



Geographic Mapping Technologies, Corp.

Soluciones Avanzadas en Sistemas de Información Geográfica

SIG para Universidades

Universidad de Puerto Rico

Recinto de Mayagüez

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Geographic Mapping Technologies, Corp.

Soluciones Avanzadas en Sistemas de Información Geoespacial



Apoyo Técnico



Consultoría



Adiestramientos



16 AÑOS



Soluciones Verticales



Imágenes Satelitales, Fotos Aéreas, LIDAR y Estéreo-fotogrametría



Proveedores de Datos



El SIG es un Sistema de Información

En donde la geografía constituyen los cimientos

- **Captura, administra, analiza y muestra toda información geográficamente georeferenciada**
- **Revela relaciones, patrones y tendencias en el espacio**
- **Facilita los procesos de toma de decisiones**
- **Convierte la data en acción**
 - **A través de mapas y análisis geográfico**
- **Se integra fácilmente con otras fuentes de datos**

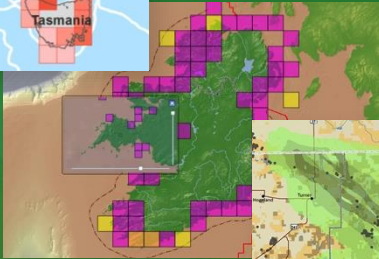
Monitoreo ambiental

Monitoring Fish



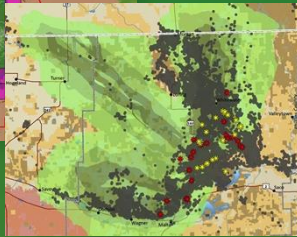
Australia

Species Distribution



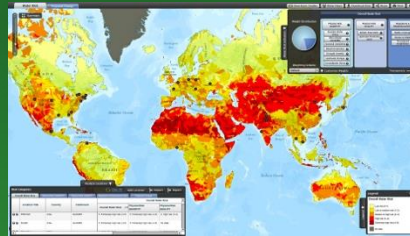
Ireland

Pronghorn Habitat Corridor



Montana

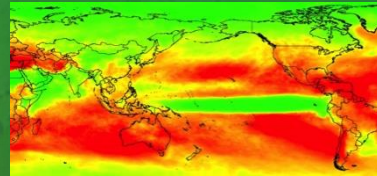
Water Stress



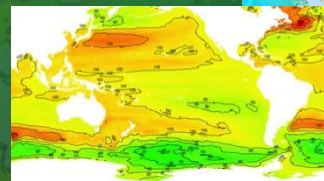
Global

Climate Studies

Precipitation Change

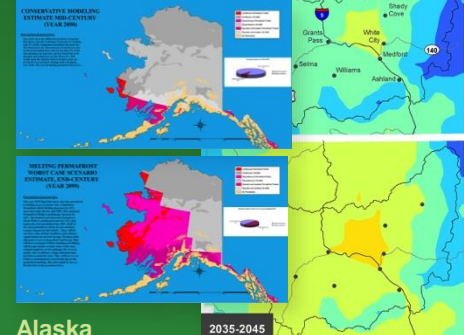


Sea Level Rise



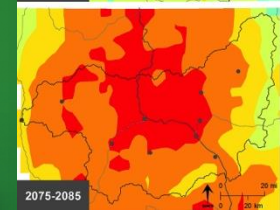
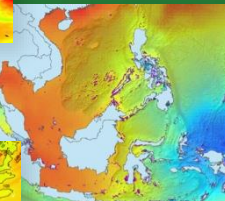
Temperature Change

Permafrost Reduction



Alaska

Change in pH



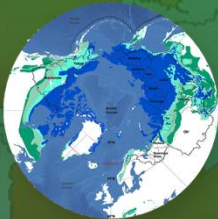
Rogue River Basin, Oregon

Arctic Great Rivers

Pan-Arctic Watershed



Permafrost



Arctic Tundra

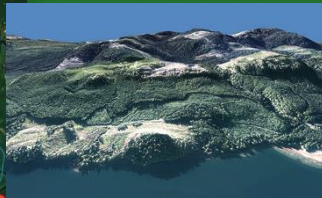


Manejo de Recursos Naturales

Forest Change



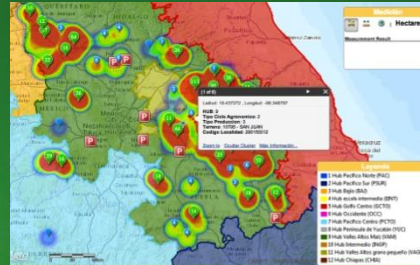
Visualizing Forests



North Vancouver Island

Peru

Agricultural Modeling



Mexico

Aquaculture



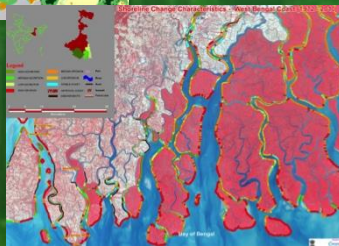
Norway

Palm Oil Suitability



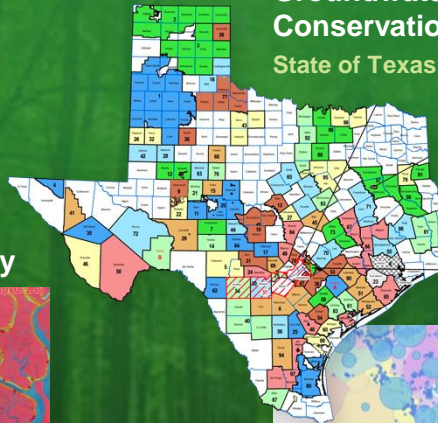
Indonesia

Mangrove Biodiversity

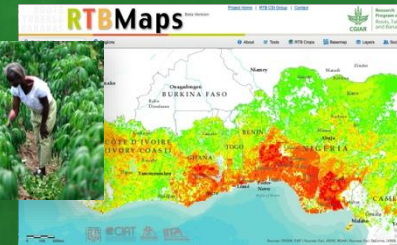


West Bengal, India

Groundwater Conservation State of Texas

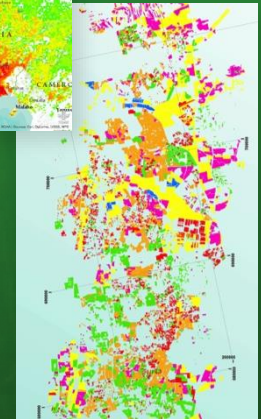


Food Security



Africa

Food Production



Israel

Water Resources



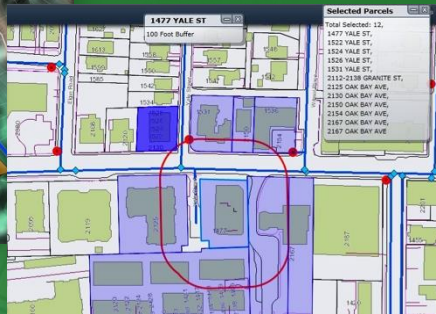
South Sudan

Manejo de información de suelo

Parcel Management



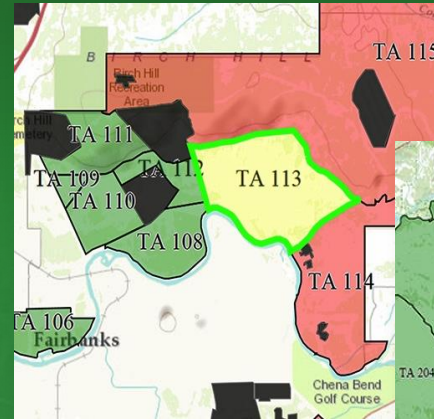
Batangas Province,
Philippines



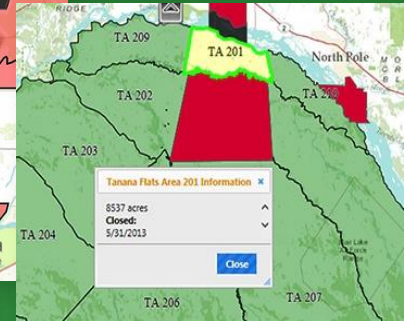
Parcel

Victoria, Canada

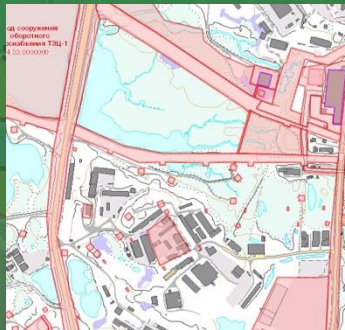
Land Tracts



Alaska

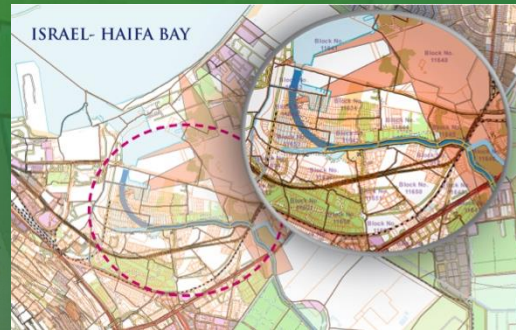


Real Estate



Russia

Cadastre



Israel

Subdivision Build-out



Utah

Planificación

Urban Garden



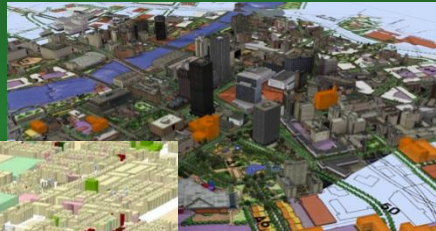
Salt Lake City, Utah

Urban Design



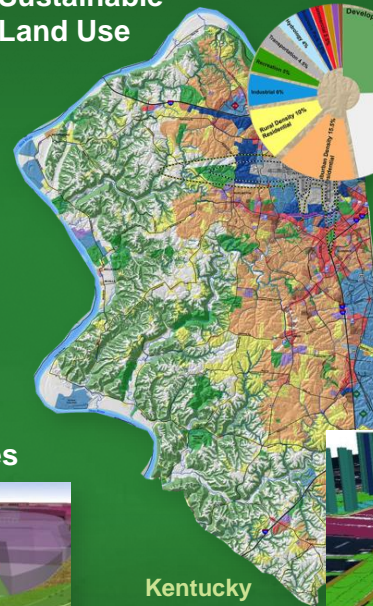
Riyadh, Saudi Arabia

Urban Development



Rochester, New York

Sustainable Land Use



Land Use Plan



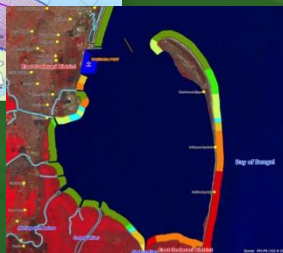
Guimaras, Philippines

Marine Spatial Planning



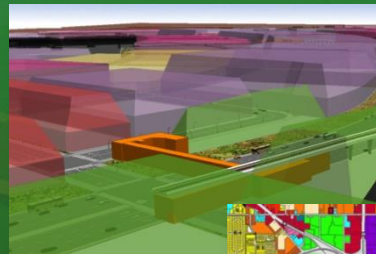
Antarctica

Coastal Zone



India

3D Development Zones



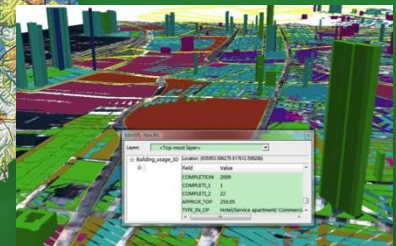
Honolulu, Hawaii

Kentucky Zoning



Michigan

Land Use



Yau Tsim Mong District, Hong Kong

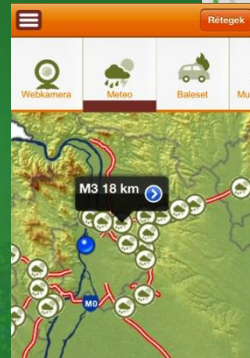
Transportación

Road Maintenance



Tamil Nadu, India

Motorway Conditions



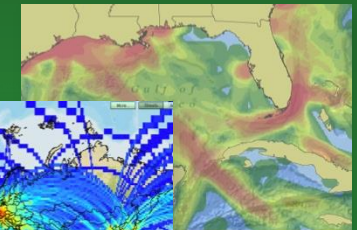
Hungary

Real-Time Traffic



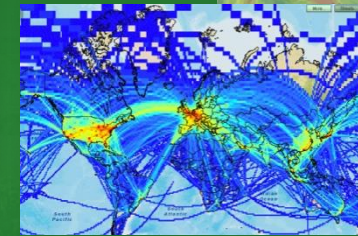
Tennessee

Ship Density



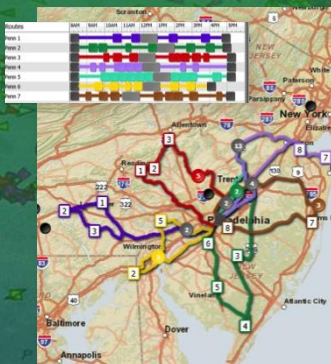
Gulf of Mexico

Air Traffic



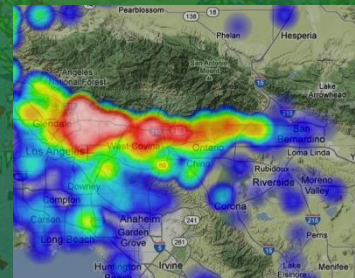
Global

Bus Routing



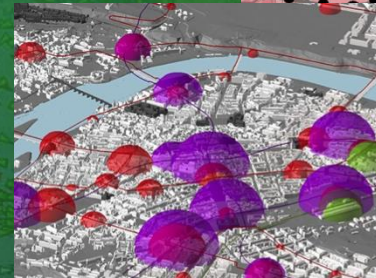
United States

Commuter Heat Maps



Los Angeles, California

Public Transit Usage



Prague, Czech Republic

Bike Usage Modeling



Citilabs

Mail Delivery Optimization



San Diego, California

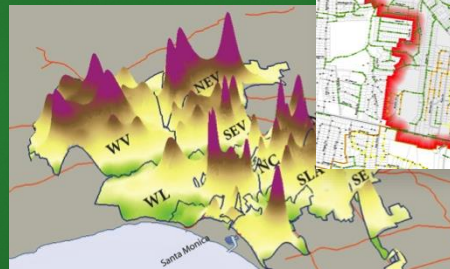
Utilidades, Telecomunicaciones y Obras Pública

Water Pressure



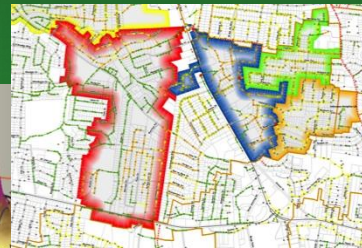
Houston, Texas

Wasteshed Modeling



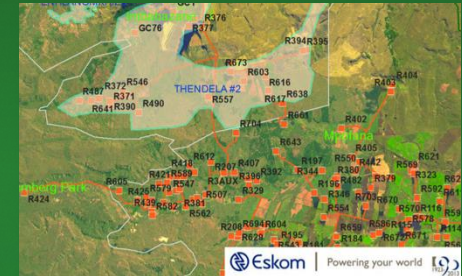
Los Angeles, California

Sewer Rehab



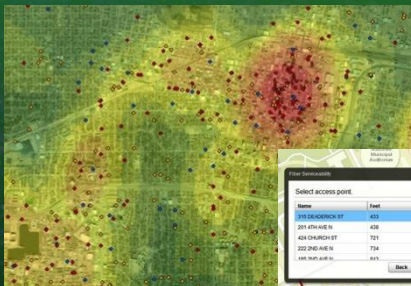
Clarksville, Tennessee

Rural Electrification



South Africa

Wireless Coverage



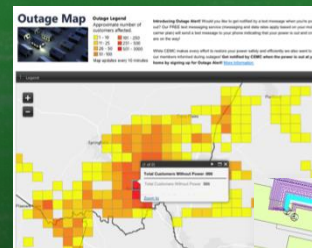
Texas

Network Analysis



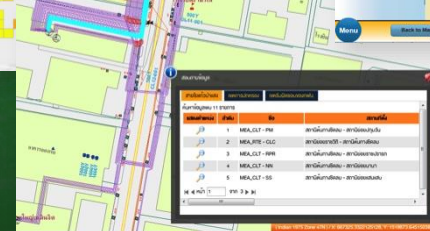
Tennessee

Outage Mapping



Tennessee

Fiber Management



Bangkok, Thailand

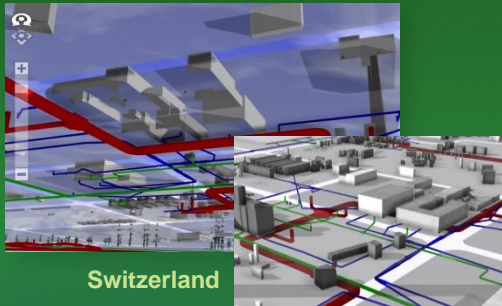
Pole Inspection



California

Manejo de Facilidades

Industrial Infrastructure



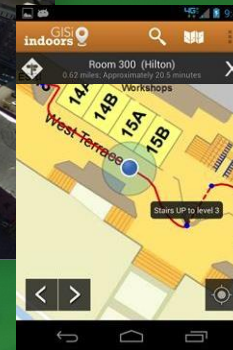
Switzerland

Interior Space Modeling



New York

Indoor GIS



GISi

Railroad Station



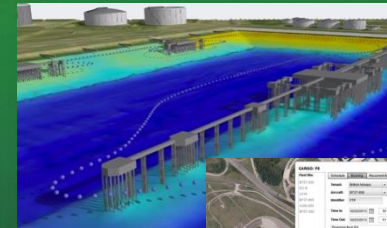
Madrid, Spain

Campus Management



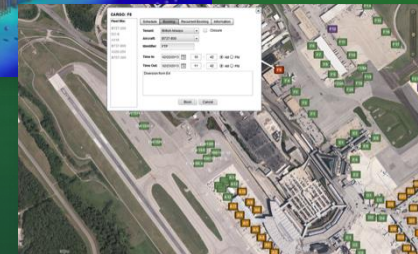
National Institutes of Health

Port Management



Rotterdam, Netherlands

Airport Management



Maryland

Campus Visualization



Brno, Czech Republic

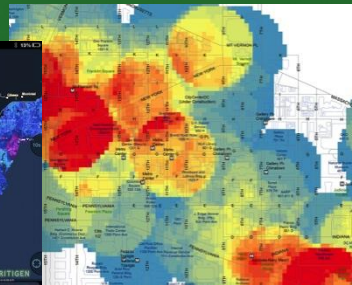
Salud

Medicare Costs



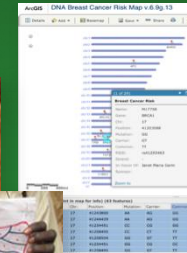
National and Regional US

Homeless Population



Washington, DC

Breast Cancer



DNA Guide

Malaria



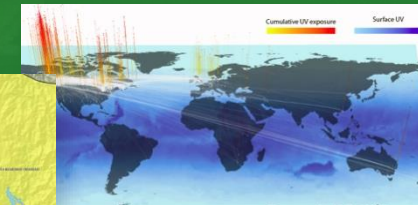
Swaziland

Polio Eradication



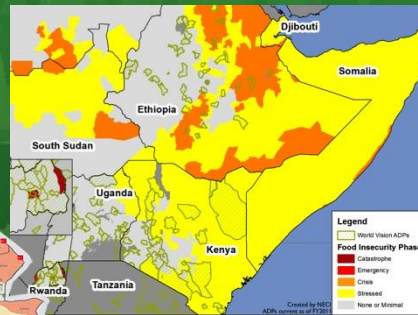
Gates Foundation

MS & UV Exposure



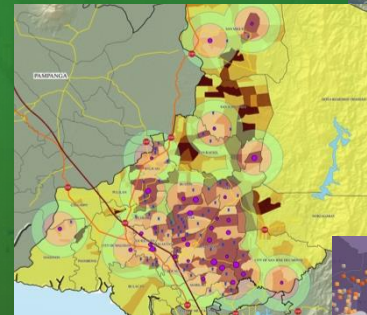
Simon Fraser University

Food Security



World Vision East Africa

Tracking Disease



Philippines

Lifesaving Surgery



Direct Relief

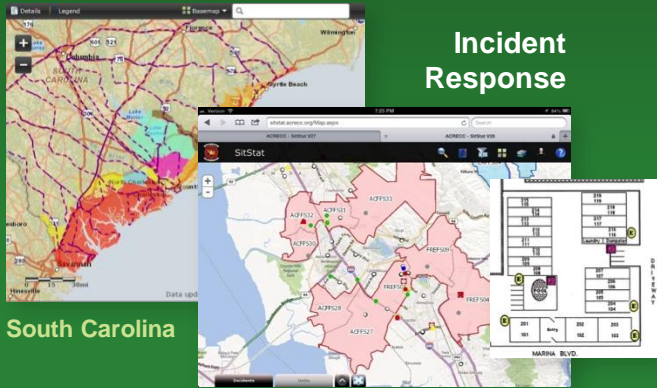
Nutrition Priorities



Ethiopia

Seguridad Pública

Citizen Notification

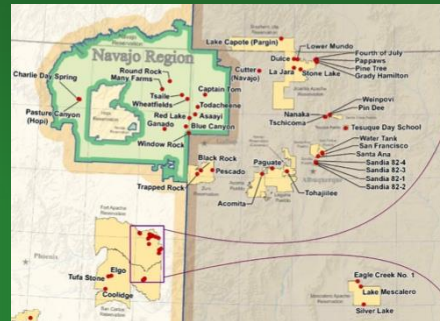


South Carolina

Alameda County, California

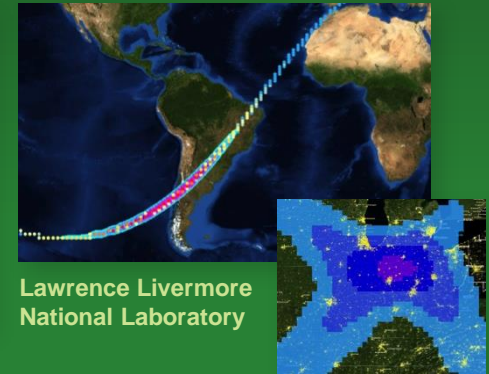
Incident Response

Safety of Dams



Navajo Nation

Space Debris Risk



Lawrence Livermore National Laboratory

Computer-Aided Dispatch

North Carolina



Crime Analysis



Texas

Road Safety



Russian Federation

Radiological Assessment



France

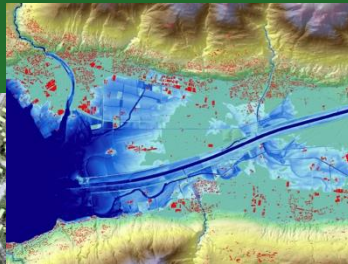
Manejo de Desastres Naturales

Flood Risk

Flood Projections

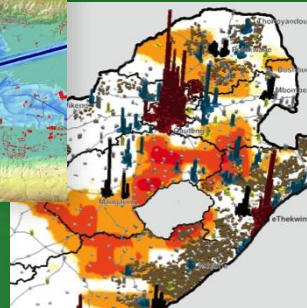


Algonquin, Illinois



Switzerland

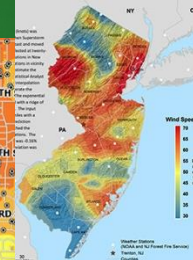
Flood Effects



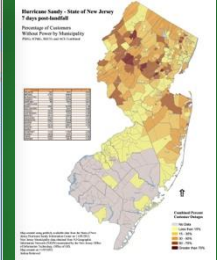
South Africa

Superstorm Sandy

Wind Speed

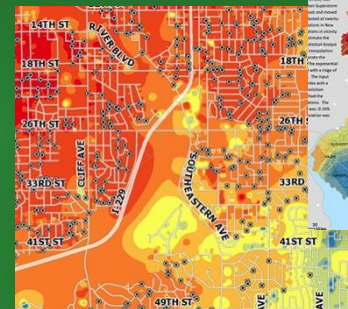


Power Outages



New Jersey

Ice Storm



Sioux Falls, South Dakota

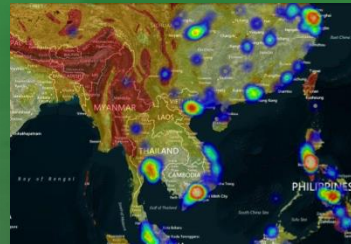
Fire Map



Colorado Springs, Colorado



Earthquake Risk



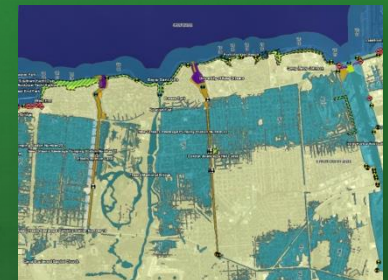
Asia

Earthquake Planning



San Francisco, California

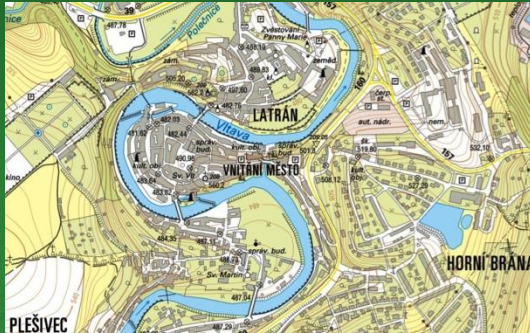
Hurricane Impacts



New Orleans, Louisiana

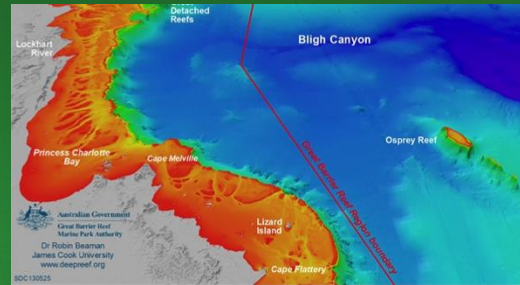
Cartografía

Topography



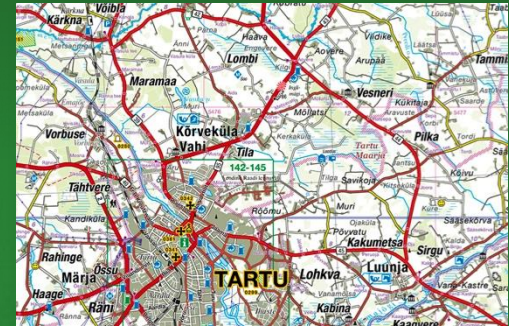
Czech Republic

Great Barrier Reef



Australia

Road Atlas



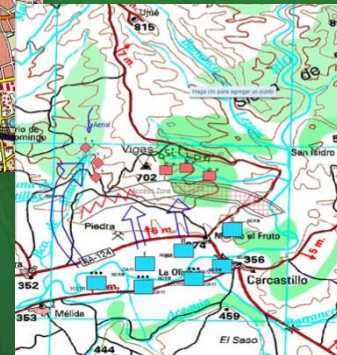
Estonia

Automatic Generalization



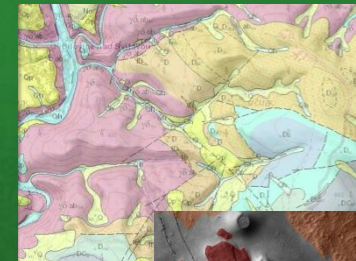
Netherlands

Military Cartography



NATO

Geology



Czech Republic

Nautical Charts



NOAA



Mars

Plataforma de ArcGIS



ArcGIS SISTEMA COMPLETO



ArcGIS DESKTOP

Advanced

- Analysis
- Advanced Geoprocessing



Standard

- Compilation
- Data Management



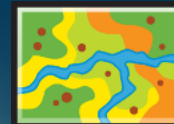
Basic

- Mapping
- Using



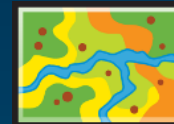
ArcReader

- View

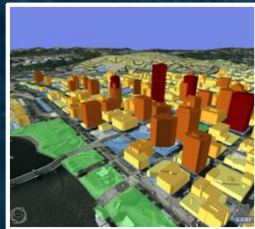


Explorer

- View

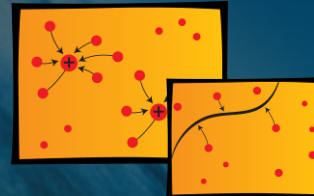


For Authoring & Applying Geographic Knowledge



Extensions

- Commonly Used Extensions Included



ArcGIS SERVER

Advanced

- Data Analysis
- Mobile



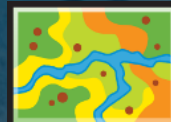
Standard

- Mapping
- 3D Visualization



Basic

- Data Management



Enterprise

- SQL Server
- Oracle
- DB2
- Informix
- PostgreSQL



Workgroup

- SQL Server Express

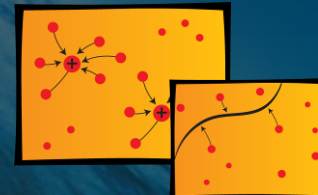
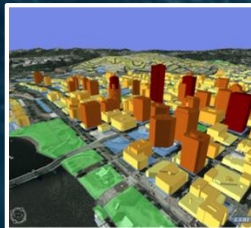


Levels of Functionality

Levels of Capacity

Extensions

- Commonly Used Extensions Included



ArcGIS MOBILE



ArcGIS ONLINE



El SIG continúa Evolucionando

Dirigiendose al Web GIS

Maximizando

Web Services
Measurement
Big Data
Web
Cloud
Faster Computing
Devices

Integrando

Location Analytics
Imagery
GPS
LBS
Real Time
Lidar
3D
Pervasive Content



Web GIS

Emergiendo

Apps
Pervasive Access
Mapping
Analytics
Content Management
Online Content
Mashup
Open
Collaboration
Easy

El Web GIS Maneja Múltiples Tipos de Datos

Como Web Maps o Web Services



Proveyendo un nuevo medio GIS

Web GIS provee un nuevo patrón de integración

Fácil integración de Web Maps y Web Services



Acercamiento flexible y ágil

Web GIS también integra organizaciones y personas

Eliminando barreras



*Compartiendo recursos . . .
. . . Acercamiento colaborativo*

ArcGIS Apoya las Operaciones de la Organización



**Haciendo que los Mapas y el GIS
Estén disponibles a través de la organización**

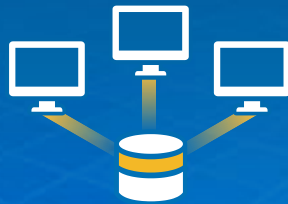
Transformando el rol del GIS

ArcGIS Apoya Múltiples Patrones de Implementación

Maximizando una arquitectura común de computación



File Based



Database Centric



Server Centric



Web Centric

ArcGIS es una Plataforma

Habilita el Web GIS en Todas Partes

Simple
Integrado
Abierto



*Disponibile en la nube. . .
. . . e "in-situ"*

Usos del SIG en Universidades

The background of the slide features a large, glowing green and blue globe. In the foreground, the dark silhouettes of three people are visible, looking towards the globe. One person in the center has their hand raised, pointing towards the globe. The overall scene suggests a collaborative learning or research environment.

- **Enseñanza**

- **Análisis y pensamiento crítico**
- **Modelado conceptual**
- **Pensamiento espacial que permite entender las relaciones existente en el mundo y los complejos problemas a los que se enfrenta la sociedad.**

- **Investigación**

- **Añadirle el elemento espacial a los estudios realizados en un sin número de disciplinas**

Usos del SIG en Universidades

The background of the slide features a stylized globe with a green and yellow landmass and a blue ocean. In the foreground, there are dark silhouettes of three people. One person on the left is pointing towards the globe, another in the center is reaching out with their hand, and a third on the right is looking towards the globe. The overall theme is global interaction and technology.

- **Administración**
 - Manejo de Facilidades
- **Estudiantes**
 - Administración de Empresas
 - Mercadeo
 - Artes y Ciencias
 - Biología, Ciencias Marinas, Ciencias Sociales, Economía, Geología
 - Ciencias Agrícolas
 - Ingeniería Agrícola, Cultivos y Ciencias Agroambientales, Agricultura, etc.
 - Ingeniería
 - Industrial, Eléctrica, Civil, Agrimensura, etc.



Understanding our world.