



**PRYSIG 2009**

Mayaguez, PR

11.DIC.09

# Servicios Web y Consumo de Información Geográfica utilizando visualizadores gratuitos

*ArcGIS Explorer*

Glenda Román

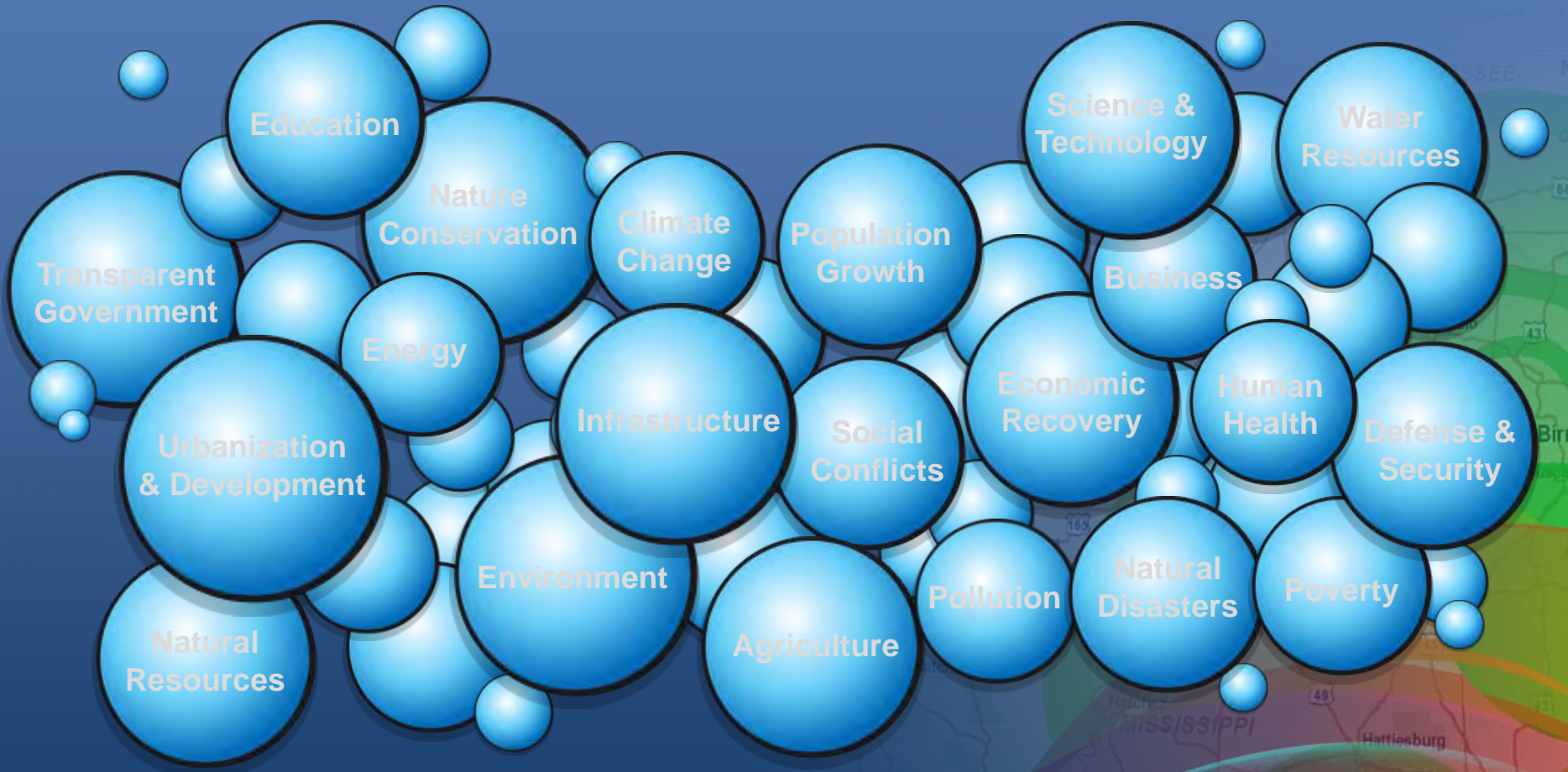
Geographic Mapping Technologies, Corp.

# Geographic Mapping Technologies, Corp

- 14 años - Firma privada de consultoría de GIS
- Distribuidores exclusivos de ESRI
- Proveemos apoyo técnico
- Consultoría
- Adiestramientos



# GIS para afrontar los retos de este mundo



*... Implementar una infraestructura de información  
... Crear un futuro sustentable*

# Planificación

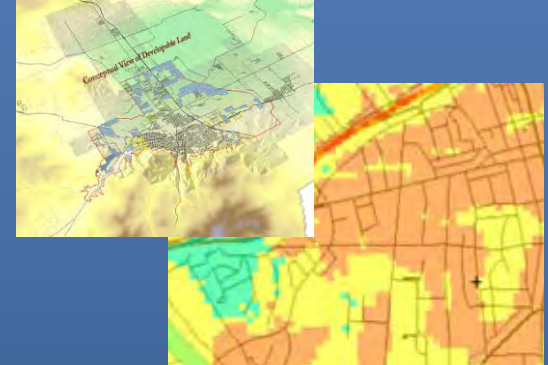
Urban Planning  
*California*



Urban Design  
*San Jose, California*



Land Use Suitability  
*Montana*



Web Based Suitability  
*North Carolina*



Online Community Planning  
*U.K.*



Regional Planning  
*Puerto Rico*

3D Zoning  
*Portland, Oregon*



Urban Redevelopment  
*Bakersfield, California*

Virtual City  
*Bangkok*

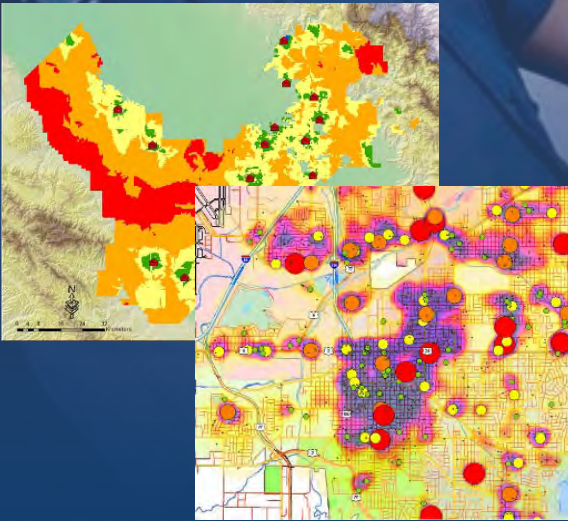


*Arizona*



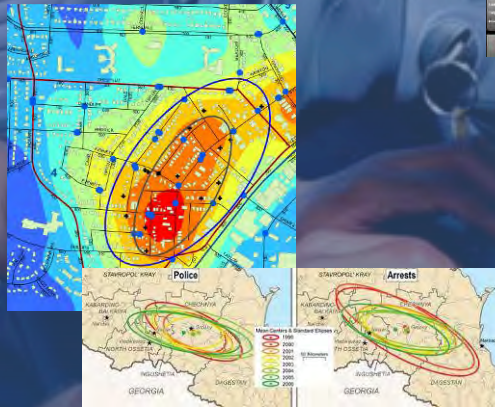
# Seguridad & Law Enforcement

**Fire Response**  
*California*

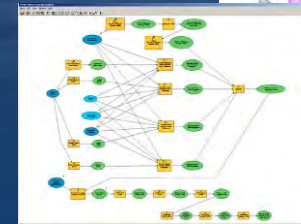


**Crime Hot Spot Analysis**  
*Nebraska*

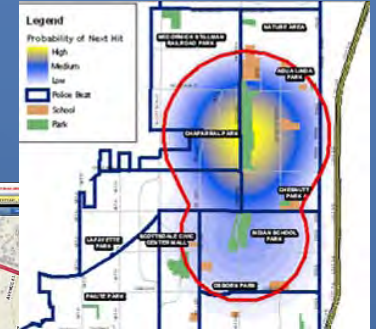
**Crime Analysis**  
*Texas*



**Analysis of Violence**  
*Russia*

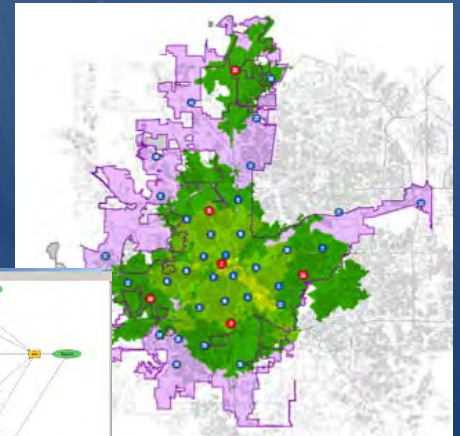


**E911 / CAD**  
*Bahrain*



**Crime Prediction**  
*Arizona*

**NEPA Response Time Model**  
*Texas*



# Manejo y Prevención Desastres Naturales

Flood Mapping  
*Iowa*



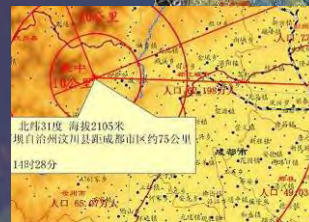
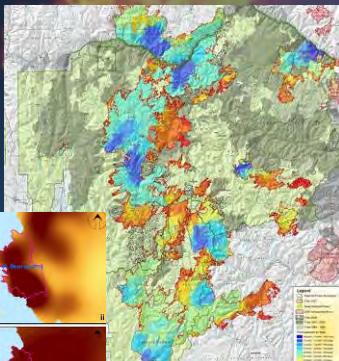
Floods  
*Bihar, India*



Wenchuan Earthquake  
*China*



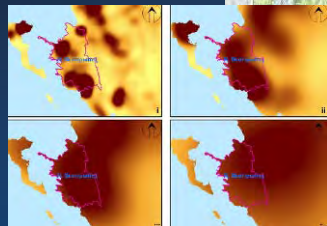
Wildfire  
*Idaho*



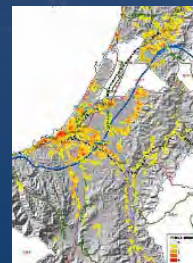
Aftershocks



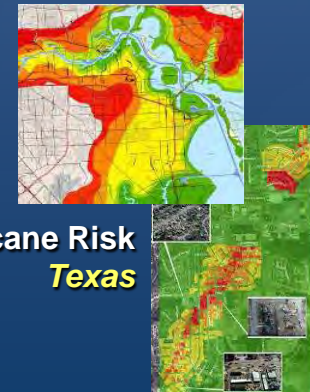
Floods Simulation  
*Houston*



Fire History  
*Greece*

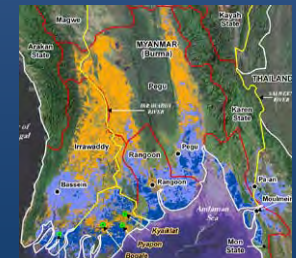


Earthquake  
Damage  
*Japan*



Hurricane Risk  
*Texas*

Tornado  
*Alabama*



Cyclone  
*Myanmar (Burma)*

# Utilidades & Infraestructura

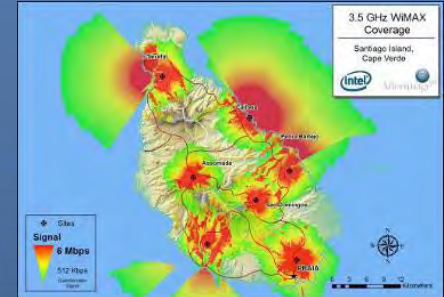
Highways  
*Bedfordshire, UK*



Signs  
*Midwest*



Cell Phone  
Coverage Areas  
*Santiago Island, Cape Verde*



Network  
Infrastructure  
*Germany*

Wastewater Call Center  
*Oman*

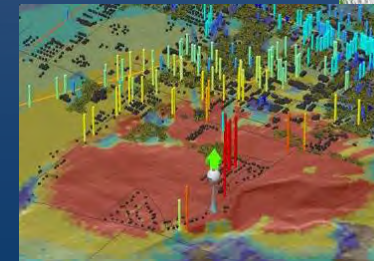


Networks  
*Canada*



Buildings  
*Massachusetts*

WiMax Propagation  
*Indiana*



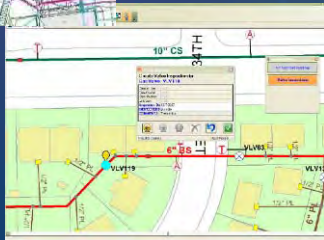
Communication Tower  
*Texas*



Valve Isolation Trace

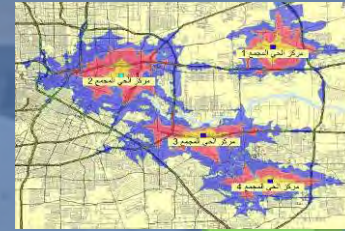


Electrical Design  
*Colorado*



# Transportación

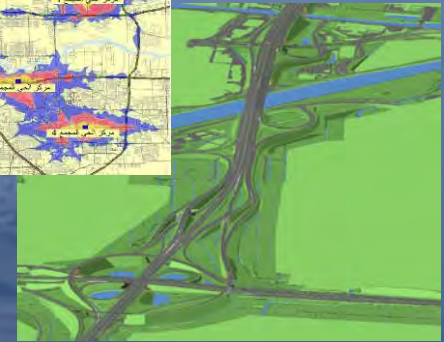
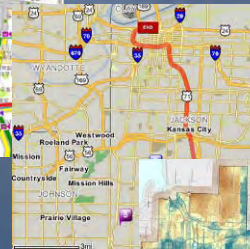
Drive Time  
*Saudi Arabia*



Real Time Traffic  
*Korea*



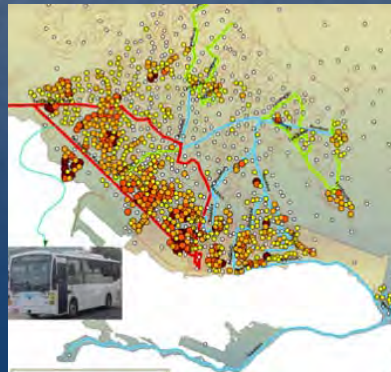
Ride Share  
*Kansas*



Visual Highway Simulation  
*Holland*

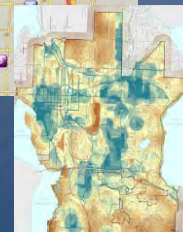


Rail Management  
*Korea*



Transit Analysis  
*Jamaica*

Bike Way Suitability  
*Washington*



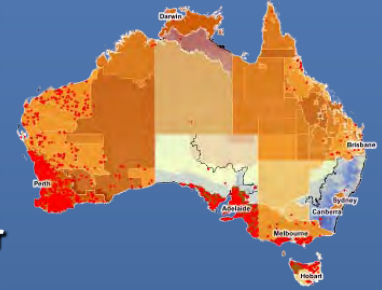
Corridor Planning  
*Puerto Rico*





# Ciencias de la Tierra

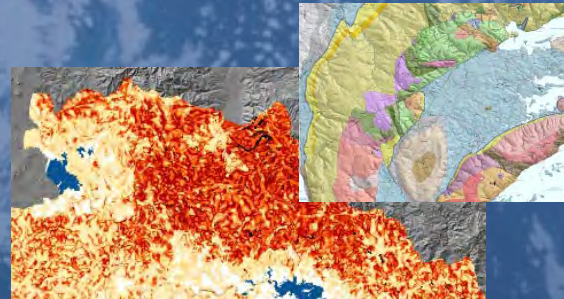
Online Soil Information  
*Australia*



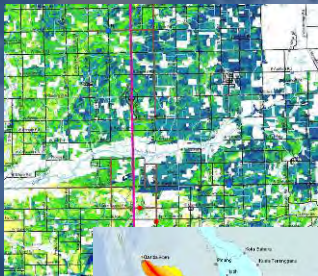
Groundwater  
*Texas*



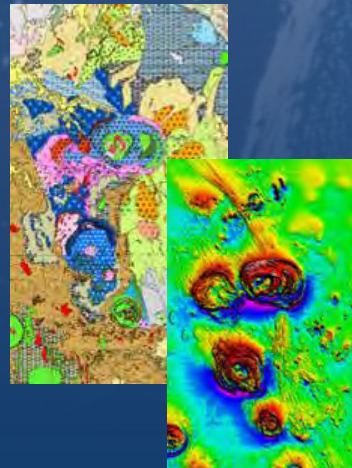
Geologic Mapping  
*Canada*



Soil Moisture  
*Michigan*



Landslide Susceptibility  
*El Salvador*



Seismic Hazards  
*Indonesia*



Geologic Analysis  
*Madagascar*



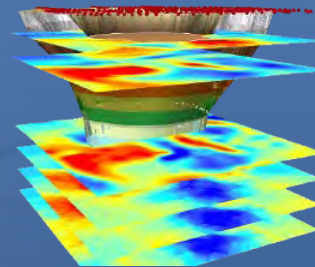
Flood Risk  
*Portugal*

# Manejo de Recursos Naturales

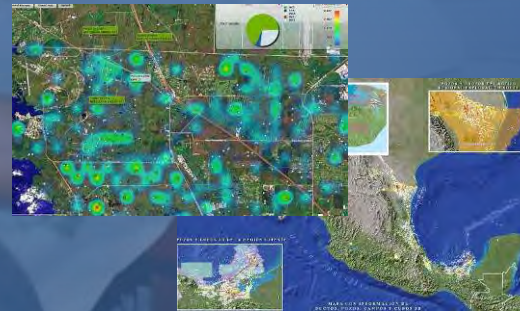
Mining Tracks  
*Brazil*



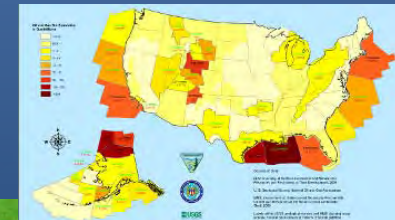
Diamond Mining  
*Africa*



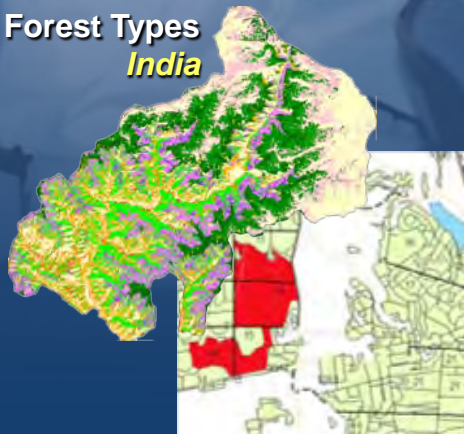
Well Production  
*Canada*



Oil & Gas Reserves  
*U.S.*

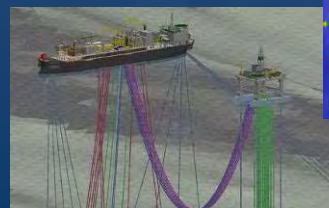


Forest Types  
*India*

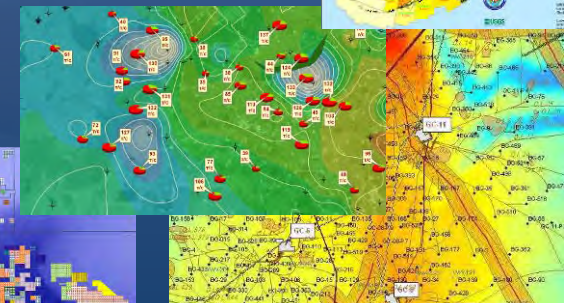


Wells & Pipelines  
*Mexico*

Offshore  
*Brazil*



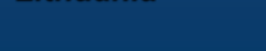
Oil Production  
*Russia*



Petroleum Resources  
*Kuwait*

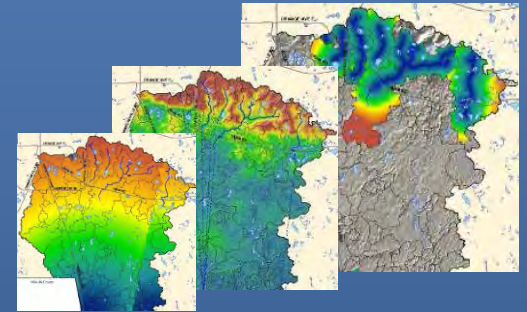
Oil & Gas Leases  
*Gulf of Mexico*

Forest Inventory  
*Lithuania*

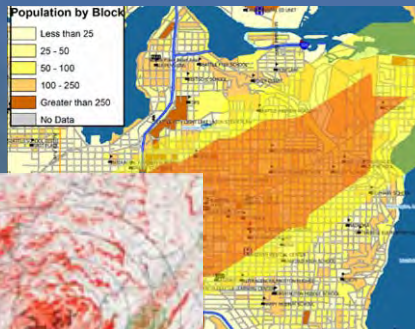


# Evaluación de Impacto Ambiental

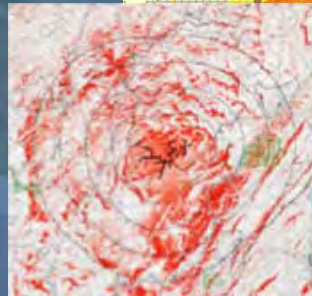
Nitrate Modeling  
*Florida*



Chemical Release  
*Washington*

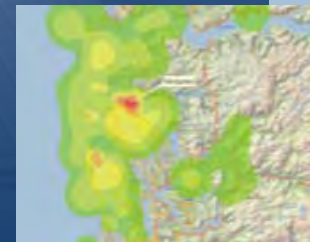


Highway Impacts on Habitat  
*California*



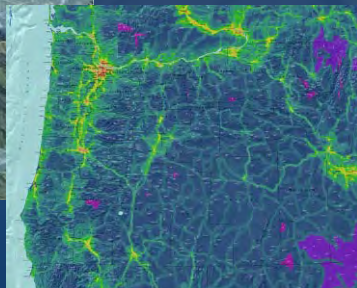
Viewshed

Oil Spill Risk  
*Norway*



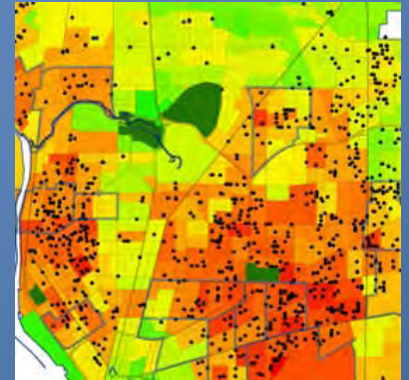
Ship Traffic  
*Norway*

Human Footprint  
*Oregon*



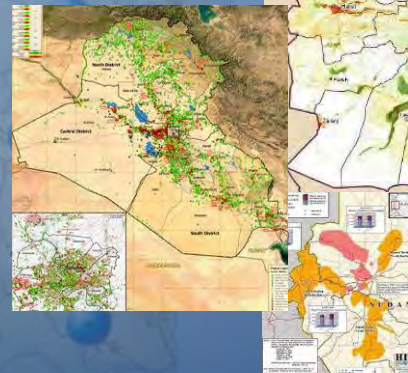
# Salud y Aspectos Sociales

Opium Cultivation  
*Afghanistan*



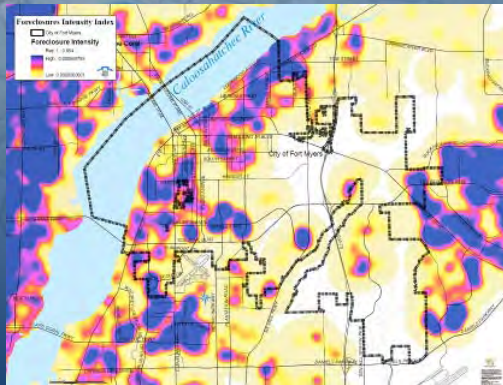
Lead Hazards  
*Buffalo, New York*

Reconstruction  
*Iraq*

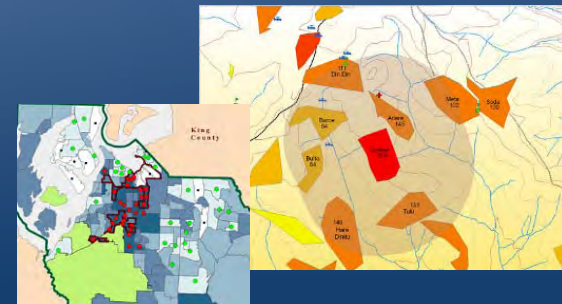


Humanitarian Aid  
*Darfur*

Children Out Of School  
*Ethiopia*



Housing Foreclosures  
*Florida*



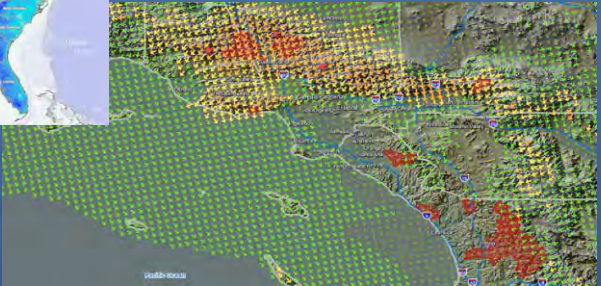
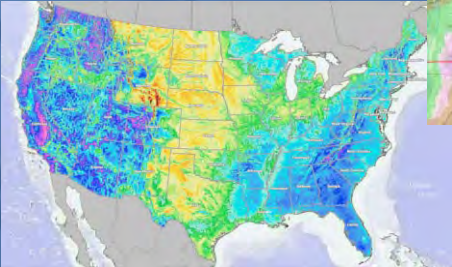
Teenage Births  
*King County, Washington*

# Clima y Energía Renovable

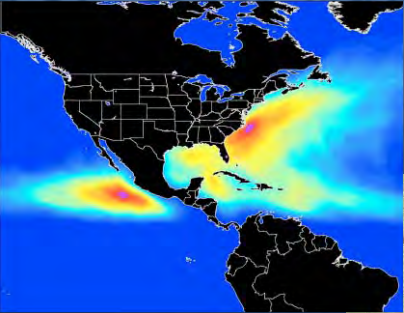
Wind Farm Design  
*Massachusetts*



Wind Generation Potential  
*U.S.A.*



Tropical Cyclones  
*National Hurricane Center*

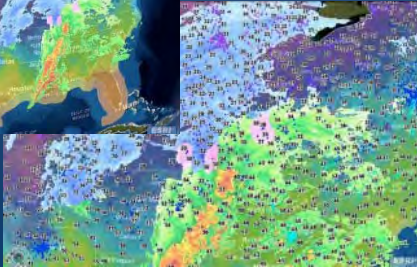


Solar Energy Potential  
*Washington*

Weather Monitoring  
*U.S.A.*

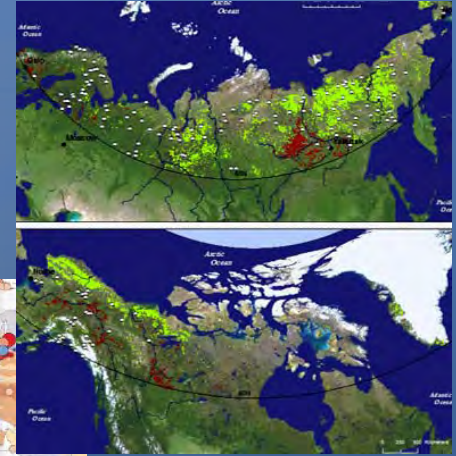


Wind Modeling  
*California*

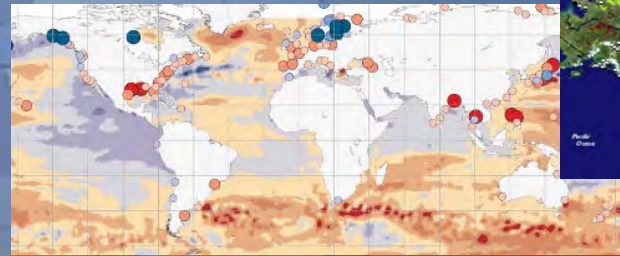


# Impactos Cambio Climático

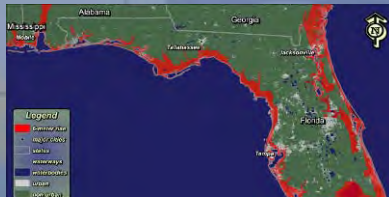
## Vegetation Trends *Arctic*



## Sea Level Change *Global*



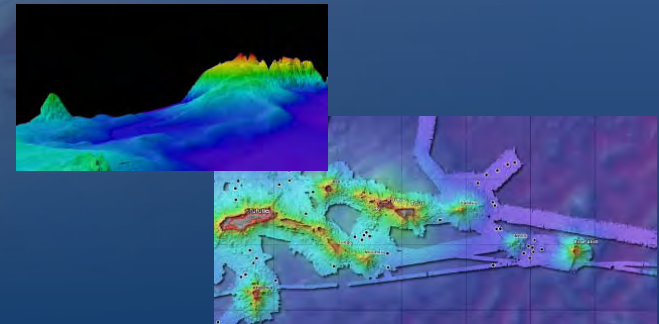
## Sea Level Rise Modeling *Florida*



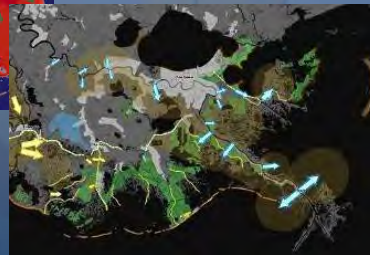
## *New York*



## Continental Shelf *Portugal*



## Coastal Zone Planning *Louisiana*



## Oceanographic Studies *American Samoa*

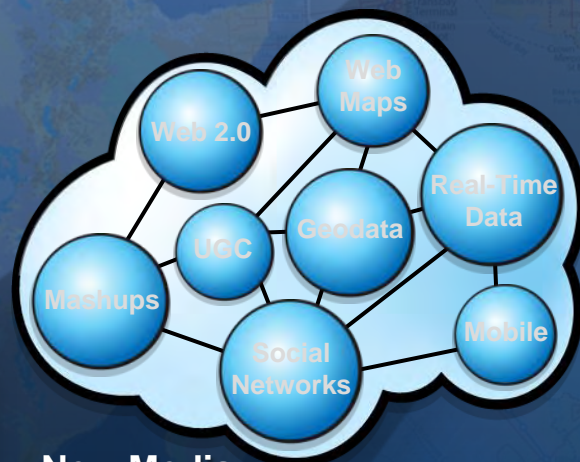
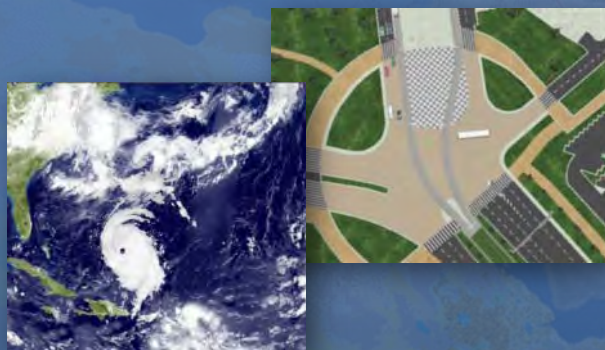
# Los Mapas y el GIS están cambiando...

*Ricos & Relevantes*

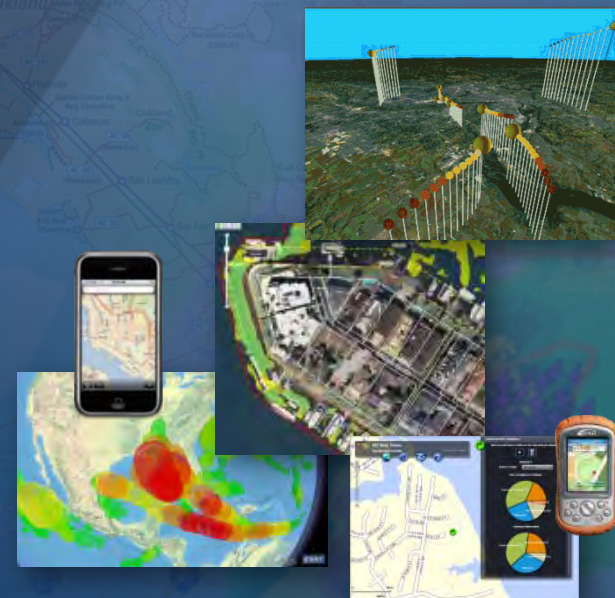
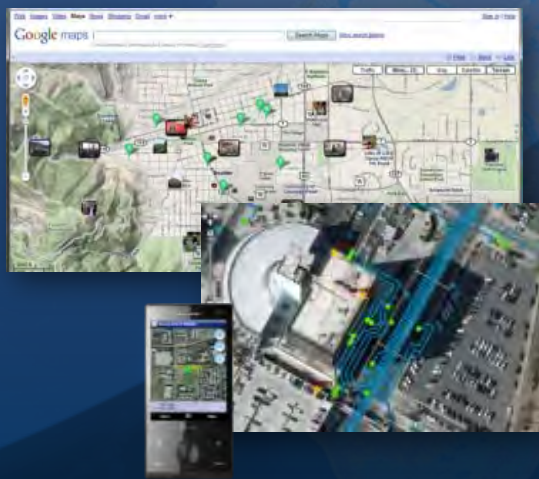
*Nuevos estilos, patrones y técnicas*



**Nuevos Servicios**



**New Media**



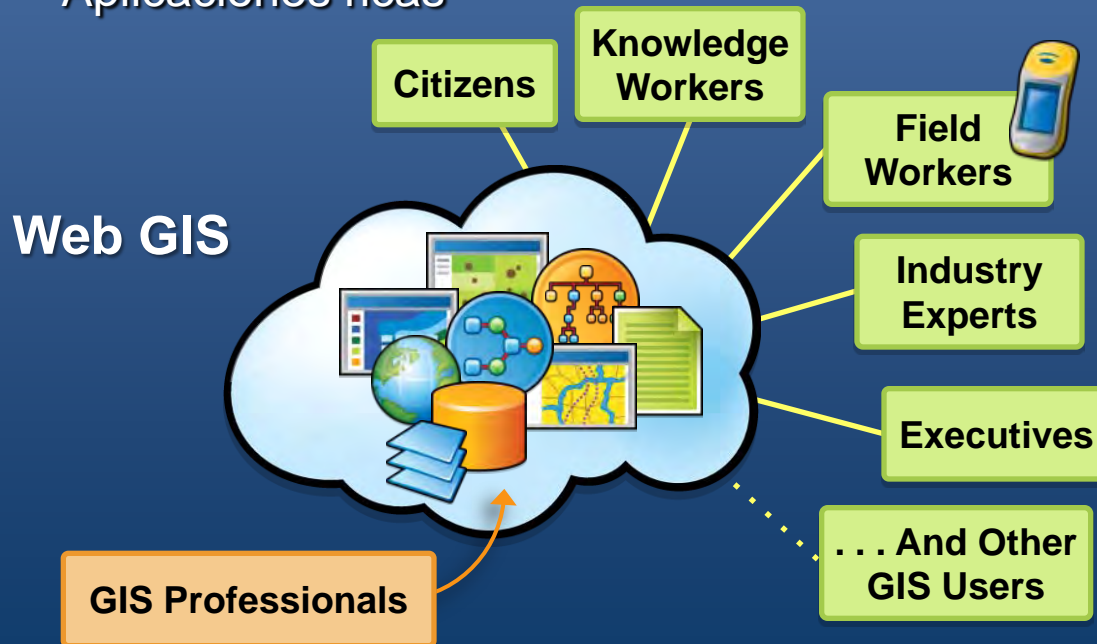
*Nuevas Oportunidades de Cartografía Creativa . . .  
. . . Disseminando el Conocimiento Geográfico*

# El Web es una plataforma sólida para el GIS

## *Distribuir el Conocimiento Geográfico*

Los Profesionales del GIS están construyendo el contenido

- Datos confiables
- Mapas de alta calidad
- Visualización
- Análisis Espacial & Modelos
- Aplicaciones ricas



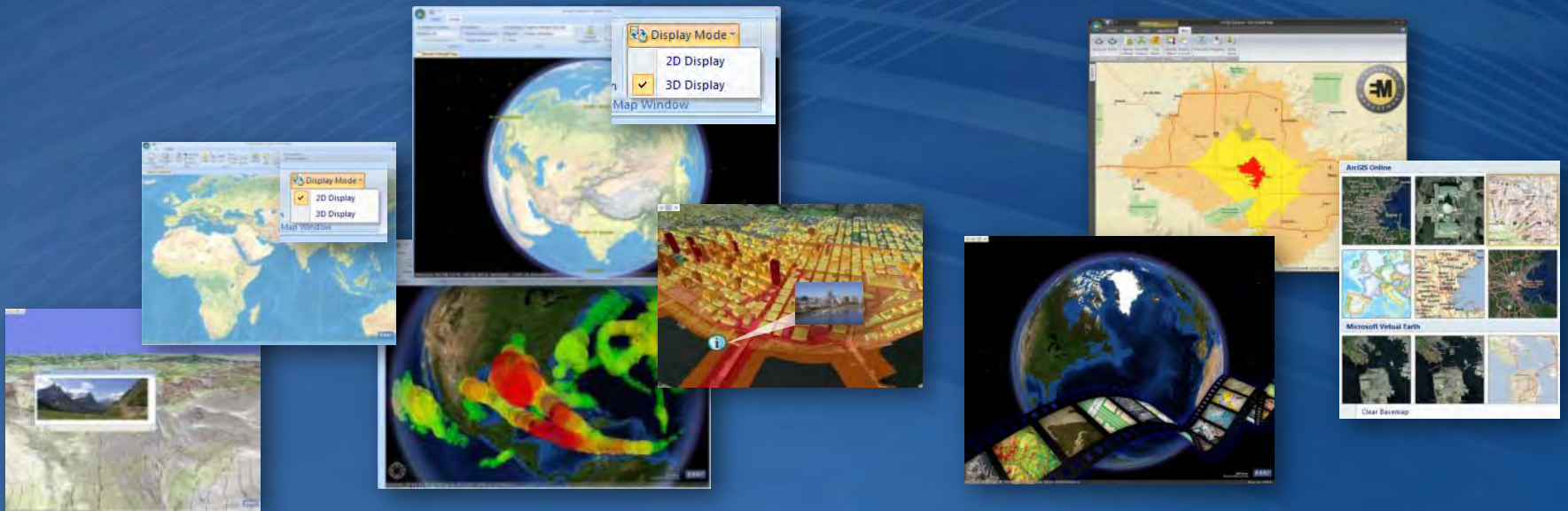
*Maximizar el contenido . . .  
. . . Para servir las necesidades de múltiples usuarios...*



# ArcGIS Explorer

*Gratuito y Fácil de Utilizar*

- 2D & 3D Mapping
- Integra Datos Locales
- Apoya Presentaciones
- Customizable

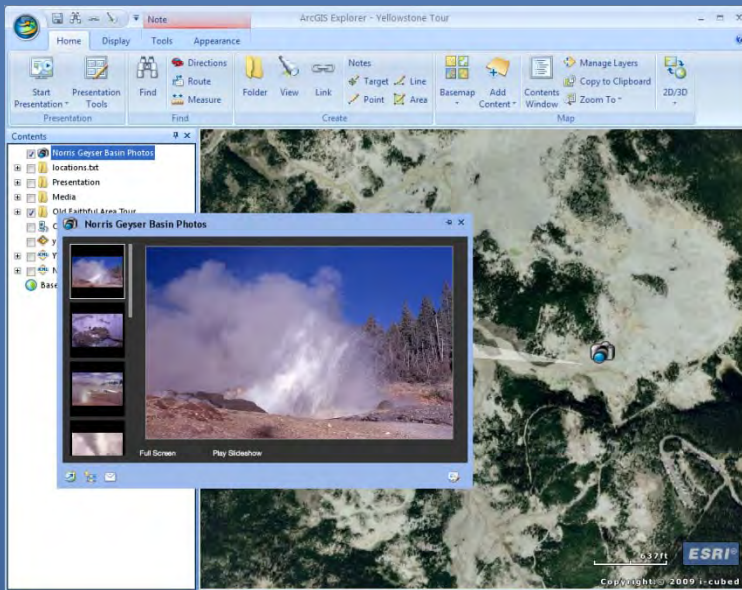


# ArcGIS Explorer es GIS para Todos

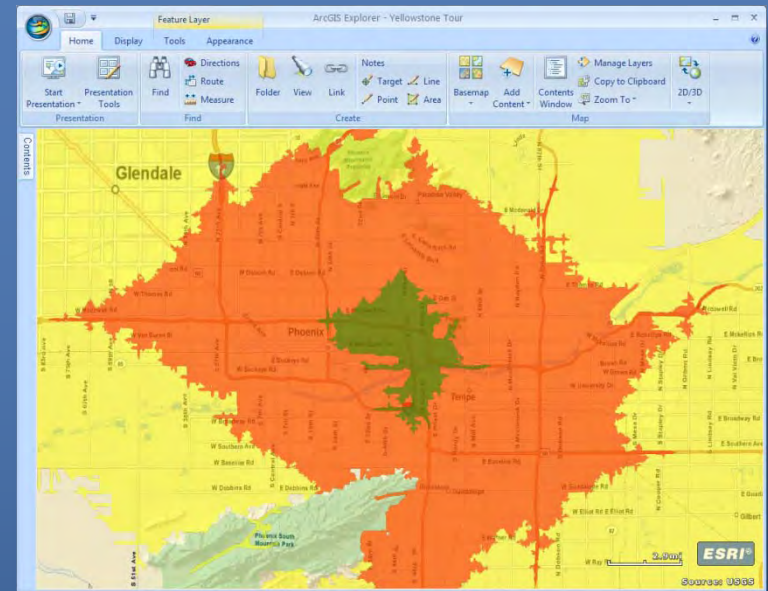
- Geobrowser gratuito, liviano diseñado para trabajar con datos geográficos.
- Permite compartir datos con una amplia audiencia.
- Entre diferentes departamentos en una organización
  - Entre diversas organizaciones
  - Entre Usuarios en todas partes
- Provee un mecanismo sencillo para explorar, visualizar, compartir y presentar la información geográfica.
- Facilita la integración de información geográfica.

# ArcGIS Explorer Key Features

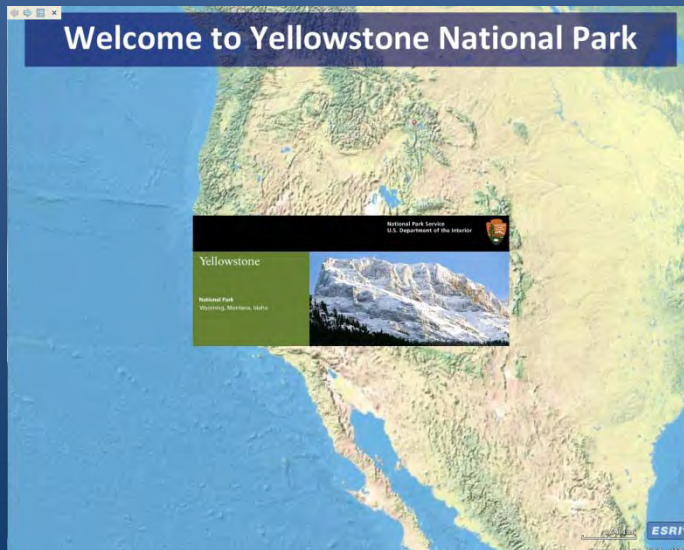
- Fácil de utilizar, intuitivo
- Ready-to-use data
  - ArcGIS Online basemaps and layers
  - ArcGIS Online sharing
- Trabaja directamente con datos y servicios existentes
- Integra la información geográfica fácilmente
- Modificable a las necesidades de los usuarios y sus flujos de trabajo
- Extensible via SDK
- Disponible en español



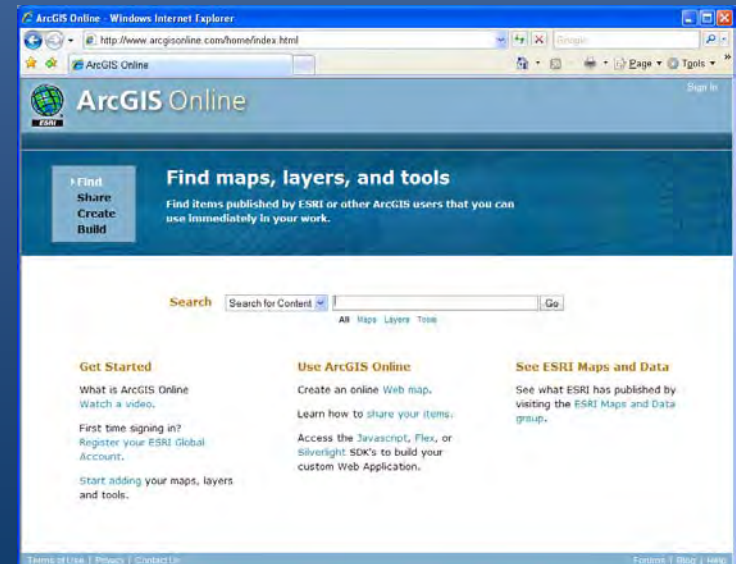
## Integrar documentos



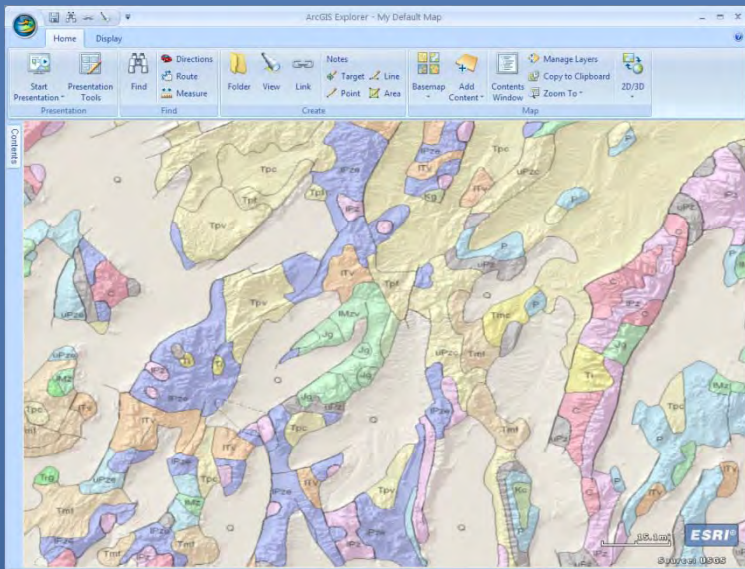
## Análisis



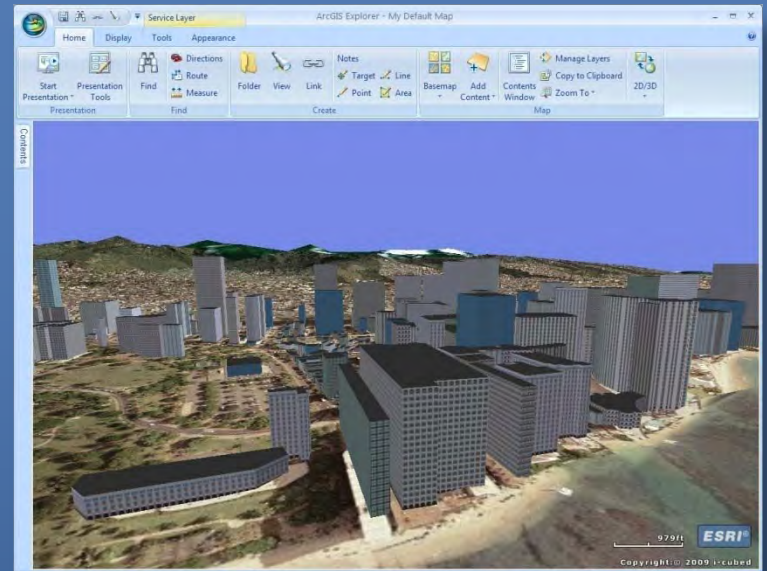
## Presentaciones



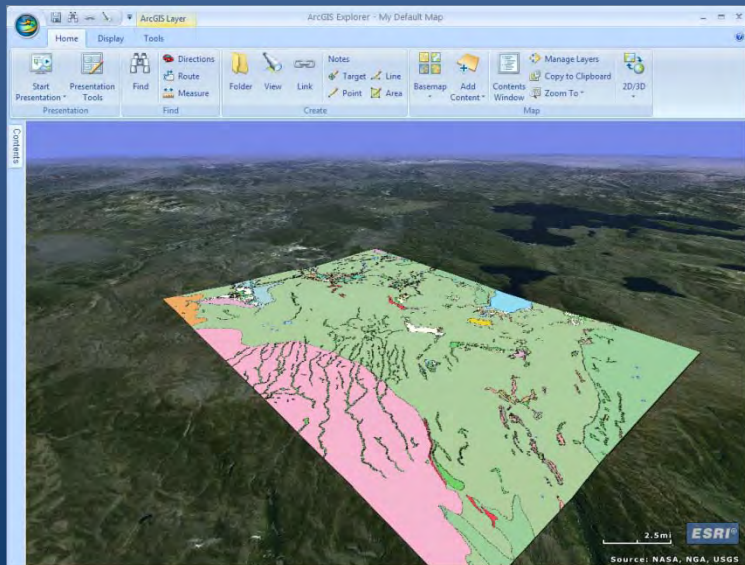
## Compartir (ArcGIS Online)



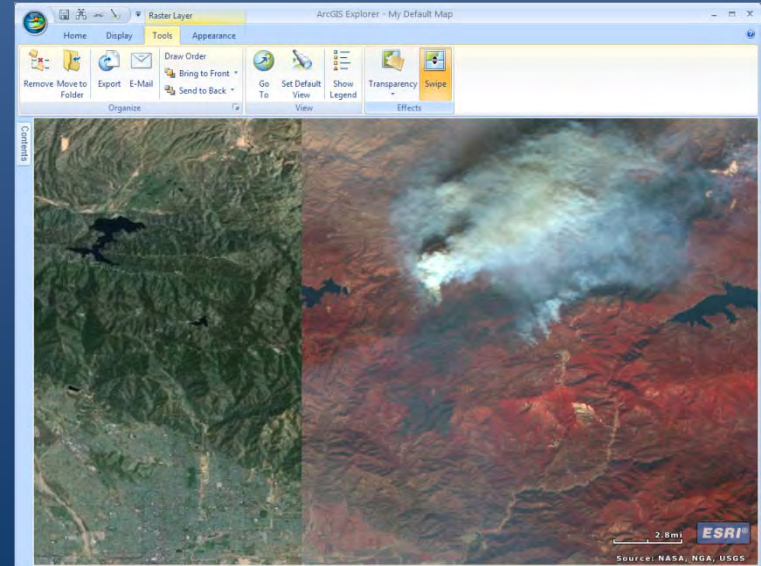
**Cartografía**



**Visualización 3D**



**Datos Locales**



**Swipe / Transparency**

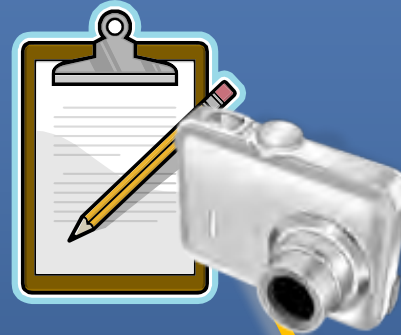
ArcGIS Explorer nos permite comunicarnos geográficamente.





ArcGIS Online

Photos,  
documents, etc.



Local / Enterprise  
Data

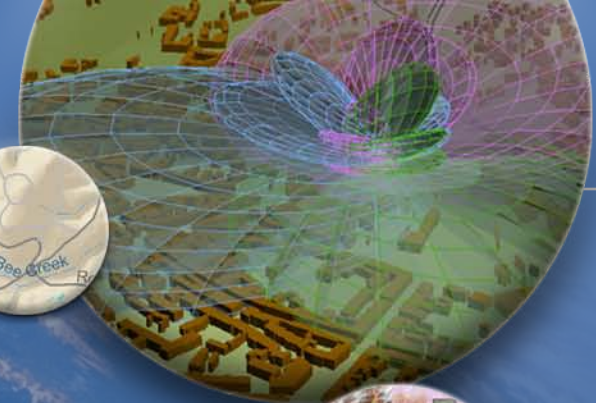


ArcGIS Services

Añadir fotos, overlays,  
videos, documentos, y más



ArcGIS Explorer



# Fuentes Online ...





# Contenido es un componente clave de ArcGIS

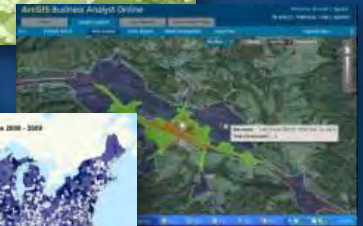
*ArcGIS Incluye mapas e imágenes listos para utilizarse*

Imagery

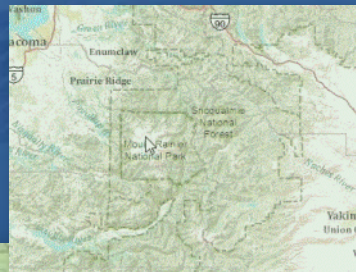
Streets



Demographic & Thematic



Topographic

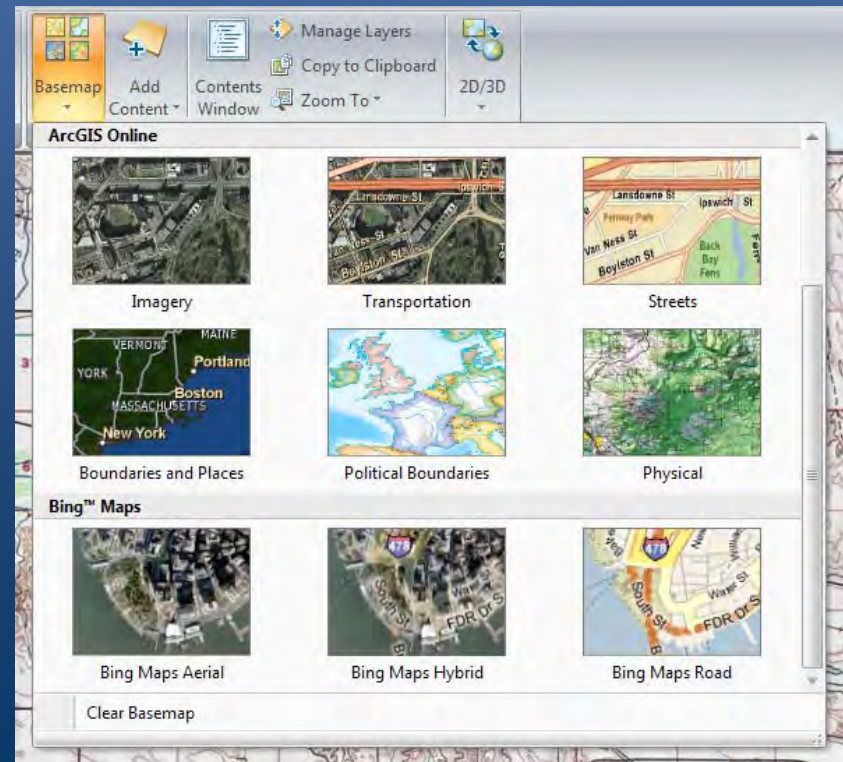


# ArcGIS Online – Base Map Gallery



- Mapas Base Listos para utilizar
  - Bing™ Maps (Originalmente Virtual Earth)
  - ArcGIS Online
- Añadir tu propio contenido

• <http://arcgisonline.com>

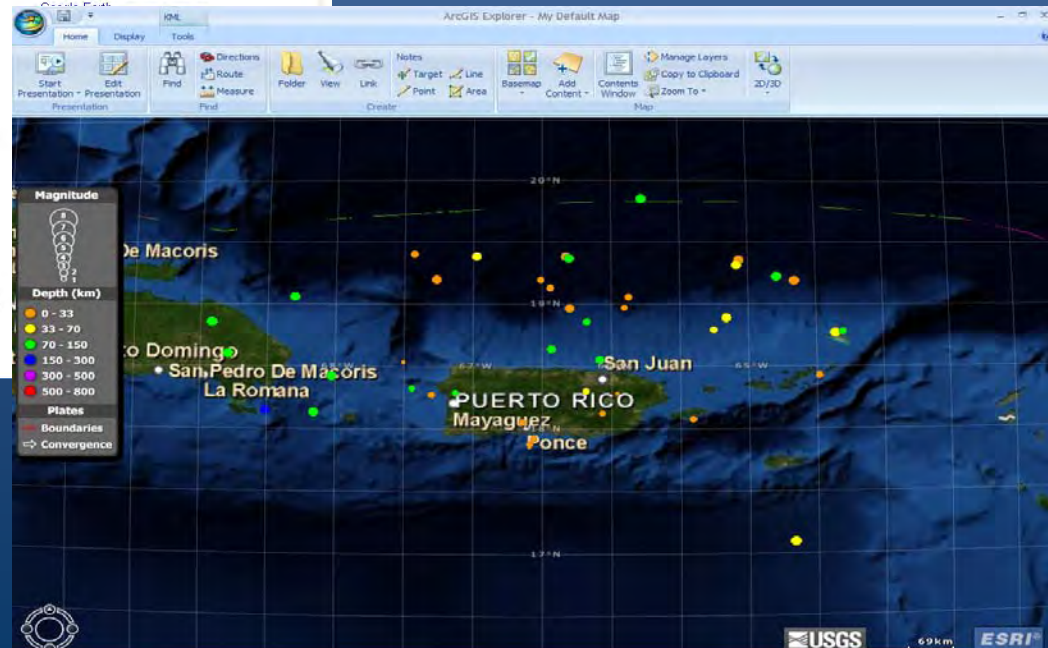


- <http://earthquake.usgs.gov/learn/kml.php>

The screenshot shows the USGS Earthquake Hazards Program website. The main heading is "Google Earth/KML Files". On the left, there is a sidebar with "Earthquake Topics" including FAQ, Glossary, For Kids, Students & Teachers, Today in Earthquake History, Photos, Publications, and Google Earth/KML Files. The main content area features three featured items:

- M1+ Real-Time Earthquakes, Past 7 Days**: A link to a KML file that displays real-time earthquakes and plate boundaries in Google Earth. It notes that earthquakes are broadcast within minutes for California events and within 30 minutes for world-wide events, refreshing every 5 minutes.
- ShakeMaps**: A link to KML files showing ground motion and shaking intensity for significant earthquakes. It states that Google Earth KML files are in the Downloads area for each individual earthquake under the GIS Files heading.
- Quaternary Faults & Folds in the U.S.**: A link to KML files showing faults and associated folds in the United States believed to be sources of M>6 earthquakes during the Quaternary (the past 1,600,000 years).

At the bottom right of the website content, there is an "About Google Earth™" section with links to "Download Google Earth" and "Learn more about navigating in Google Earth".



- <http://srh.noaa.gov/gis/kml>

National Weather Service Doppler Radar Images - Mozilla Firefox

http://www.srh.noaa.gov/ridge/kmzgenerator.php

### National Weather Service Enhanced Radar Images

## RIDGE Display in GIS

Local weather forecast by "City, St" [City, St] [Go]

RSS Feeds **KML**

Watches/Warnings Current By State/County UV Alerts more...

Observations Doppler Radar Satellite Snow Cover Surface Weather Observed Precip more...

Forecasts By Local Office Graphical Aviation Weather Marine Weather Hurricanes Severe Weather Fire Weather Numerical Models Statistical Models more...

Text Messages By State By Message Type National Climate Past Weather Predictions

#### RIDGE Image and Warning Output to KML/KMZ

While the RIDGE radar display allows for the use of interactive toggles with the image, RIDGE images can be best utilized with GIS software. This page allows you to create "kmz" files which are compressed "kml" files compatible with several GIS software applications. A list of some of the [software applications that support KML](#) can be found [here](#).

Visit the NWS website Standards Description Website which explains [KML](#) in more detail. With the kmz files below, you can display any of the the National Weather Service RIDGE radar images including polygons. Choose your overlay from any of the following possibilities...

- a single NWS radar image
  - by individual radar
  - by a statewide composite
- multiple images by individual radar, or
- choose any combination of radars and images.
- Real-time NWS polygon warnings

KML 2.1 and some earth viewing applications support **animation of image overlays**. We have started supp mode and would also like to hear from you on it. The KMZ file generator for animations can be found below.

Make your selection from the choices below and click the submit button. That will create a compressed file e asked to open or save the file. Selecting "open" will uncompress the file within your default KML/KMZ applica

- if your application supports the <refresh> tag, then:
  - the radar images will auto-update every 2 minutes
  - warning polygons have a 1 minute refresh
- if you exit your application and save the settings, the KML that you create below will load the next tim having to re-create it.

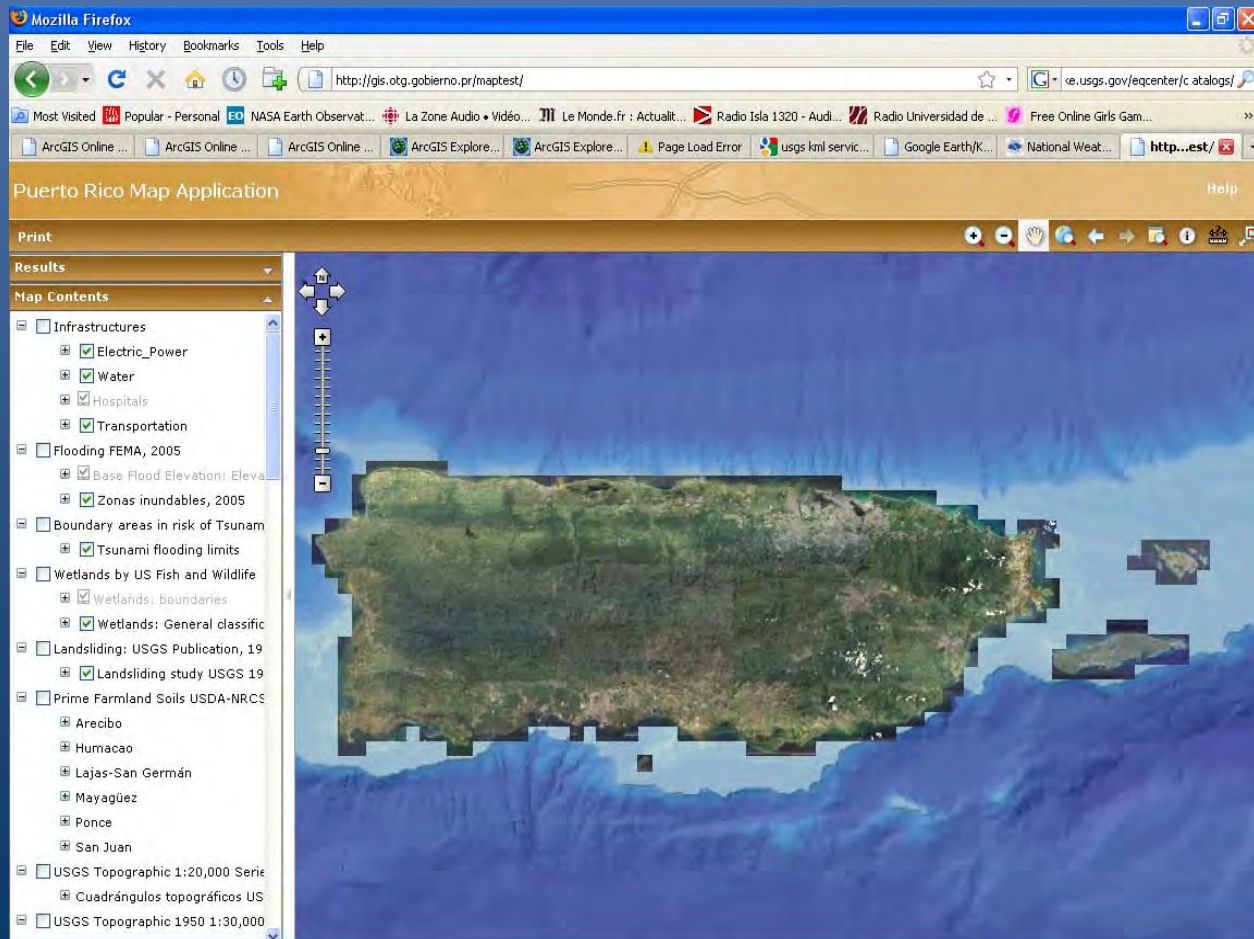
**Real Time NWS Warnings** [Get KMZ File]

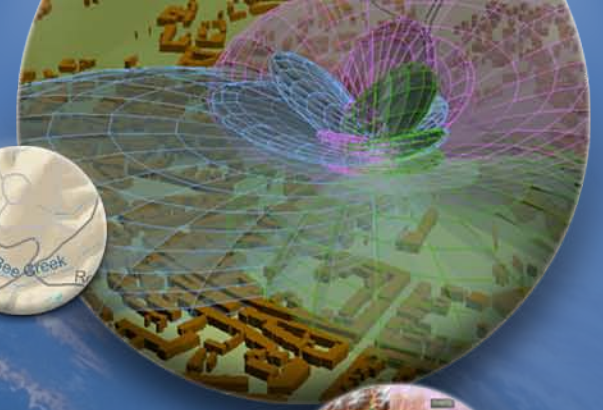
**Multiple radars - Multiple images** (hold down the "Ctrl" key to make multiple selections) Choose radar Site(s): [State College]



# Datos Locales

- <http://gis.otg.gobierno.pr/maptest>





# Demostración ...



# ¿Cómo se obtiene el ArcGIS Explorer?

- Descargar de ESRI

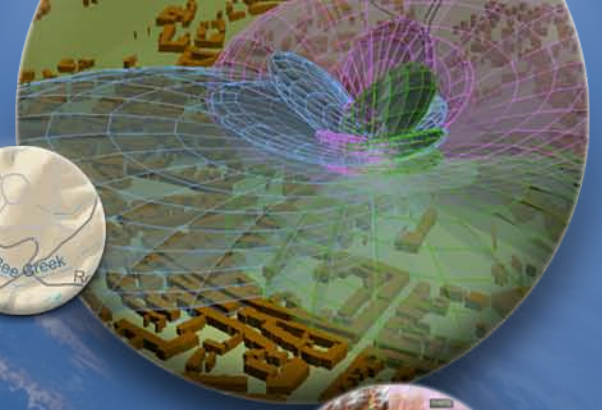
<http://www.esri.com>



- Descargar de ESRI Resource Center

<http://resources.esri.com/arctgisexplorer>





**GRACIAS ...**

