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PROJECT MANAGEMENT STRATEGIES FOR THE MOON AND MARS

Abstract

Urban development and design for infrastructure are time-absorbing, continuous and collaborative processes that involve numerous stakeholders from government officials to private investors, from engineers to architects, from marketing experts to end-users. The most important customer of the space industry is the public at large, therefore the foremost challenges are political, cultural, financial and technical. The need for international decision-making for sustainable design for the Moon is timely when various nations participate in exploration, when space tourism, mission durations and the number of people working on the Moon accrue. The paper proposes feasibility studies with open communication strategies for shareholders, rather than space outreach for taxpayers and the youth. The paper applies concepts and methods from among brand identity management, real option theory, scenario analysis and project development in order to propose novel structures for project management and marketing strategies. Long term sustainable development is one of the key principles on the Earth and thus, one of the key drivers also for the future urban development for the Moon and Mars. The paper proposes that those shareholders who do not live to see the financial success of their investments should be invited to enjoy the lengthy process via interactive participation in the new rich media applications. The key is to prepare for the future wellbeing and sustainable urban development for the next generations. This paper discusses alternative strategies to establish a technology park on the Moon and on Mars, with the objective to create the most feasible and attractive place for man to live and work by benchmarking the most successful cases on the Earth. Private investors and tax-payers are more eager to invest when risks, financial profits and social benefits from technology transfer and novel innovations are persuasively marketed and simple enough to understand. Feasibility studies with master plans, site plans and details, drawings and models with strong brand identity, developed and designed by architects and urban designers, are keys for decision-making, while they enable to quantify, visualize and understand problematics of growth and change over a longer time-period. Since people as decision-makers in complex systems are the most critical element for system safety, reliability and performance, special focus on human factors and design leads to superior performance especially in hostile extreme environments. Virtual reality and augmented reality simulation applications are a useful tool to assist in exploring worlds that are beyond our current possibilities to reach them physically.