

2021 Space Renaissance International 3<sup>rd</sup> World Congress

“Civilian Space Development”

## The Final Resolution



Motion approved unanimously, June 30<sup>th</sup> 2021 during SRIC3 Session 6 – Voting session

We, the Space Renaissance International, during the 3<sup>rd</sup> World Congress of our association, discussed the status of civilization, the perspectives of expansion into outer space, and the best strategy to kick-off the civilian space development during next years, towards 2025. After our five days discussion, we are proposing the following recommendations to the good willing people of Planet Earth.

The most relevant fact, since our 2nd World Congress, held in 2016, is the development and consolidation of reusable rockets, now leading to fully reusable space vehicles, like Starship. Such an epochal development will reduce the cost of a seat to orbit under \$1 million, opening the way to industrial space settlement, and civilian space development. Besides continuing to support and promote in all means this effort, we are focusing the next key milestones on such an evolutionary road.

As our association maintained since its beginning, in the Space Renaissance Manifesto, the expansion of civilization into outer space is the only way to overcome the current global multiple crises in the so far philosophically closed world, and to restart a vigorous growth, in the realm of the Solar System.

Such a glorious future is not automatic nor guaranteed. Evolution works by trial and error. And we don't know, yet, whether our species will be a success or a failure, on the history of life in the Universe. The stake is to evolve into a solar system civilization, or to be thrown back to a stone age, should we remain closed within the boundaries of our mother planet.

The above situation delivers to our association – Space Renaissance International, the sole philosophical space advocacy, working in all continents – a huge responsibility: to clearly indicate the priorities, to support the evolutionary effort of humanity, that shall absolutely move the first essential steps before 2030, in order to open the high frontier to civilians, and to keep the door well open for next centuries to come.

To allow a smooth transition from the space exploration to the space settlement paradigm, there are scientific works to be done with more energy and investments, technologies to be consolidated and enhanced, collaborations to be agreed and pursued, in a spirit of a global support to the greatest enterprise of all times: the sustainable renaissance of our civilization in the outer space.

These are our priorities for the next five years, that we recommend to all the people of Planet Earth. We call all space advocacy organizations to join with us and speak with a louder voice.

- **Not going *back*, but going *forward* to the Moon: develop proper industrial infrastructure to produce fuel in space**, from lunar and asteroidal materials, also mining resources such as water, rare earths, precious metals and Helium-3.

- **Space debris recovery and reuse.** It is not only a necessary and overdue cleaning action. Starting the reuse of space debris is a bootstrapping point for Earth orbit industry, signaling the transition from a worthy public environmental initiative to the first orbital industrial business.
- **Enhance life protection in space.** Radiation from our sun and deep galactic cosmic rays represent a big threat to health and reproduction. Humans cannot travel and live in space for long time and distances without proper protection.
- **Start experimenting with simulated gravity.** It can be done by rotating connected modules, as an initial method: we need to learn a great deal about the effects of different diameters and rotation speeds on human perception, psychology and physical conditions.
- **Target younger generations** to empower their growth and inspire them on their path to space.
- **Keep on supporting the development of 100% reusable space vehicles.** Low cost, safe and reliable passenger space transportation vehicles.
- **Produce food in space.** Boost exo-agriculture study and experimentation. Start experimenting with large space habitats and lunar habitats, cultivating food and producing oxygen.
- **Space Safety.** Protection from asteroids impacts and strong solar storms. Develop radiation protection shields for space vehicles and habitats, in space, on the Moon and Mars. The same concept could apply to Earth protection.
- **Support the space tourism industries** and their effort to develop civilian space travel and accommodations (hotels), turning the aeronautic experience into profit.
- **Space Based Solar Power.** Inexhaustible energy collected in space, to feed the space industrial infrastructures and to study how to supply energy to Earth surface, as a contribution to clean energy.
- **Support space related art and bring art into space.** We want to develop cooperation and call for competitions and to promote dialog between artists, scientists and all interested people.
- **To add an 18<sup>th</sup> SDG, bootstrap the civilian space development, to UN 17 Sustainable Development Goals.** In order to make the 17 SDG feasible and sustainable.

All of the above points are preliminary to civilian space travel and settlement, and quite urgent to be inserted into a general space settlement agenda. They are not just scientific research items, and not just subject for private industry investment. All of these items require collaboration among agencies and private space industries.

We warmly invite all of the Planet Earth's visionary entrepreneurs, governments, space agencies, UN, universities, and all interested parties, institutions and individuals, to adopt the above recommended agenda.

We also warmly invite all of our sister space advocacy organizations, to join us promoting this agenda, to raise our voice loud and clear, for the benefit of humanity.

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