

UrtheDaily™

Big Data for Daily Spatial Analytics on a
Global Scale, enabled by GEO4IR

Fabrizio Pirondini, CEO Deimos Imaging, an UrtheCast Company
Geospatial World Forum 2018, Hyderabad, India, 17 January 2018

From Earth Observation to Geospatial Information

Deimos Imaging is a geo-information company providing access to Earth Observation imagery through a unique virtual constellation of satellites.

10+ years of experience delivering high quality geo-information services

33 Earth Observation satellites in our Virtual Constellation

85+ resellers worldwide

>6 billion km² of satellite imagery archived since 2009

150+ customers in more than 50 countries





Deimos1



Landsat-5: 16 days



Deimos-1/UK-DMC2: 2 days

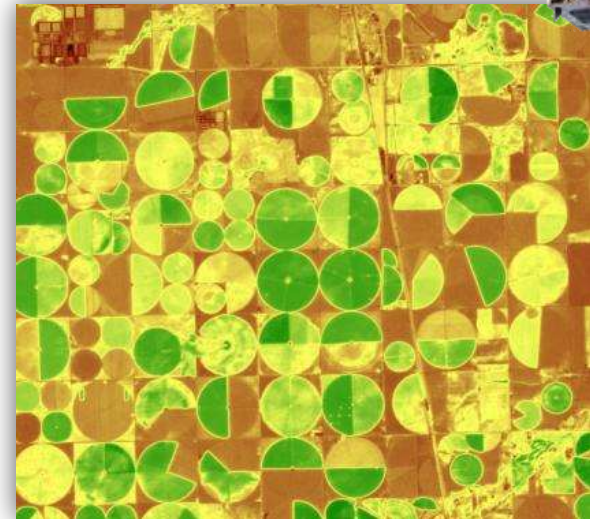
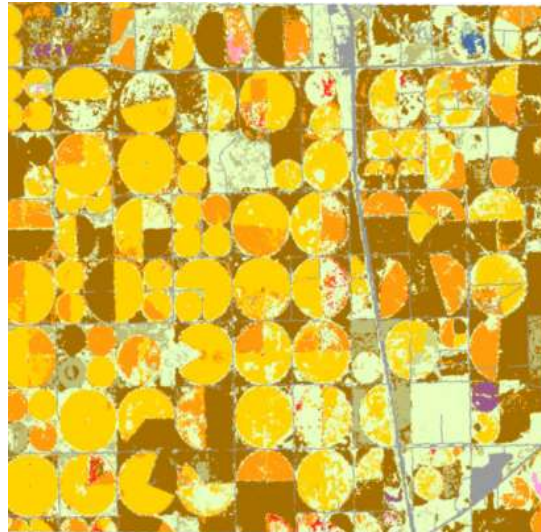
Deimos-1: Pioneering large-scale frequent coverage

Large scale agriculture: serving USDA since 2011

Example: Crop identification using Deimos-1 data (USDA CropScape)



Produced by CropScape - <http://nassgeodata.gmu.edu/CropScape>

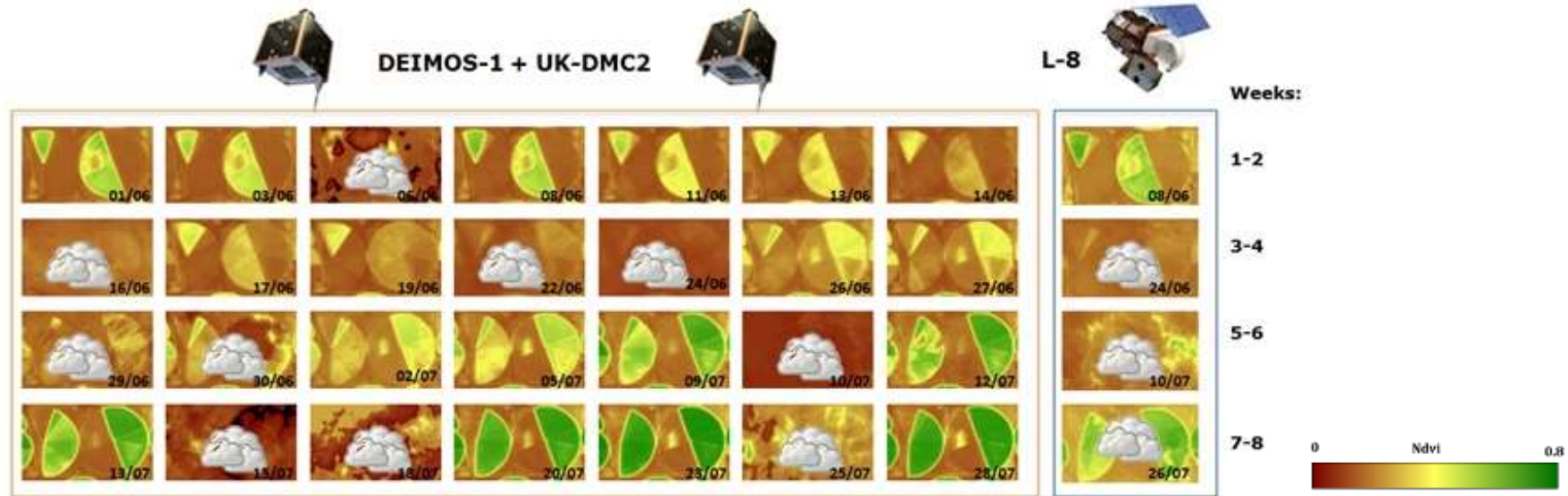


Deimos-1: Pioneering large-scale frequent coverage

Precision ag with almost-daily coverage, together with UK-DMC2

- Irrigation management
- Crop status and yield forecast
- Early detection of crop illnesses
- Management of fertilizers and pesticides

Example: Operational service with one image every 2 days during crop season in Texas



Customer Needs for scaling up the Business

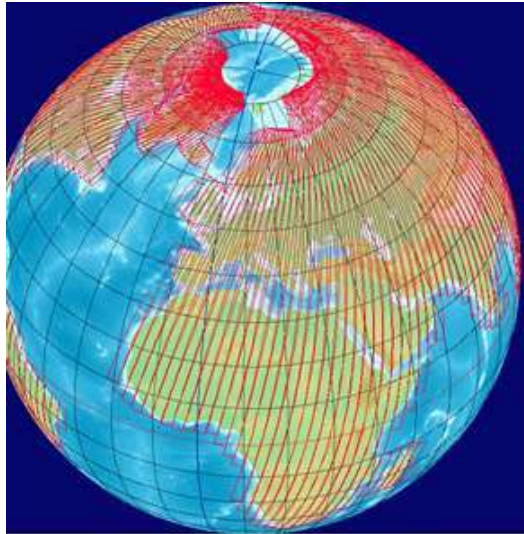
- Global Coverage
 - More frequent (daily)
 - Better spatial resolution
 - Much more spectral bands
 - Better image quality
 - Faster delivery
 - Easier access
 - Automatic processing
 - Link with field infrastructure
- 1000x more data
- Much better ground infrastructure

GEO4IR

- Cloud technology
- Platform as a Service
- Big Data handling
- M2M processing
- Precise Geolocation
- IoT
- AI

UrtheDaily: Enabling Transformational Insights

UrtheDaily is the world's first Earth Observation system designed end-to-end to truly power machine-learning and artificial intelligence-ready geoanalytics applications, on a global scale.



- **A satellite constellation aiming to achieve highly cost-effective, daily, global coverage without compromising on the scientific-grade quality data critical to geoanalytics.**
- The whole Earth's landmass everyday, at 10:30 AM, at high resolution, with multi-spectral scientific quality
- Fully automated tasking, collection, downlink, backhaul and data processing, cataloguing and delivery
- Data available same-day via cloud-based platform
- Geo-Information services available via ecosystem of partners
- Targeted in-market service for the 2020 growing season



The UrtheDaily Data Stream: 20+ Tb/day

Fueling Geospatial Information Systems with a daily, high-res, high-quality data stream

- ✓ Daily global snapshot
- ✓ High-resolution, multispectral imagery
- ✓ Scientific-grade data quality
- ✓ Always consistent through cross-calibration
- ✓ Data pipelined on the cloud within few hours
- ✓ Conceived for M2M analyses
- ✓ Fully compatible with Sentinel-2/Landsat-8
- ✓ Image format is analytics-ready
- ✓ Natively Esri-ready
- ✓ Long-duration of service (10 years)
- ✓ Clear, dependable SLA with our customers



From Earth Observation to GeoAnalytics

A cloud-based ecosystem for ingesting, displaying, exploiting, and distributing satellite imagery, 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

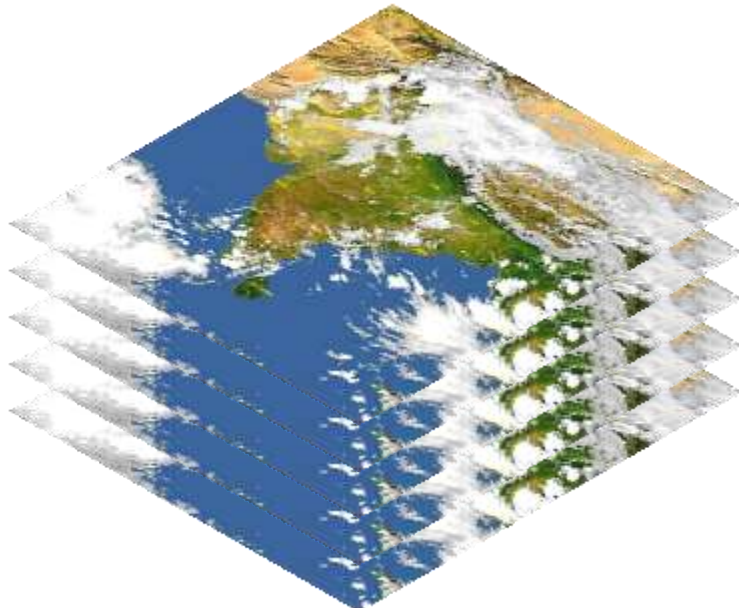


Insurance

Fully complementary to Indian EO Satellites

Complementary to Resourcesat and Cartosat series. Cross-calibrated with Resourcesat.

URTHEDAILY for India



Daily coverage – hi-res & scientific quality

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Conclusions