

SMART IMAGERY SOLUTIONS

CYCOMEDIA AT A GLANCE



Precision Panoramic Imagery for Professional
For LARIAC

April 28^h, 2014

CYCLOMEDIA HIGHLIGHTS

Started in **1980** with
over 30 Years
Experience

World-wide
Patented
Technology

Professional Users
Government and
Industry

Started in Europe
and with **US launch**
in 2013



CYCLOMEDIA HIGHLIGHTS

Primary Market Segments Include:

- **Property Taxation**, Appraisal, and Building Inspection
- **Transportation** and Infrastructure Management
- **Public Safety** and Homeland Security
- **Construction** Planning and Field Crew Management



CYCLOMEDIA'S HISTORY

Technology Driven

1980

Start research "FRANK" system - Delft University of Technology

1988

Development of prototype fisheye cameras and recording vehicles

1994

Start experiments with Dutch Cadaster, Amsterdam, & Rotterdam

Commercially Driven

2008

7th generation dig. recording system (record while driving)
Start of yearly nationwide aerial photography

2009

Nationwide coverage of the Netherlands
Automated traffic sign detection from Cycloramas

2010

Mass roll-out of **GlobeSpotter®** web based viewer (SaaS)

2011

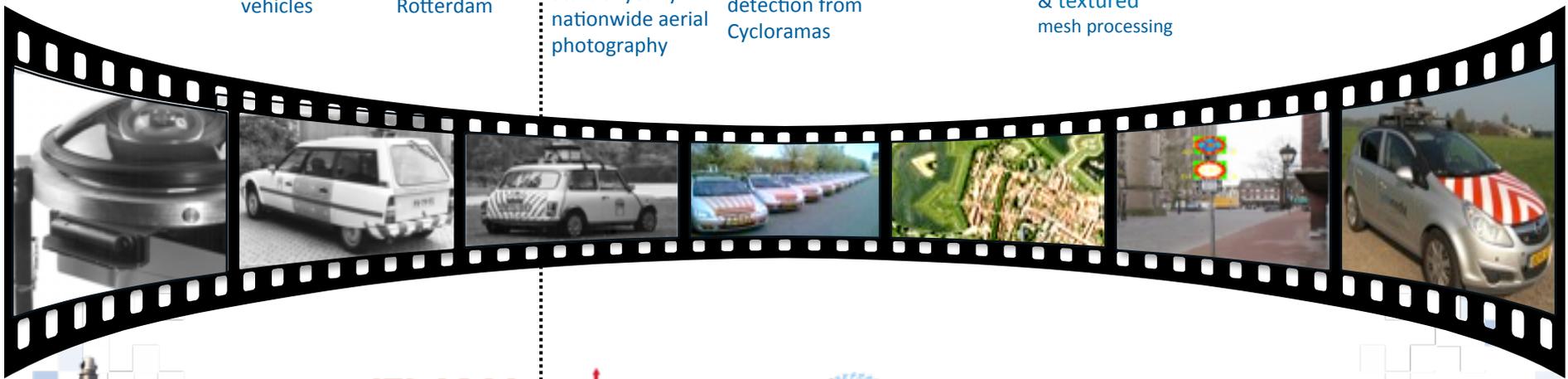
9th generation dig. recording system: DCR9
3D point cloud & textured mesh processing

2012

First Cyclorama capturing in the USA

2013

First US contract (Washington DC)



1980-1995



1995-2000



2000-2006

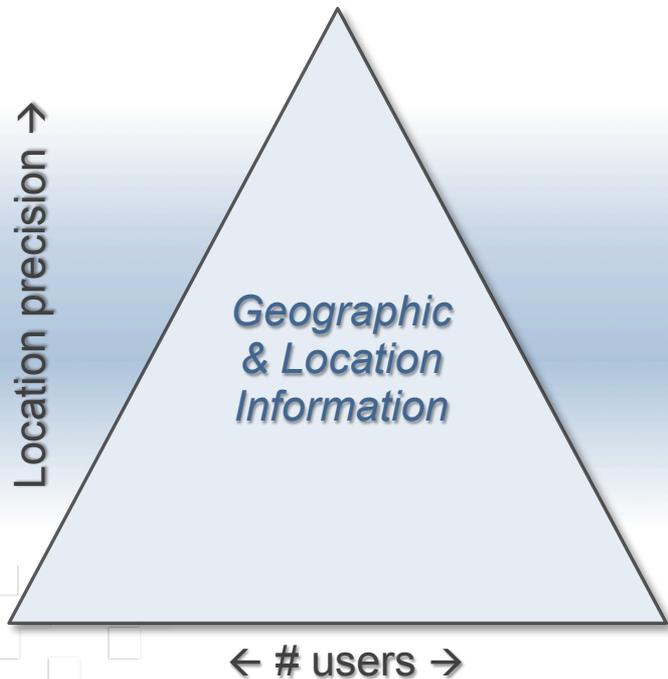


2006-2012



Smart Imagery Solutions

FOCUS OF PRODUCTS AND SERVICES



Survey grade, precision 1-5 cm (inches or less)

GIS grade, precision 10-50 cm
(6 to 18 inches)

Consumer grade, precision 1-20 m (3 feet or more)



CYCLOMEDIA PRODUCT PORTFOLIO



Content

- **Cycloramas** – Seamless, accurate 360° **panos** taken at street-level with our patented recording technology



Viewer Software

- **GlobeSpotter & GlobeSpotter for ArcGIS** – Our feature-rich **web app** for viewing Cycloramas that runs on any browser supporting Flash



CYCLOMEDIA PRODUCT PORTFOLIO



Hosting Solutions

- **GlobeSpotter Cloud** – Secure, scalable **SaaS service** managed by Cyclomedia that's free to customers.
- **GlobeSpotter Server** – **Locally hosted** option supporting all Cyclomedia's software and development tools.



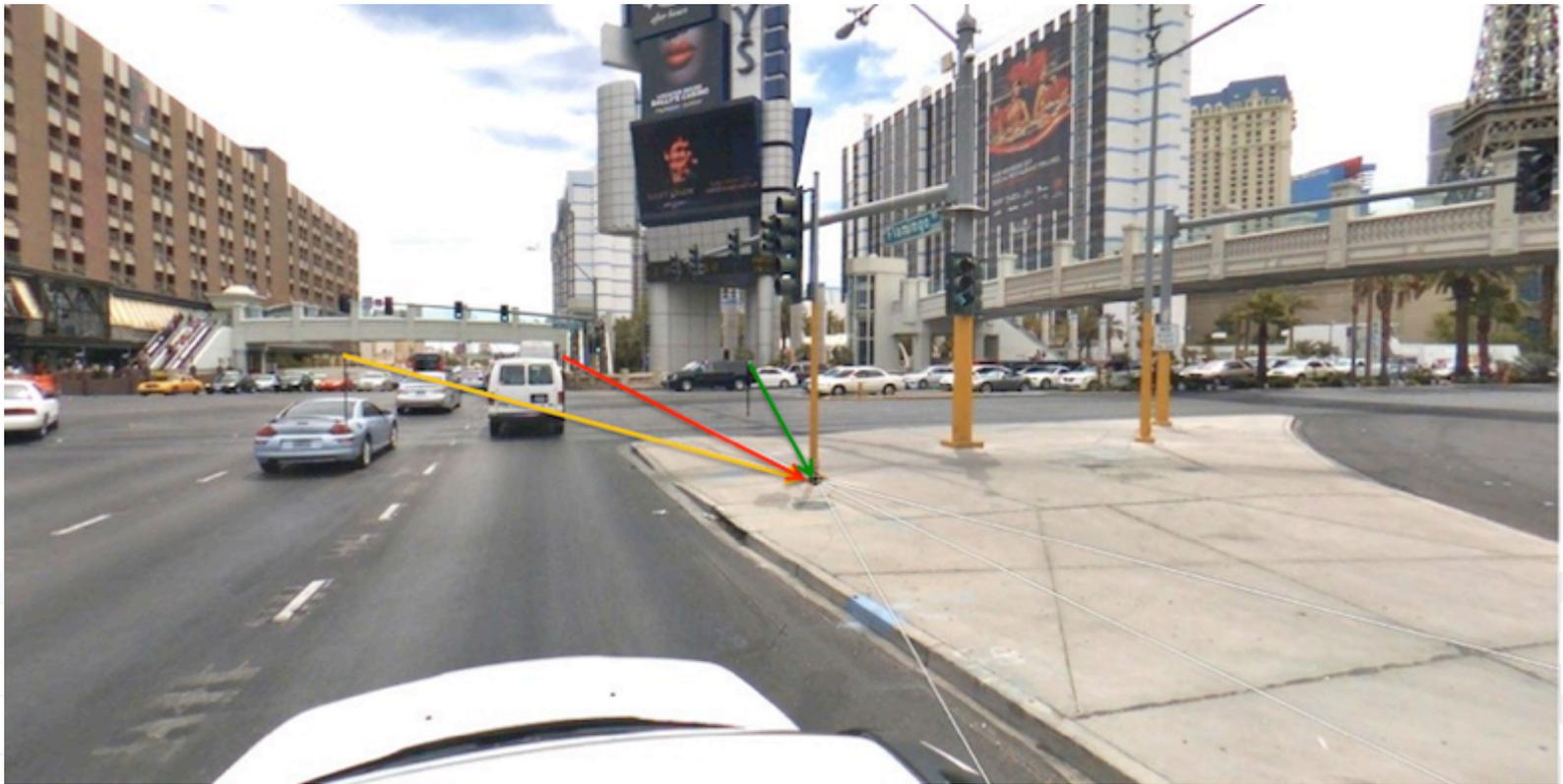
Developer Tools

- **GlobeSpotter API** – Build your own web viewer with GlobeSpotter **components**
- **Panoramic Rendering Service** - Texture map buildings or make **JPG cut-outs** from Cycloramas
- **GlobeSpotter Administrator** – Account **management tool** for larger customers needing to manage many users

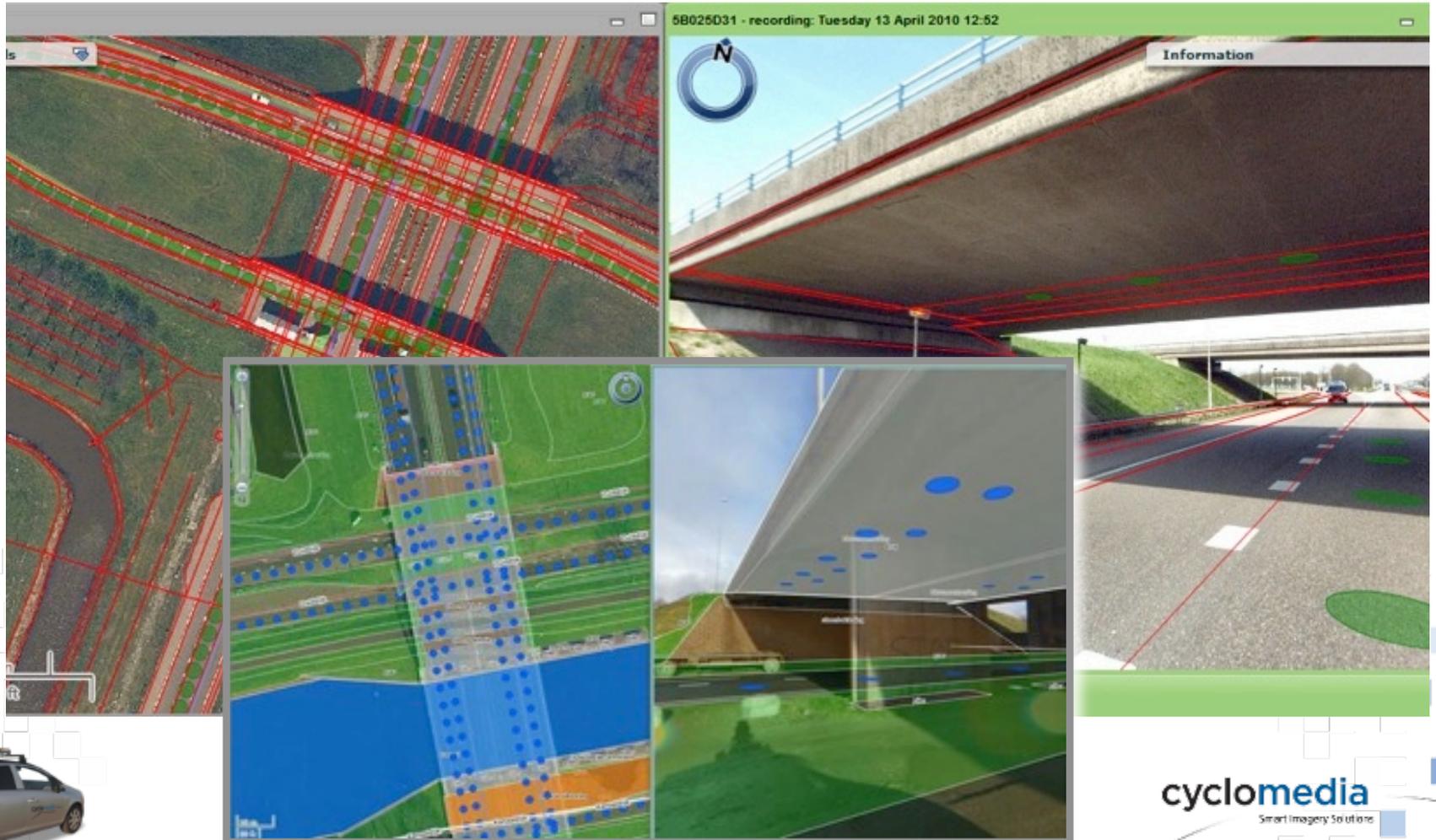
CYCLORAMA PATENTED RECORDING SYSTEMS



“ONE CLICK” – EQUALS PRECISE MEASUREMENTS (3X)



GLOBESPOTTER[®] - 2D & 3D DATA OVERLAYS



CUSTOMER REFERENCE WASHINGTON, DC (DDOT)



Profile

- A customer since 2013
- The Department of Transportation manages and maintains transportation infrastructure for the District of Columbia. Approximately 550 employees with an annual budget \$130m

Benefits

- Improved asset inventories along streets
- Better preliminary cost estimates for engineering and construction projects.
- Reduced in the field visitations.
- Closer integration with in existing business workflows

Business Drivers

- Regulatory compliance
- Traffic asset inventory updates
- Road maintenance and inspection
- Street tree and furniture inventories
- Construction planning and management

Customer Quotes

“DDOT is using street level imaging software to enhance the city’s data collection methods”

“To revolutionize the way inspections for repairs, construction, and permitting data is conducted”



TAXATION: PROPERTY APPRAISAL

Raadplegen WOZ objecten

Verblijfsobjecten
Ligplaatsen
Standplaatsen

Panden
Bagid: 250010000008205
Bouwjaar: 1960
Verblijfsobjecten

Raadplegen WOZ objecten

WOZ-object: 250000026498
Objectnr: 26498
Wozobject: Vondellaan 19, 2902AR Gouwestad

Stopcode: Aantekening

Ingang	Ende	Omschrijving	Soort object	GBA	Status	In ond.	Gebouwd	Courant	%Gereed	Ruimte
01-11-1992	01-01-1997	Vondellaan 19, 2902AR Gouwestad	hoek-woning		Actief	<input type="checkbox"/>	Gebouwd	<input type="checkbox"/>		
01-01-1997	01-01-2001	Vondellaan 19, 2902AR Gouwestad	hoek-woning		Actief	<input type="checkbox"/>	Gebouwd	<input type="checkbox"/>		
01-01-2001	01-01-2005	Vondellaan 19, 2902AR Gouwestad	hoek-woning		Actief	<input type="checkbox"/>	Gebouwd	<input type="checkbox"/>		

Overzicht | Deelobjecten | Percelen | Belanghebbenden | Waarden | BAG-relaties | Kaart | Foto's (1) | **Cyclusraam** | Heffingen | Documenten (0) | Kladblok

Schaal = 1 : 375 99356.34550, 437642.54250

WOZ1000055

WOZ1000055

7.1.1.0 (1996)



TAXATION: PROPERTY ASSESSMENT



PUBLIC WORKS: PAVEMENT REVIEW

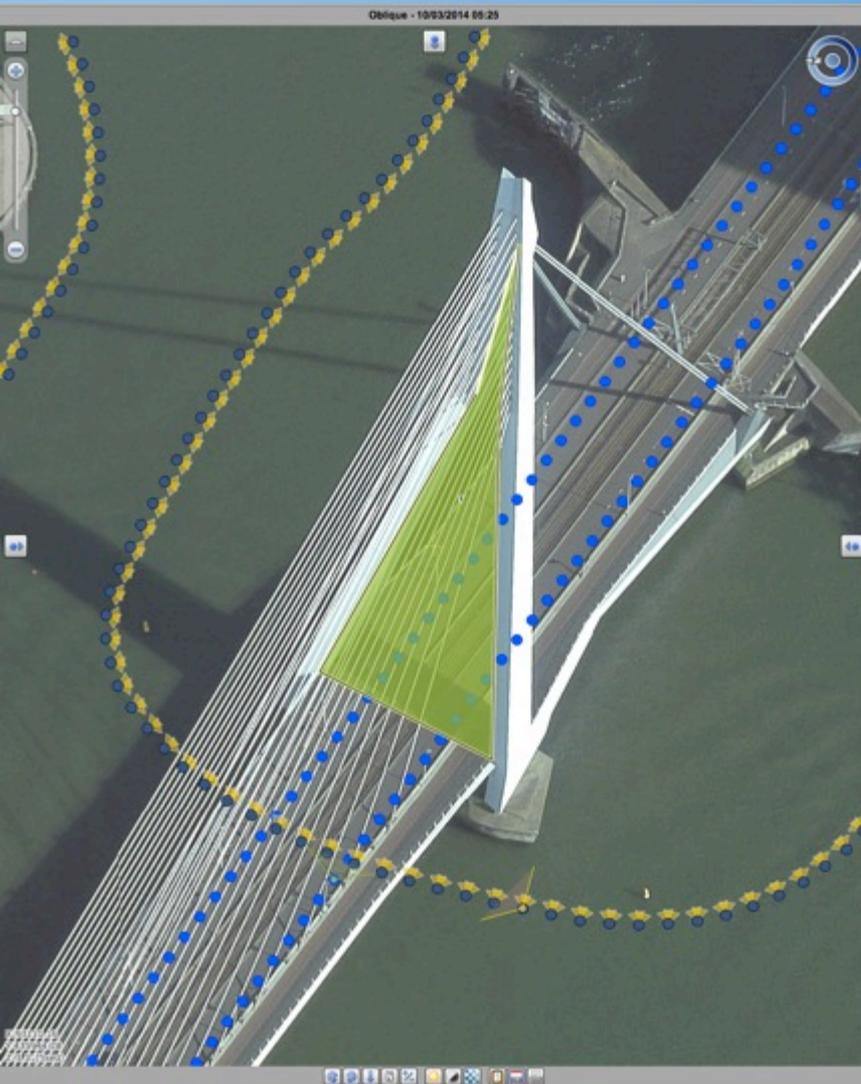


INTEGRATION: AIR – SEA - LAND



Port of Rotterdam

INTEGRATION: AIR – SEA - LAND



Port of Rotterdam



INTEGRATION: OBLIQUE & STREET W/ MEASURING

Location: Search Look up Date: Layout: Options: Report Settings Information Help Feedback

Oblique - 09/07/2013 06:42

Cyclorama viewer - 13/06/2013 00:51

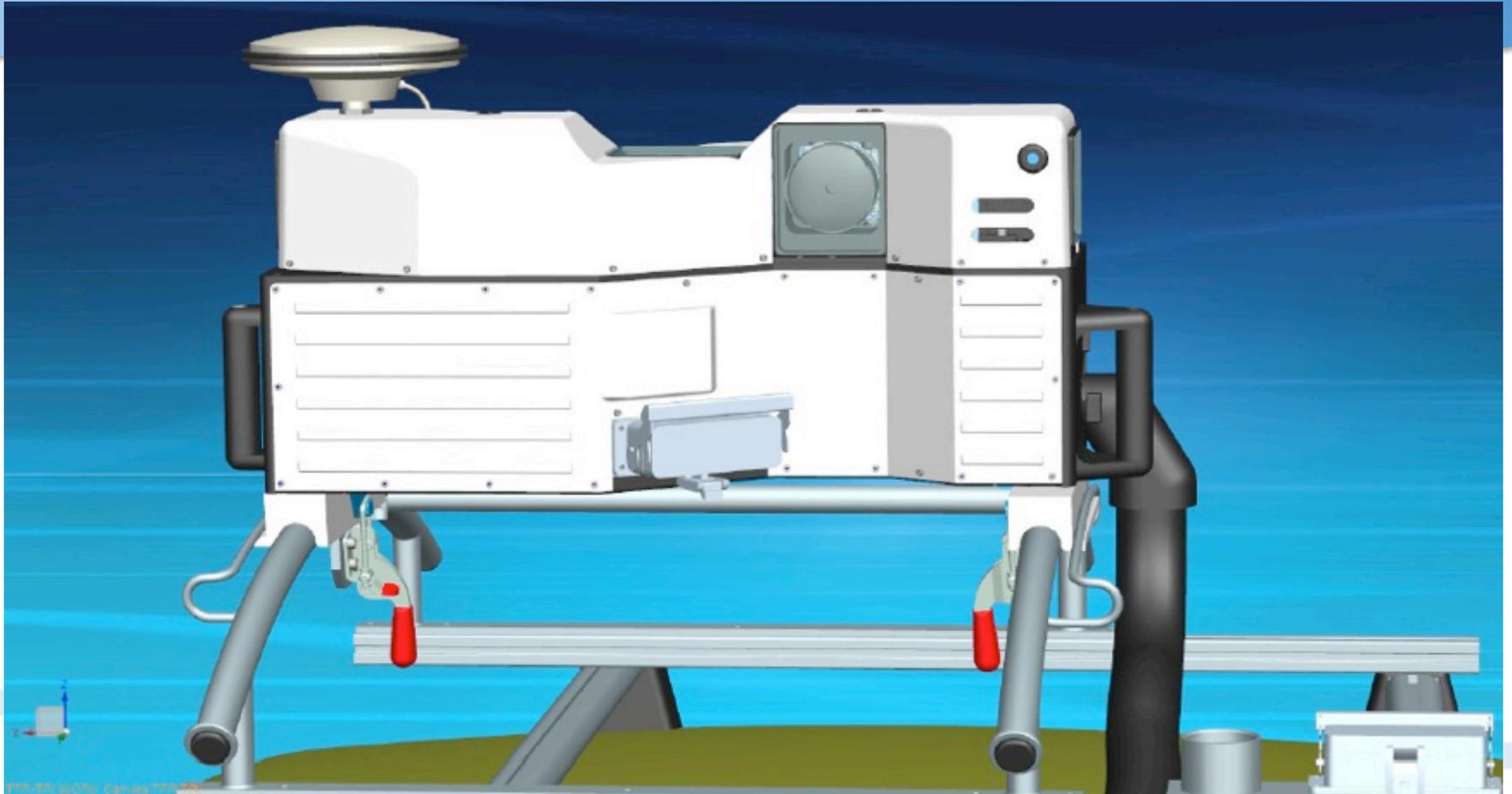
The interface displays two views of a building. The left view is an oblique aerial photograph from 09/07/2013 06:42, showing a brick building with a green measurement box on its side. The right view is a street-level cyclorama from 13/06/2013 00:51, showing the same building with a green measurement box on its side. The measurement box in the cyclorama view contains the following data:

7.92m	84.6°	
83.7°	22.15m ²	92.8°
2.25m	98.9°	8.83m
7.80m		

Display Layers Measurements Drawings Playlist General



NEXT GENERATION SYSTEM: DCR10



Scene1 – DCR10



uitgezendend



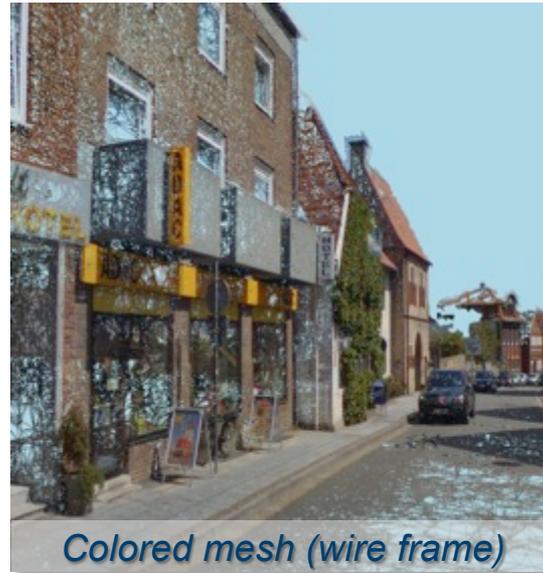
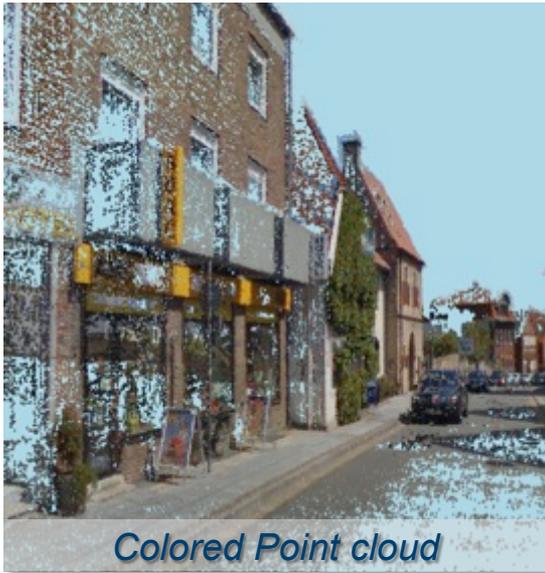
WONINGRICHTING TOTAAL



17



R & D: 3D RECONSTRUCTION FROM GROUND



CycloMedia is able to create 3D reconstructions exclusively from imagery



R & D: 3D RECONSTRUCTION – GROUND & AIR

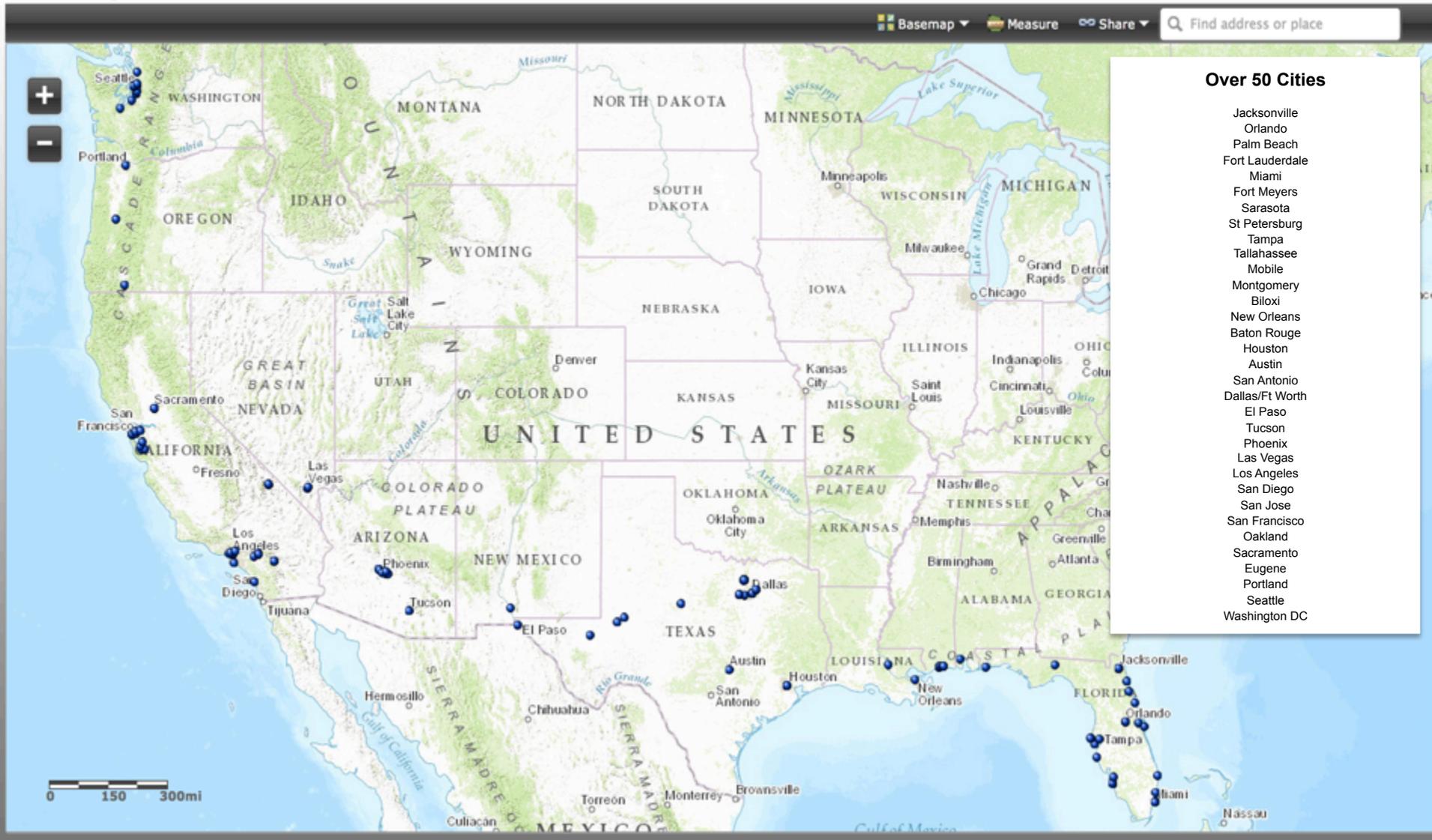


City of Amsterdam



2013 DRIVING DUTCHMAN TOUR – SAMPLE DATA

GlobeSpotter for ArcGIS Online



QUESTION & ANSWER

◆ Thank you

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◆ Live Demo

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USEFUL LINKS

- www.cyclomedia.com
- www.thedrivingdutchman.com
- Free access to GlobeSpotter for ArcGIS Online
- <http://esri.cyclomedia.com/>
- GlobeSpotter URL (login required)
- <https://globespotter.cyclomedia.com/>
- GlobeSpotter videos
- http://youtu.be/2dw0o_fVklo

