

# Notes from ISRU Monthly Meeting

August 2020

## Notes From Discussion

### **Need to Include Nonprofits in Calls**

- Calls currently often exclude nonprofits from leading
- Space Tech has heard this issue raised from LSI-I/C before, should be addressed in future solicitations

### **ISRU Supply / Demand Workshop**

- Suggestion to ping Space Force for involvement, Dennis Wingo volunteered to act as intermediary

### **Volatiles Other Than H<sub>2</sub>O and O<sub>2</sub>**

- Many substances other than H<sub>2</sub>O and O<sub>2</sub> are available in the regolith, when will they be addressed directly
- Example of Al<sub>2</sub>O<sub>3</sub> in the highlands, could be used
- Need to establish the drivers for exploring other volatiles
- Construction & manufacturing would be drivers for other volatile use
- Karl will integrate with other LSIC focus groups to ascertain needs for other volatiles

### **System of Systems Model for ISRU**

- Need to develop an integrated modeling framework, an ecosystem / network where systems can be compared and built upon
- E.g. an effort out of Frontier Development lab to develop location specific searches for different materials based on thermal profiles

### **Establishing Demand Foundation**

- Demand pull with government as an anchor will be vital
- For example CLPS missions were successful because NASA funded 80%, made the business case easy
- Need to establish long term stable demand over years for real commercial investment

### **Environmental Considerations for Implementing ISRU Technology**

- What thought is being given to environmental impact of ISRU mechanisms, and how that will affect people being there
- This should be a consideration across focus groups
- No explicit environmental considerations right now, but NASA is starting to take notice of such concerns (e.g. excavation challenge modified to reduce dust debris)

## Notes From Chat

- Confluence was chosen as a collaboration tool because NASA can't use Slack
- LuSTR didn't include nonprofits in the call, but was specifically targeted at universities
- Announcement from Brad Blair: The White House recently released a report on Space Exploration and Development that includes ISRU as a topic - <https://www.whitehouse.gov/wp-content/uploads/2020/07/A-New-Era-for-Space-Exploration-and-Development-07-23-2020.pdf>.