

# Vision

Applying Geography Everywhere

....how GIS is transforming business trends



# Geography

The Integrating Science  
of Our World

Providing Content and Context  
for Understanding Everything

... Helping Address  
Our Global Challenges



# We

## Are Entering a Period of Geographic Enlightenment

GIS Is Awakening the World  
to the Power of Geography

And Creating a Better Future



# GIS

Is the Platform for Applying  
Geography Everywhere



# GIS Provides the Framework and Process

For Applying Geography



# GIS Is Evolving

A Whole New Pattern Is Emerging

Lidar  
Sensors  
Crowdsourcing  
Field Survey  
Scientific Data  
Real-Time  
GPS  
Social Media  
Remote Sensing  
UAVs

## Content



## Web GIS

Collaborative

Mobile

3D

Real-Time

Visualization

Analytics

Apps

## Applications

## Implementation

Open

Configurable

Agile

Easier

Ready to Use

## Technology

Virtualization

Big Data

IoT

Faster Computing

Distributed Processing

Smart Devices

Cloud

Consumerization

*Integrating Many Innovations*

# Web GIS Is a Transformational Architecture

Opening, Integrating and Simplifying Everything

## Web GIS

Traditional

Emerging



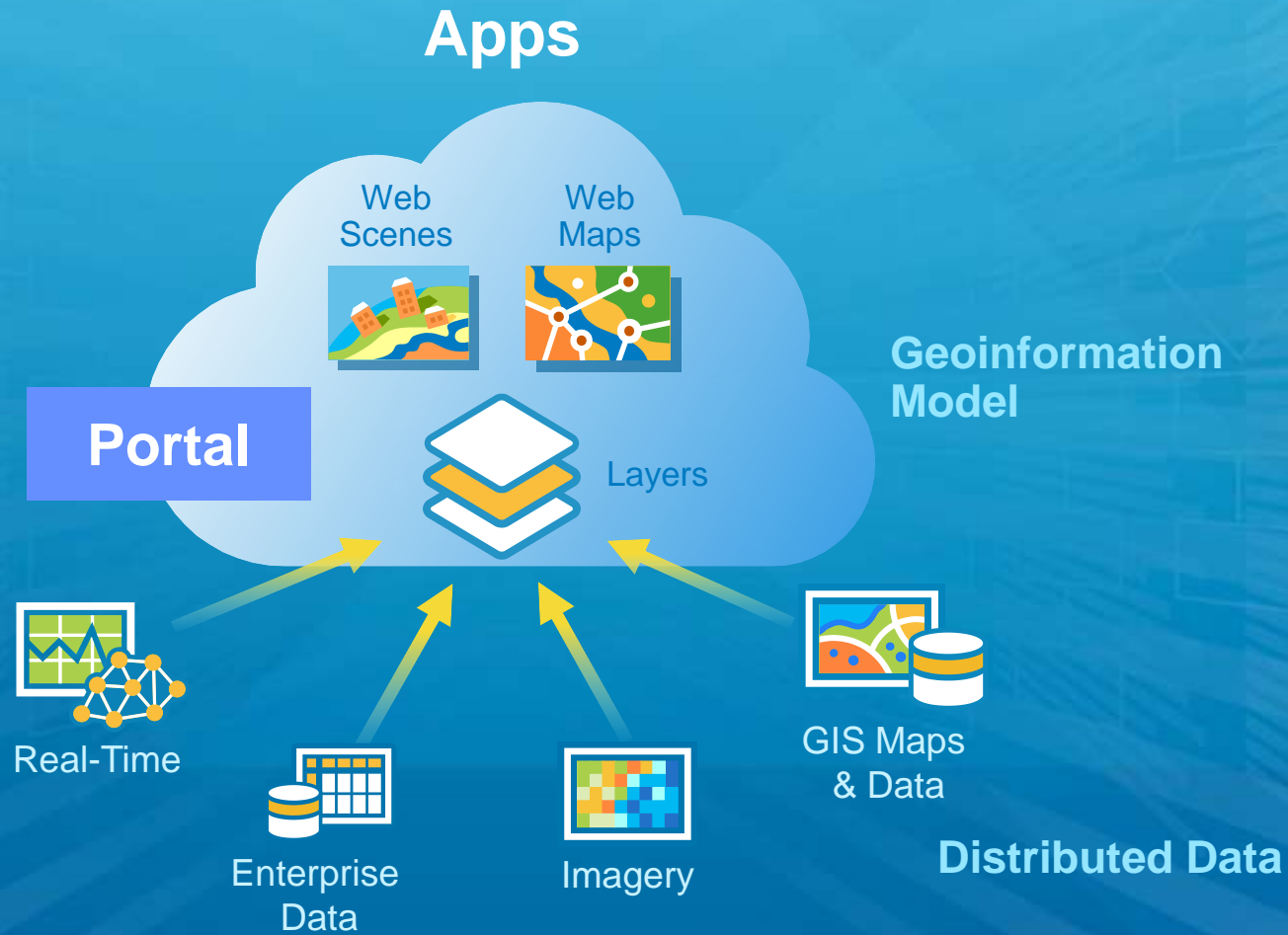
Bringing Together Your Existing Systems . . .  
and Creating a System of Engagement



# Geoinformation Model

► Abstracts and Organizes Geospatial Data

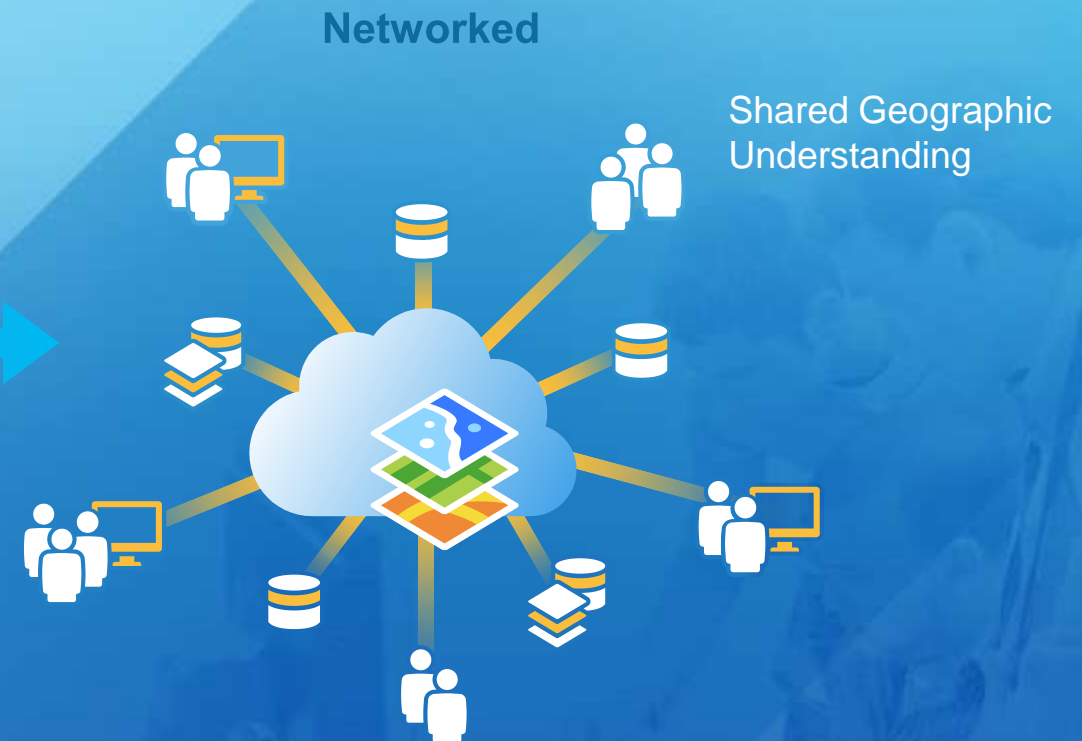
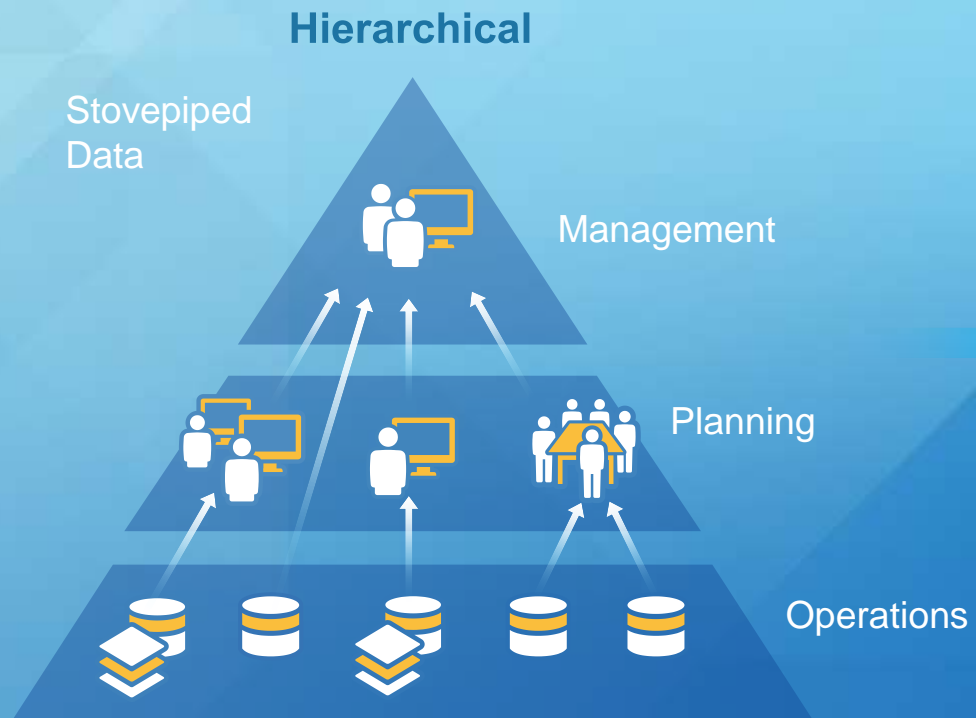
Web GIS





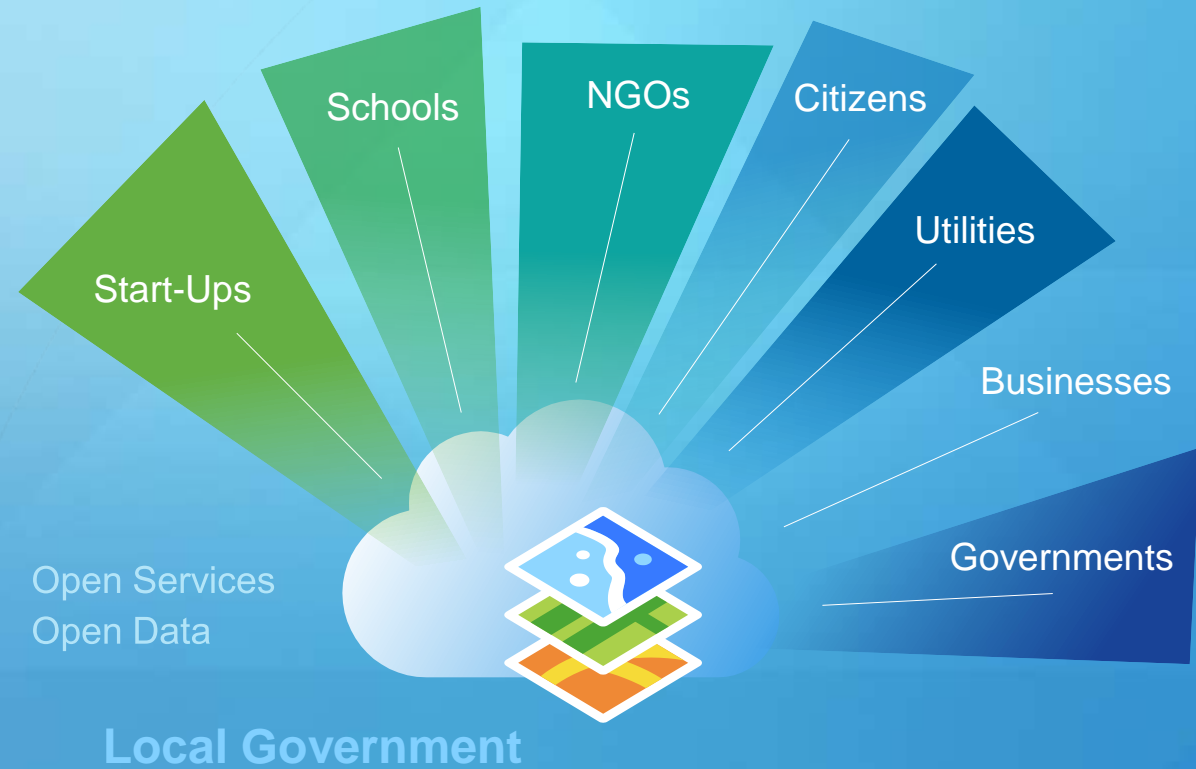
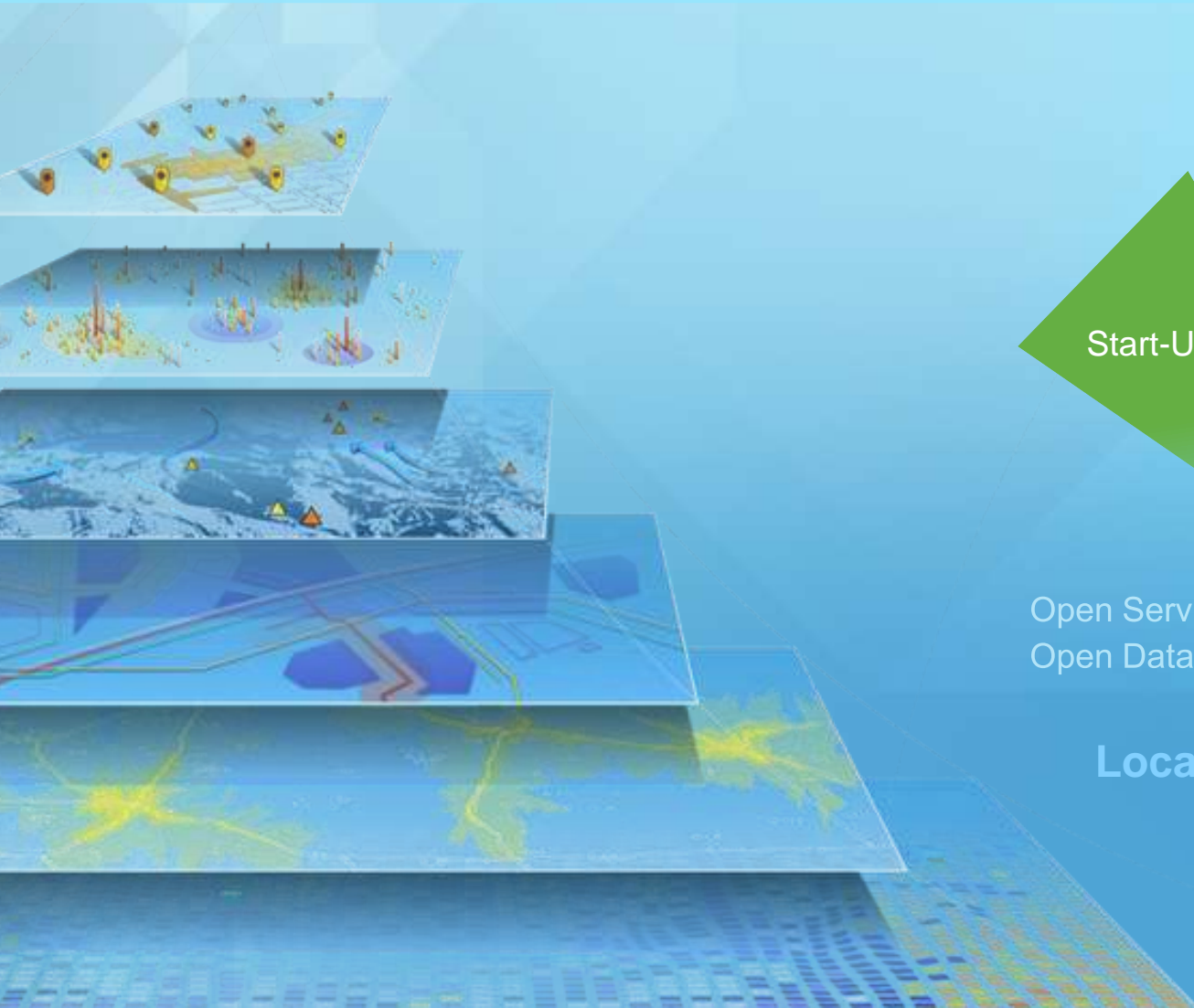
# Web GIS Transforms Organizations

Creating Shared Information and Facilitating Collaboration



# Web GIS Creates New Connections Across Organizations

Providing an Open Platform for Collaboration and Innovation



*Leveraging the Value of Shared Data*

# Open Platform

► Ensuring Data and System Interoperability

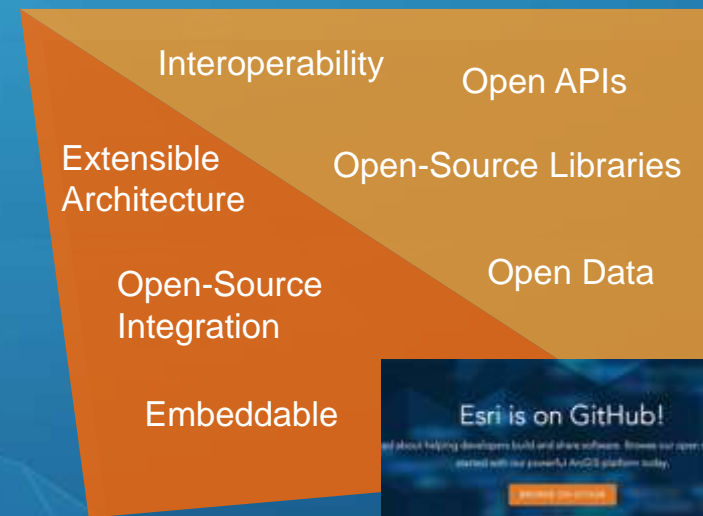
## Standards



## Industry Formats



## Open Software



Open

... Integrated Into Thousands of Systems

# Apps

▶ Making ArcGIS Available Everywhere



## Field

Navigator



Workforce



Survey123



Collector

**Mobile**  
(Connected & Disconnected)

## Office

ArcGIS for AutoCAD



Maps for Office



Explorer



ArcGIS Earth



Dashboard

## Public

Open Data



Story Maps



Photo Survey



Crowdsourcing

Configurable Solutions That Work Together

*Easy, Focused, and Ready-to-Use*

# App Builders

▶ Enabling App Creation

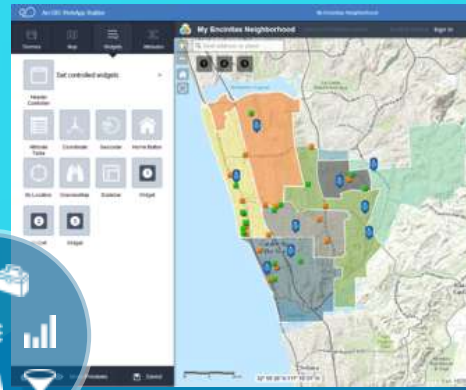


## Web App Templates



20+

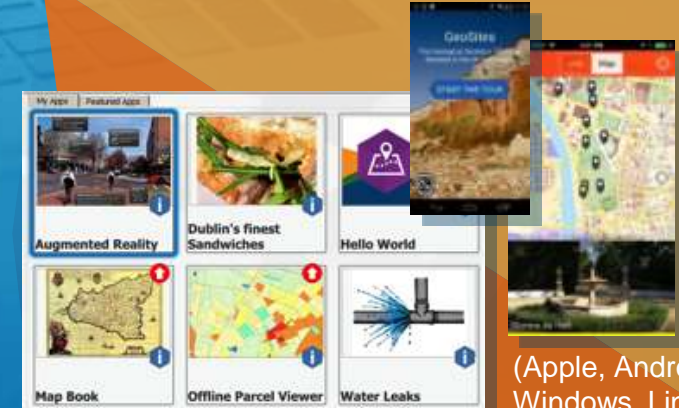
## Web AppBuilder



Widgets

HTML5/JavaScript

## AppStudio



(Apple, Android, Windows, Linux)

Native Apps

Providing Easy, Configurable, and Extensible Tools

*Design Once, Run Everywhere . . .*

# Solution Templates

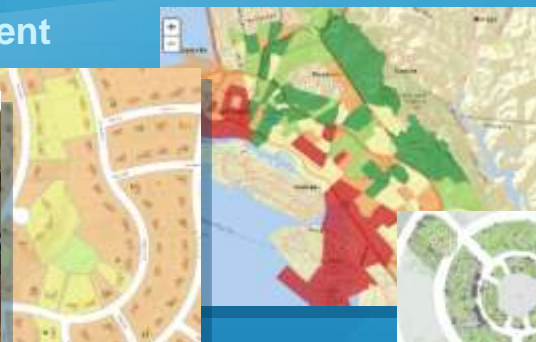
Helping Users Be Successful

500,000+ Downloads

## Apps, Maps, and More

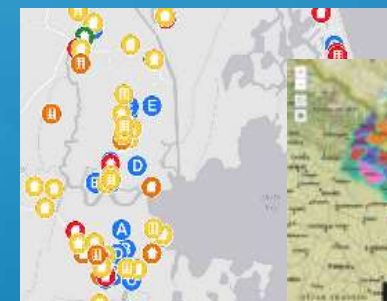
- Ready-to-Use
- Best Practices
- Configurable

### Local and State Government

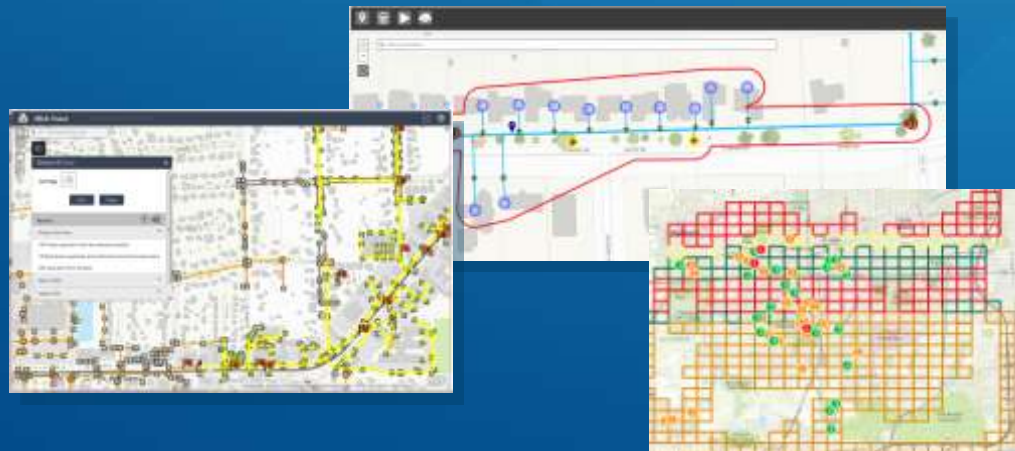


Parks and Gardens

### Public Safety and Emergency Management



### Utilities and Telecommunications



### Military and Security



... Fully Supported, Open Source, and Free

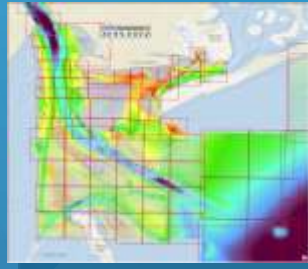
# Solution Products

► Provide Focused Applications

## Production Mapping & Charting



Topo Map



Bathymetry



Maritime Chart

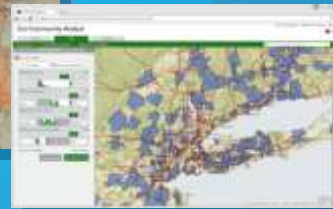


Aeronautical Chart

## Decision Support



Business Analyst



Community Analyst



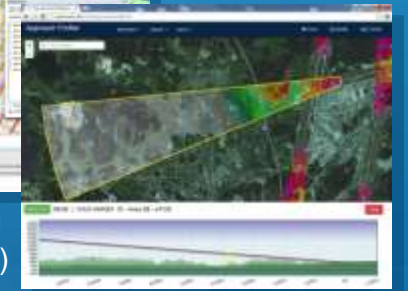
GeoPlanner



## Specialized Areas



Roads and Highways (LRS)



Airports



Geoportal



ArcPad



# ArcGIS Earth

3D Made Easy

#ArcGISEarth



**“The best way to predict the future is to invent it.”**



Environmental Systems  
Research Institute  
Visitors  
Learning Center  
Human Resources

Thank You

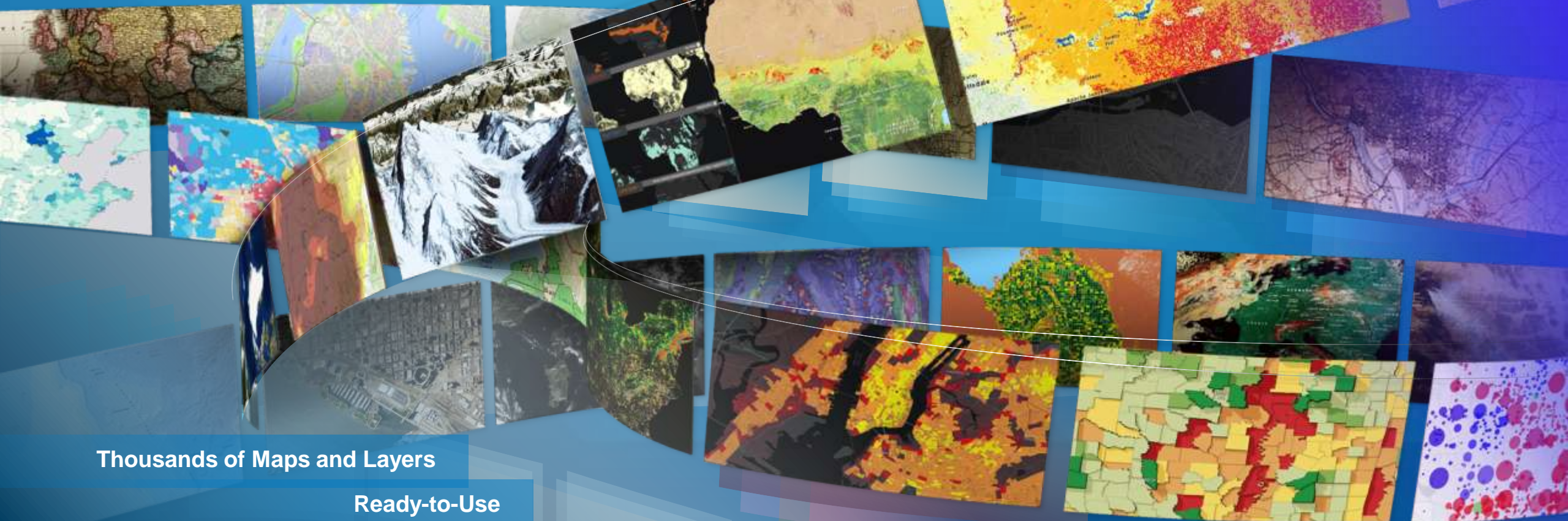




# Content

▶ A Living Atlas of the World

Basemaps | Imagery | Demographics | Landscape



Thousands of Maps and Layers

Ready-to-Use

Authoritative

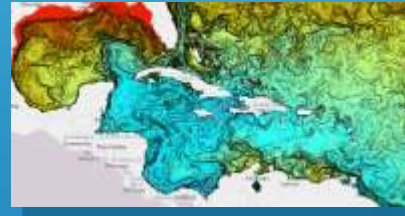
*Millions of User Contributions . . .  
. . . Billions of Views per Week*

# Imagery

► Managing, Analyzing, and Serving Remotely Sensed Data

- Integrated Analysis Tools (100+)
- New Workflow Templates
- Additional Sensor Support

Scientific Data



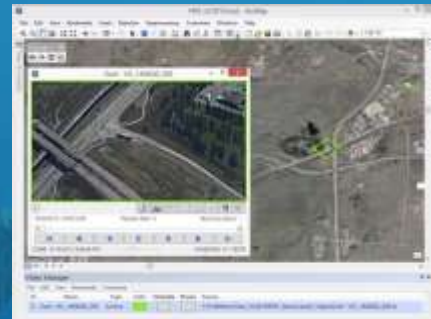
Object-Based Image Analysis



Image Classification Accuracy Assessment



Full-Motion Video



Dynamic Processing Chains



Oblique Imagery and Measurements



UAV/Drone Support



*Supporting Single Scenes . . .  
. . . and Massive Collections*

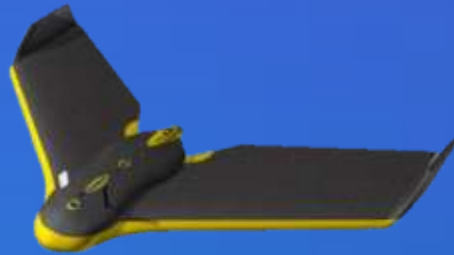
# Four Operational Patterns for Drones:

## Geo-Tagging



- Asset Management
- Search & Rescue
- Wildlife Inventory
- Real Estate

## Mapping



### Imagery Mosaics

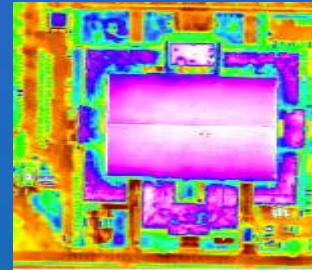


- Precision Ag
- Corridor Management
- Land Planning
- Grounds Keeping

## Analytics



### Complex Imagery



- Wetlands Delineation
- Wildfire Mapping
- Resource Exploration
- Forest Management

## 3D Monitoring



### Oblique 3D Imagery



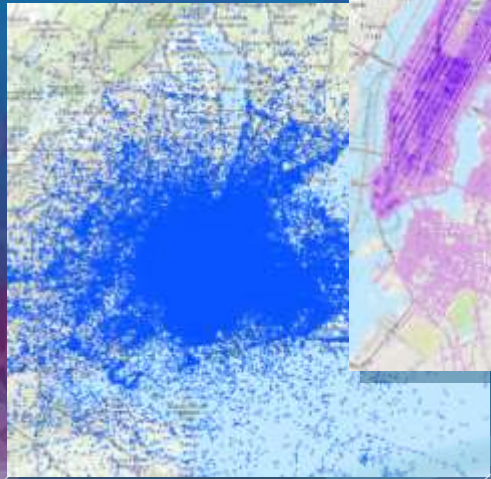
- Facilities Management
- Insurance
- Building Contractors
- Open Pit Mining

# Big Data

► Geoanalytics and Visualization of Massive Data

Creating New Insights

Raw Data



Aggregated Data



Hot Spots

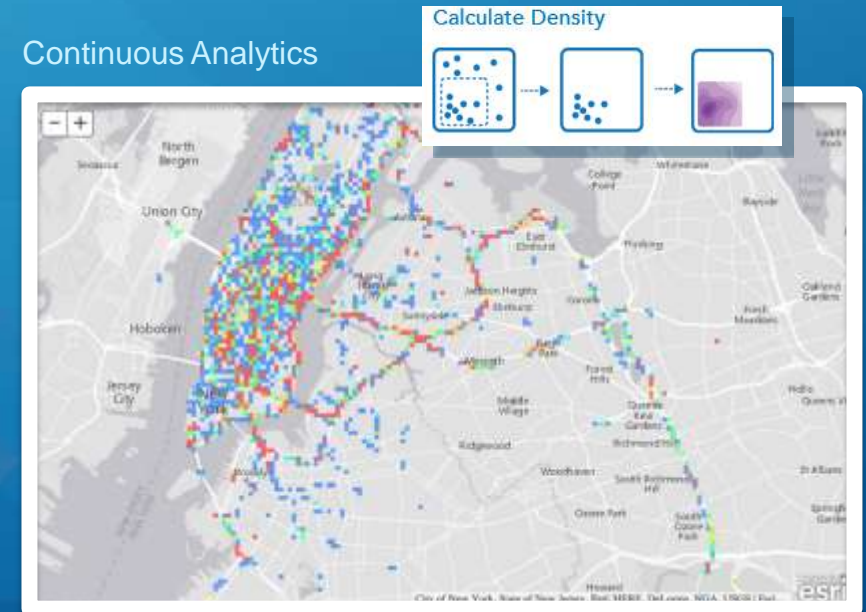


Results



NYC Taxi Data

Continuous Analytics



Parallelized Analytics  
on Tabular, Vector and  
Imagery Datasets

Coming . . .  
GeoAnalytics Extension

# Spatial Analysis

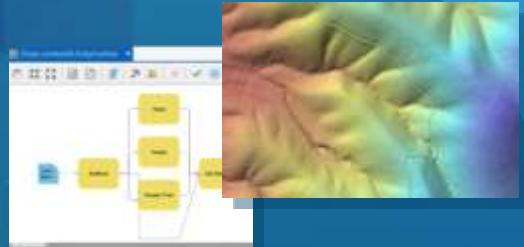
▶ Providing Insights and Understanding

## Desktop

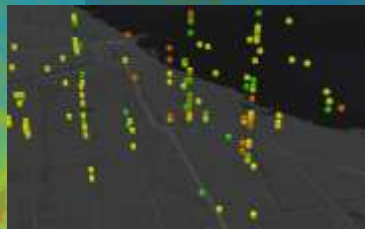
Statistical Clustering



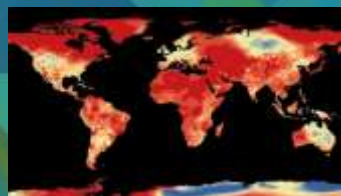
New Raster Functions



Anomaly Detection



Scientific Data Support



Bayesian Regression (EBK)



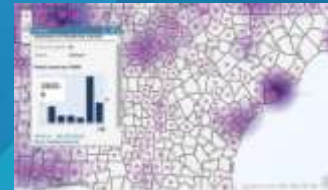
Integrating Analysis Tools



Data Exploration



Aggregation



Mode-Specific Routing



## Online/Portal

Location Allocation



Charting



Hot Spots



Buffer



Living Atlas Integration



Interpolation



Faster Geocoding (230+%)



*Advancing the Science of Geography*



# Real-Time ▶ High-Velocity Monitoring and Alerting

Many Performance Improvements



Boston Marathon



Analytics

GeoEvent

Alerting