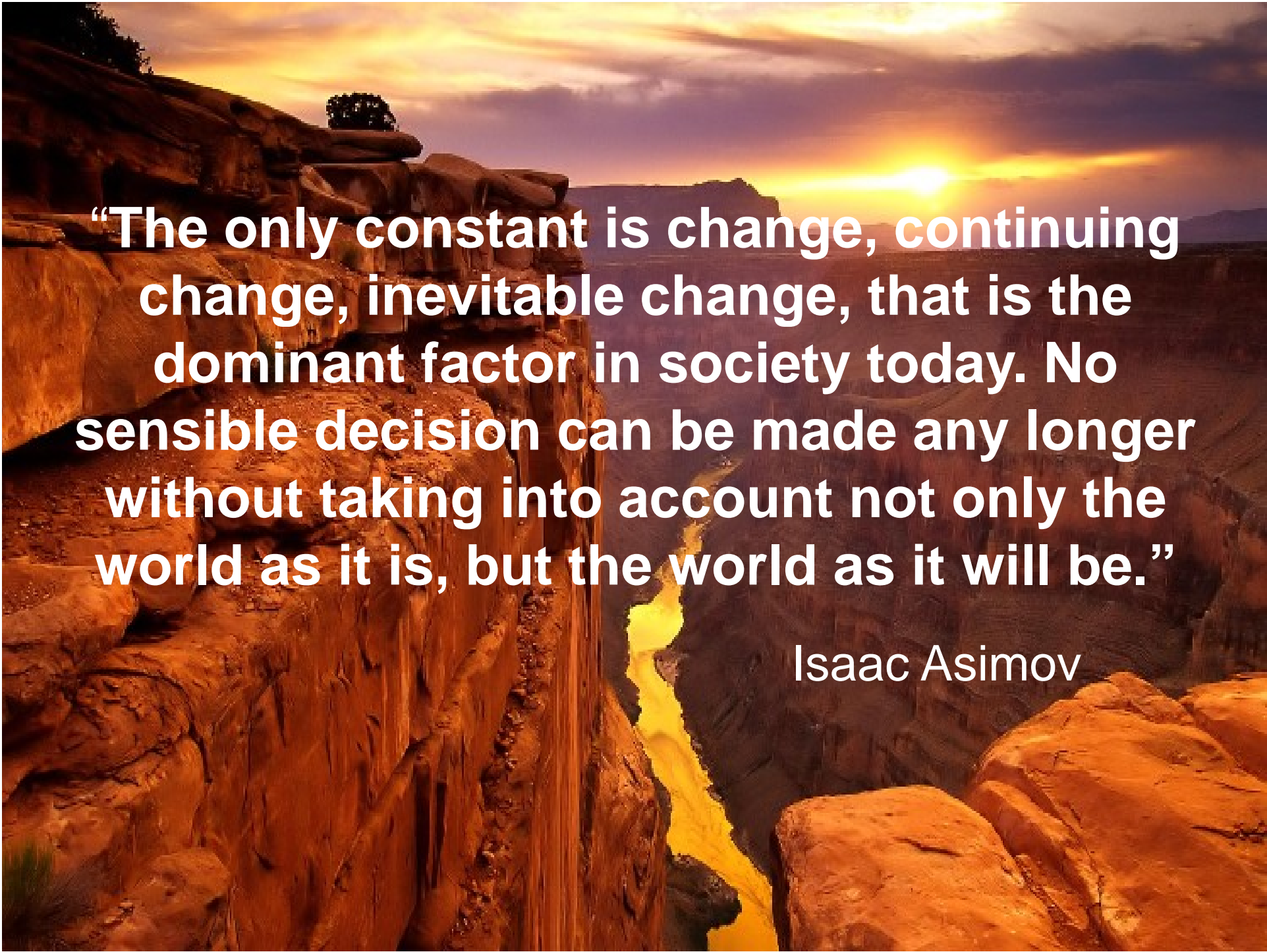




Powering Big Data: From Creation to the Cloud

Dean McCormick – Regional Sales Manager Geospatial – MEA Region





“The only constant is change, continuing change, inevitable change, that is the dominant factor in society today. No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be.”

Isaac Asimov

Climate Change



Urbanisation



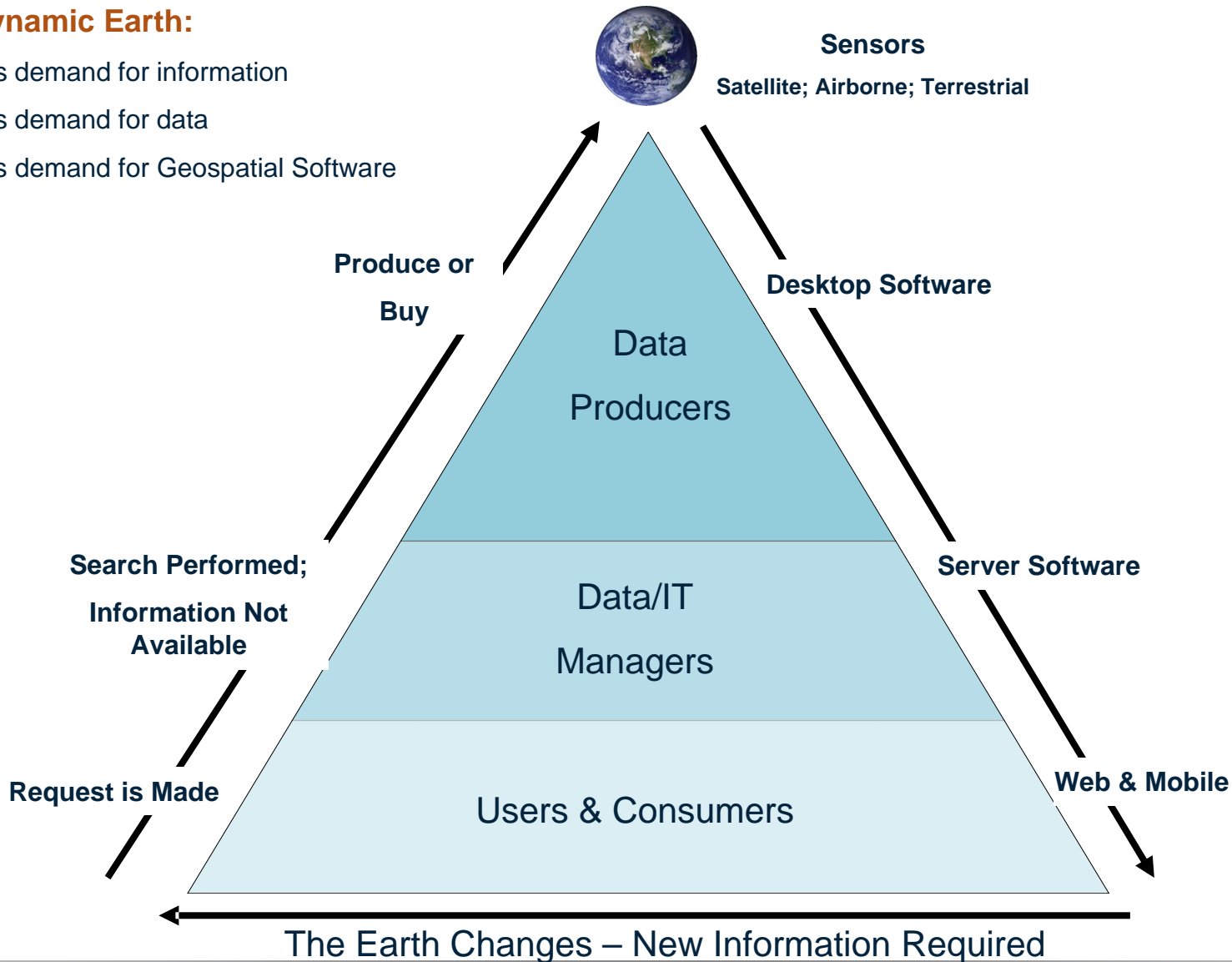
Natural Disasters

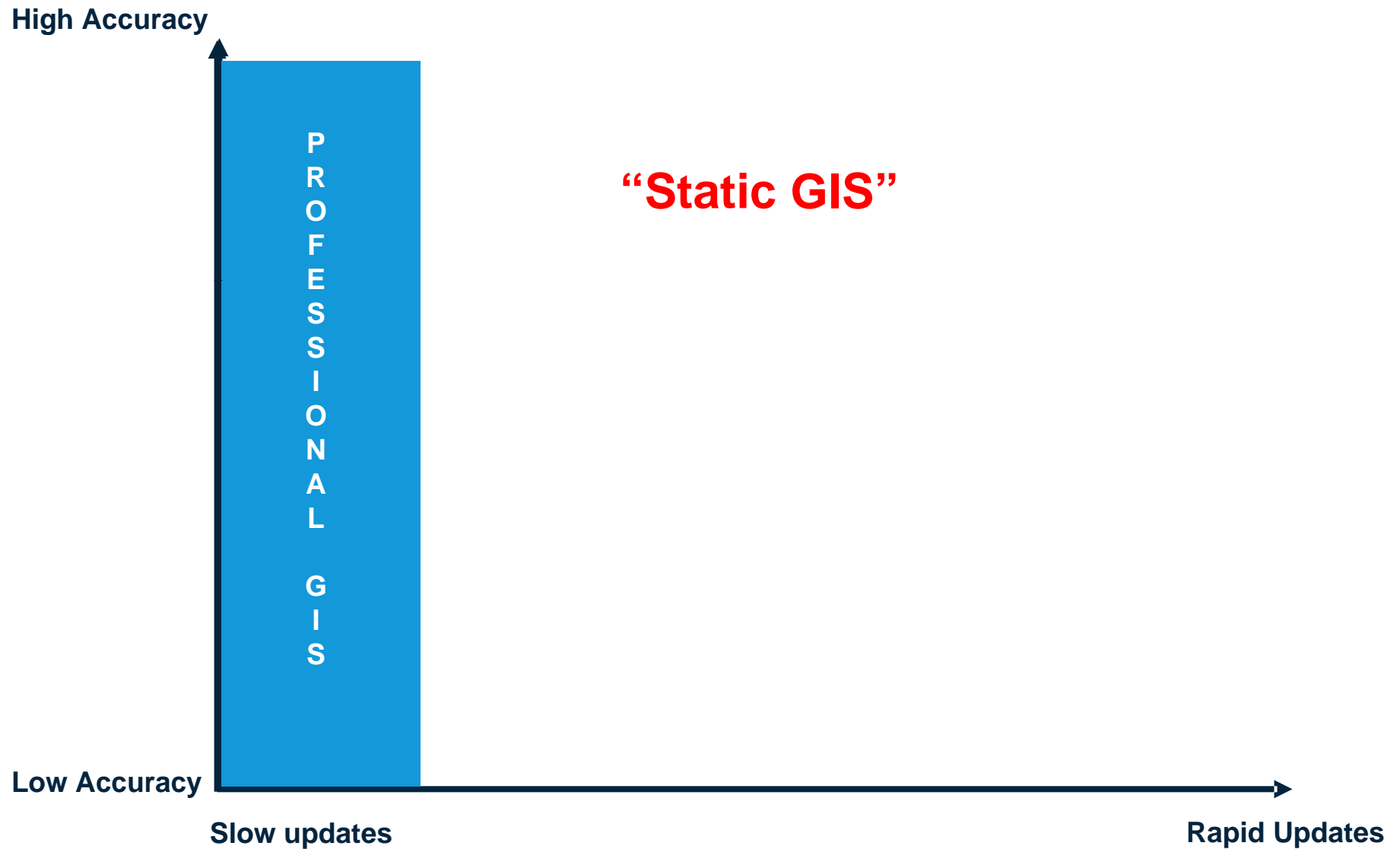




The Dynamic Earth:

- Drives demand for information
- Drives demand for data
- Drives demand for Geospatial Software





Geospatial Ecosystem



Field Mapping & Update



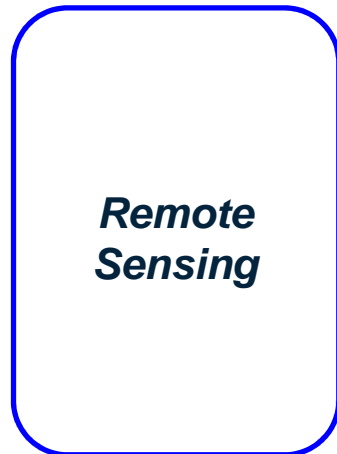
Satellite Sensor Data



DIGITALGLOBE



Geo-Portals



Users & Consumers



Intranet/Internet



Information Products

Web Services

Data

IT

Data

Data

Server

Data



Spatial Database

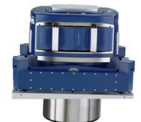
ORACLE

Microsoft

IBM

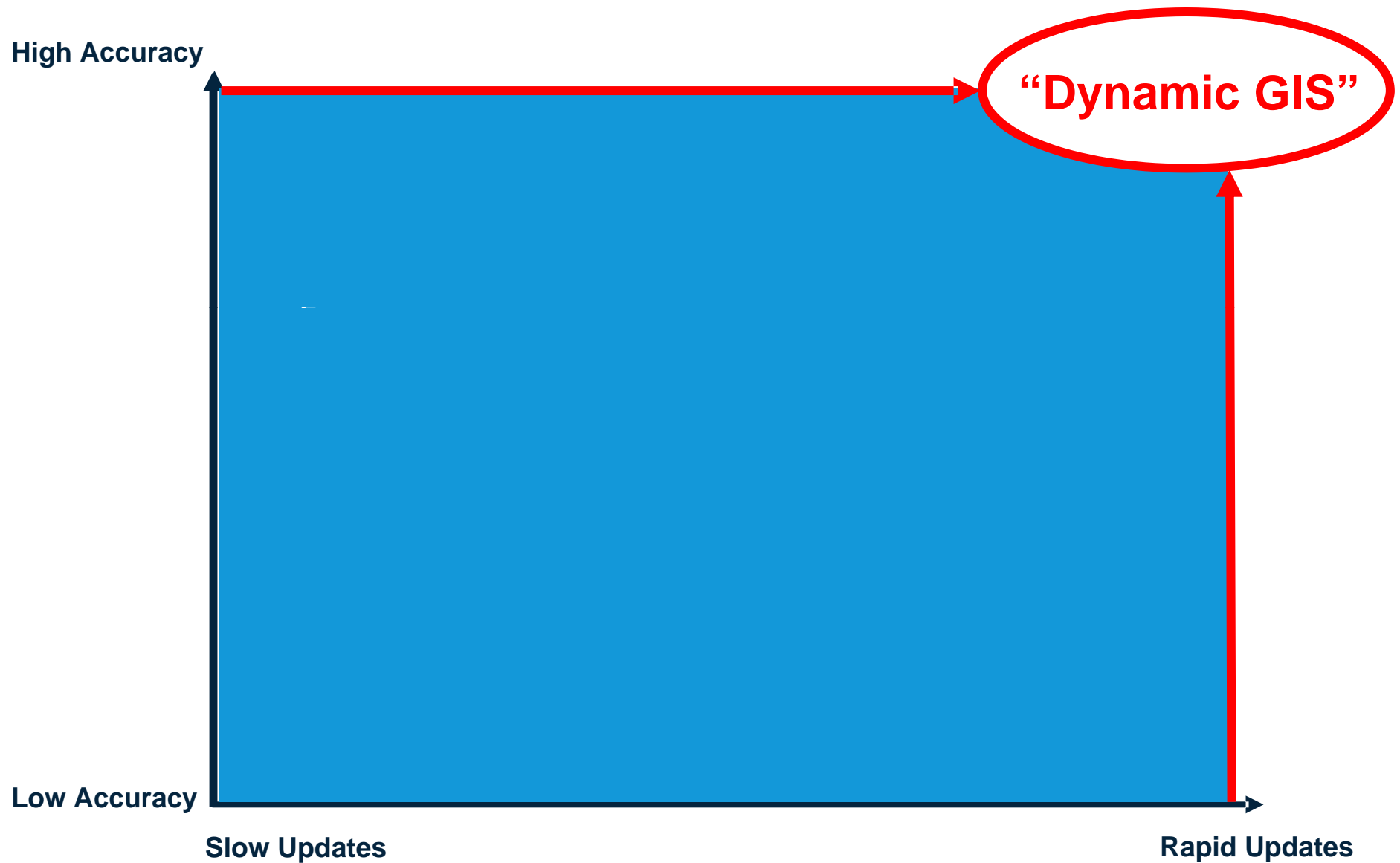


Airborne Sensors



Terrestrial Sensors





Fusion of Geospatial Genres

Surveying →
Photogrammetry →
Remote Sensing →
GIS →

Data

Dynamic Geospatial Engine



Dynamic Spatial Modeling



ERDAS IMAGINE 2013 - Spatial Modeler

File Home Manage Data Raster Vector Terrain Toolbox Help Google Earth Spatial Modeler

Operators Properties Messages Preview Run Rotate Left Rotate Right Rename Add Port Remove Port Clear Results Configure Operator Operator Help Create Submodel Expand Submodel Collapse Submodel Processing Properties Auto Layout Publish to ERDAS APOLLO Fit to Frame Show All Ports Show Flow Control Lines Show Gridlines Show

Spatial Model Editor #1: valtus_sgm_urban_change_detection3.gmdx: Valtus SGM Change

Contents

- Spatial Model Editor #1
 - Valtus SGM Change
 - Segment by vegetation
 - NDVI after
 - NDVI before
 - Get elevations for filtered
 - Threshold by elevation
 - Surface difference
 - 2D View #1
 - area_a_2010_2012_change
 - El_Paso_2010.tif
 - Layer_2
 - Layer_3
 - Layer_4
 - Background

2D View #1: area_a_2010_2012_change.img [Layer_1]

Operators

- Enter keyword search here
- Favorites
- Recent
- Analysis
- Bitwise
- Boolean
- Color
- Conditional
- Data Generation
- Distance
- Flow Control
- Focal
- General
- Global
- Input
- Math && Trig
- Output
- Matrix
- Python
- Relational
- Size
- Stack
- Statistical
- String
- Surface
- Vector
- Zonal

Properties

Show	Name	Value

Fusion of Geospatial Genres

Surveying →
Photogrammetry →
Remote Sensing →
GIS →

Data

Dynamic Geospatial Engine



Mobile Apps



Dynamic Interactive Maps



5D Digital Worlds



Web Services & Applications



Reports & Presentations

CAPTURE+ PROCESS + SHARE + DELIVER
Use Together to Build Solutions

High Complexity = Empowering a Few

Simplicity = Empowering a Billion

Our work is never finished



From the
beginning of
recorded time until
2003, we created
5 EXABYTE'S
OF DATA

2003

In 2011,
the same
amount was
created
EVERY TWO
DAYS

2011

Today,
that time
has shrunk to
EVERY 10
MINUTES

2013

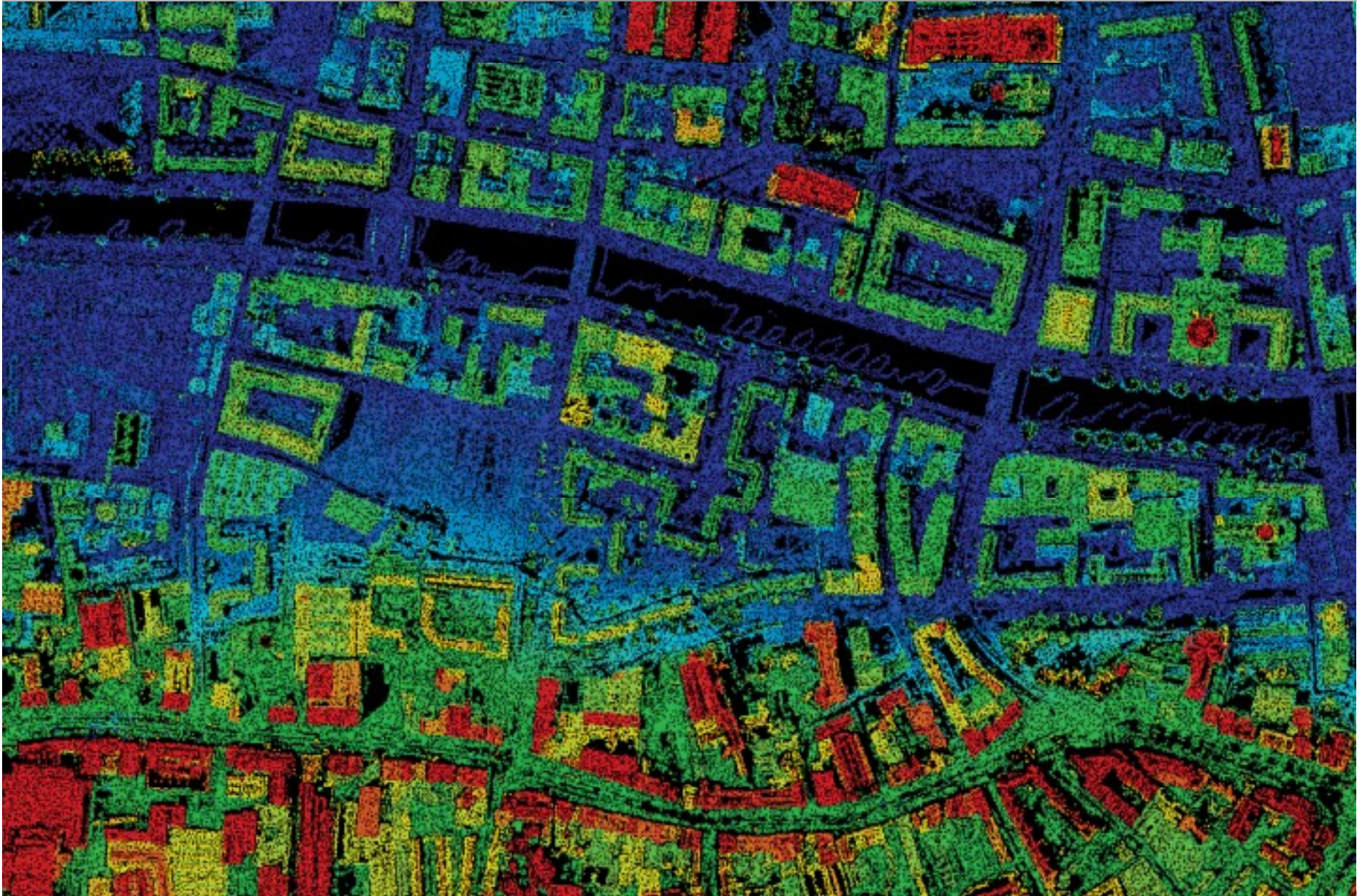


**Greater Resolution, Greater Coverage,
Greater Frequency, Greater Bit Depth**



New Technologies

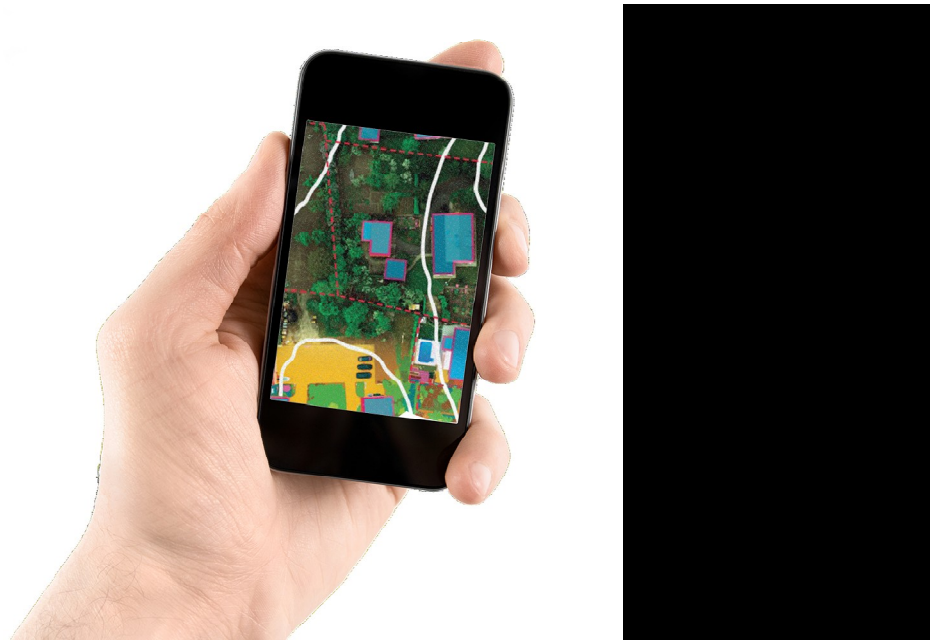
New Data Types



Rocketing User Demand



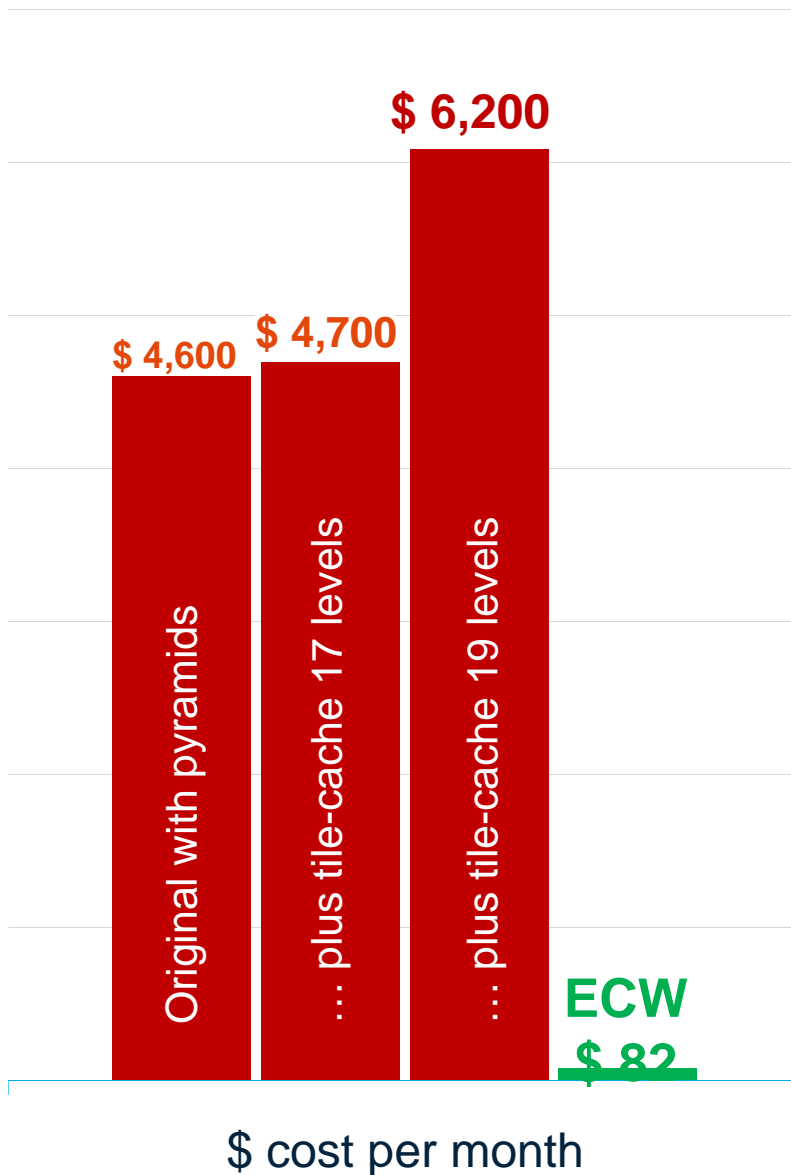
Every day, new users are demanding imagery, across all applications, on all devices





The World's Largest Geospatial Image

- Single Orthophoto @ 20cm GSD
- 14 Terra Pixels
- 38TB uncompressed
- 50TB with pyramid layering
- 370,000 resource files



Amazon S3 Cloud storage Costs comparison example

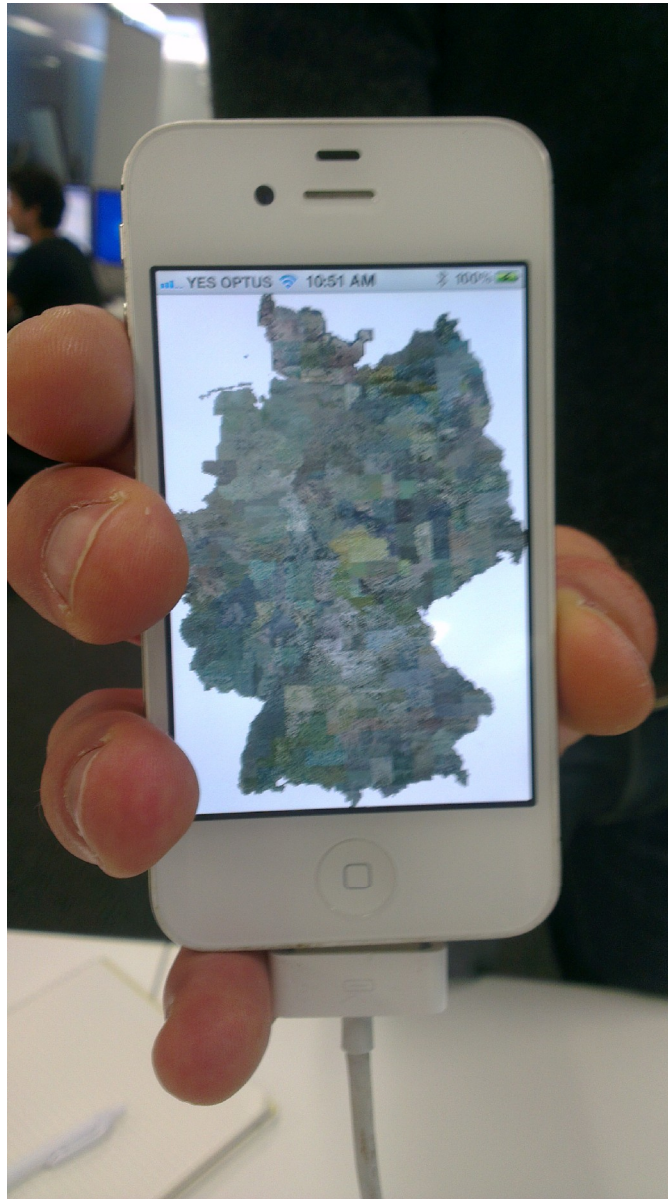
98% lower costs using ECW
>\$4.6k monthly saving
Up to \$73k annual saving

Data generated using the Amazon S3 Cloud Calculator

1 Image

< 1 TB

**14
TeraPixels**

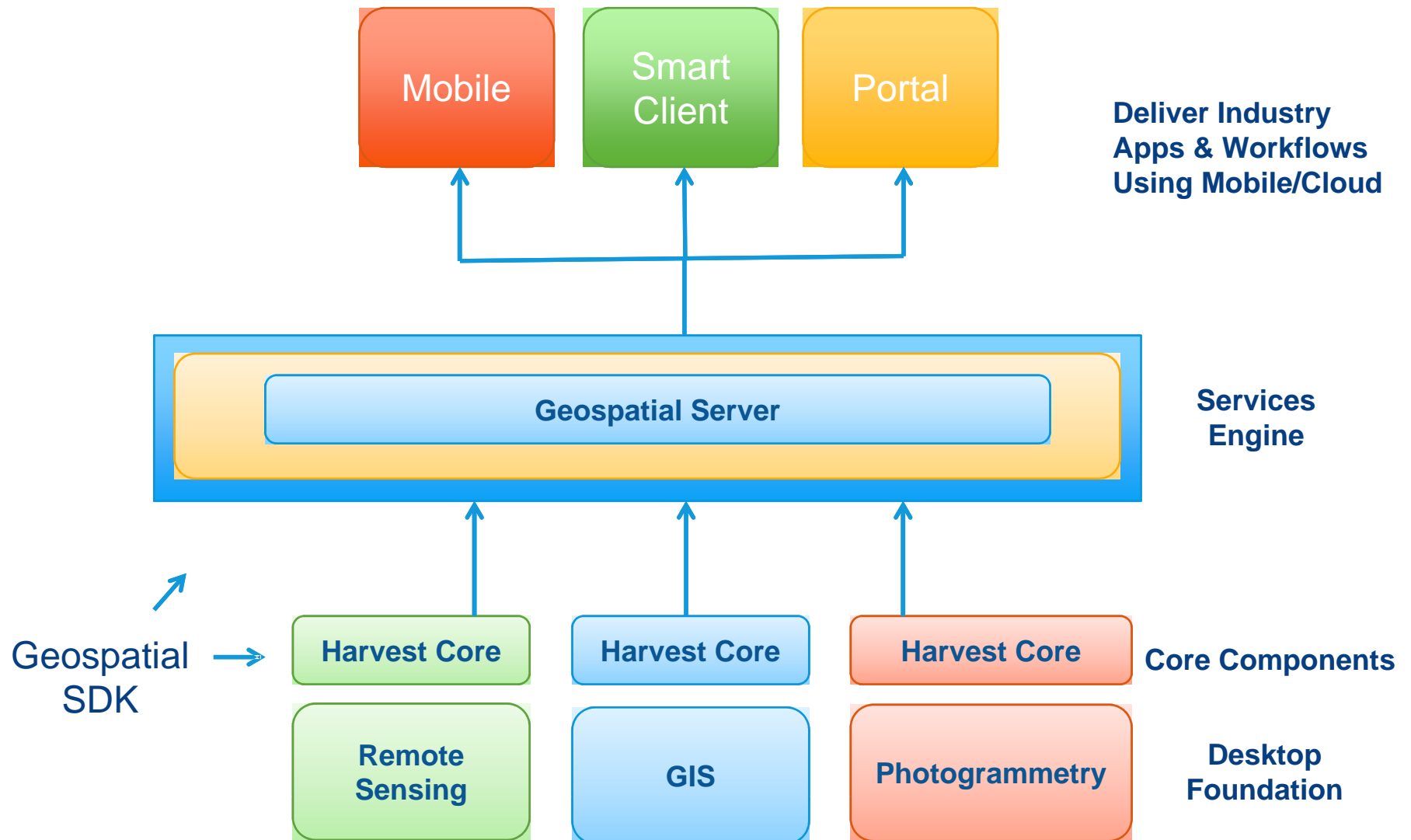


Fast!

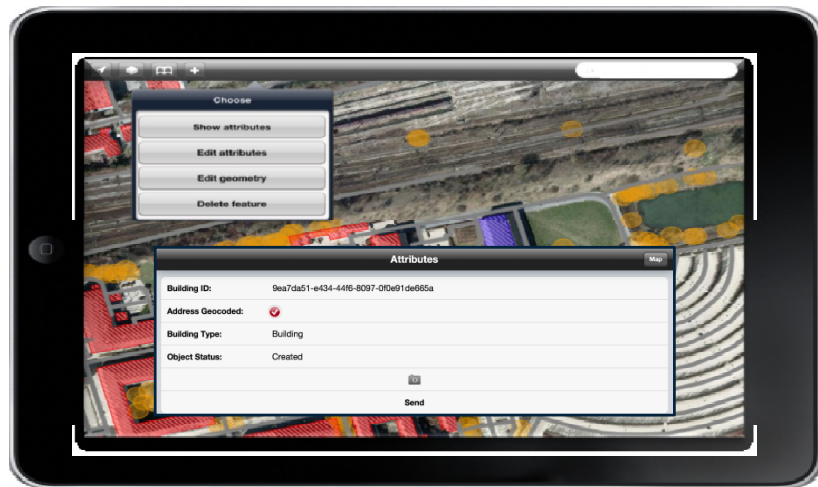


New breed of user

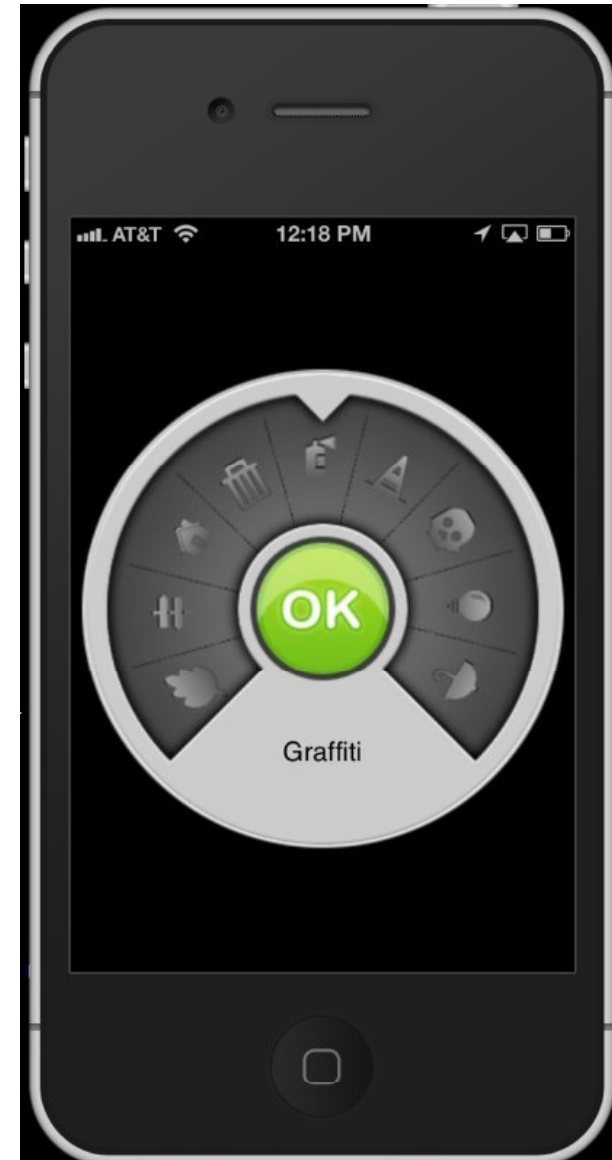




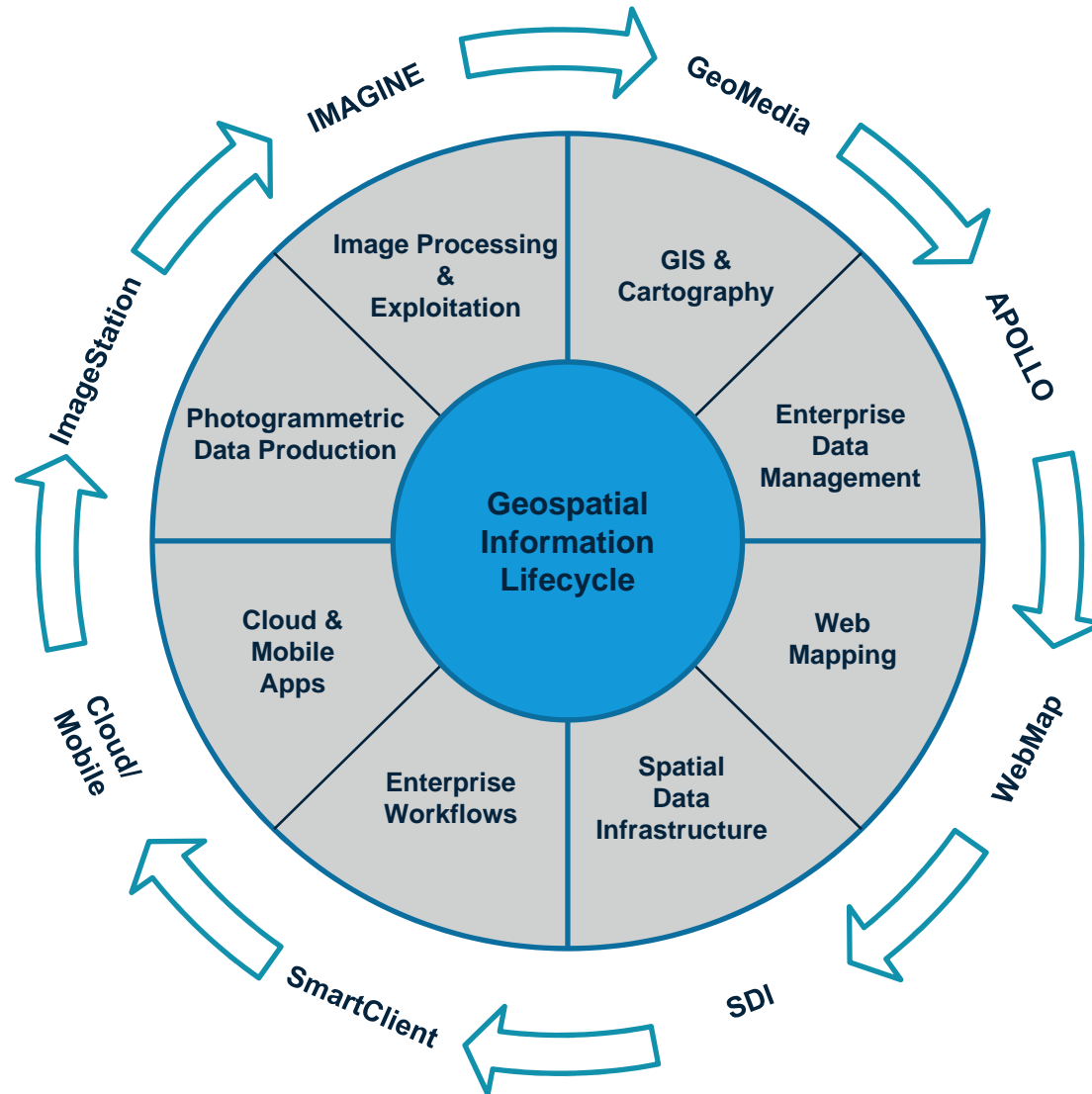
Tablet-based, field inspection and editing app's for enterprise GIS data.



Crowdsourcing Apps



Dynamically Changing Earth From the Sensor to Information





Thank You!

SMARTERDECISIONS