LSI-VC Status Update

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Draft Work Plan Tasks

- **1) Increase the visibility of land surface imaging data holdings. The LSI-VC will work with WGISS to list relevant datasets to ensure visibility through CWIC etc.**
  - Develop a strategy/solution for communicating access updates for existing missions (i.e. when access conditions change, new availability etc.). Updates could be collected via the MIM database survey/CEOS Plenary. Also consider how foreign language data portals might be better advertised. **(Due – TBD)**
  - LSI-VC equivalent of the GFOI Space Data Portal **(Due – TBD)**

Draft Work Plan Tasks (cont)

- **2) Identify gaps in/opportunities for acquisition planning in support of the CEOS Carbon Strategy**
  - Lead a survey on tools or processes used by space agencies to manage multiple different requirements and stakeholders, and present the results at SIT-31 in the form of a short report and presentation. **(Due SIT-31)**
  - Define what constitutes a 'validated requirement' and ensure that there is enough specificity in the requirements being put forward in the various CEOS thematic strategies – starting with Carbon. (**Ongoing : seek WG inputs)**

LSI-VC Draft Work Plan Tasks (cont)

- **Carbon Strategy (cont)**
  - Review the parameters set out in the CEOS Carbon Strategy, and compile a statement of the satellites applicable to each (based on the guidance in the report). **(Due April 2016)**
  - Initiate a meeting/teleconference with WGClimate. **(Due Q2 2016)**
  - Compile a system-level summary of the workflow required for gap analyses of the CEOS thematic strategies (starting with Carbon). **(Due 2016 SIT Technical Workshop)**
  - In coordination with WGISS, SEO to define a list of missing mission metadata and develop a strategy for how it might be acquired from CEOS agencies **(Due Q2 2016)**

Draft Work Plan Tasks (cont)

- **3) Define intercomparable Analysis-Ready Data (ARD) products within the context of land surface imaging**
  - Summarise current activities from CEOS agencies that relate to ARD – drawing on the work done on the SDCG Global Data Flows Study. The scope is surface reflectance, land surface temperature and an equivalent for radar. **(Due SIT-31)**
  - **Working closely with WGCV**, review the current definitions of ARD and agree on key principles that define both optical and radar ARD (e.g. stackability, minimum requirements for geometric accuracy, provenance). **(Due August 2016)**
  - Provide CEOS Plenary a summary report on the concepts and benefits of ARD, progress on/status of ARD production within CEOS agencies, challenges, and recommendations for 'CEOS Standard' ARD products.

Analysis Ready Data (ARD)

- USGS definition as relates to the Land Change Monitoring, Assessment, and Projection (LCMAP) system
  - ARD product consists of Landsat Top of Atmosphere (TOA) Reflectance, Surface Reflectance (SR) , and Brightness Temperature
  - Consistently processed and gridded to a common cartographic projection

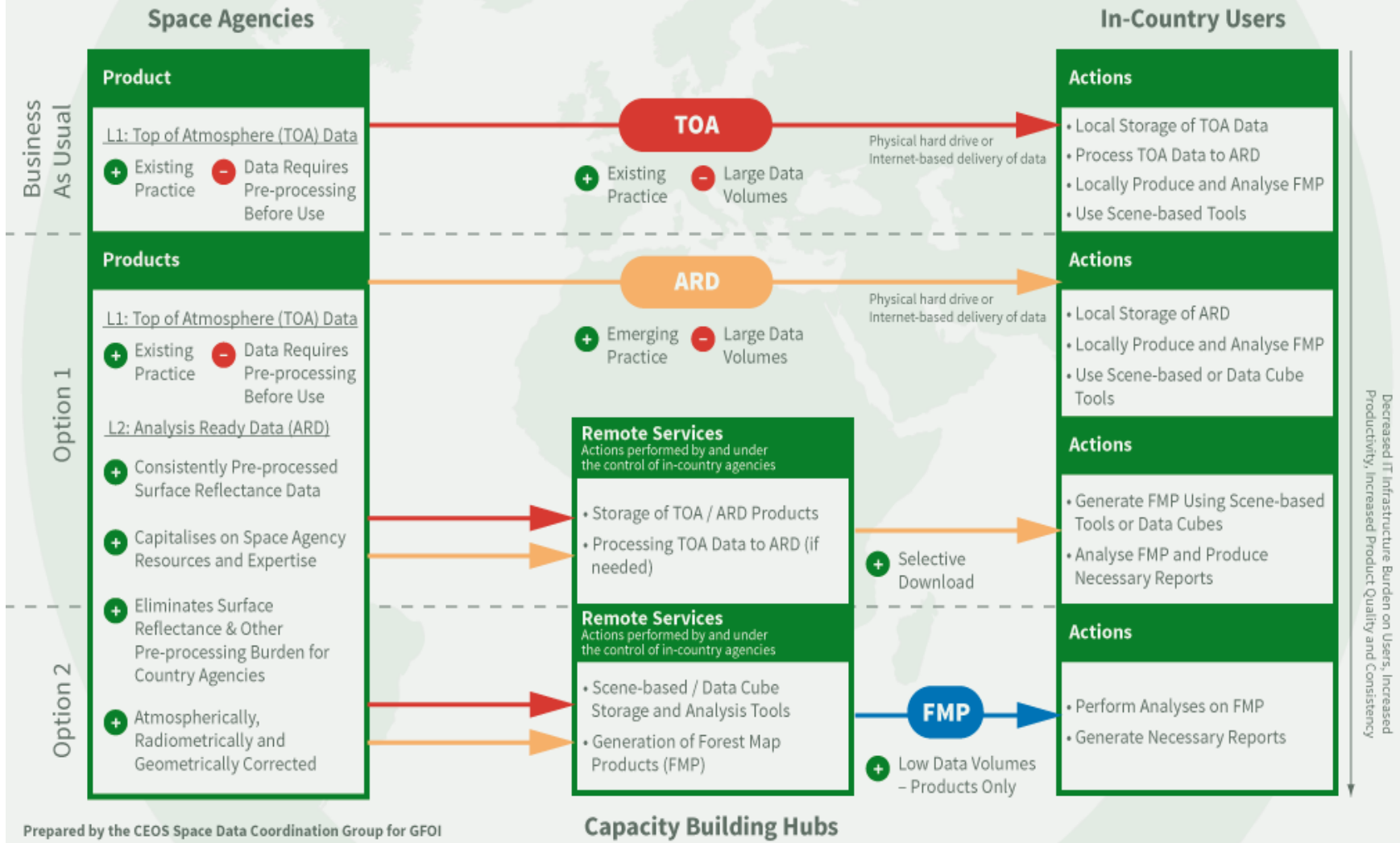
ARD (cont)

- USGS LCMAP Goal – create and enable access to data and information to be directly used in monitoring and assessment of landscape change.
- Level-1T Products are the starting point for generating ARD
- Consistent QA Band Attributes for the Various Landsat Sensors

ARD Working Definition

- (LCMAP)
  - ARD are processed to a level that enables direct use in quantitative applications including exploratory data analysis, numerical modeling, and multi-temporal manipulation for purposes of data reduction, analysis and interpretation.

Future Global Data Flow Options for National Forest Monitoring Systems



Prepared by the CEOS Space Data Coordination Group for GFOI

http://www.gfoi.org/space-data/

http://ceos.org/ourwork/ad-hoc-teams/sdcg/

Draft Work Plan Tasks (cont)

- **4) Engage in the implementation of trial data cubes (from the perspective of the objectives of LSI-VC)**
  - Compile a short report to CEOS Plenary on CEOS Data Cube activities and their relevance to the objectives of the LSI-VC.
  - This activity should be from the LSI-VC perspective (keeping in mind that a VC must integrate data from multiple sources) and draw upon and complement the work done in the Future Data Architectures (FDA) ad-hoc team – covering lessons learned from SEO pilot activities (costs, release procedures, shortcomings, etc.). **(Due 2016 SIT Technical Workshop)**

Draft Work Plan Tasks (cont)

- **5) Long-term LSI-VC strategy and vision – in particular around taking on some of the operational/systematic technical activities that are currently undertaken by ad-hoc CEOS teams.**
  - Develop a discussion paper on the strategy and vision for LSI-VC. This might, for example, consider how LSI-VC would integrate new activities (such as water), and cover topics such as the division of roles and responsibilities between stakeholders (GEO, requirement providers, CEOS AHT's and WG's, scientific community, commercial providers, etc.); the interface to the user community; and the representation of key stakeholders in LSI-VC. The paper should also consider the value proposition of LSI-VC, its aspirations, and available resources. **(Due Q2 2016)**