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ENABLING TECHNOLOGIES FOR LIVING AND WORKING IN SPACE NEED HIGHER PRIORITY

Abstract

While the first steps of civilian space development are finally taking place – thanks to the great efforts by Space X, Virgin Galactic, Blue Origin and other pioneer brave entrepreneurs – we don't see a proper attention and priority dedicated to science and technologies that will allow untrained civilians to travel, live and work in space. Namely, the following strains are very much worth of higher priority by decision makers in space policy and, in general, by the world political leaders, while they have to choose strategies to bring civilization out of its biggest crisis of growth in history. Namely, we are talking about protection of life and health in space, for long traveling, and residence in space infrastructures or habitats on the surface of the Moon, Mars and other celestial bodies: 1) protection by cosmic and sun hard radiation, to avoid damages to dna 2) artificial gravity, to avoid damages to bones, cognitive capabilities, equilibrium, sight 3) green environment in space habitats, for the sake of mental integrity, besides the needs for healthy food and fresh air to breath 4) ergonomic, safe and comfortable passenger transportation vehicles, endowed with smooth acceleration and safe re-enter into atmosphere Also we need better and broader collaboration among public and private space dealers, to design a strong strategy to facilitate the civilian space development, by progressive downsizing the cost to orbit and of any space missions/activities: 5) 1006) production of fuel in space, 7) space debris recovery and reuse, to kick-off space industrial business, 8) development of industrial infrastructure in the geo-lunar space region.