

The International Lunar Decade – 2017 – 2029: Framework for Concurrent Development of Enabling Technologies, Infrastructures, Financings and Policies for Lunar Development. V. Z. Beldavs¹, D. Dunlop², J. Crisafulli, B. Foing ¹FOTONIKA-LV national research center of the University of Latvia, 19 Raiņa Blvd., Riga, LV-1586, Latvia, e-mail – vid.beldavs@fotonika-lv.eu, ² National Space Society, 1875 I (Eye) Street NW, Suite 500, Washington, DC 20006, USA, e-mail – dunlop.david@gmail.com.

Introduction: The International Lunar Decade (ILD) is an initiative of the International Lunar Exploration Working Group (ILEWG), the National Space Society (NSS) and the FOTONIKA-LV national science center of the University of Latvia. Planned for launch in 2017 marking the 60th anniversary of the International Geophysical Year the ILD will provide a framework for international collaboration in the development of technologies, infrastructures, financing mechanisms and policies for the development of the Moon and international operations in cislunar space. An ILD Working Group has been formed to advance the vision of ILD with space agencies, international space organizations, research centers and institutes as well as commercial businesses engaged in various aspects of space development. A major goal is to secure the endorsement of the Committee on the Peaceful Uses of Outer Space (COPUOS) as a step towards a UN General Assembly resolution declaring the International Lunar Decade as a global, UN sanctioned initiative.

The ILD concept was first initiated by the Planetary Society (PS) in 2006 and gained the endorsement of COSPAR and the ILEWG¹ as well as financial support from the Secure World Foundation². A presentation on ILD was made by Louis Friedman, Executive Director PS to COPUOS at the 44th Session of the Technical Subcommittee, 12-23 February 2007. While the ILD idea was received with enthusiasm by the 100 or so delegates, no subsequent action was taken by COPUOS to secure a resolution of the UN General Assembly declaring the International Lunar Decade as a global, UN sanctioned activity. The ILEWG provided a coordinating framework for several subsequent lunar missions “(smart-1, Kaguya, Chang’ E 1 2 3 5T, Chandrayaan-1 and US LCROSS, LRO, Grail etc) mission and first surface landers, and many goals achieved by the community.”³

A new vision for ILD was launched at the conference The Next Giant Leap: Leveraging Lunar Assets for

Sustainable Pathways to Space <http://2014.giantleap.aerospacehawaii.info/> that resulted in an International Lunar Decade Declaration, a living document subject to continued revision that can be found at <http://www.nss.org/news/LunarDeclaration.pdf> and led to the formation of the International Lunar Decade Working Group (ILEWG) that is concentrating on defining ILD and increasing levels of granularity and promoting the idea to all space groups and organizations. Since the intent is that the ILD process lead to commercial activity beyond Earth orbit effort will be made to introduce the idea of a self-sustaining space economy to forums involved in financing ventures and economic development as well as to forums and groups concerned about new developments in economics in addition to traditional space forums.

To assure that the successes in commercial space development that have been achieved since 2010 can be sustained we recommend the following actions:

1. The US endorse the International Lunar Decade as a global event celebrating space as a frontier for all mankind with the ILD providing a roadmap and a framework for international collaboration in the period 2017-2030 to make the transition from lunar exploration towards industrial development of the Moon and facilities in cislunar space. Key recommendations:

2. The US take the lead in launching a process to resolve the matter of property rights and other policy issues required for mining and other commercial activity to take place on the Moon.

3. Working with existing ISS partners and ISECG and ILEWG develop a plan for international collaboration in space where the ISS becomes an element of a larger program with more partners that includes operations on the Moon and in cislunar space aimed at reducing the cost and risk of activities in space as well as expanding the potential for profitmaking commercial business beyond Earth orbit.

4. Through the G20 process explore the potential for establishing an international financing mechanism for space development that would enable private companies, including small businesses, around the globe to pursue innovative solutions to materials processing, energy, communications, life support and other technologies required for sustainable development in space.

¹ http://www.planetary.org/press-room/releases/2006/0708_Planetary_Society_Calls_for.html

² http://www.planetary.org/press-room/releases/2006/1204_Foundation_Joins_Planetary_Society_Call.html

³ Personal communication from Bernard Foing sci.esa.int/ilewg.