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deimosimaging

The unique EO portfolio for Precission Agriculture

Laura Abuja Conde. *Senior Sales Coordinator for Asia Pacific*

EU-JAPAN SPACE BUSINESS WEEK

7th September, 2017

Deimos Imaging, an UrtheCast company

Canada HQ & Engineering | Spain Satellite Operations | USA R&D & Product Development ~260 people

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Theia

Iris

Cloud Platform

150 People

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Deimos-1

Deimos-2

Ground Stations

110 People

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Deimos-1

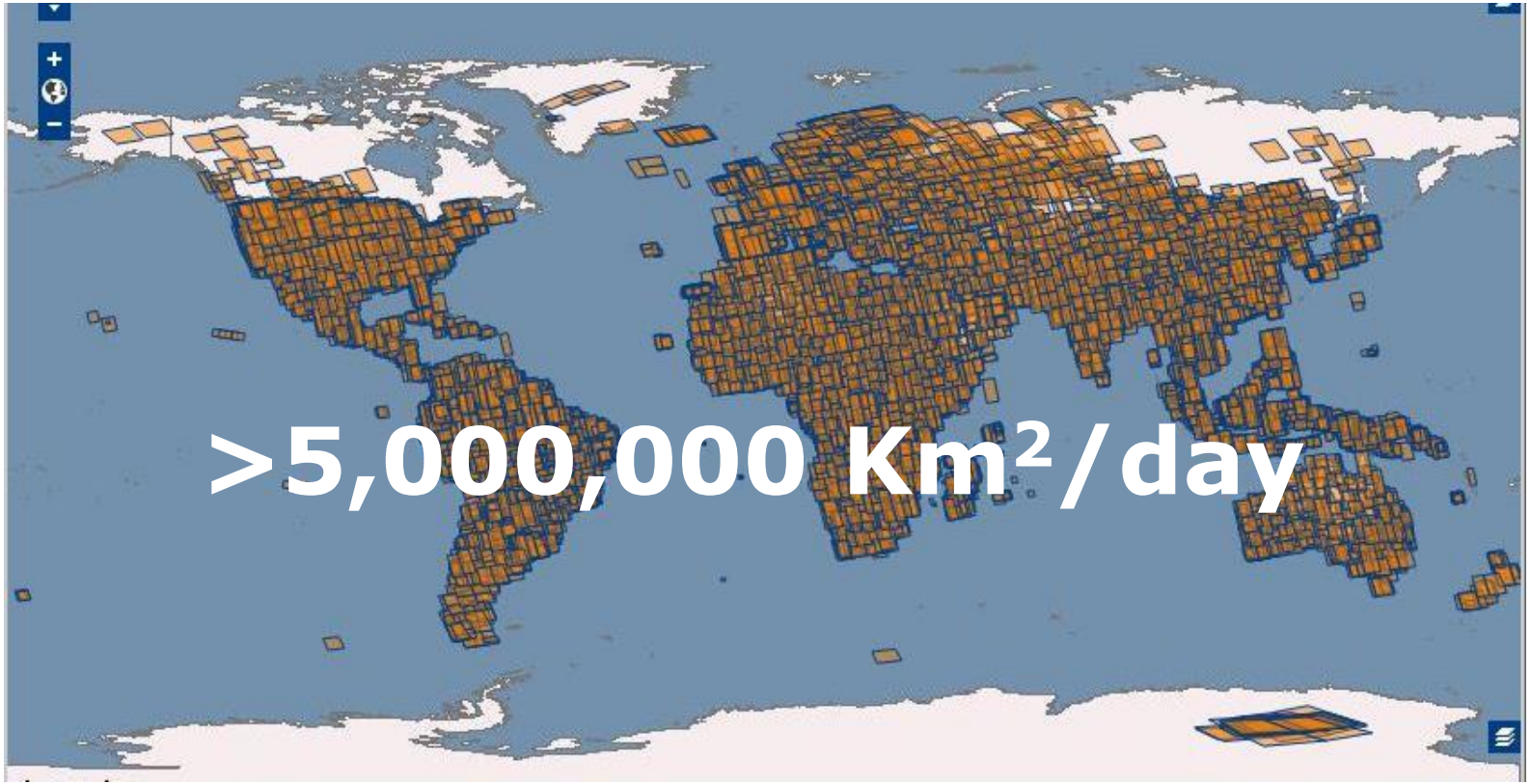
Medium-Resolution Imagery

Launched	2009
Pixel size	20 m
Bands	3 (Red, Green, NIR)
Image width	650 km
Revisit time	3 days average, worldwide
Image time	Mid-morning (10:30 AM)

Key Features

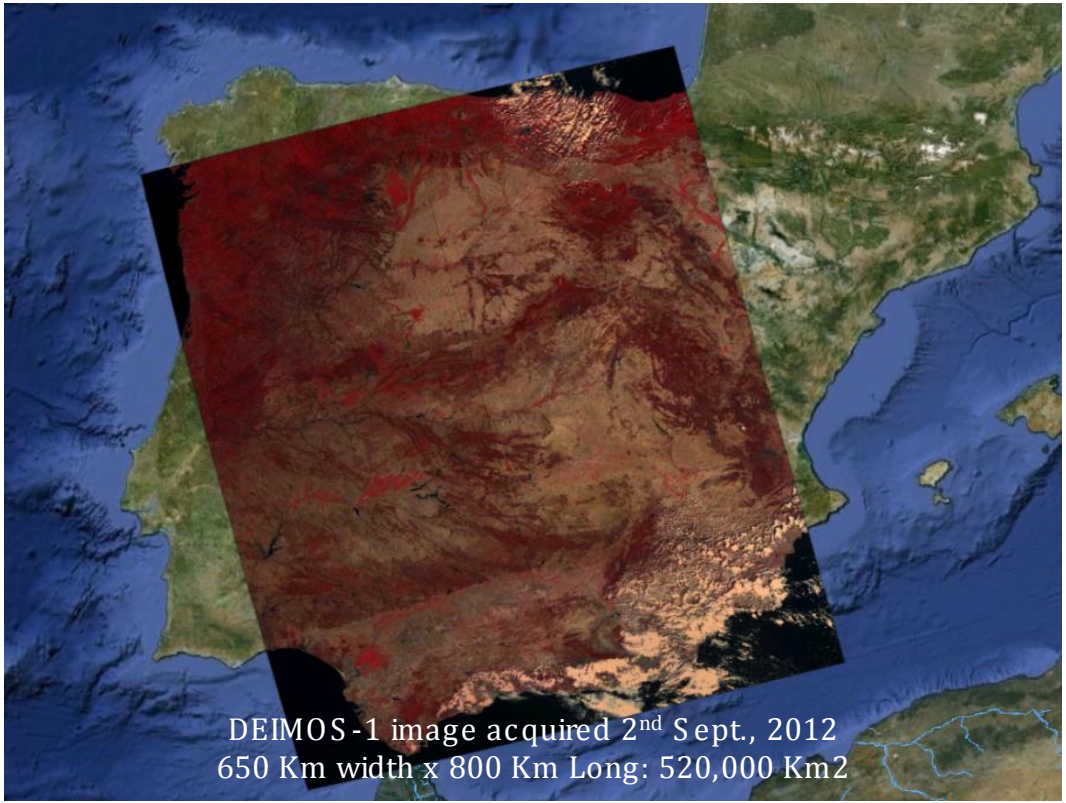
- Designed for agriculture, forestry and large-scale change detection
- Unique coverage capacity of entire countries in few days
- Capable of acquiring up to 8 million sqkm per day, **high quality data**
- Used by ESA for large-scale monitoring since 2010
- Used by USDA for crop monitoring in the US since 2011
- **Large coverage + NRT service suited for Maritime Surveillance**

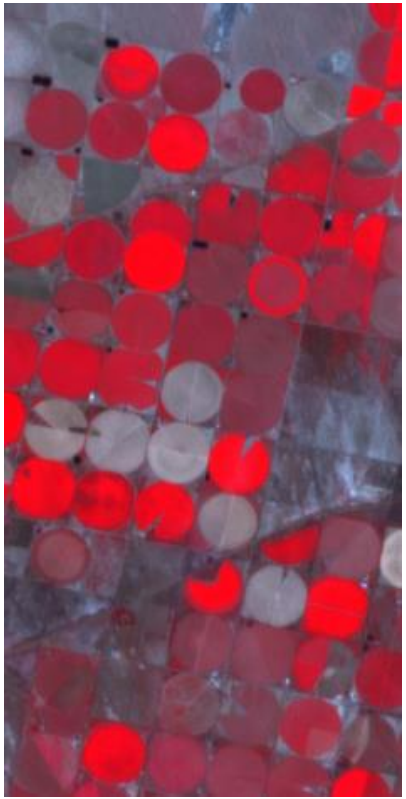
Deimos-1



Online catalogue of DEIMOS-1 imagery (>50,000 images)

Deimos-1

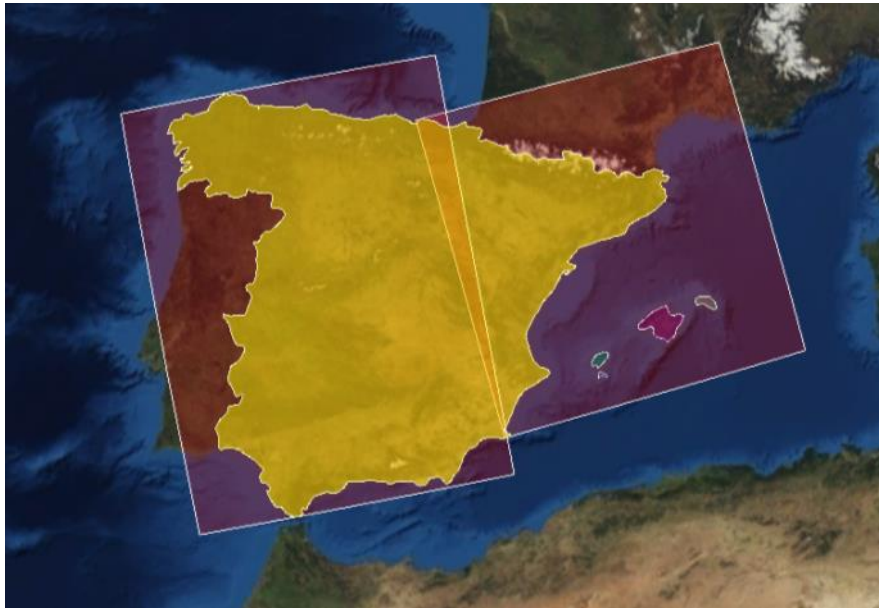

DEIMOS-1 image acquired 2nd Sept., 2012
650 Km width x 800 Km Long: 520,000 Km2



Deimos-1

Landsat-8: 16 days

Deimos-1: 2 days



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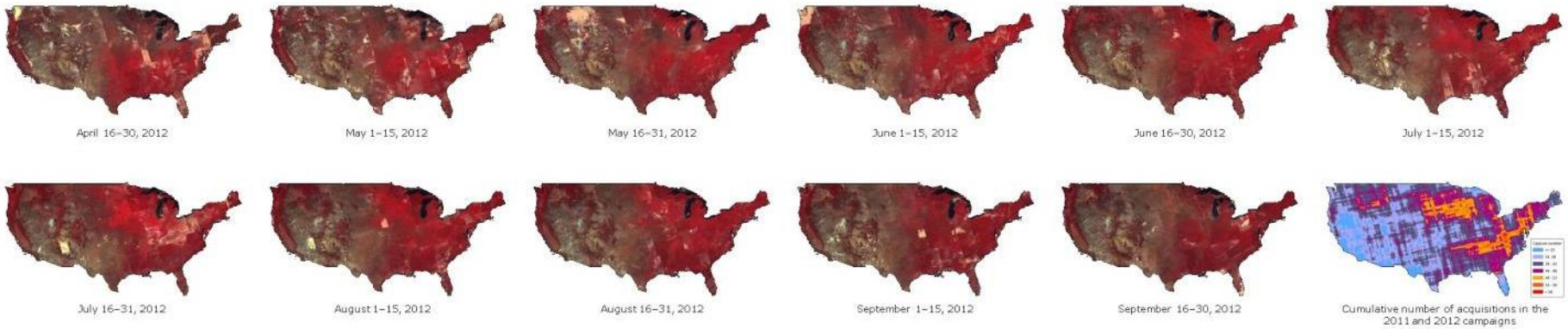
Deimos-1

The world leading imagery source for large scale agriculture

- Unmatched capacity of **fast cloud-free coverage of very large areas**, thanks to 650-km swath

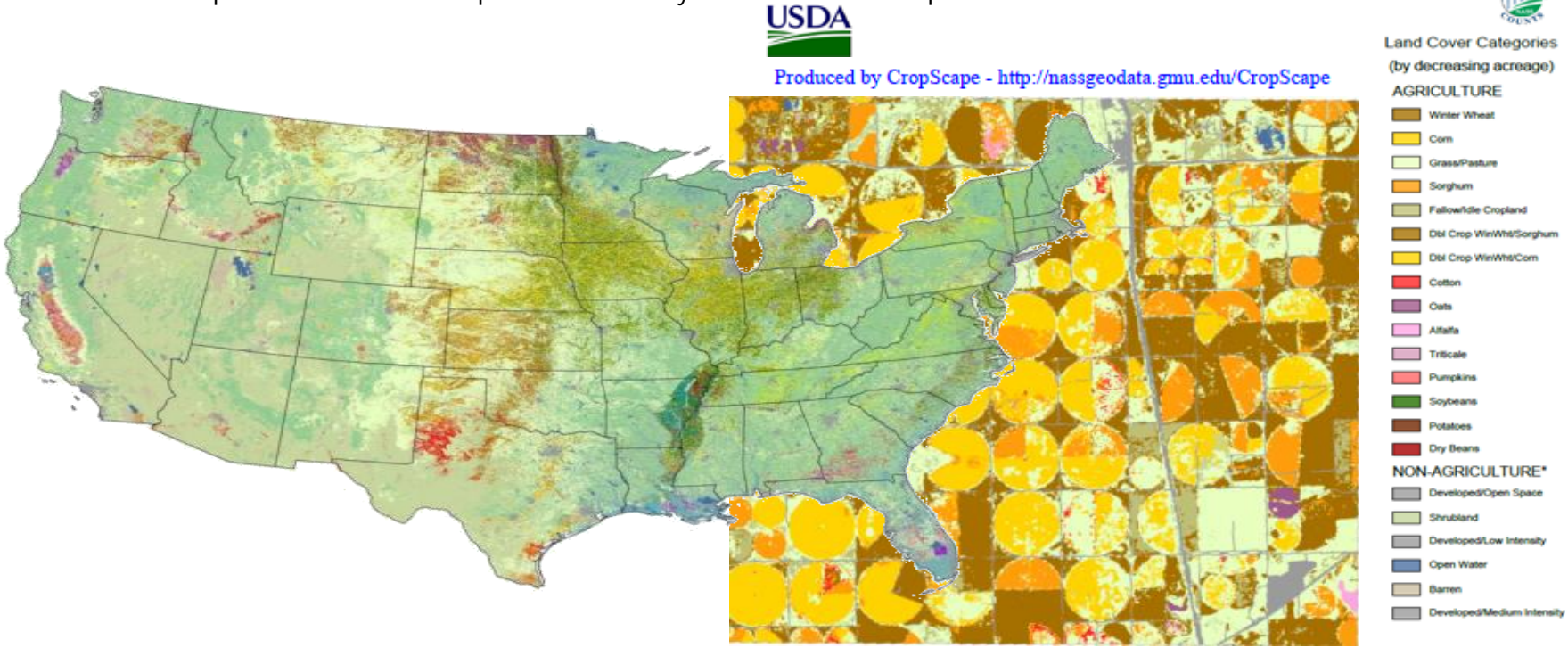
Example: One cloud-free coverage of CONUS every 15 days during crop season, for USDA since 2011



Deimos-1

The world leading imagery source for large scale agriculture

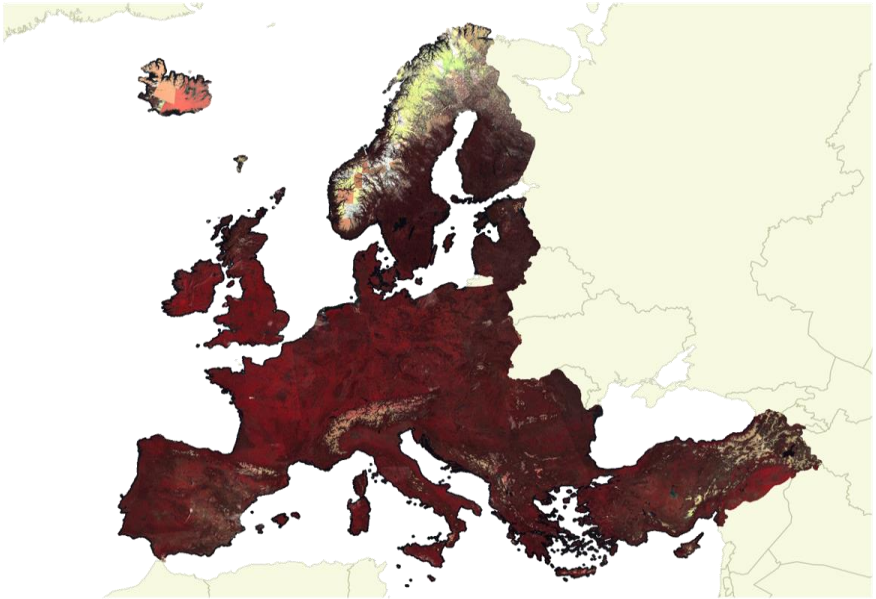
Final USDA product: 30-m Cropland Data Layers with 9 billion pixel



Deimos-1

ESA Copernicus Data WareHouse: Monthly cloud free coverages 2015

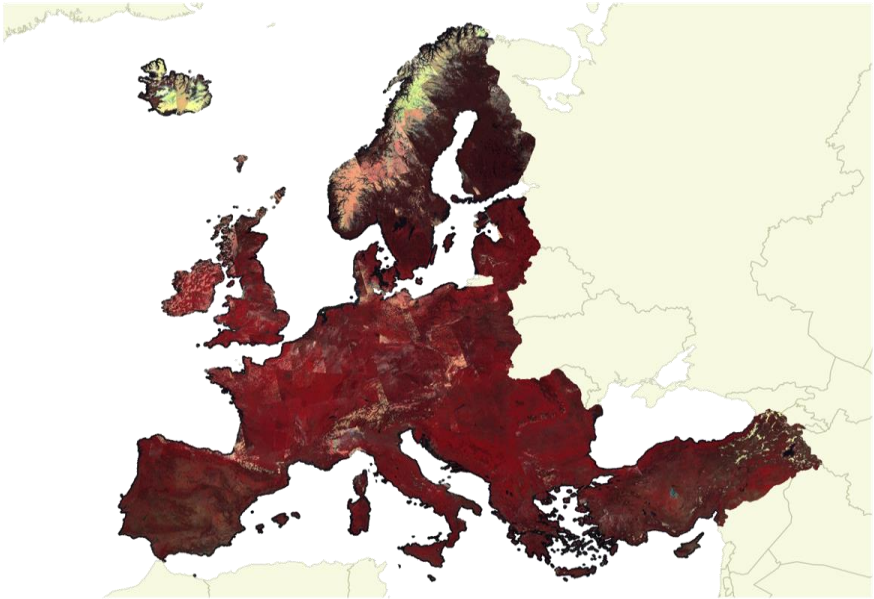
April, 2015



Deimos-1

ESA Copernicus Data WareHouse: Monthly cloud free coverages 2015

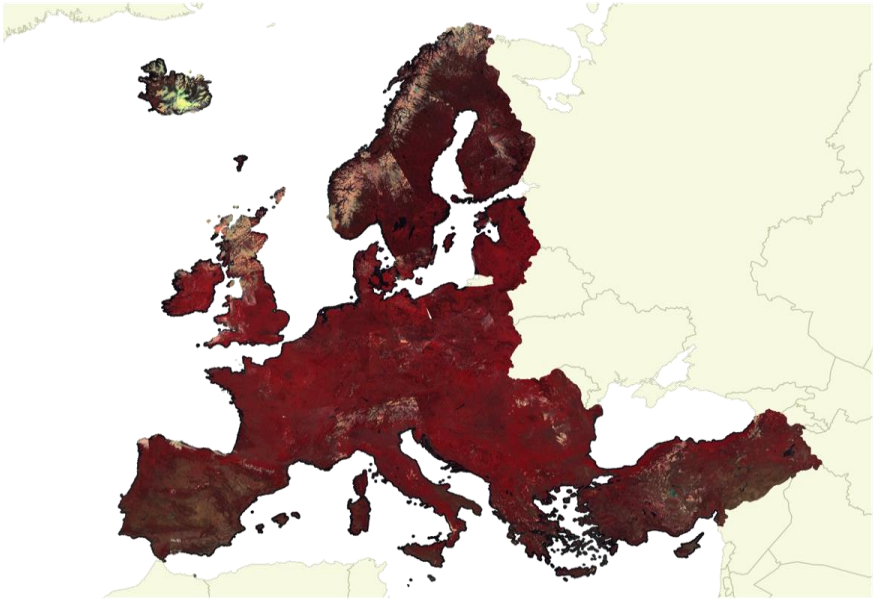
May, 2015



Deimos-1

ESA Copernicus Data WareHouse: Monthly cloud free coverages 2015

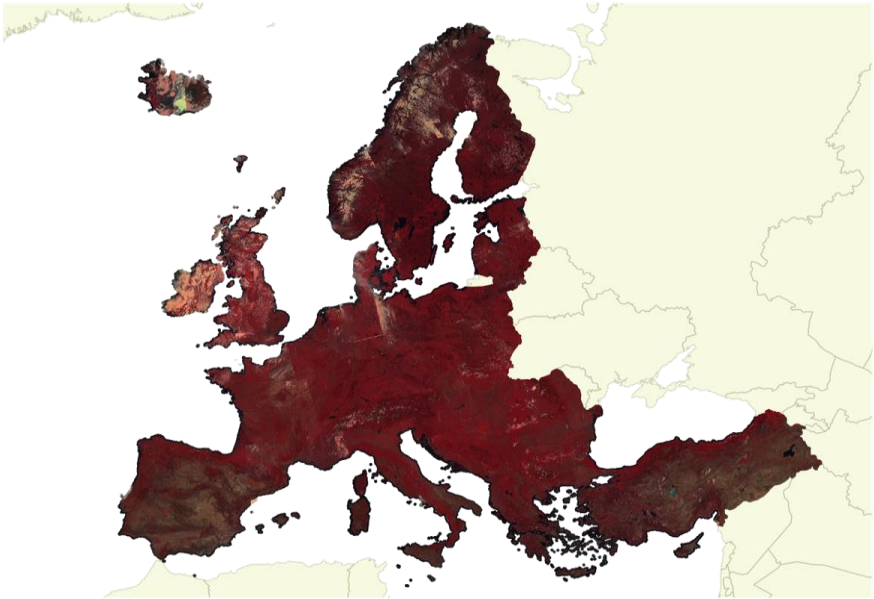
June, 2015



Deimos-1

ESA Copernicus Data WareHouse: Monthly cloud free coverages 2015

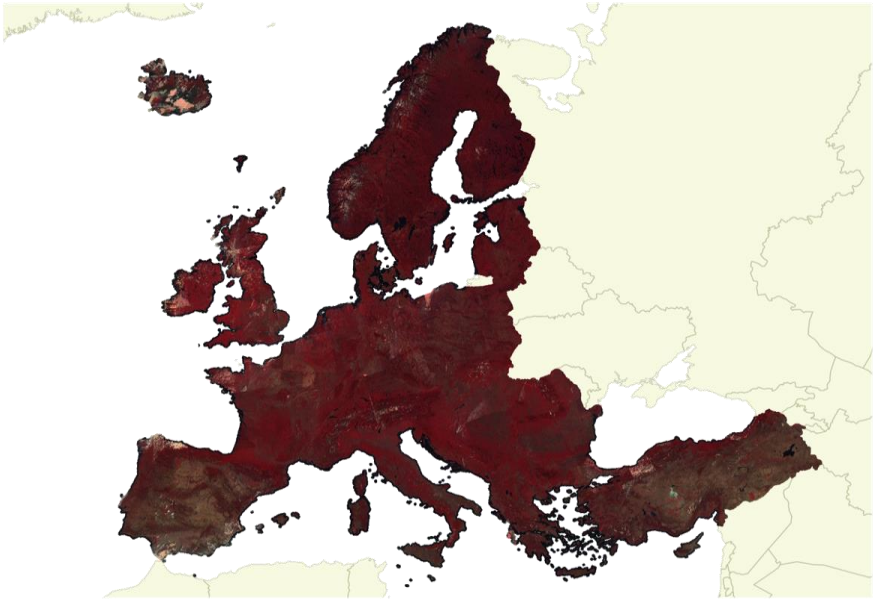
July, 2015



Deimos-1

ESA Copernicus Data WareHouse: Monthly cloud free coverages 2015

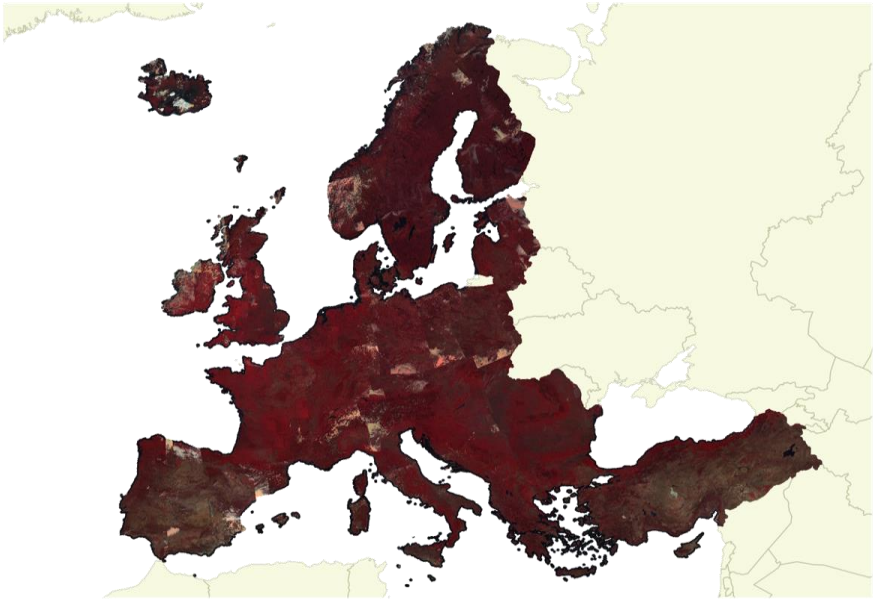
August, 2015



Deimos-1

ESA Copernicus Data WareHouse: Monthly cloud free coverages 2015

September, 2015

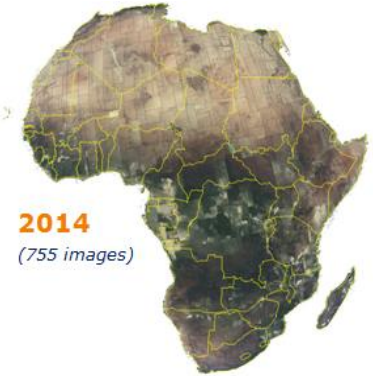


Deimos-1

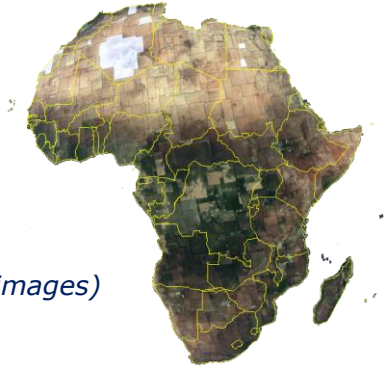
Africa Dataset (ESA Copernicus): One cloud free coverage per year

2010
(652 images)

2012
(1071 images)



2014
(755 images)



2011
(1,197 images)

2013
(722 images)

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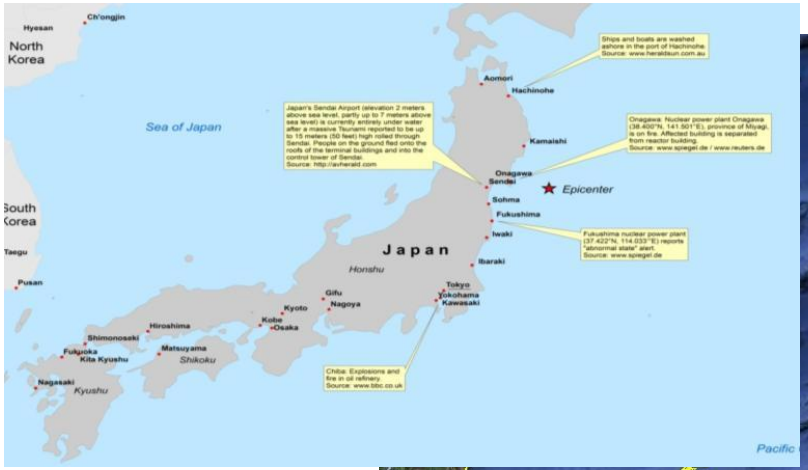
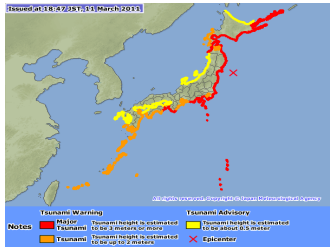
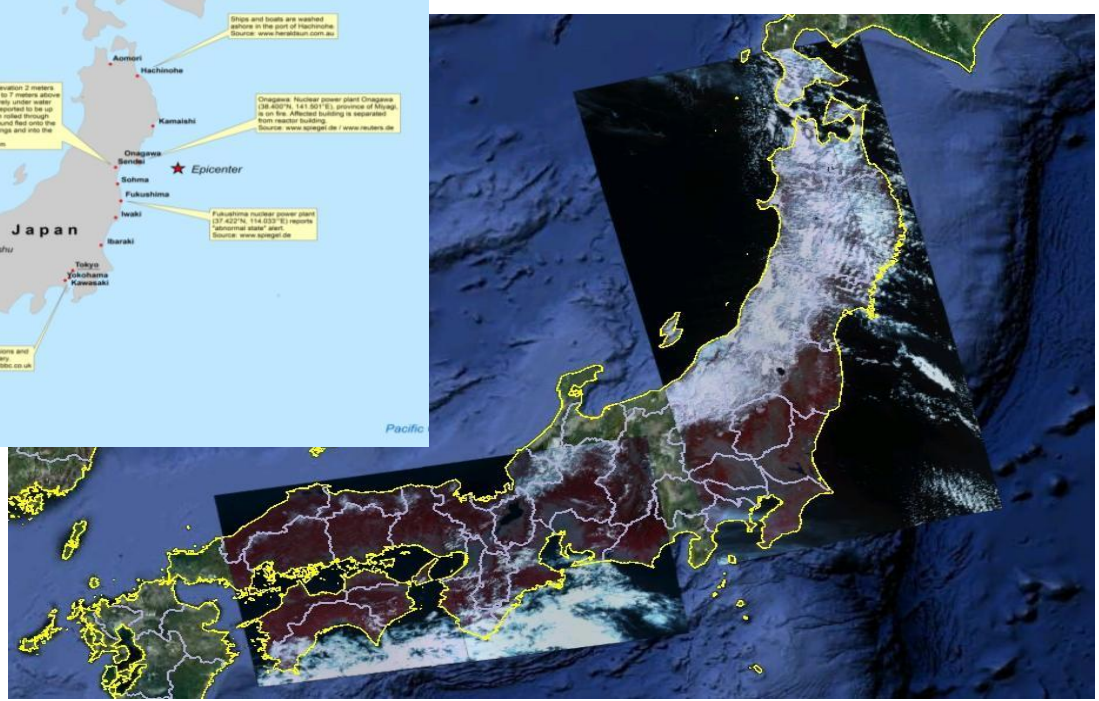
Deimos-1

Case of Study: Support to Crisis Management

DEIMOS-1 images of Japan **Tsunami in Sendai** - March 12th & 13th, 2011







Deimos-1

Case of Study: Support to Crisis Management

DEIMOS-1 images of Japan **Tsunami in Sendai** - March 12th & 13th, 2011

Deimos-2

High-Resolution Imagery

Launched	2014
Pixel size	75 cm
Bands	5 (Red, Green, Blue, NIR, PAN)
Image width	12 km
Revisit time	2 days average, worldwide
Image time	Mid-morning (10:30 AM)

Key Features

- **High-quality, high-resolution**
- Designed for defence & intelligence, cartography, frequent monitoring
- Capable of stereo acquisitions for large-scale 3D modelling
- Designed for fast tasking: up to few hours before acquisition
- **Ultra-rapid delivery time: within 1 hour from acquisition, 24/7/365**
- Fully private system

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Deimos-2

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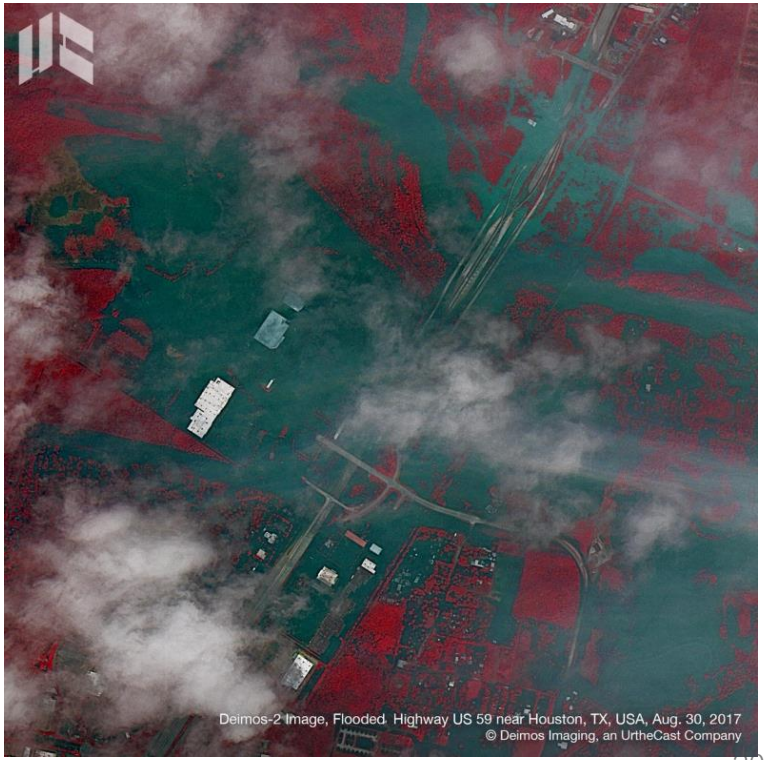
Integrated Operations – DEIMOS-1 & DEIMOS-2

Tipping & Cueing between the two satellites

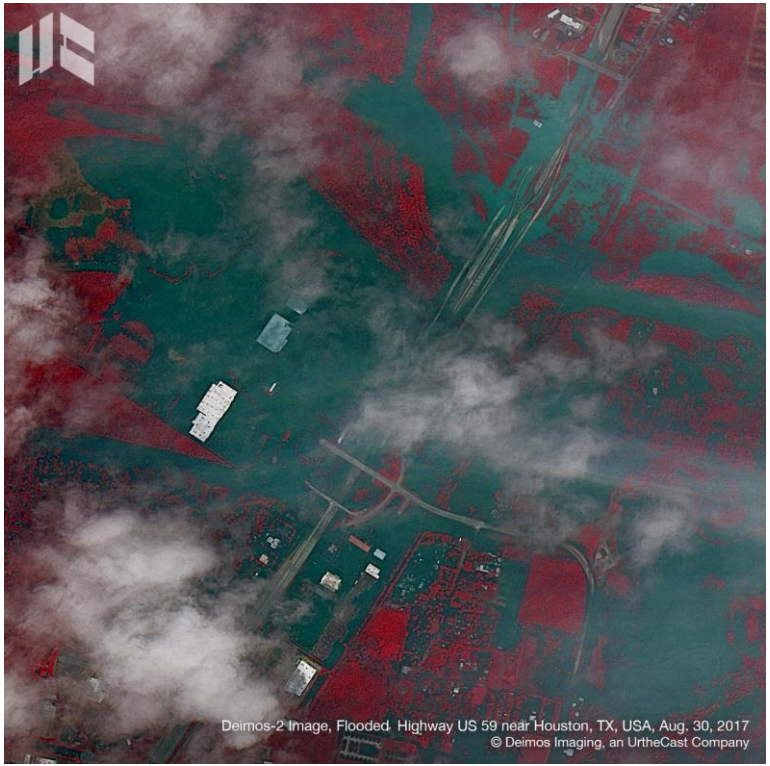


Tipping: **20 m, wide-area change detection with DEIMOS-1**

Cueing: **75 cm DEIMOS-2 imagery**

Integrated Operations – DEIMOS-1 & DEIMOS-2

Tipping & Cueing between the two satellites



Cueing: **75 cm DEIMOS-2 imagery**

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Tomorrow

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Tomorrow

The UrtheDaily™ Constellation

BEST COVERAGE

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

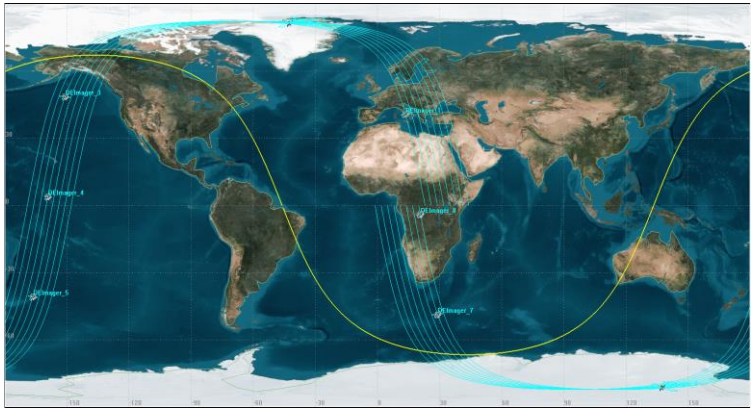
8 satellites to produce consistent, reliable, daily delivery of 140 M km² of multispectral imagery

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
- 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



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From Earth Observation to GeoAnalytics

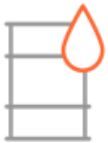
A source-agnostic, cloud-based ecosystem for ingesting, displaying, exploiting, and distributing satellite data, imagery, and video to monitor our constantly-changing world.

Forestry

Environment

Agriculture

Water



Trading / Commodities

Construction

Infrastructure

Transportation

Urban Planning

News Events

Disasters

Public Safety

NGOs

Intelligence

Defense

Insurance

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Thank you very much!
DEIMOS-2 Agriculture Structures, Kansas, USA