UrtheCast’s Vision for the Democratization of Earth Observation

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The Big Picture
We’re on the threshold of a new era:
Huge value will soon be unlocked by Earth Observation systems and services.

Space-based services reach ‘take-off’
when integrated into much larger industries

The key: productivity gains when space becomes an embedded utility

- Satellite Communications
- Navigation
- Earth Observation
From Remote Sensing to Market-Driven GeoAnalytics
Projected Growth of EO Imagery Market
Earth Observation Data Sales (Optical + Radar)

Market Split (2015)

- US Defense: 24%
- Non-US Defense: 38%
- Non-Defense Markets: 38%
The Geoanalytics Market: Big Data, Big Growth

An emerging $24 B/yr market — growing to $72 B/yr in 2020*

Total Addressable Market (TAM)* = a subsector of the Big Data market

1. Today
   - B2G
   - ~ US$ 3-5B

2. Emerging
   - B2B
   - Tens of US$ Billions
   - Big Data Analytics
   - Highly-derived geoanalytics services and applications
   - Imagery, information and traditional value-added applications

3. Long-term
   - B2C
   - US$?
   - Long-tail
   - Web and Media Applications
   - Highly-derived Information services
   - And EO-embedded Native apps

* MarketandMarkets Feb 2016
Growing Geoanalytics Market Opportunities
Emerging in all sectors of human endeavour — and evolving rapidly
Geoanalytics Opportunity in Agriculture

Emerging opportunity ~$20-25B/yr TAM

• Monsanto estimates that ~1 billion farm acres globally could support an estimated $20-$25/acre of geoanalytics services and products.

• Remotely-sensed data is currently estimated to support and improve over 40 separate and critical agricultural related decisions, including: seed selection, weed control, insect control, fertilizers usage, tillage, crop diagnostics, harvest, etc.

• According to a survey of 2015 InfoAg attendees, nearly half (47%) said that they plan to increase their investments in remote imagery services, citing real-time data and higher yields as the primary factors influencing its adoption by farmers.
Opportunity in Water & Irrigation Management
Emerging ~$10-15B/yr TAM

- Current geoanalytics partners have validated this opportunity by harnessing our current geospatial datasets
- Remotely-sensed data is currently supporting substantial water and irrigation management savings, supporting an estimated TAM of 10-15B/yr
Unlocking the Large Emerging Geoanalytics Market

- Frequent global coverage of consistent, high-quality data
- Accessible data (low cost and API accessible)
- Easy-to-use value-added third-party products and services with imbedded geoanalytics capabilities
UrtheCast and the Democratization of EO
UrtheCast + Deimos Imaging

We provide a unique portfolio of EO products and services, and it’s evolving

Theia
UrthePlatform
150 People

Iris

Deimos-1
Ground Stations
100 People

Deimos-2
A Vertically-Integrated EO System

A space-based Geospatial Big Data collection, processing, and information management system — completely vertically-integrated.

Upstream
Satellites

Midstream
UrthePipeline
Ground Segment

Downstream
UrthePlatform
Experience Leads Us to Develop Tailored Systems

Market-driven progression of sensors and infrastructure, based on three synergetic pillars:

- Theia
- Deimos-1
- Iris
- Deimos-2
- Cloud Platform
- In-House Archive

UrtheDaily™ Constellation
OptiSAR™ Constellation
UrthePlatform

The UrtheDaily™ Constellation

All the World, Everyday, at 10:30 AM, at 5m/pixel, through a user-friendly cloud platform

8 satellites to produce consistent, reliable, daily delivery of 140 M km² of multispectral imagery

Product: Multispectral, 5m/pixel high-quality imagery, with full global daily coverage
Service: Through the cloud, and via APIs, all based on the UrthePlatform

UrtheDaily™ will enable daily, global change detection and analysis at unprecedented scale.

- Developed following years of study, as natural evolution of the Deimos-1 and Theia experiences
- Incorporates market lessons learned via current assets and customers
- An unprecedented and disruptive product/service, tailored for GeoAnalytics

UrtheDaily™ operations could start as early as 2018
The OptiSAR™ Constellation

The World’s first fully-integrated constellation of Optical and SAR satellites

16 satellites in two orbit planes

Satellites are arranged in 8 pairs:
- SAR (X+L bands) + Optical (50 cm)

This arrangement allows for:
- Very high assured (day/night, cloudy or not) revisit worldwide
- Imaging of the same location with SAR and Optical
- Optimized multispectral imaging through cloud avoidance

OptiSAR™ operations could start as early as 2020
A Combined Offering that’s Unmatched

With OptiSAR™ and UrtheDaily™:

**Resolution**
In the highest class (OptiSAR)

**Revisit**
By far the highest (OptiSAR + UrtheDaily)

**Coverage**
By far the highest (OptiSAR + UrtheDaily)
UrthePlatform™: Unleashing EO Big Data
Available NOW, with 5 main APIs and data from multiple satellites

UrthePlatform End User Dashboard Welcome Page

UrthePlatform End User Tools – Archive Browser

https://developers.urthecast.com
Our Vision of the “Democratization of EO”

Provide unhindered and near universal access of EO imagery and data

…at affordable price point

…in formats and on platforms that do not require expertise

…within an eco-system that attracts third-party investment and innovation (Apps)

…that significantly broaden the utility of the data for organizations and individuals
From Earth Observation to GeoAnalytics

A source-agnostic, cloud-based ecosystem for ingesting, displaying, exploiting, and distributing satellite data, imagery, and video to monitor our constantly-changing world.

Forestry  Environment  Agriculture  Water  Trading / Commodities  Construction  Infrastructure  Transportation

Urban Planning  News Events  Disasters  Public Safety  NGOs  Intelligence  Defense  Insurance