

16th IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND
DEVELOPMENT (D3)Strategies & Architectures as the Framework for Future Building Blocks in Space Exploration and
Development (1)

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THE INTERNATIONAL LUNAR DECADE: FRAMEWORK FOR INTERNATIONAL COOPERATION
IN LUNAR DEVELOPMENT**Abstract**

High interest in lunar development led to the endorsement of the International Lunar Decade (ILD) by COSPAR in Beijing in July 2006 responding to a proposal by L.D. Friedman and W.T. Huntress. The 2008 financial crisis and the change in U.S. administration in 2009 dramatically changed U.S. space plans removing the Moon as a destination. However, interest in the Moon remained strong with ESA, Japan, Russia, China and India. The inspiration for ILD is the IGY 1957-8 that marked the first global effort to understand the planet Earth. IGY made possible international cooperation in research that enabled understanding of global phenomena like climate change. IGY also led to institutional development including COPUOS which led to the negotiation of the Outer Space Treaty of 1967 and the other major space treaties. ILD is proposed as framework for international cooperation towards permanent presence on the Moon. Initially proposed by COSPAR to start on the 50th anniversary of IGY in 2007, global conditions were not favorable. Now, many countries are planning missions to the Moon including the U.S. Unlike 2006 there is also significant involvement by the private sector with plans for utilization of lunar resources, and depots and other facilities in cislunar space. ILD is not an attempt to master-plan the future of mankind in outer space. It is like the IGY, which provided loose coordination for numerous independently planned initiatives which included the launch of Sputnik and Explorer. Economic use of lunar resources is a precondition for sustainable research and commercial activities on the Moon and beyond. There is speculation about lunar water and asteroid resources, but no business case for use of space resources has so far been offered. Markets for space resources remain to be developed. Even the legal right to use space resources within existing space law is not defined. Building blocks are emerging that aim for permanent presence on the Moon. Moon Village is a bottom-up, open, evolutionary concept for development on the Moon engaging research, business, as well as space agencies. The Moon-Earth Flagship, proposed to the European Commission, provides a way to engage European research and industry to develop space-based solar power using lunar resources. Adoption of the ILD framework by forums for international cooperation in space can lead to greater progress in the 2020-2030 period. The ILD framework can also provide strategic direction to meet UN Sustainable Development Goals.