

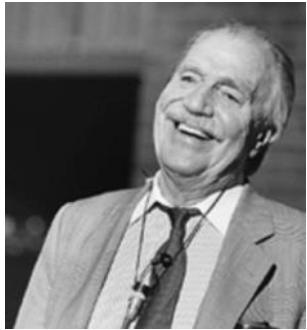


EuroGeographics
General Assemble 2019

The International Response - Global

Paul E. Smith
Product Strategy & Business Development
October 8, 2019

Background – Started as a Land Use & Urban Planner (Geodesign)



Ian McHarg was a Scottish landscape architect and writer on regional planning using natural systems. His 1969 book **Design with Nature** pioneered the concept of ecological planning.

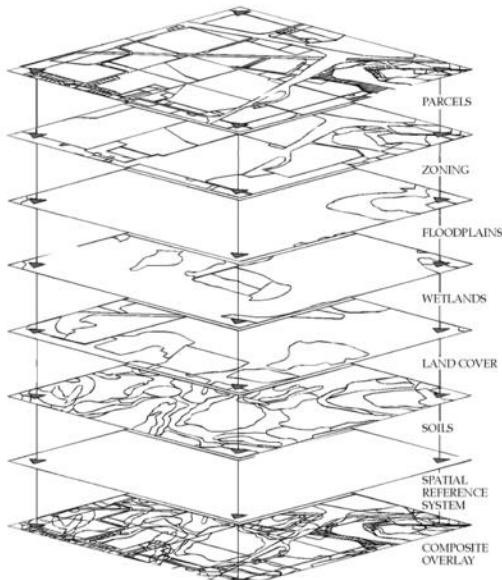


Figure 3: Concept for a Multi-Purpose Land Information System (1984)
Source: Sullivan, Chrisman and Niemann (1984)



Digital Experience – CAD, GIS, and Mapping of the Physical World



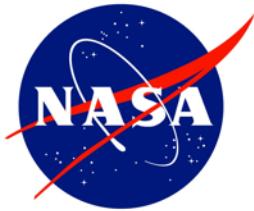
1990s

2000s

2010s



Supporting the startup ecosystem – Seed Funding & Access to Technology



GlobeXplorer
Delivering the World's Largest Online Library of Aerial / Satellite Imagery and Maps

Products **Industries** **Our Content** **Our Company** **Launch Viewer** **ImageAtlas** **Find Image** **Help**

United States International
Find and purchase images.
Address
City
State ZIP Code (optional)
Launch Viewer and Find Image

From standard images and maps to detailed property information.

Breaking News

Property Analyst Now Available
GlobeXplorer's next-generation real estate information viewer is now available. [Try the free San Francisco County demo now.](#)

GlobeXplorer Acquires AirPhotoUSA
We've just purchased the nation's leading hi-resolution aerial firm.

GlobeXplorer Earth Mapping Blog!
See our president's insights on GlobeXplorer and the spatial industry.

Content Partners

Image Viewers

ImageAtlas
2D and 3D Viewers
Incorporate our suite of online imagery and map viewers into your web site or intranet, complete with shopping carts and custom branding.

→ Product Information
→ Industry Solutions & Case Studies
→ **Free Trial: Try our new Property Analyst real estate research viewer!**

Developer Tools

ImageBuilder
Custom Viewing Solutions
Seamlessly integrate aerials, satellite images, and property information into your web application with our developer toolkits and mapping API's.

→ Product Information
→ Industry Solutions & Case Studies

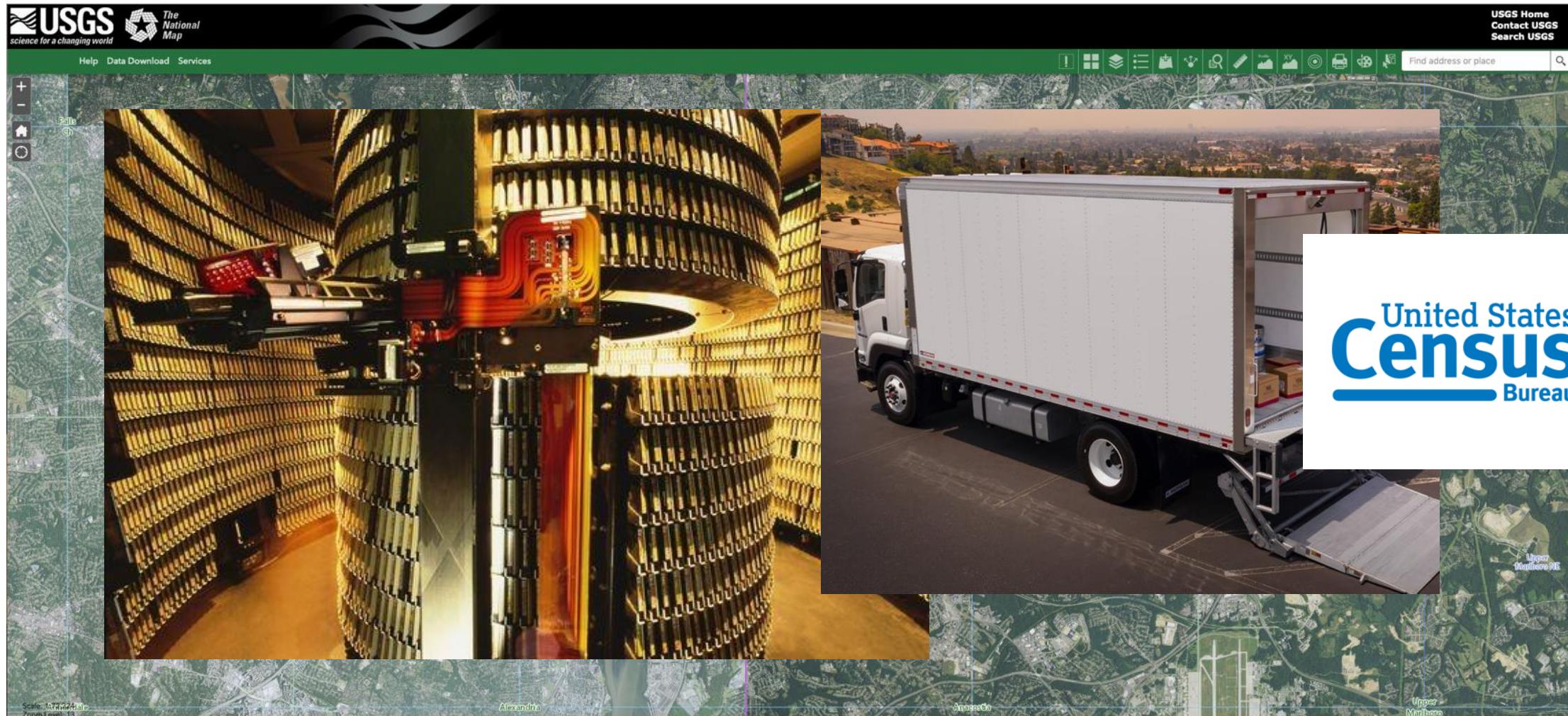
Mapping Services

ImageConnect
GIS and CAD Plug-ins
Download geo-referenced aerial and satellite photos into your mapping projects with our extensions and web services.

→ Product Information
→ Industry Solutions & Case Studies



The lesson of the pre-Cloud – the power of bringing geo content online

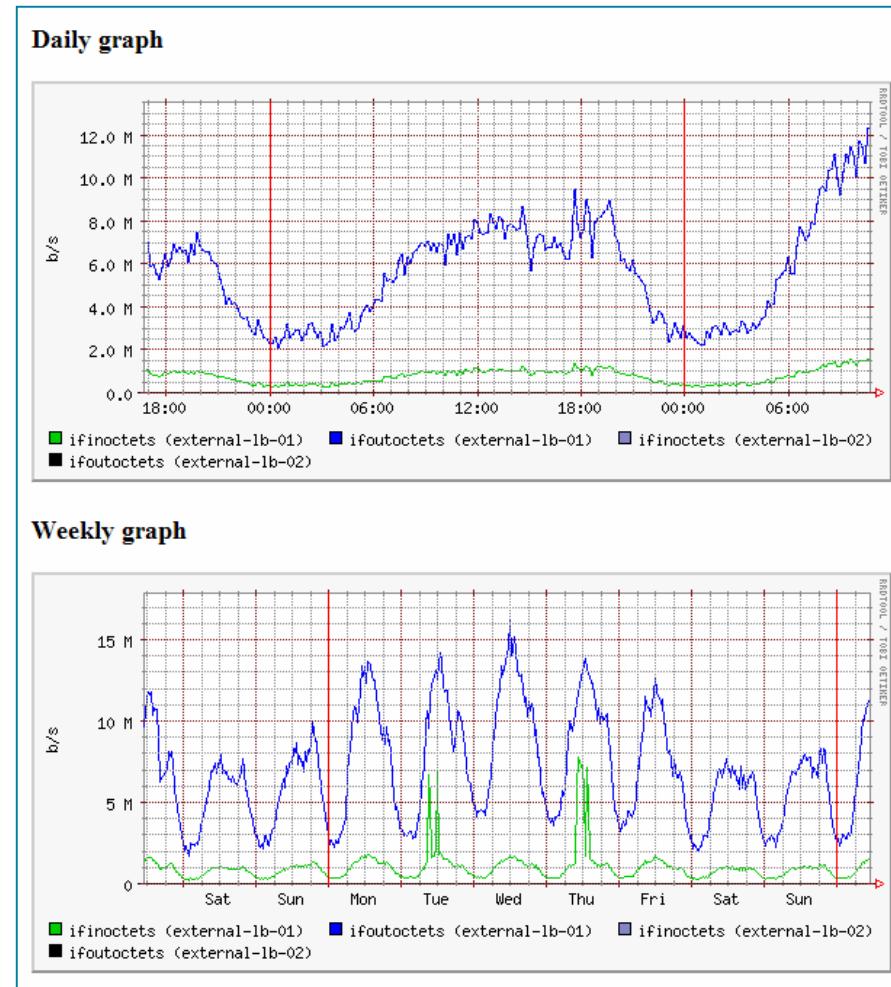


Network / Development Operations – The benefit of usage statistics for better products



A eulogy for Mapquest (Oct 4, 2019)

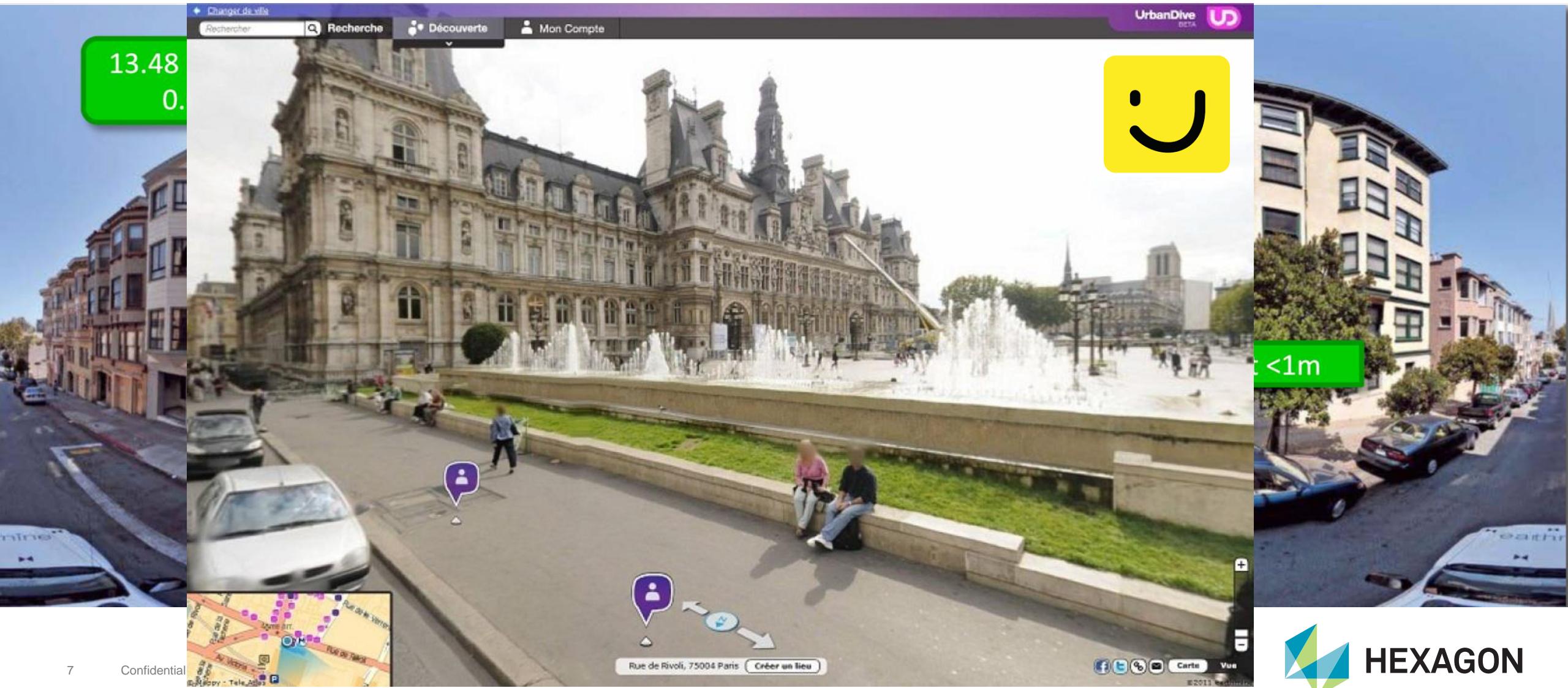
“Once the dominant mapping site, the decline of Mapquest is a story of disruptive competition and corporate complacency.”

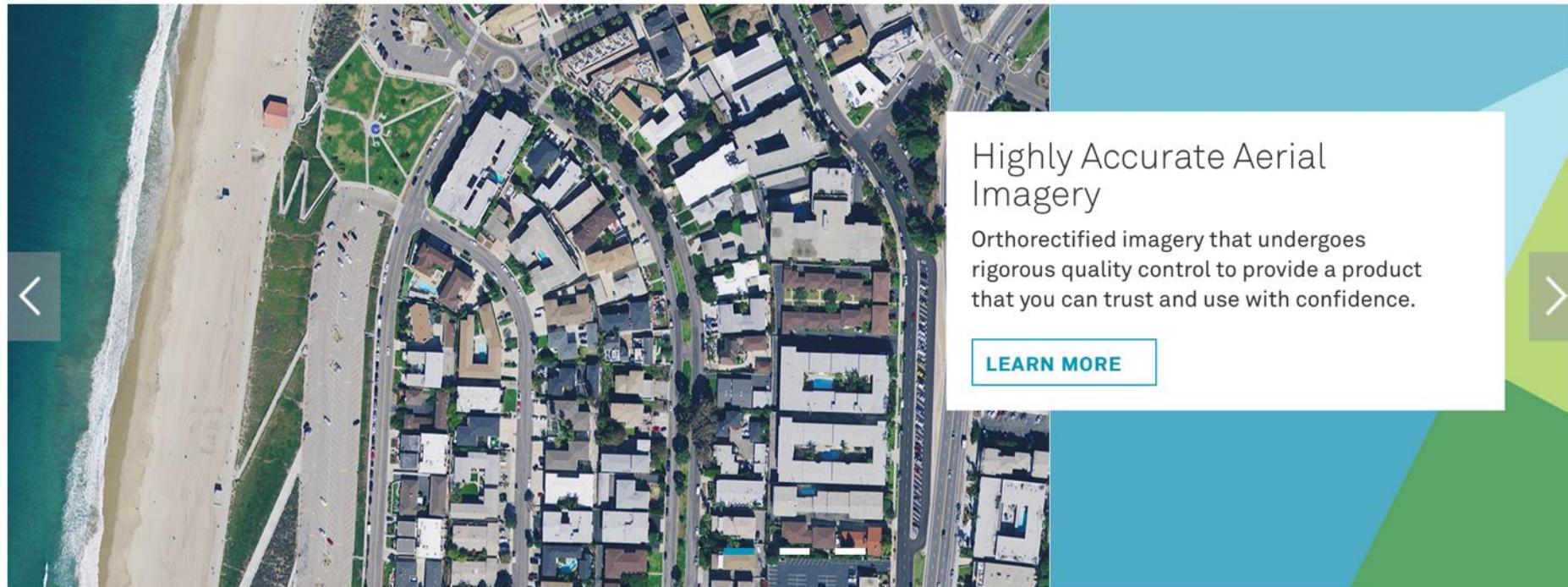


By U.S. Region	
	(See region map)
1 User	\$2,500
Up to 5 Users	\$1,750
Up to 15 Users	\$1,225
Up to 25 Users	\$850
Up to 50 Users	\$600
Up to 100 Users	\$400
Up to 250 Users	\$275
Up to 500 Users	\$200
Enterprise License	Call



earthmine – street-level imagery / 3D depth map products





HxGN Content Program – Derived from Leica Geosystems Airborne Sensors



Aerial Imagery Sensors (RGB)



Aerial / Oblique / LiDAR Sensor



Aerial LiDAR Sensors (XYZ)



DMCIII



ADS100



CityMapper



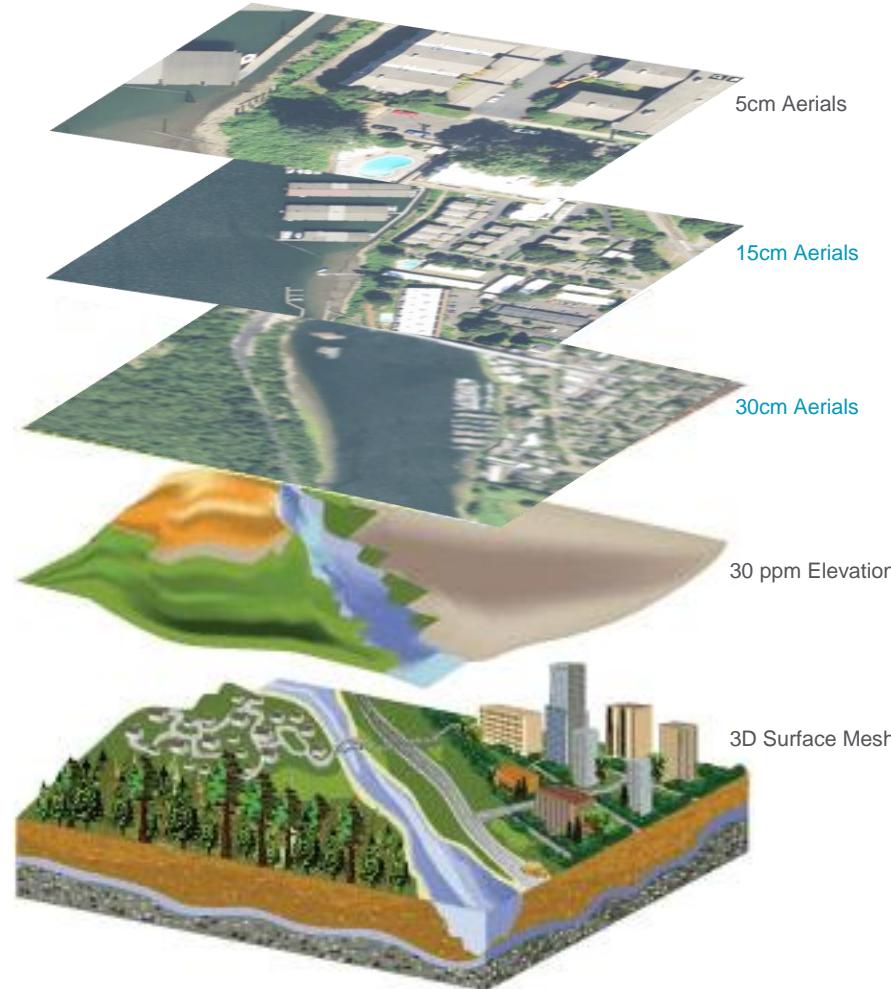
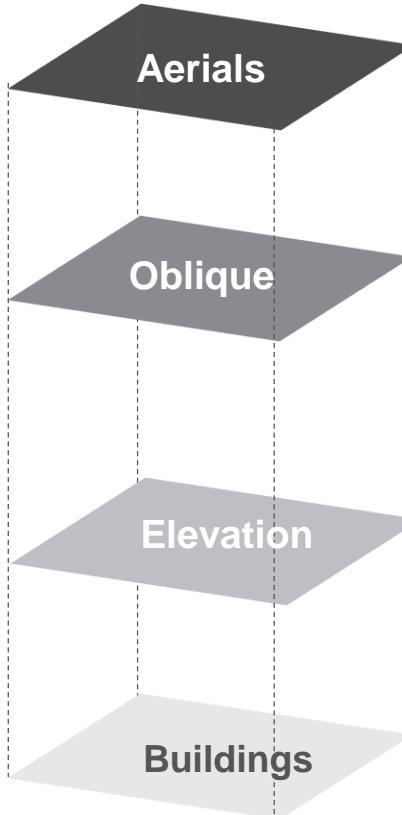
TerrainMapper



SPL100

HxGN Content Program – Multiple Portfolio Types & Delivery Methods

Content Types



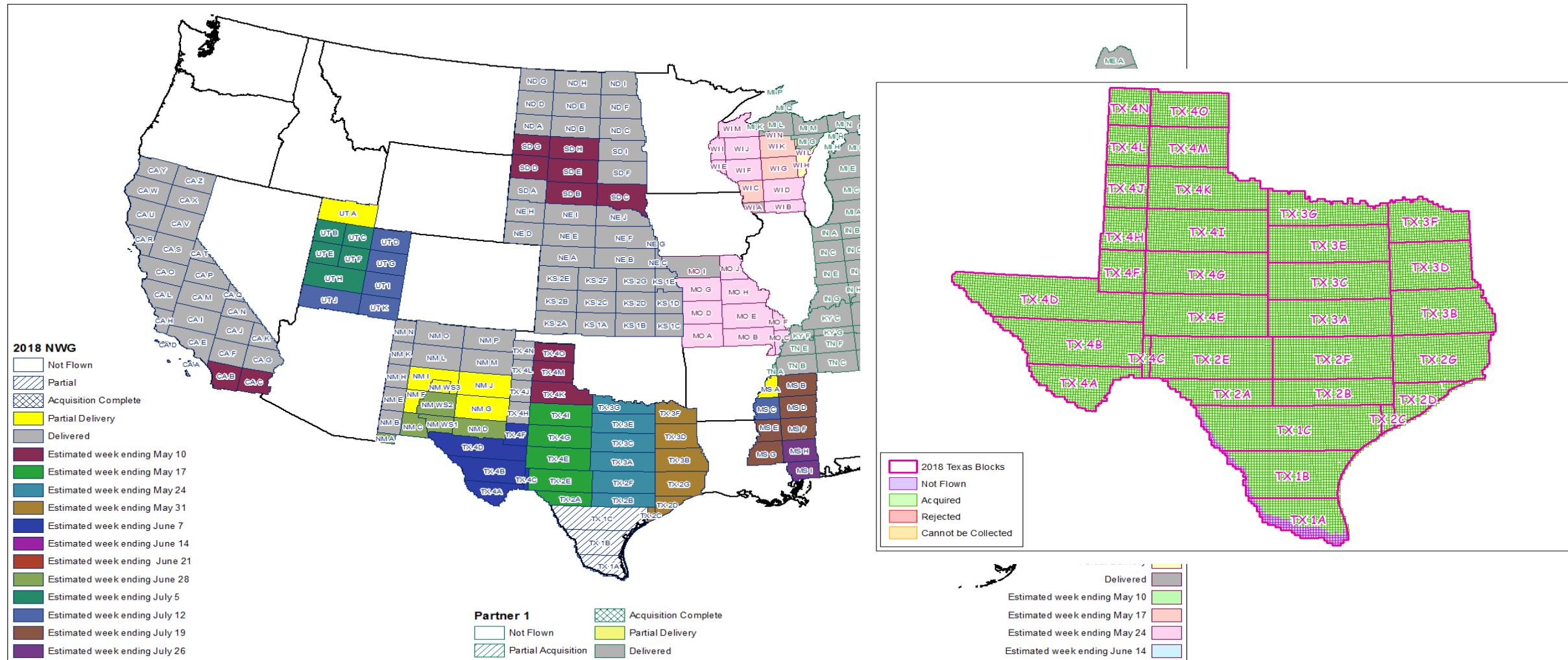
Delivery Solutions

Streaming – accessed via OGC [web map service](#) supporting the most demanding users needing accurate, high-resolution base maps.

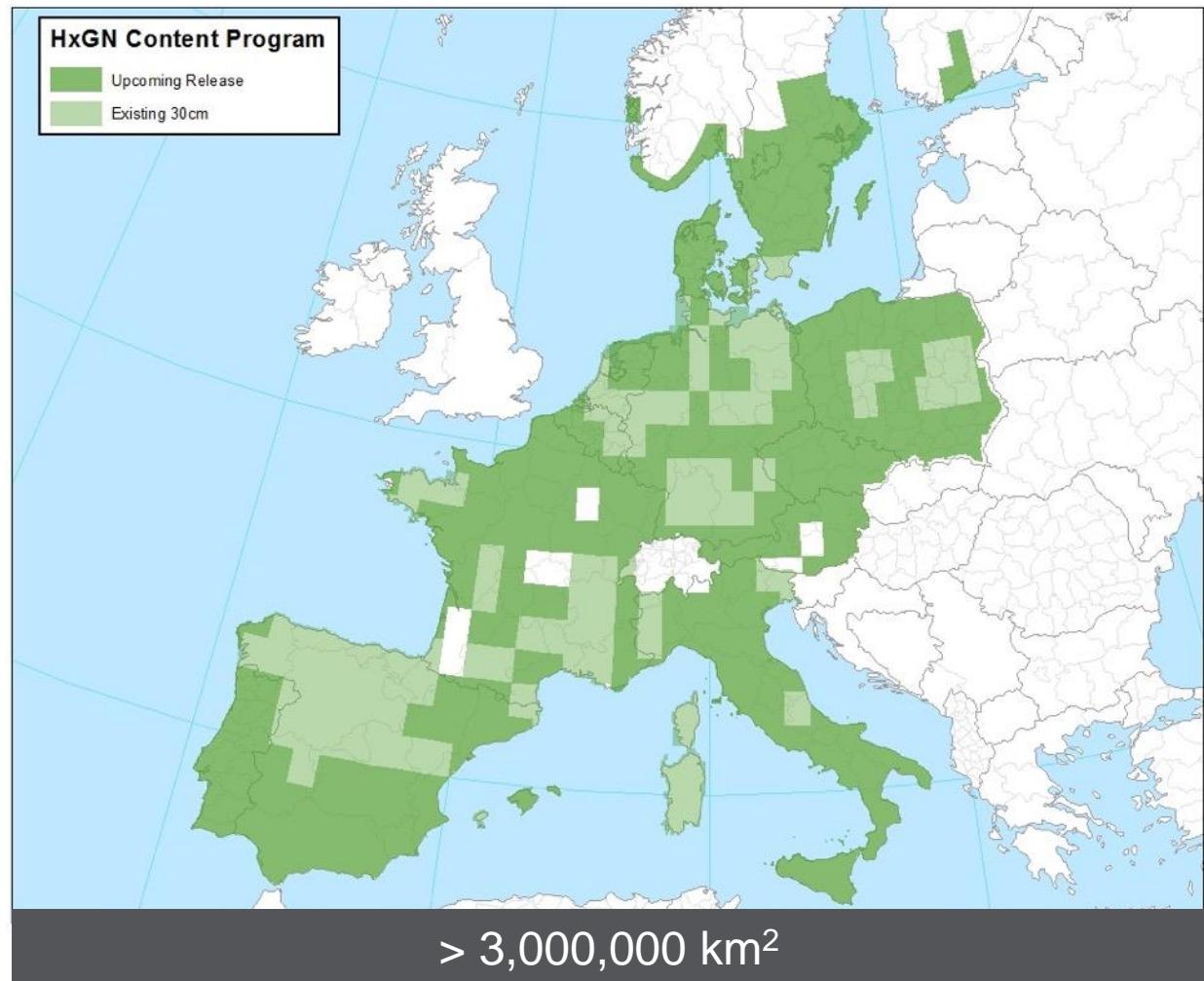
Analytics – [cloud-based access](#) to a rich, library of aerial imagery and elevation data ready for your own machine learning and AI analysis.

Downloads – a transactional [storefront](#) to purchase and download geo content for mapping, GIS, and On-premise use.

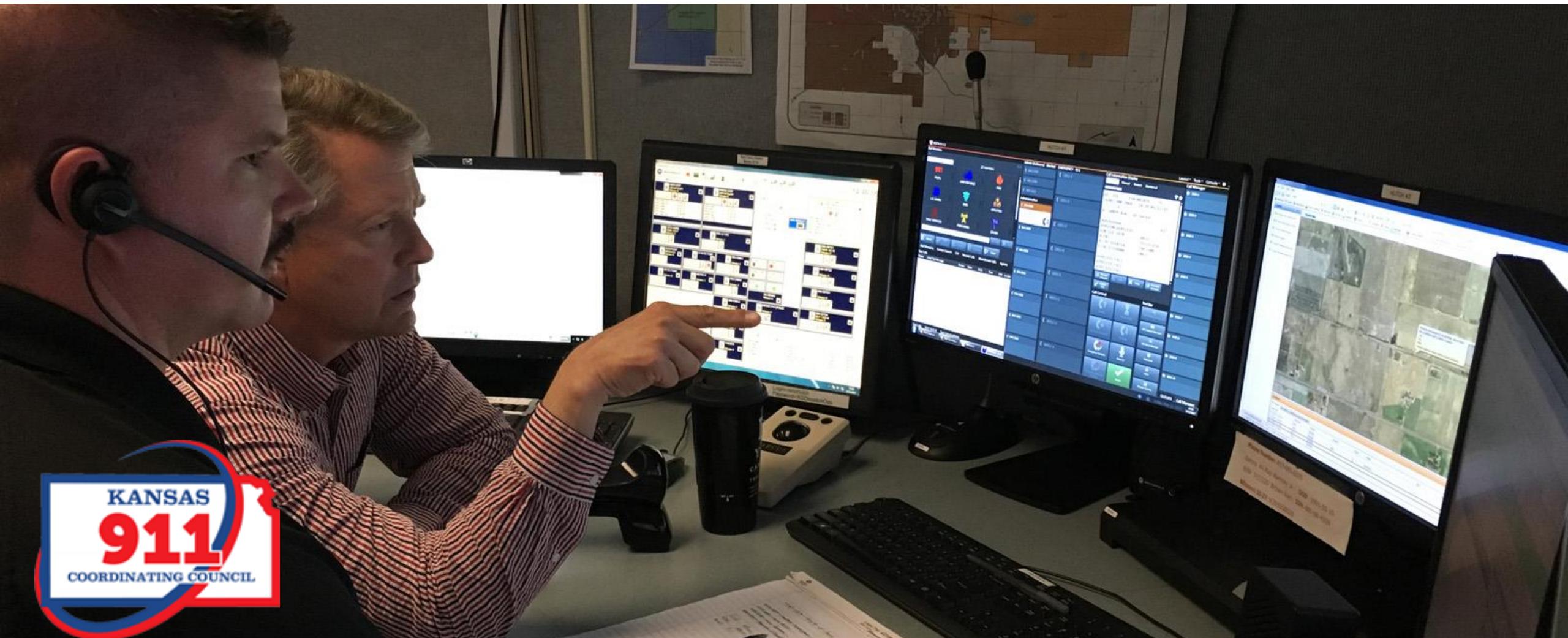
Collaboration – HxGN & USDA's NAIP Program w/ acquisition & production partners



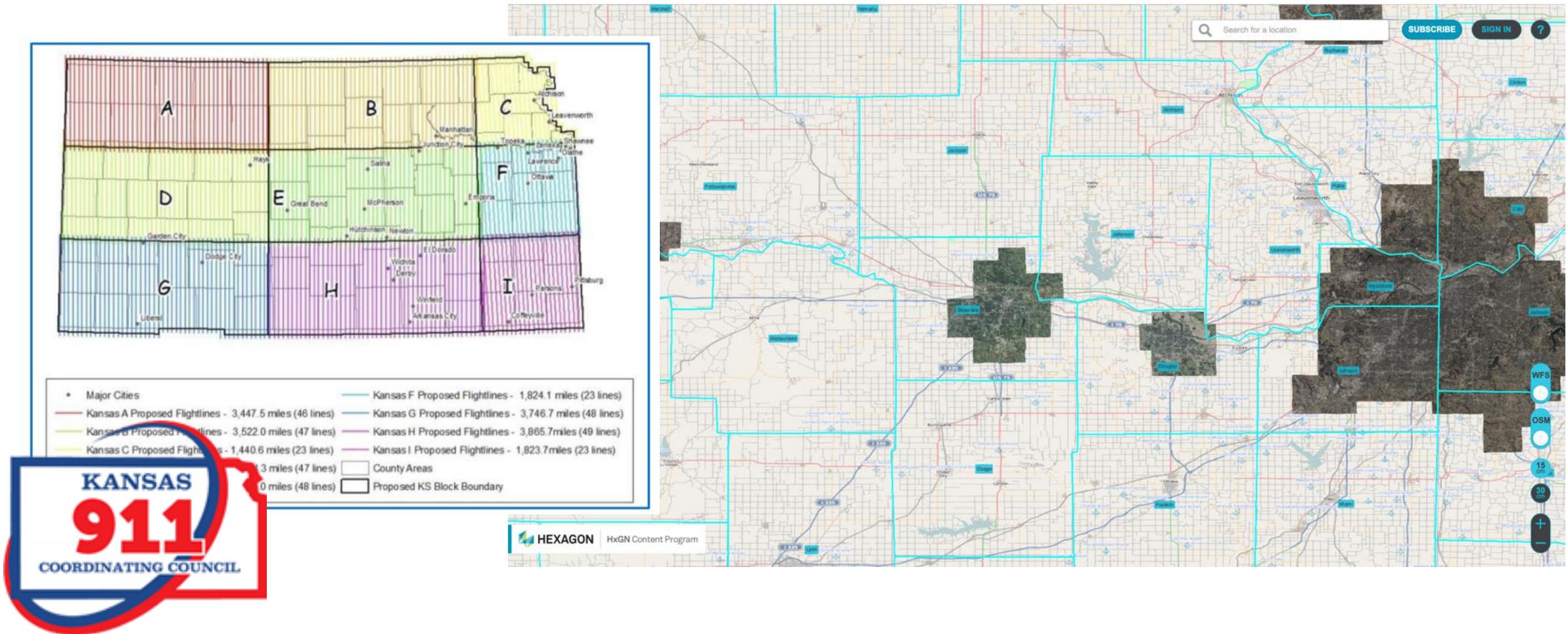
HxGN Content Program – Continental Aerial Imagery Coverage



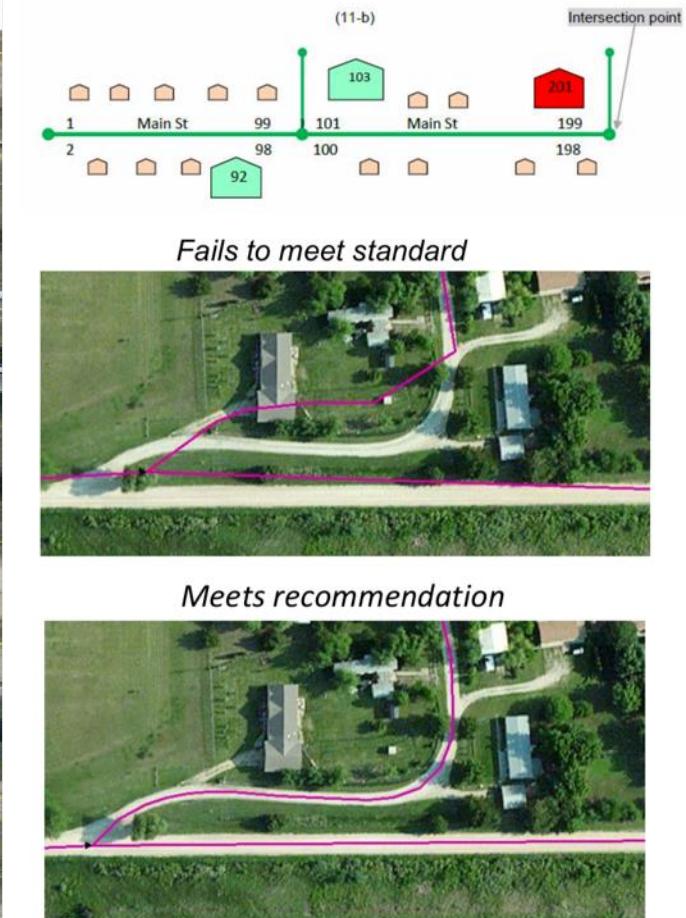
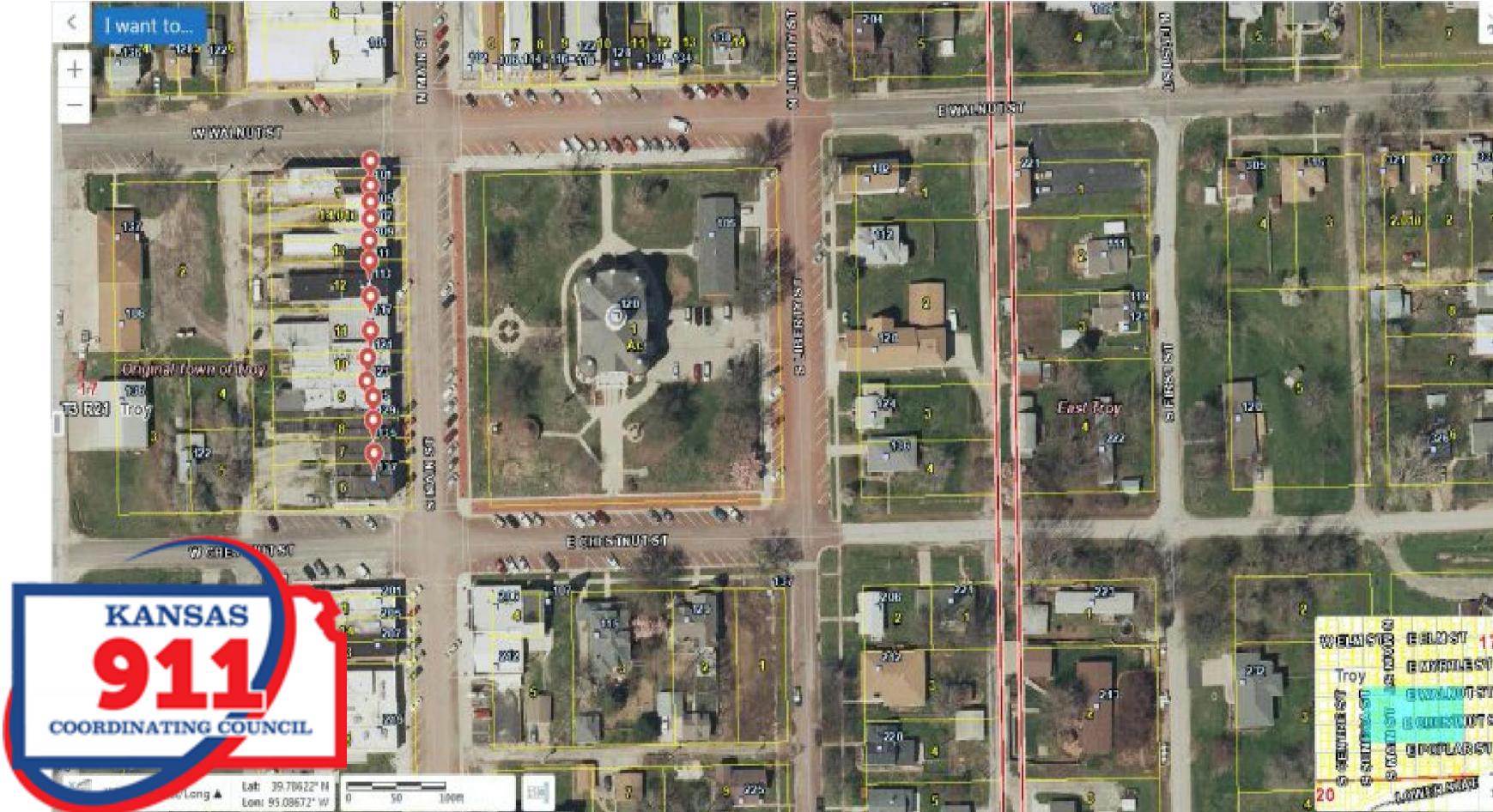
HxGN Content Program – State Government Collaboration > State of Kansas 911



HxGN Content Program – State Government Collaboration > State of Kansas 911



HxGN Content Program – State Government Collaboration > State of Kansas 911



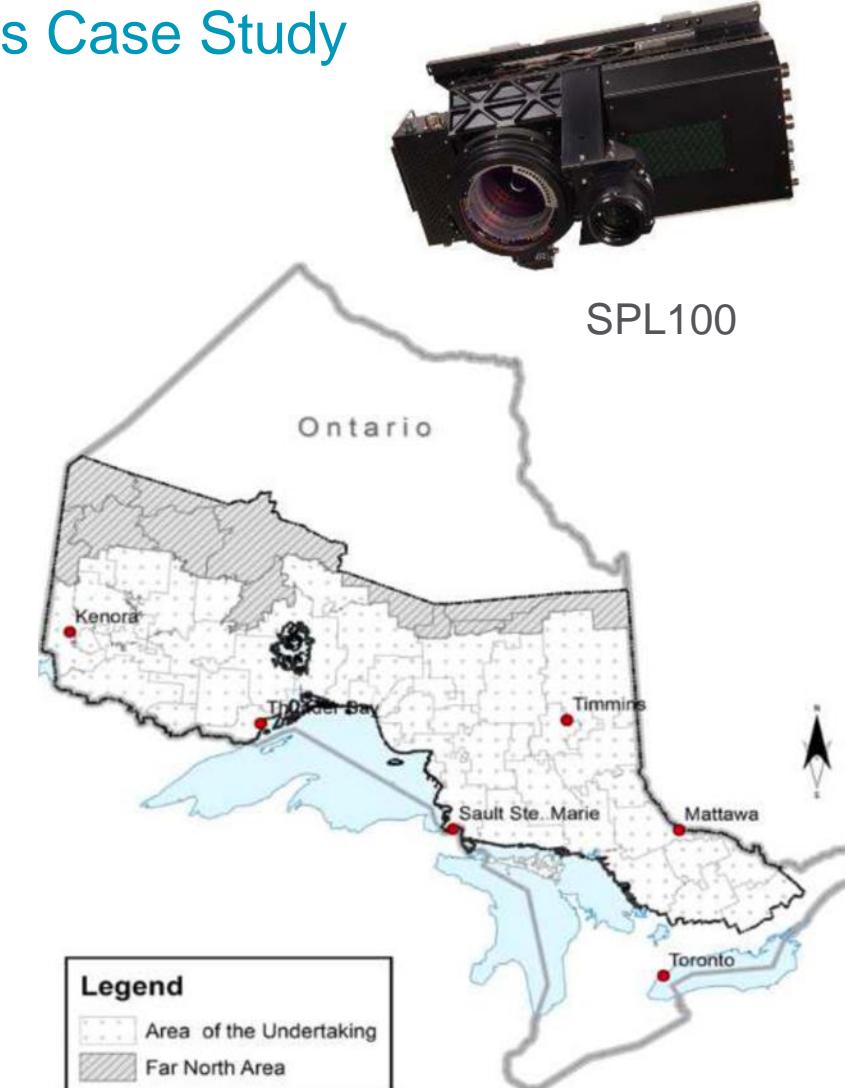
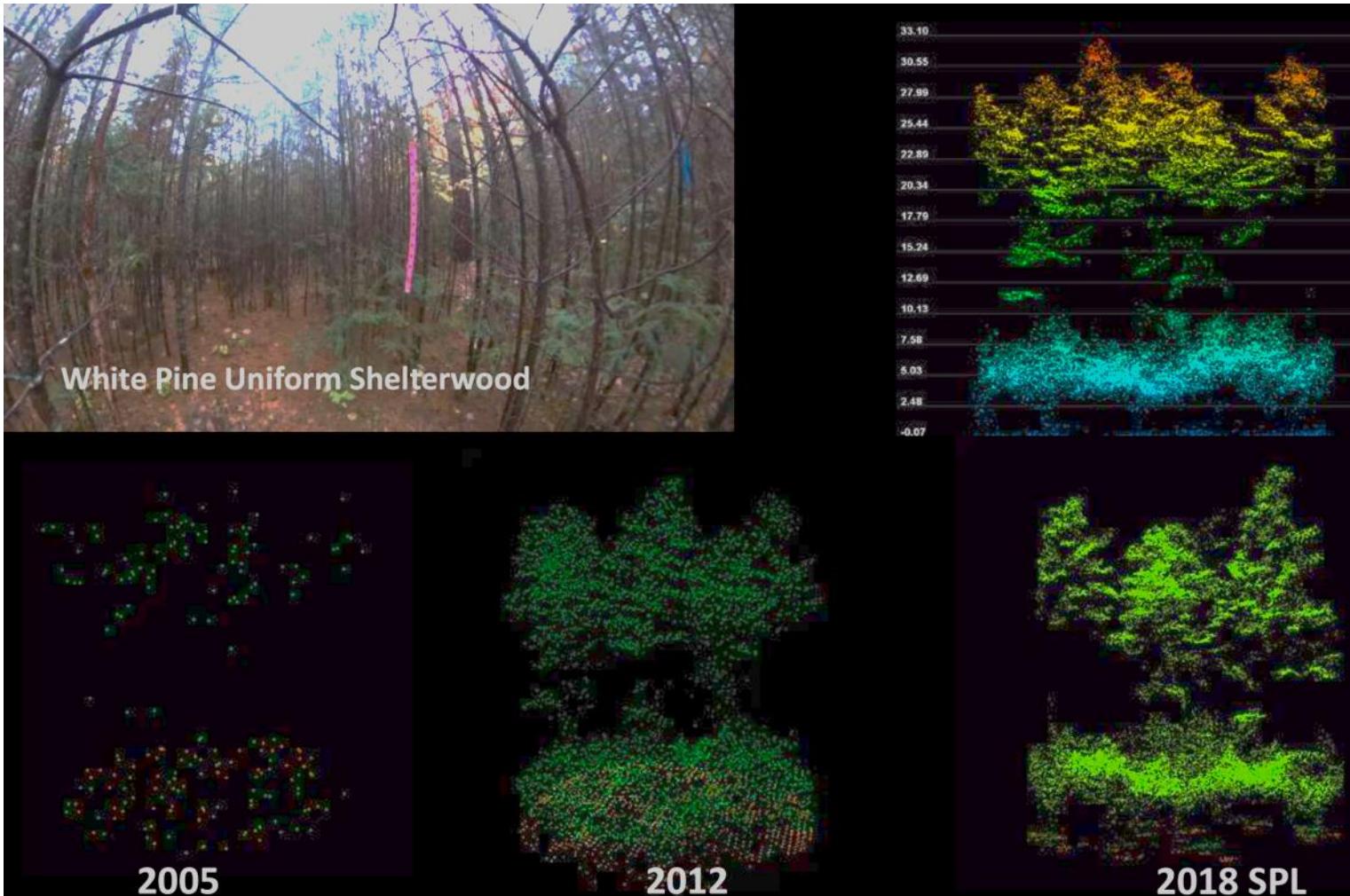
Business & Technology Innovation – Increasing US aerial coverage and resolution

Sept 24, 2019

HxGN Content Program launches high-definition aerial data in the United States



Hardware Innovation – Ontario Ministry of Natural Resources Case Study



Open Source Software / Data – a brief overview & machine readable data standards

THE WORLD BANK



Public Domain
(Copyright free in USA only)



OpenStreetMap

Open Database License (ODbL)

(International)

(If redistributed > share-alike)



...and many more.

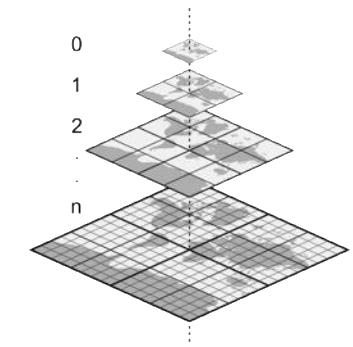
2D – Imagery Standards for machine learning



CLOUD OPTIMIZED
GEOTIFF



SpatioTemporal
Asset Catalog



ARD (Analysis Ready Data)

3D – Geometry Standards



(GL Transmission Format)

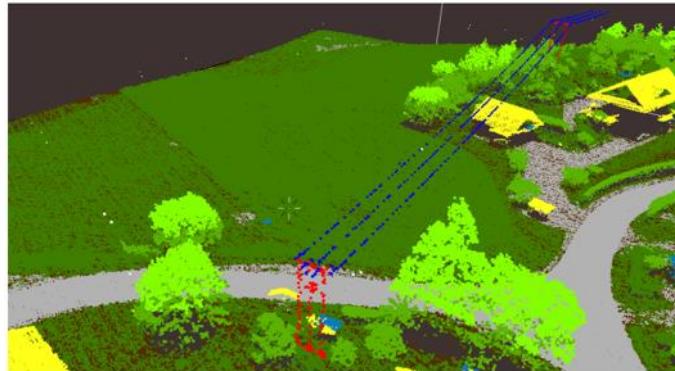


Creating an AI / Deep Learning Ecosystem

Automated Base Mapping – less frequent > imagery & LIDAR



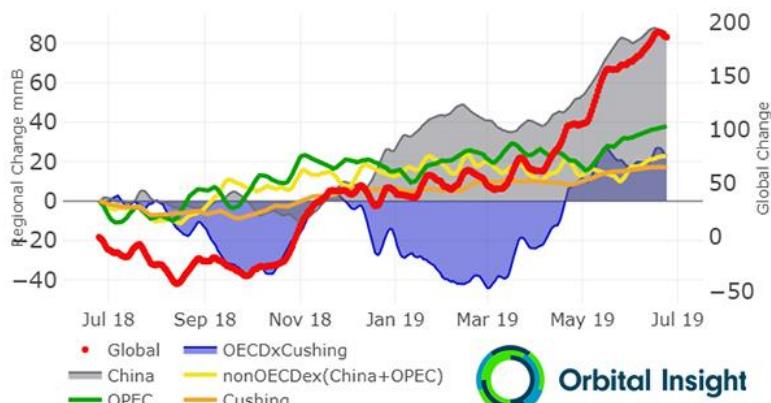
Aerial



Site Monitoring – continuous > imagery & MS



Satellite



Technology Innovation – C3 Technologies > pioneer in automated 3D mapping (2008-2011)



SAAB

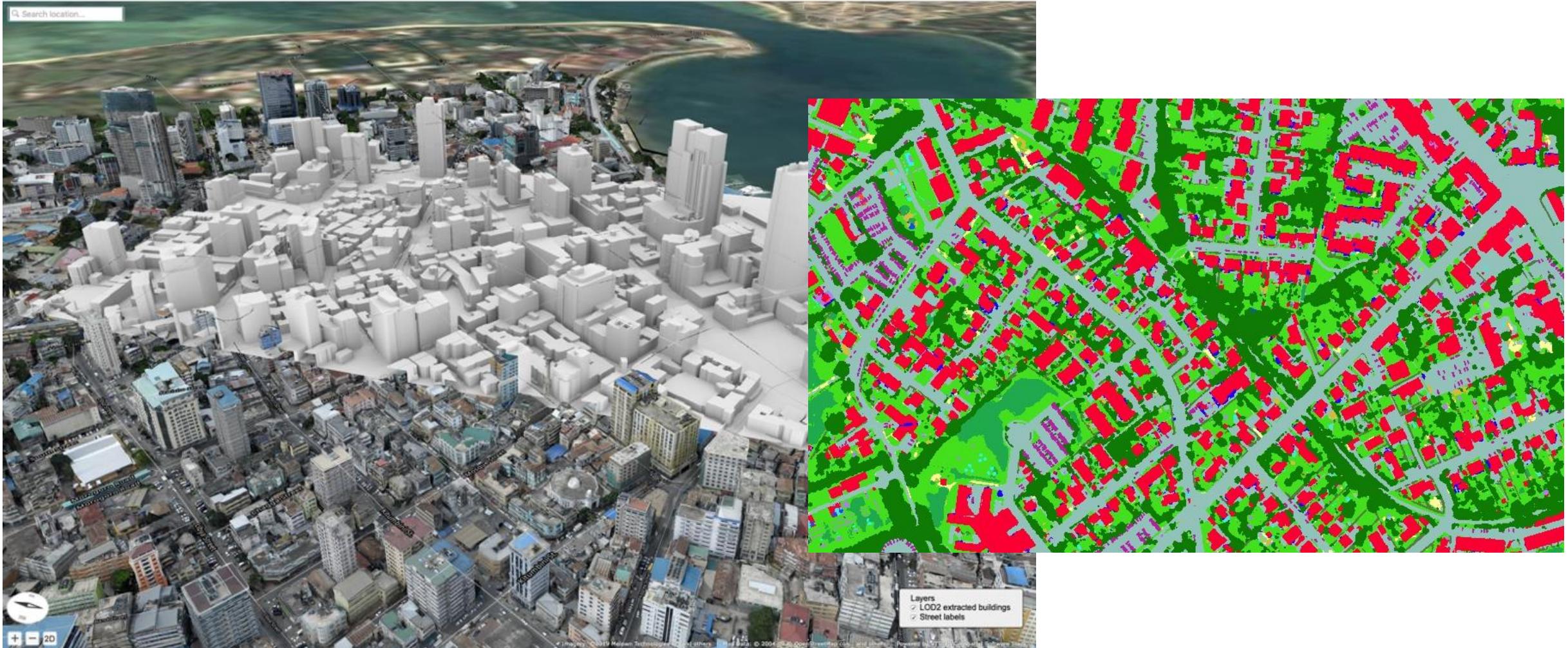
Ventures



2011



Software Innovation – Building a new Digital Reality (Melown acquisition)



Hexagon R&D Activities – BIM & Geodesign Combined



Thank you.

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