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Models for Successfully Applying Space Technology Beyond Its Original Intent (2)

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TECHNOLOGY TRANSFER: CURRENT TRENDS IN INCORPORATING NEW TECHNOLOGIES
INTO HOUSING INDUSTRY

Abstract

In current world technological improvements and innovations are inseparable from everyday lifestyles everywhere around the world. There are obvious and not so evident correlations and analogies between approaches to achieve sustainable and advanced living in space and on earth. These environments have many similar kinds of technical and operational priorities. Key among these are needs for appropriate transportation and construction systems, efficient energy, effective and environmentally-responsive waste management and life support systems, maintenance and repair provisions, and emergency accommodations.

Understanding current problems and challenges in construction and housing helps to form and outline strategies and techniques those industries need to be developed and implemented in order to meet sustainability criteria and help to shape responsible living practices. This paper investigates levels of feasibility of making cutting edge technologies a part of our everyday life. To do so several common for space applications techniques are compared and analyzed with focusing on the following approaches:

- Merging multidisciplinary approach into design process;
- Transferring knowledge between disciplines;
- Evaluating current needs and constraints in housing/ Intelligent technologies;
- Making living environment interactive offering learning experience rather than just operative skill;
- Encouraging and stimulating people to expand their knowledge;
- Creating awareness of evolution of man-machine relationships and influences.

Conclusions are drawn upon of a historical overview and analysis of successes and failures in technology transfers from space to Earth applications. Potential benefits of space technologies transfer to housing are outlined with emphasis on sustainability optimization, social awareness, advancing proactive and creative mentality.