









## Hamburg Aerospace Lecture Series Hamburger Luft- und Raumfahrtvorträge

RAeS Hamburg in cooperation with the DGLR, VDI, ZAL & HAW invites you to a lecture

## The Moon: the next step towards sustainable expansion into space?

**Silvio Sandrone**, Vice President Advanced Projects and Products, In- Orbit Services and Exploration, Space Systems, Airbus Defence & Space

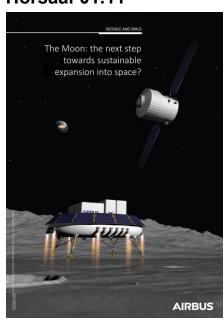
Date: Thursday 07 November 2019, 18:00

Location: HAW Hamburg Berliner Tor 5, (Neubau), Hörsaal 01.11

Lecture followed by discussion No registration required! Entry free!

Although humans have not travelled beyond the Moon (or even back to the Moon, yet), global space business (excluding the downstream services) exceeds nowadays €80bn a year. This figure depends on a business model in which every kilogram of required hardware or resource is brought from Earth, which raises questions about its sustainability and growth potential.

It is in this context that all major space powers are heading back to the Moon. The possibility of extracting raw materials, resources and – above all – rocket propellant, is what drives the US, Russia, China and others to prospect and settle around the lunar south pole. The presentation will outline the lunar programme of NASA and ESA, and introduce a few thoughts about Europe's options for projecting influence and protecting its stake in a quest shaped by both cooperation and competition.



Silvio leads the Advanced Projects and Products business, creating programmes and technologies to make human expansion into space possible and sustainable. Until 2017 he was in charge of strategic industrial partnerships at Ariane Group (Paris area). Between 2009 and 2014 he led the development of new launch vehicles programmes and business for Airbus Defence and Space – among which Ariane 6, ADELINE and Liberty. He joined the Airbus Group in 2005 to manage Astrium Space Transportation relations with the European Space Agency. He also spent three years in Arianespace Launch Operations Team in French Guiana, participating in 28 consecutive Ariane 4 successful launches during that period.

DGLR / HAW DGLR RAeS Prof. Dr.-Ing. Dieter Scholz Dr.-Ing. Martin Spieck Richard Sanderson

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