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PRESS RELEASE

NEW MATERIALS FOR LUNAR MISSION SPACE SUITS THE EUROPEAN SPACE AGENCY (ESA) LAUNCHES THE PROJECT “PEXTEX”

PEXTTEX is a two-year project which has as objective to identify potential materials and textiles that could be used for future lunar mission space suits.

On January 17th, 2019, ESA signed the study contract with COMEX and its partners DITF and OeWF.

The objective of the project is not only to develop solutions based on existing space suit materials, but also to identify novel types of textiles that include additional functionalities such as self-healing capacity, lunar dust repulsive characteristics or textiles that are able to monitor their structural integrity.

The identification and test of such materials could serve the development of future European space suits for extravehicular activities (EVA) on the lunar surface and is in line with ESA’s exploration strategy to return to the Moon in the coming decades.

Future missions will aim to establish a permanent presence on the Moon and new space suits need to be conceived to withstand surface operations that are longer and more frequent than in the Apollo era.

A new era of human space exploration is about to begin: 50 years after the first landing of astronauts on the Moon, ESA and its international partners are working on a return of humans to the Moon with the development of the GATEWAY, the future space station in lunar orbit. This station will serve as “base camp” to perform robotic and human missions to the surface.

The materials that will be identified in the frame of the PEXTTEX project will be tested in test facilities with the partner organizations in France, Germany and Austria.

About COMEX <https://comex.fr>

The Compagnie Maritime d’Expertises (COMEX) was founded in 1961 by Henri Germain Delauze (1929-2012). It is a worldwide pioneer in offshore diving and technologies for human interventions in extreme environments. The Compagnie is involved in several projects for the European Space Agency ESA on the development of technology to return humans to the Moon.

About DITF <https://www.ditf.de>

The German Institutes for Textile and Fiber Research Denkendorf (Deutsche Institute für Textil- und Faserforschung Denkendorf DITF) are the largest textile research center in Europe. Three research areas, Textile Chemistry and Chemical Fibers, Textile and Process Engineering and Management Research, cover the entire textile value chain from molecule to product. The DITF offer a large range of testing laboratories and services for testing fibres, yarns, surfaces and textiles.

About OeWF <https://oewf.org>

The Austrian Space Forum (Österreichisches Weltraum Forum, OeWF) is a national network for aerospace engineers, scientists and people with a passion for space. This citizen-science organization is involved in leading-edge space exploration research and serves as a communication platform between the space sector and the public; it is embedded in a global network of specialists from the space industry, research and policy.

For more information, please contact

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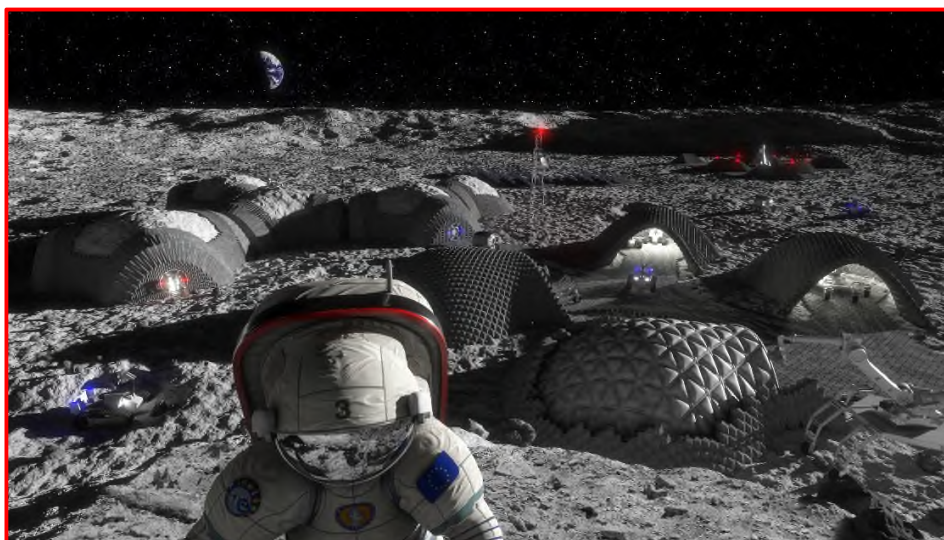
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*A vision of a future Moon base that could be produced and maintained using 3D printing
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