



THE GOVERNMENT
OF THE GRAND DUCHY OF LUXEMBOURG
Ministry of the Economy



Press Release

Luxembourg and the European Space Agency enhance cooperation on asteroid missions, related technology and space resources exploration and utilization

Paris, June 20, 2017 - At the occasion of the 2017 Paris Air Show in Le Bourget, Luxembourg's Deputy Prime Minister and Minister of the Economy Etienne Schneider visited the ESA pavilion and, together with ESA Director General, Jan Wörner, signed a joint statement on future activities concerning missions to the asteroids, related technologies and space resources exploration and utilisation.

The Grand Duchy of Luxembourg and the European Space Agency jointly agreed on the opportunity to further studying technical and scientific aspects of space resources exploration and utilization activities. To this aim, ESA will undertake an analysis of the feasibility assessment and technical maturity of asteroids exploration and utilization. The analysis shall contribute to assess future missions, and in particular, at national level to help defining specific requirements related to the authorisation and the supervision by the State as well as regulatory matters.

Furthermore, this analysis will also contribute to Near Earth Asteroids classification, define methods to study the interiors of asteroids, look at multi-sampling technology, and address technologies for in-situ extraction and operations on asteroidal surfaces. It may also consider laboratory experiments with meteorites/ analogues as well as the conception of a virtual institute devoted to the science of asteroids and related technologies.

As any other ESA Member States so requesting, Luxembourg will be associated to the analysis as element of its SpaceResources.lu initiative that aims to offer an attractive overall framework for the exploration and exploitation of space resources.

The Deputy Prime Minister, Minister of the Economy, Etienne Schneider declared: "The enhanced cooperation between Luxembourg and ESA is another significant milestone for our SpaceResources.lu initiative. It is the logical continuation of the collaboration we have had with ESA since the announcement of our initiative in February last year. The cooperation between

ESA and Luxembourg joins the Grand Duchy's commitment to helping the commercial sector realize its plans to develop space resources business. Luxembourg is ready and eager to support and nurture the growing number of commercial space initiatives, their many suppliers and customers – and the intrepid explorers that intend to make space mining a reality “.

ESA Director General, Jan Wörner stated: "I am pleased of this opportunity to further enhance our cooperation with Luxembourg. Their initiative perfectly embodies my vision of Space 4.0 both as an example of and a driver in a new paradigm of conducting space activities."

By signing the joint statement, Luxembourg and ESA jointly recognized the benefits achieved by space exploration to the whole of humankind by furthering scientific knowledge, fostering technical innovation, inspiring the people and enhancing peaceful international cooperation. Moreover, European accomplishments in space exploration foster European cohesion and identity and position Europe as an inspiring force globally. In this context, the important role of asteroids as potential resources to extend human presence in space as well as their potential risk of impacting Earth is jointly recognized.

Luxembourg has been cooperating with ESA for nearly 20 years now and has been an ESA Member State since 2005. At the latest ESA Council meeting at ministerial level Luxembourg increased its subscriptions also in fields associated with missions to Near Earth Objects (NEOs) and related technologies.

Conversely, ESA has been following with interest the Luxembourg's SpaceResources.lu initiative. A joint Luxembourg / ESA working group has been meeting regularly to exchange information and prepare potential joint activities.

The Asteroid Science Intersections with In-Space Mine Engineering (ASIME2016) workshop held in September 2016 in Luxembourg with the support of the Luxembourg Ministry of the Economy, Europlanet, the University of Luxembourg, and ESA was an example of cooperation to advance on understanding on the issues related to asteroid missions and the exploration and future utilisation of space resources.

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