

18th IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND
DEVELOPMENT (D3)

Systems and Infrastructures to Implement Sustainable Space Development and Settlement - Systems (2A)

Author: Mr. Giorgio Gaviraghi
Unispace Exponential Creativity, Italy, giogavir@yahoo.it

TERRAFORMING PLANET EARTH AS A NECESSARY TEST FOR MARTIAN TERRAFORMING

Abstract

Terraforming planet Earth seems a paradox since our planet has already all the conditions for supporting human life. In reality several recent challenges are threatening our planet and we must face and overcome them to return our planet to its pristine optimal conditions for human life, considering the requirements of a growing multibillion population . Several Megaprojects at global level, and many more activities at local level must be realized to achieve the goals of modifying our environmental conditions , eliminate pollution, in the air, water and soil, eliminate diseases related to environment , urban blight and several other non acceptable conditions that are affecting planet Earth while producing green energy , food and habitable space for its population. One of the megaprojects proposed, Project Poseidon, calls for the utilization of extra water generated by the melting of our poles and threatening our coastal cities, to form a network of waterways , lakes and canals to reduce and transform desert áreas in fertile ones , creating new land , employment and opportunities to their population. A pilot Project interesting the arabian península will be presented , being in Dubai , describing the activities needed and present the benefits that can be achieved through a series of small interventions, denominated hot spots, coordinated and integrated between them. Terraforming planet Mars is a major challenge for humanity, a global goal to be achieved through a myriad of local interventions. Such interventions , generating thousands of hot spots in the planet, will slowly modify the face of Mars creating new environments with less hostile conditions. The lesson of applying global planetary design to our planet can help with martian terraforming showing the different levels of intervention needed to achieve such results, the megaprojects involved and the hot spots created. Mars should not only be randomly terraformed, but intelligently designed to optimize the utilization of its territory and resources and to transform it in a beautifully landscaped second home for humanity.