

## Towards the astrolithic age

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### Abstract

The astrolithic age will see the utilization of asteroid material on a very large scale, in a relatively inexpensive fashion, to allow human expansion in the solar system, to relieve Earth from the anthropic pressure and to fulfill, in a peaceful way, our natural tendency to expand and explore for the centuries to come. We will describe the roadmap to achieve such goals in a fully sustainable manner and explain the practical function of the geostationary ring of stations as stepping stone for all other space missions to Moon, Mars and the rest of the solar system, making classic rocket technology obsolete and unnecessary except for emergency backup.



### Biography:

Giulio Manzoni is an Entrepreneur and Inventor with proven track record and over 25 years of Industrial experience in developing products from conception, design, proof of concept, prototyping to production. With a Mechanical Engineering degree from the University of Trieste (Italy) and PhD in Microsystems for Aerospace from the University of Udine (Italy), he founded MicroSpace, in Italy in 2002, and in Singapore in 2007 and Austria in 2017 with fully equipped laboratory and ground stations for micro propulsion and satellites development and operations. Micro space's satellite POPSAT-HIP1 launched in June 2014 and Athenoxat-1 launched in December 2015 have demonstrated novel and proprietary propulsion and optical technologies for over five years of combined operations in space and will be the baseline for the nanosatellites supporting asteroid exploration and recovery.



### Speaker Publications:

1. G.Manzoni "Astrilis Remote Asteroid Acquisition mission, the most efficient sourcing of materials from space for mankind", UN experts Meeting on Human Space Technology – Vienna- (AT) 2018.
2. G.Manzoni, Y.Brama, M.Zhang, "Athenoxat-1, Night Vision Experiments in LEO", Smallsat – Logan-UT (US) 2016
3. Giulio Manzoni, Yesie L. Brama, Meini Zhang, Naushad Rahman, "Extreme miniaturization of remote sensing satellites: the experience of POPSAT and ATHENOXAT", 1st International Conference on New Advanced Gns And 3D Spatial Techniques, University of Trieste (IT) 2016.
4. G.Manzoni, Y.Brama "Cubesat Micro propulsion Characterization in Low Earth Orbit", Smallsat 2015.
5. G.Manzoni, Y.Brama "Proof of concept and preliminary experiments of a plasma arcjet microthruster for micro and nanosatellites" –ESA Workshop on Micro/Nano Technologies for Space - ESA, Noordwijk – NL – 2010

[7<sup>th</sup> Global Meet on Wireless, Aerospace & Satellite Communications](#); Paris, France- February 12-13, 2020.

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