

Moon village the first stop to Mars: ESA

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A handout artist impression released by the European Space Agency showing a lunar base made with 3D printing

Setting up a permanent village on the moon is the first step towards exploring Mars, the European Space Agency said Thursday as plans to reach and colonise the Red Planet gathered pace.

At an annual gathering of 4,000 global space experts in Adelaide, the ESA said the Moon was the "right place to be" as humans expand economic activities beyond low-Earth orbit, even while Mars remained the "ultimate destination".

"We have been living in low-Earth orbit for the last 17 years on board a space station and we are on our journey to Mars for the first human mission," ESA's Piero Messina told AFP at the congress.

"In between, we believe that there is an opportunity to create a permanent... sustainable presence on the surface of the Moon."

Reaching and colonising Mars has been viewed by private and public interests as the next stage in exploring the final frontier, and has been a key part of this year's International Astronautical Congress in Adelaide.

Messina said the more immediate goal was to have a permanent presence on the Moon, even if it was just a robot, by the end of the next decade.

"There are a series of missions planned to the moon over the next 10 years, and all these missions will create a movement, a momentum, and will create a wealth of data that will enable building the village," he added.

"I think it's the right time now to start discussing, start planning for something which is as inspiring as the space station but on a truly global, international-cooperation basis."

The [space agency](#) has been touting the permanent lunar colony as a replacement for the orbiting International Space Station, which is due to be decommissioned in 2024.

Also on the cards is a NASA-led project to build the first lunar [space station](#) as part of a programme called the Deep Space Gateway.

The Russian [space](#) agency Roscosmos and NASA Wednesday signed a cooperation agreement to work on the station, building the systems needed to organise scientific missions in lunar orbit and to the surface of

the Moon.

The congress in the southern Australian city is set to conclude on Friday with new details from Lockheed Martin on its Mars Base Camp, the defence giant's plans to send humans to the planet by 2028.

SpaceX's Elon Musk on Friday will also outline a new design for an interplanetary transport system to take humans to the Red Planet.

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