DLR Supports PTS for the Google Lunar X-Prize

February 2012: The German Google Lunar X-Prize (GLXP) team, the "Part-Time-Scientists" (PTS) established a cooperation with the Communications- and Robotics- Institutes of the German Aerospace Center (DLR) at Oberpfaffenhofen beginning of 2011, leading to the development of the first Asimov R3 series prototype in less than 7 months introducing new key technologies like stereoscopic cameras, a new bespoke drive system and many other concepts for thermal management and environmental protection.

The team has grown now to about 100 engineers and scientists to support the goal to send the first privately funded rover to the Moon by the end of 2012.
SpaceOps News (SoN) had the opportunity to ask **Robert Boehme** – Team Leader and CEO of PTS about the cooperation experience with DLR.

The Part Time Scientists (PTS) and the German Aerospace Center (DLR) agreed to jointly develop new technologies and innovative concepts for the Google Lunar X Prize (GLXP) robotic moon mission. How was the cooperation between the PTS and DLR established?

As every good business and research partnership, the cooperation was established to be beneficial for both the Part-Time Scientists and the DLR. A key objective is to develop and test-drive both technology and concepts that are vital for future exoplanetary exploration.
To give an example of fields where technical innovations are needed just have a look at the very basic requirements of the Google Lunar X- Prize competition. The requirement for a precision and soft landing along with HD video is not based on marketing purposes but on the need to find a viable solution to address these exact requirements in future missions.

What was the motivation respectively is the benefit for PTS to be supported by DLR?

The German Aerospace Center (DLR) is known to be amongst the best and most innovative organizations in the fields aerospace related development and research. This comes with a strong heritage and long list of successful missions, research projects and cooperations with other space agencies. The reason for this cooperation is to share both the most valuable inputs for technical development, knowledge and experience.

Does the PTS cooperation include operational support by DLR during the mission also?

We intend to utilize certain mission related infrastructure like ground communications provided by the DLR and other partners.

The GLXP conditions require a 90% privately financed budget for the moon mission, industrial and institutional support is encouraged. How is the DLR contribution accounted for?

Due to the nature of DLR and the level of our cooperation there is no contribution to be accounted towards the limit of 10% governmental funding.

Summary Statement about the cooperation with DLR:
We love it!

The PTS-Team was (subjectively) ranked fourth place behind Astrobotic (USA), Next Giant Leap (USA) and Rocket City Space Pioneers (USA) among the 21 international participants,

i.e., the German PTS will encounter severe competition from the US teams. It will not be easy to win the race – what is your assessment?

Even though it is a subjective ranking based on the public announcements made by each team I would call it a mostly realistic view on the competition as it stands right now. I am seeing a strong drive towards US teams supporting each other and receiving governmental as well as industrial support to secure the Americas take on the Moon
However, it's still a competition, not all cards are yet on the table and in the end, the winner is who gets there first.

Could DLR's own moon rover project be influenced by the activities or the outcome of the GLXP?

I certainly believe that such influence on not just the DLR's but also other governmental missions is possible. If so I would warmly welcome these as it would show the benefit of incentive competitions like the Google Lunar X- Prize which intend to drive technical development.

The current trend in the USA is the commercialization of transport services for resources and astronauts to LEO (ISS). Would you expect additional commercial / industrial initiatives being triggered by a successful X-price winner e.g.; Google moon mapping for private and scientific use?

I believe if you ask this question to any serious GLXP competitor than each of them would agree that we can already see that trends towards commercial opportunities for industrials and scientific use on like landing a rover on the moon.

Summary Statement about the cooperation with DLR?

We love it!
In more serious words I can say that both our Team and the Institutes of the DLR really enjoy this cooperation. For a relatively young aerospace entity like our team the chance to work with the DLR is a great honour and a great chance towards future space exploration.
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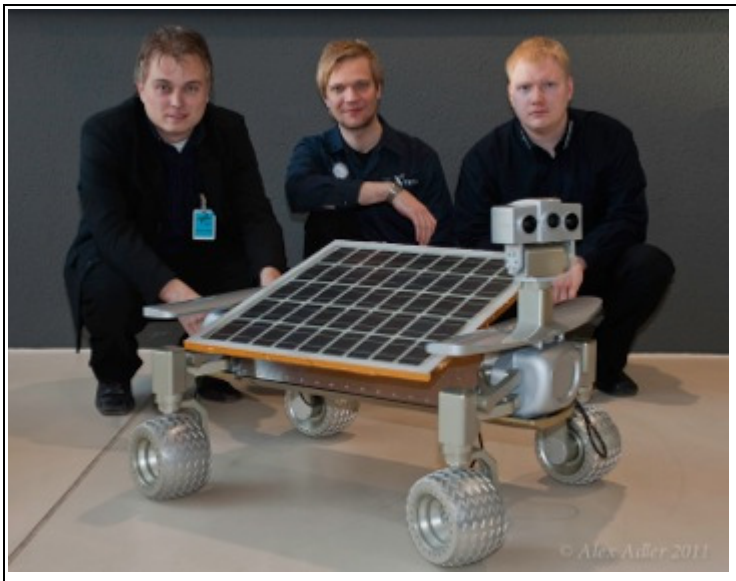

AsimovR3 Prototype

"Hell Yeah, it's Rocket Science"

Part-Time Scientists Slogan

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