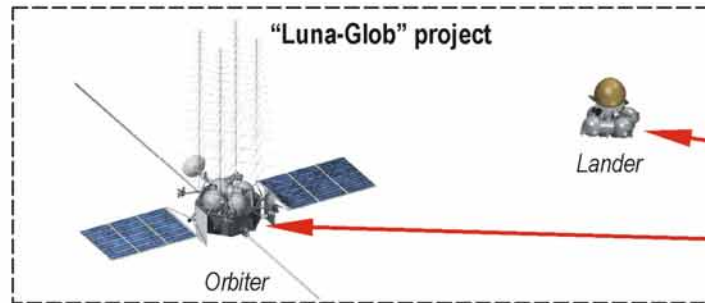


# ROBOTIC LUNAR EXPLORATION PROGRAM



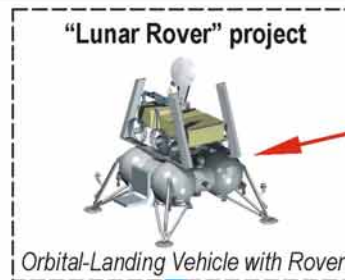
## 1-st phase:

Lunar internal structure exploration and lunar natural resources reconnaissance within the framework of orbital and landing missions



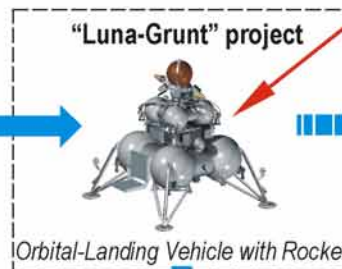
## 2-nd phase:

In-situ researches along the lunar rover movement route, samples collection and analysis



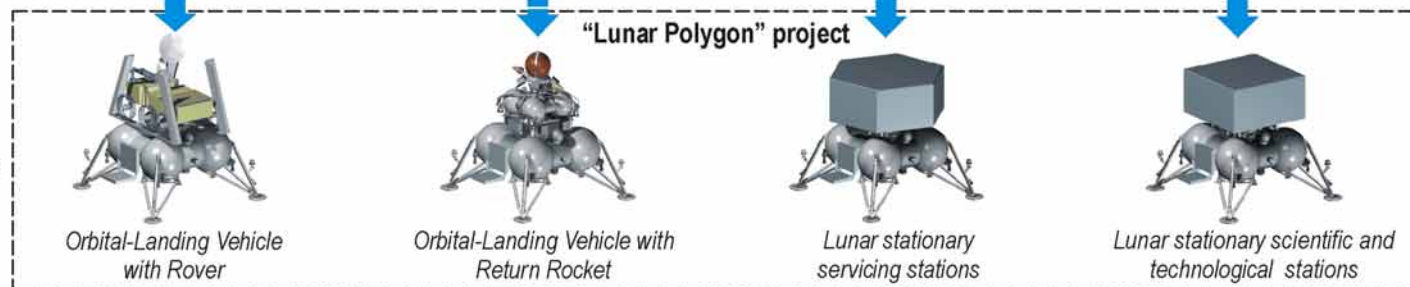
## 3-rd phase:

Lunar samples (collected by rover) return



## 4-th phase:

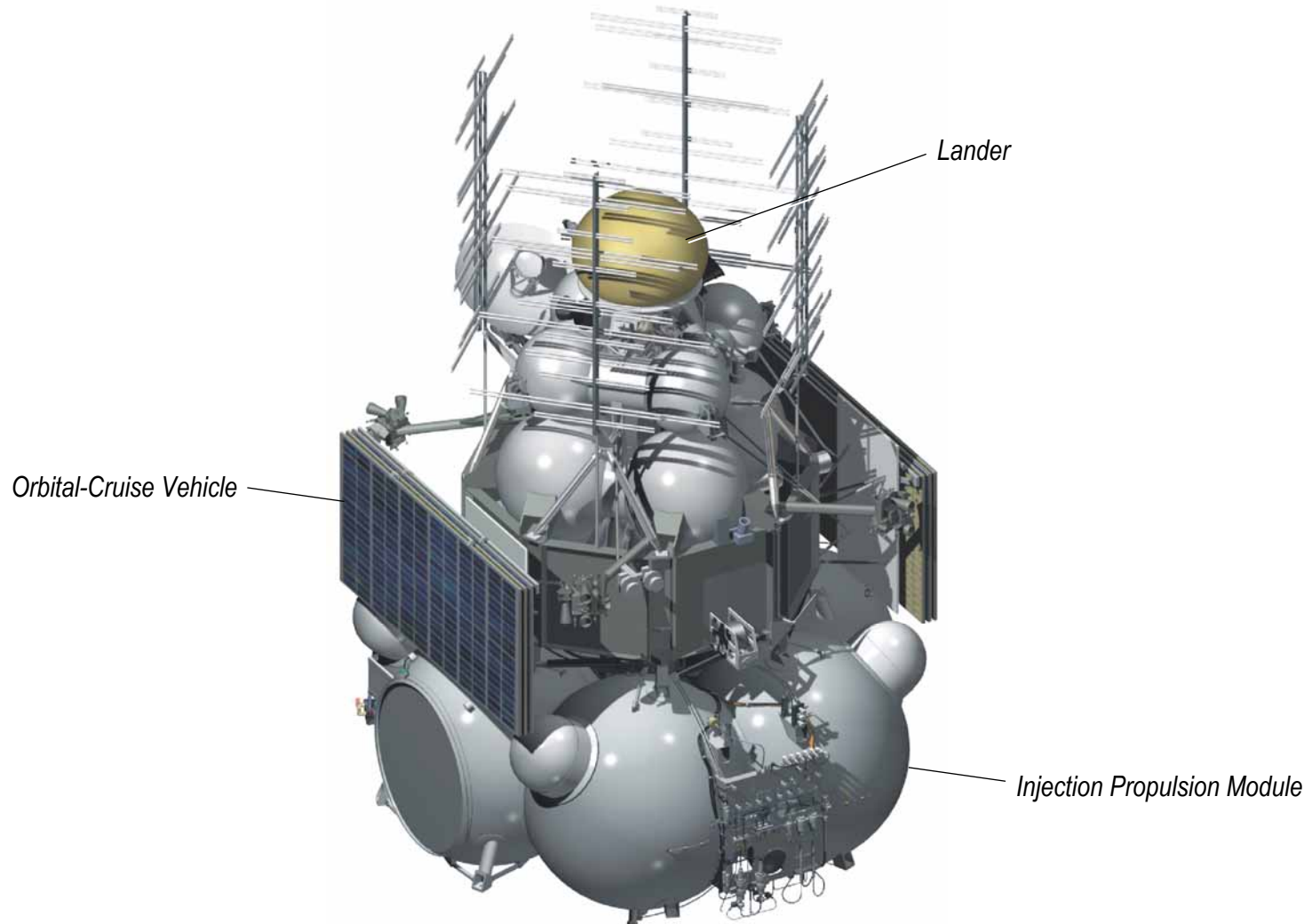
Creation on the Moon surface of a scientific-research base for development of principal methods for the Moon soil processing, delivery of the received samples and materials to the Earth and also for carrying out of a wide spectrum of scientific researches



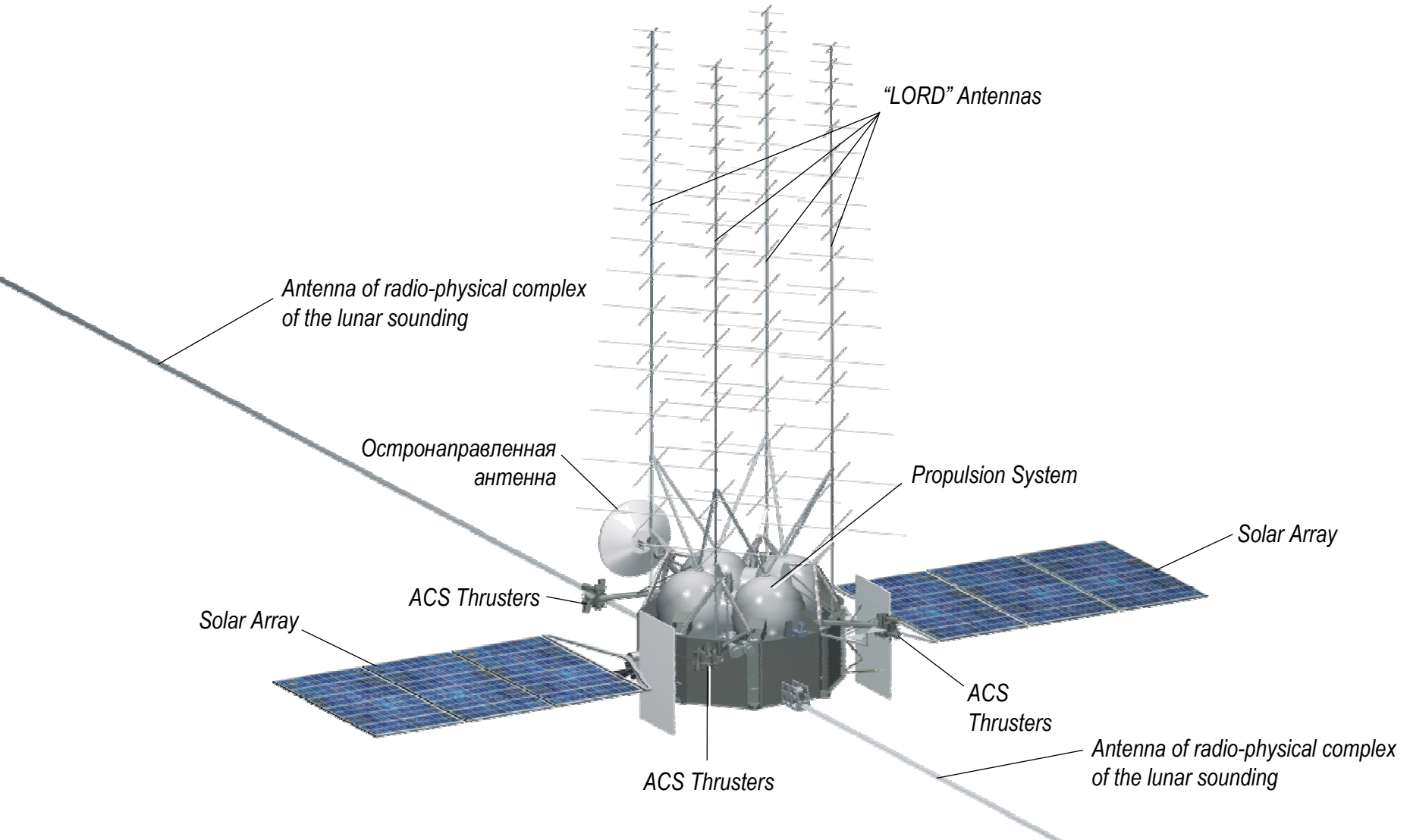


## **“LUNA-GLOB” PROJECT**

### **Spacecraft launch configuration**

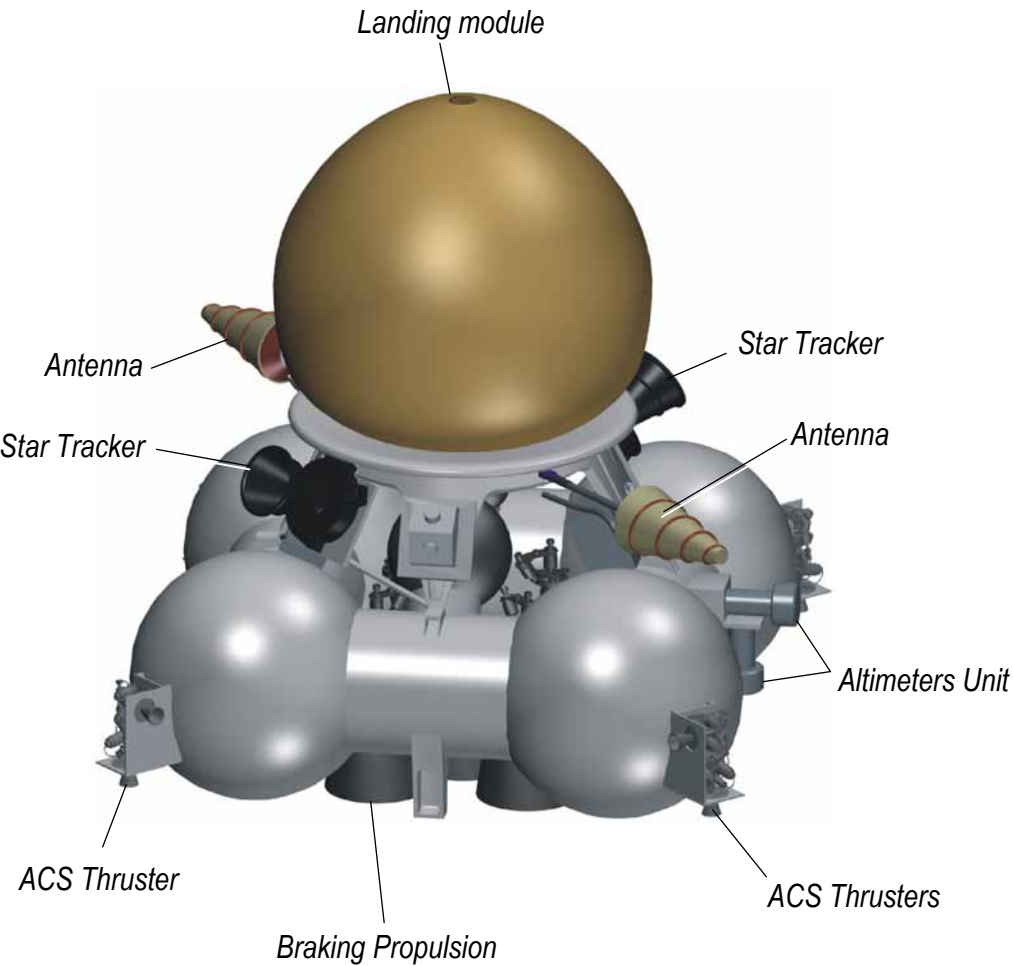


## "LUNA-GLOB" PROJECT Spacecraft orbital configuration

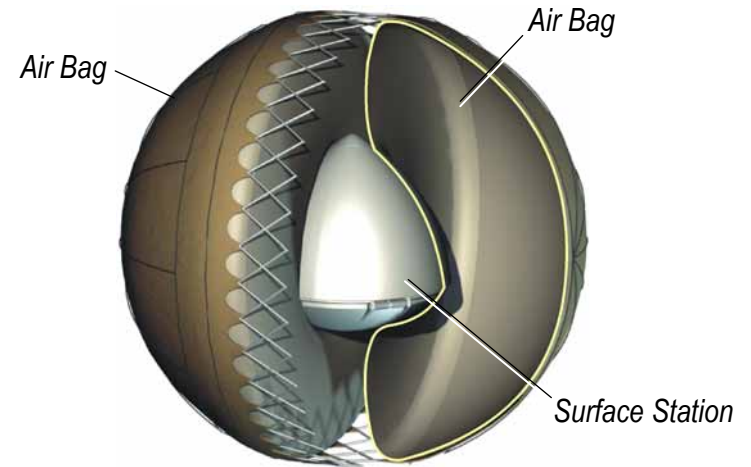


## "LUNA-GLOB" PROJECT

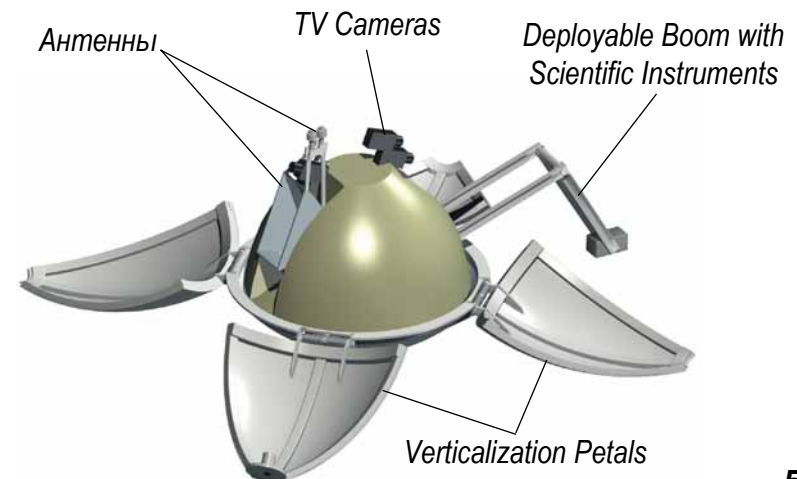
### Lander launch configuration



### Lander landing configuration



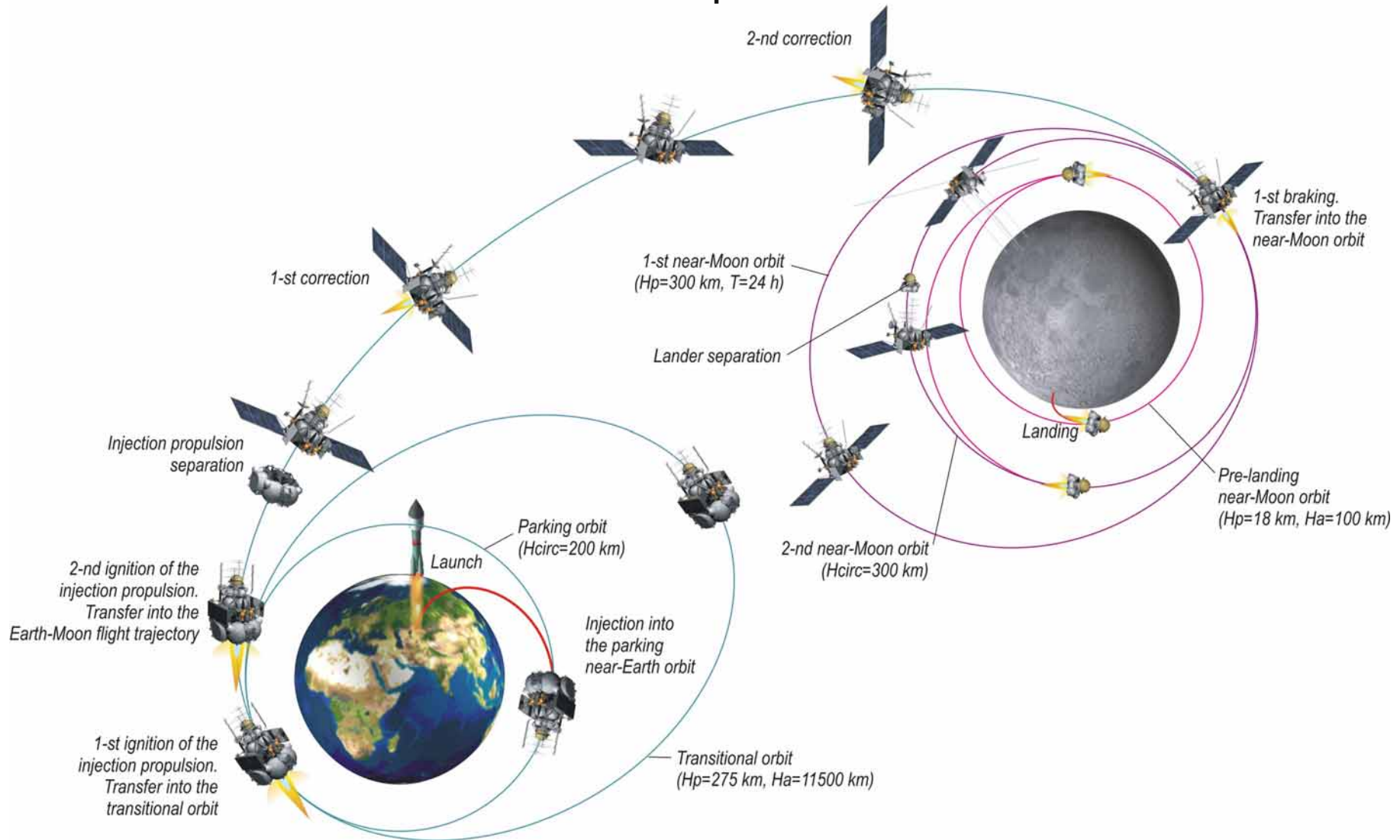
### Lander surface configuration





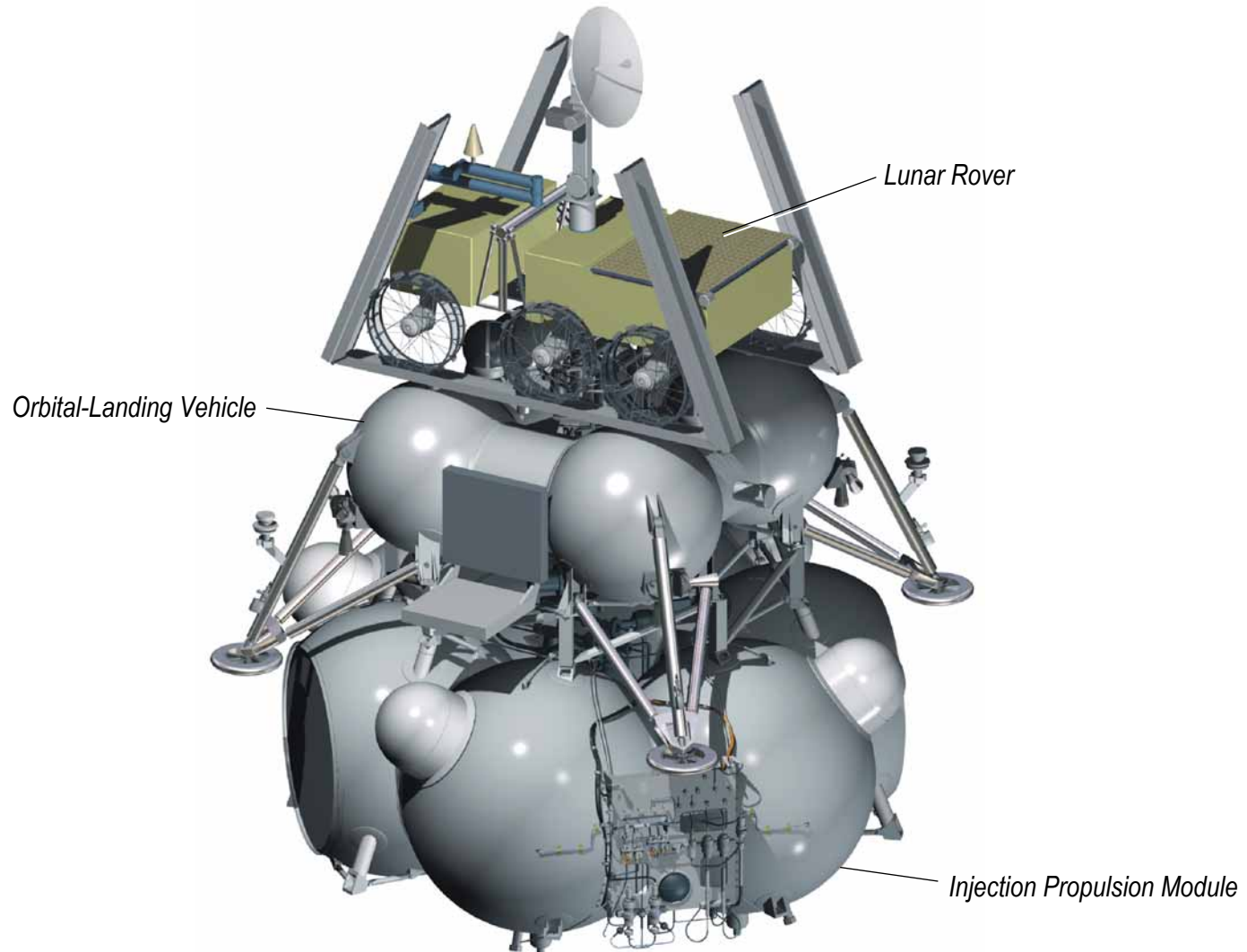
## “LUNA-GLOB” PROJECT

### Mission profile



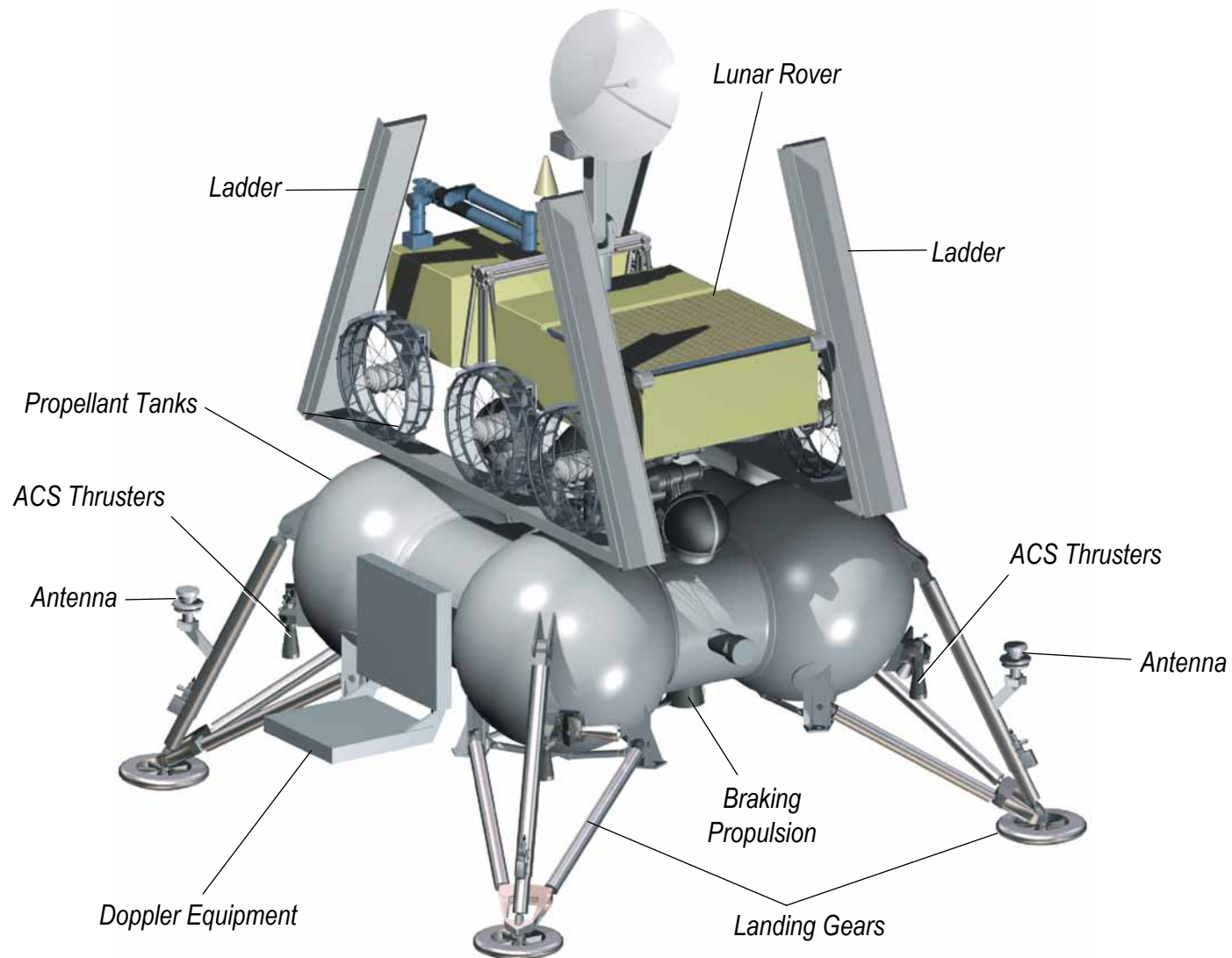
## **“LUNAR ROVER” PROJECT**

### **Spacecraft launch configuration**



## **“LUNAR ROVER” PROJECT**

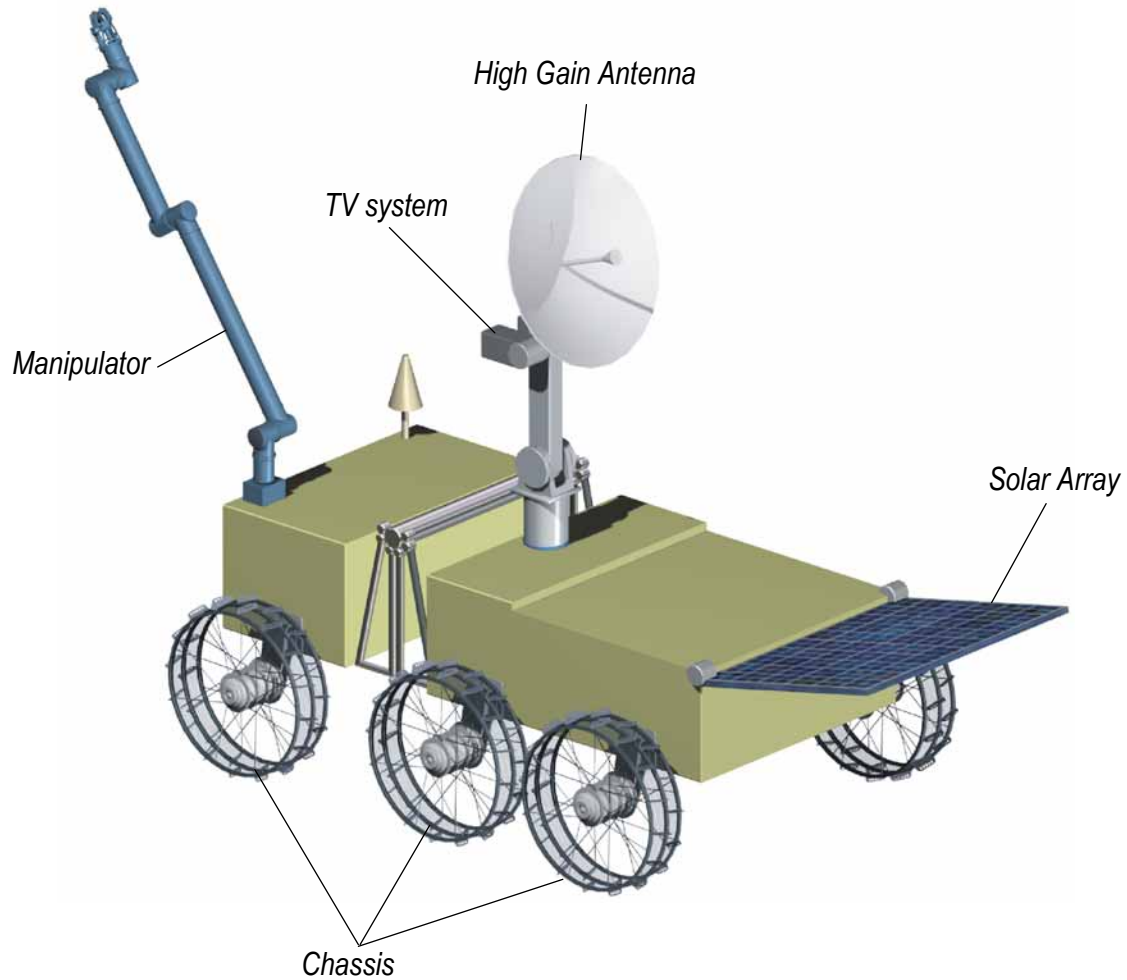
### **Spacecraft landing configuration**





## “LUNAR ROVER” PROJECT

### Lunar Rover



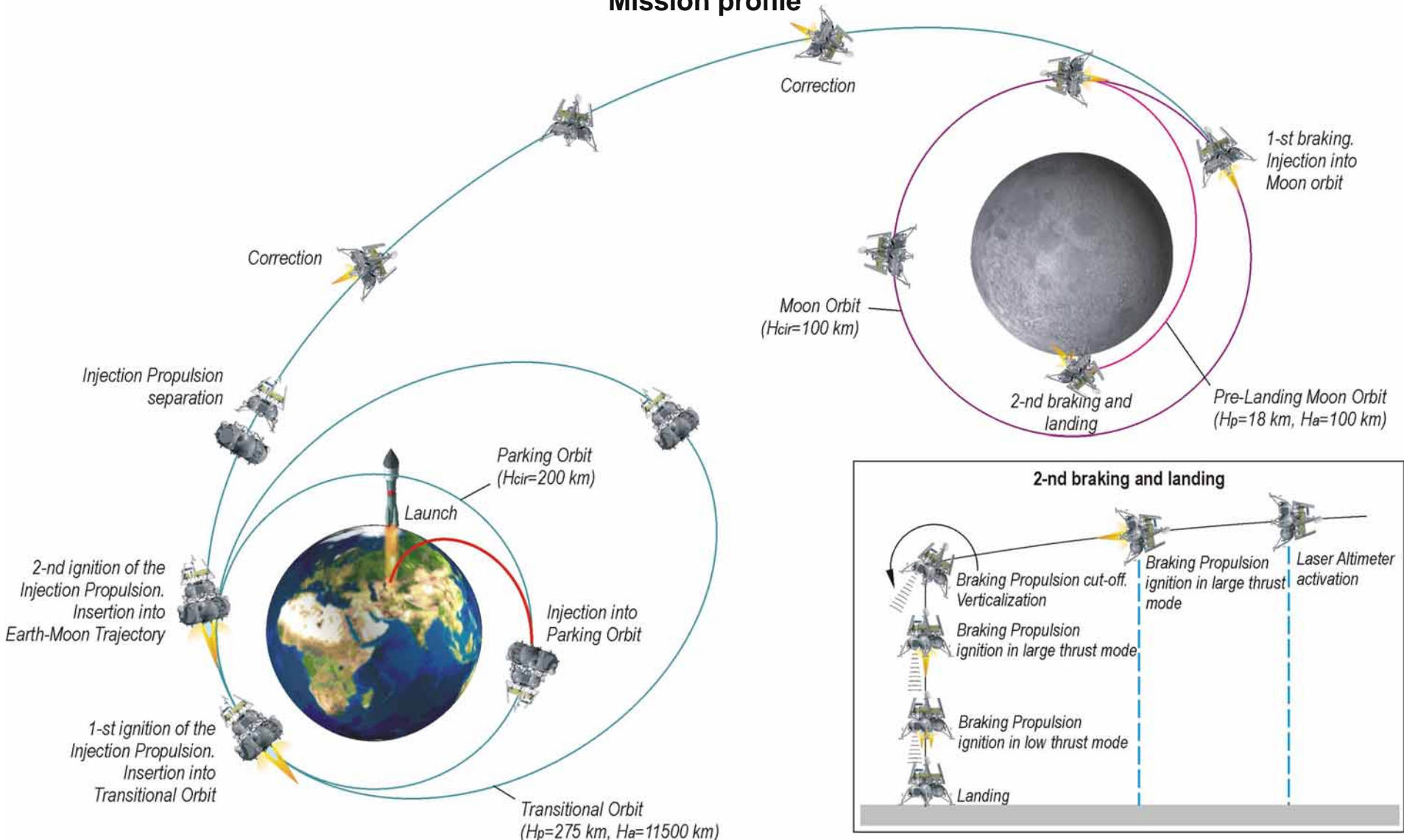


# ROBOTIC LUNAR EXPLORATION PROGRAM



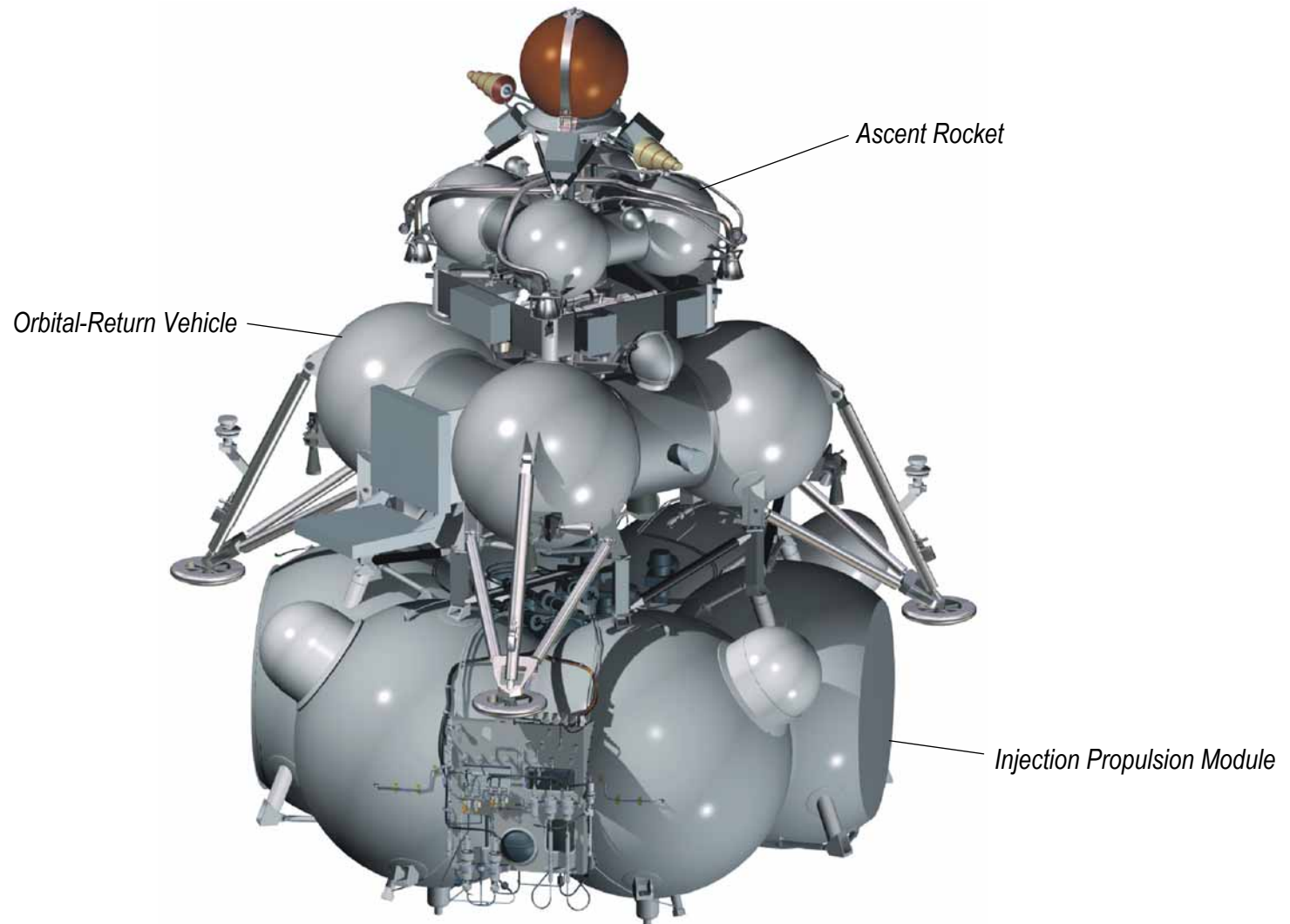
## “LUNAR ROVER” PROJECT

### Mission profile

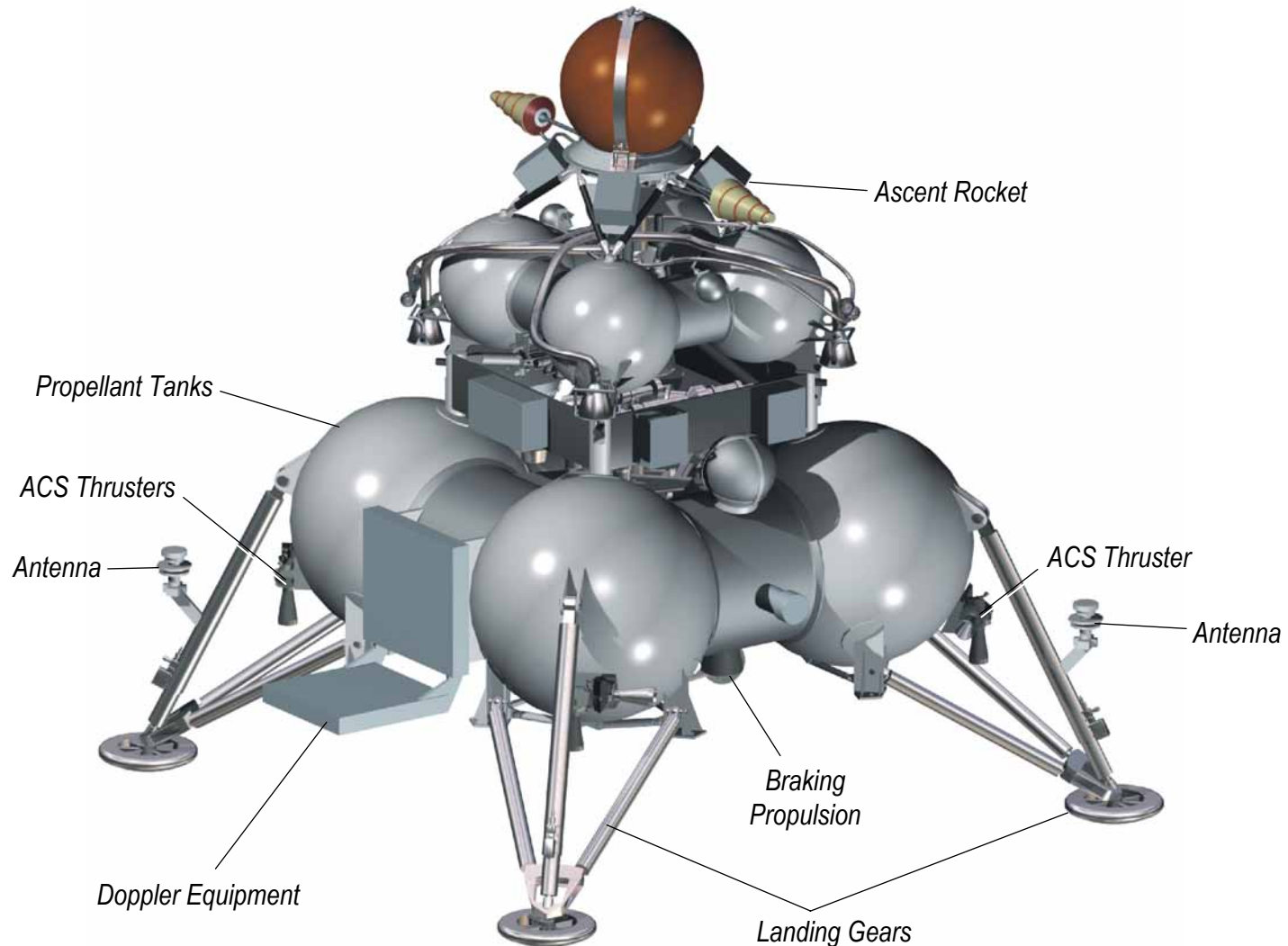


## **“LUNA-GRUNT” PROJECT**

### **Spacecraft launch configuration**



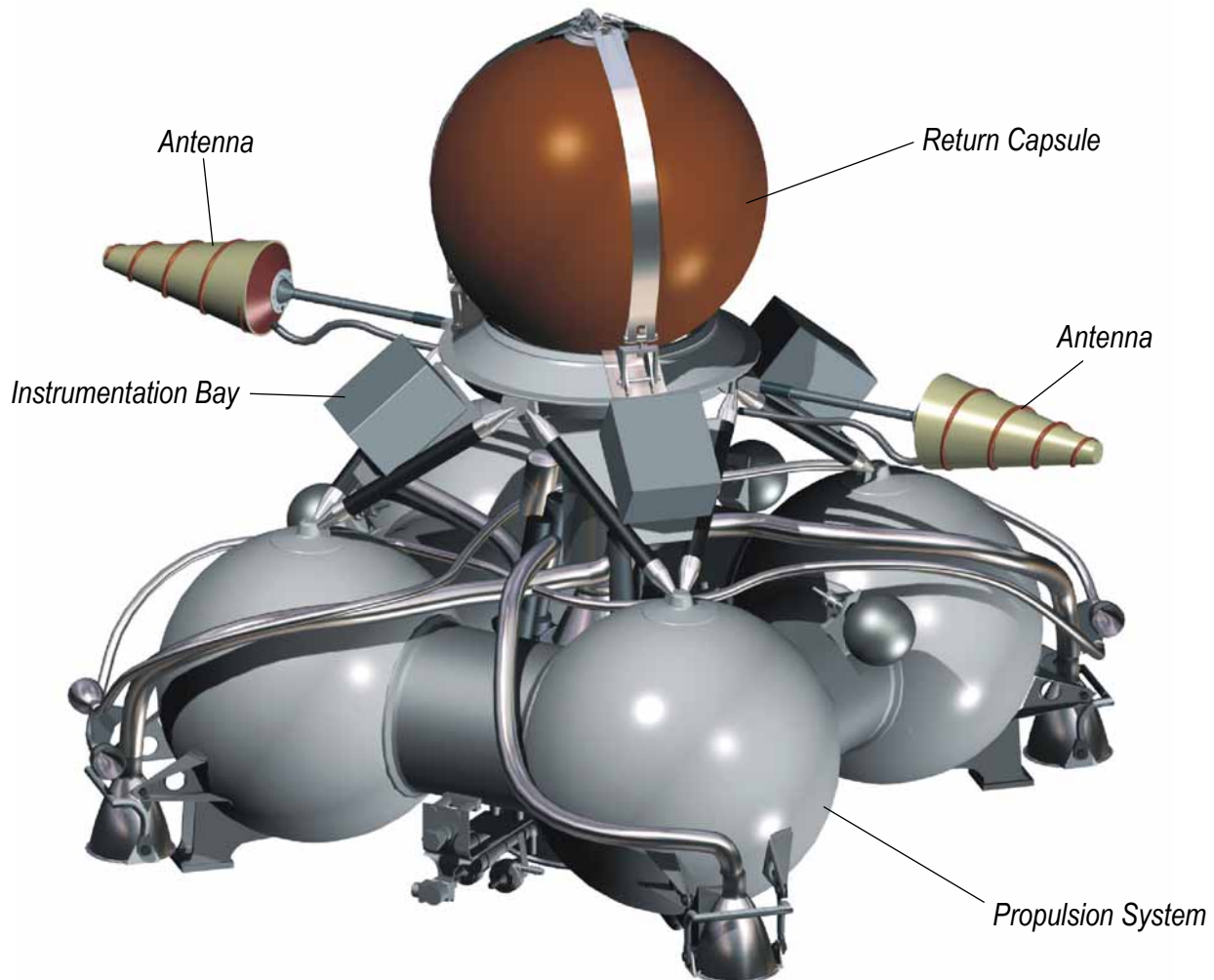
## “LUNA-GRUNT” PROJECT Spacecraft landing configuration





## “LUNA-GRUNT” PROJECT

### Ascent/ Return Rocket



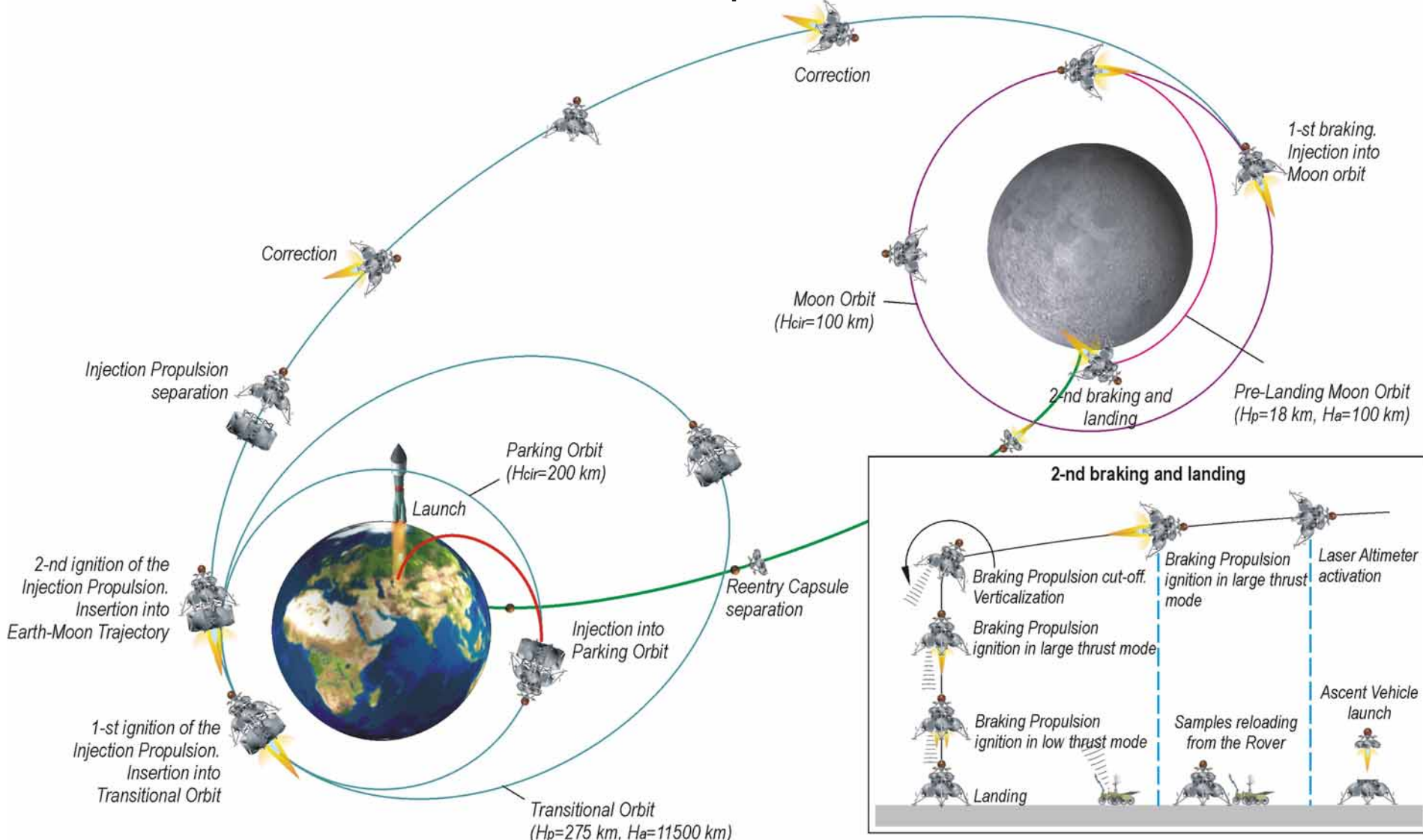


# ROBOTIC LUNAR EXPLORATION PROGRAM



## “LUNA-GRUNT” PROJECT

### Mission profile

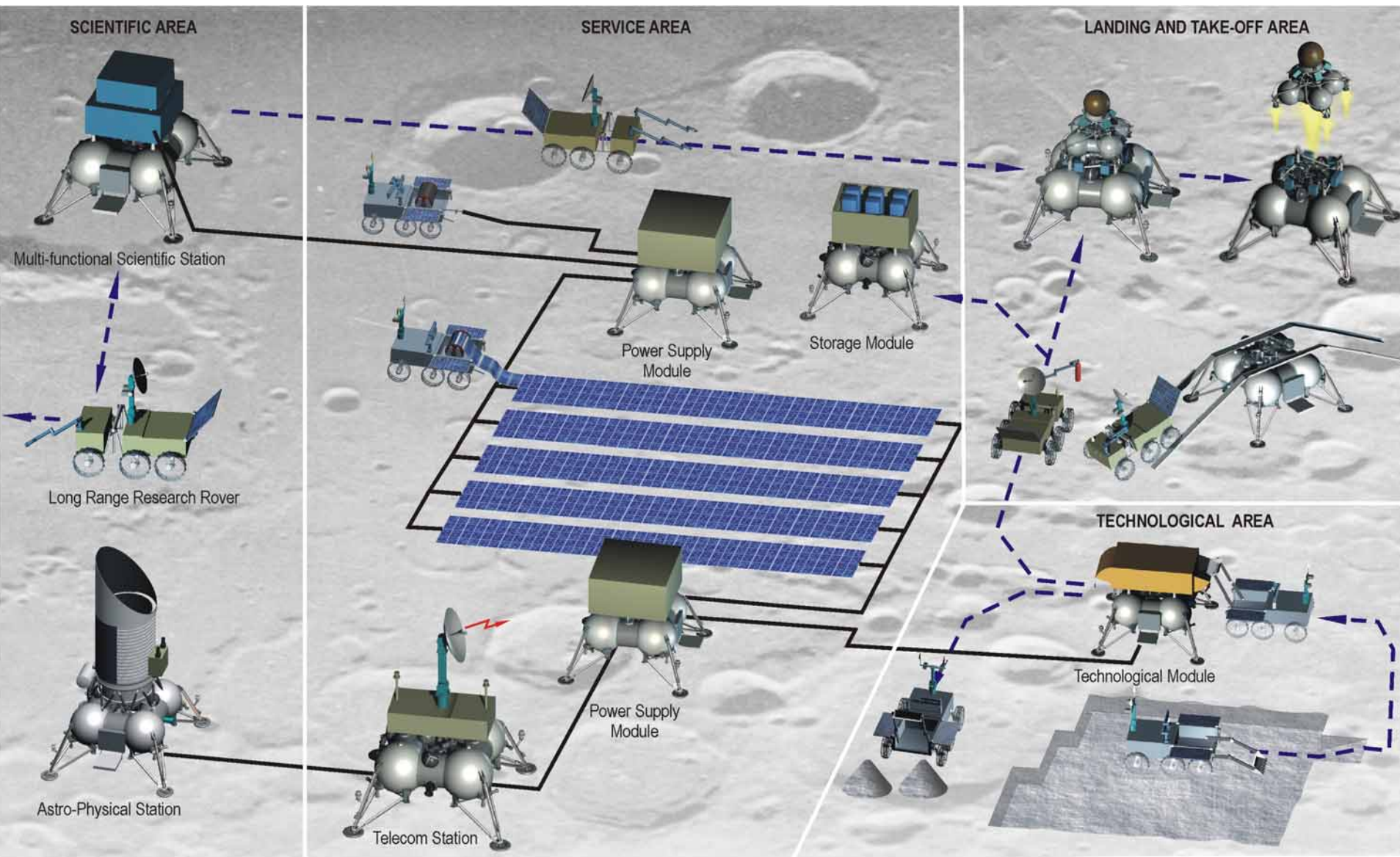




# ROBOTIC LUNAR EXPLORATION PROGRAM



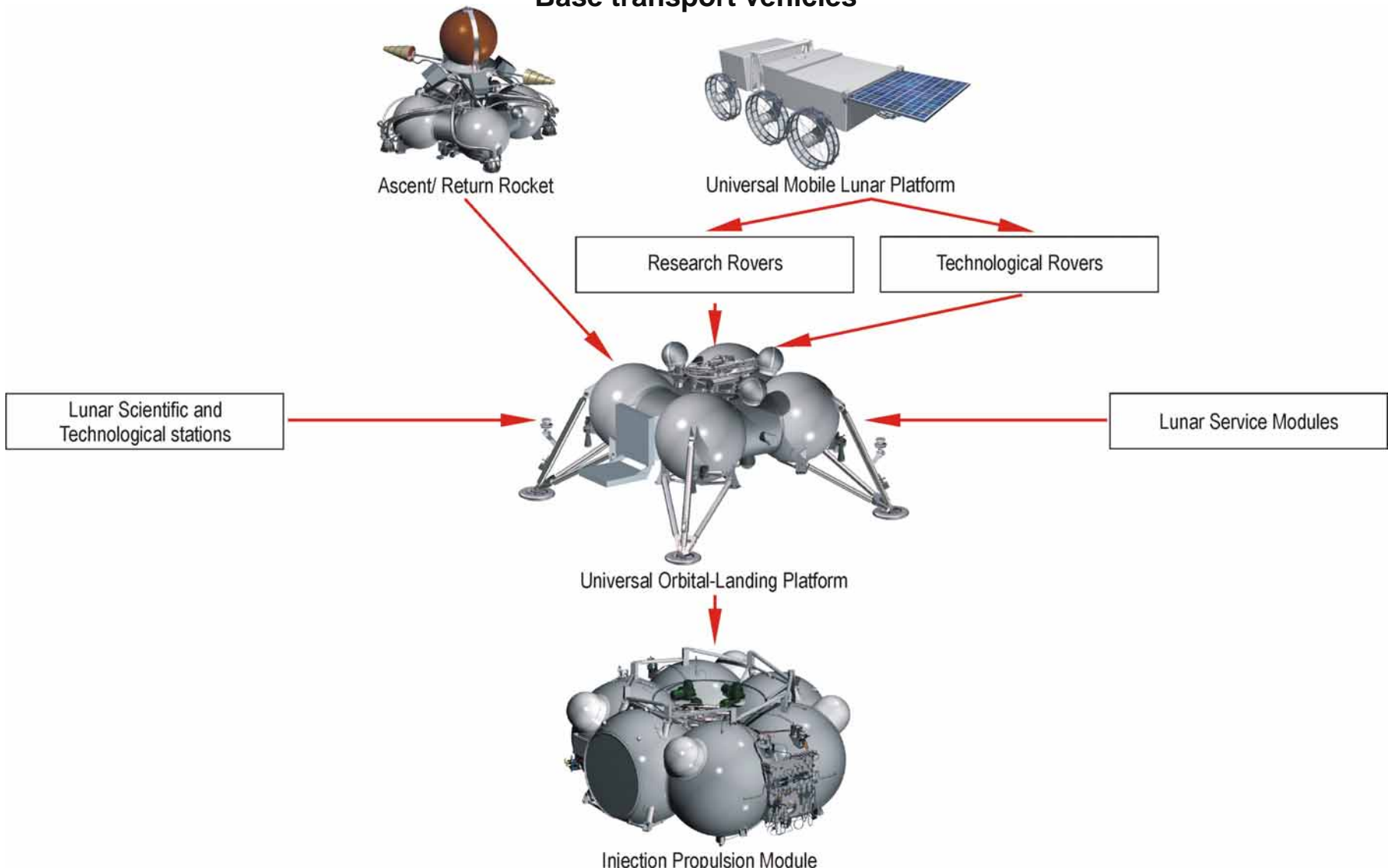
## “LUNAR POLYGON” PROJECT





## “LUNAR POLYGON” PROJECT

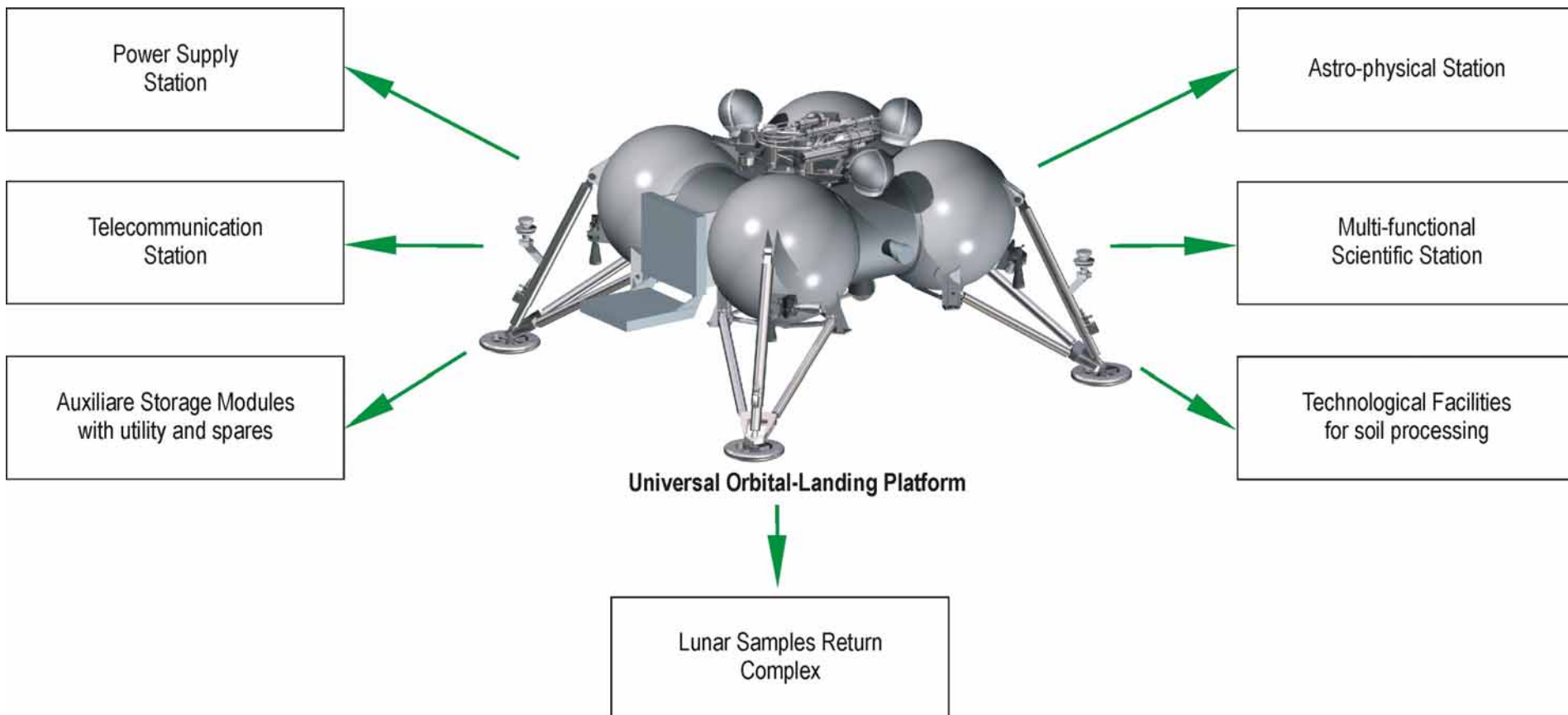
### Base transport vehicles





## “LUNAR POLYGON” PROJECT

### Stationary modules



## “LUNAR POLYGON” PROJECT

### Rovers

