Geospatial - Information Technology Solutions

Who We Are and What We Do

Innovate!, Inc. is an 8(a), woman- and minority-owned consulting firm specializing in geospatial services, business consulting, and information technology. As our name implies, our team offers creative and complete business solutions through the integration of geospatial tools and business management consulting. We provide innovation both within the work we deliver and also within our approach to client partnerships.

Enterprise GIS

- Geospatial Platform Design and Implementation
- Architecture and Strategic Planning
- Policy and standards
- Organizational/governance
- Hosting/Cloud Solutions

Business Intelligence and Location Analytics

- Salesforce Implementations
- Spatial Analytics
- Geo-enabling programmatic data
- Big Data management

Application Development

- Desktop
- Web-based
- Web Services
- Open Source
- Mobile

Traditional GIS

- Visualization & Mapping
- Mobile On & Offline Mapping Solutions
- Data Integration & Management
- Metadata Solutions
- Training

For additional information about Innovate geospatial capabilities please contact Stacy Roux, Director, Business Development at: (703) 922-9090, x749

Our Qualifications

ENVIRONMENTAL PROTECTION AGENCY: INFORMATION EXCHANGE SERVICES DIVISION (IESD)

Innovate supports EPA IESD in a diverse set of areas. Several projects in support of ISED are presented below.

EPA ENVIRONMENTAL DATASET GATEWAY (EDG)

URL: https://edg.epa.gov/

Innovate staff were the primary architects, managers, and facilitators behind the implementation of the Environmental Protection Agencies (EPA) enterprise geospatial portal: the EPA Environmental Dataset Gateway (EDG). The EDG's core mission is to promote and facilitate data sharing, discovery, reuse, standards, and interoperability. The EDG leverages web services to provide efficient agency-wide geospatial data discovery and retrieval capabilities. Innovate also led the integration of the EDG into the EPA's Enterprise Oracle Portal, providing seamless access to Agency resources across enterprise systems and leveraging EPA's central Identity and Access Management System for user access. Innovate defined use cases and requirements, managed implementation, performed testing, and facilitated review of results with stakeholders.

EPA: METADATA EDITOR (EME)

URL: https://edg.epa.gov/eme

Innovate staff were the primary developers of the EPA Metadata Editor (EME), EPA's custom metadata editing tool. The EME is an ArcGIS extension to ArcCatalog that provides users with a streamlined interface for metadata entry and editing, resulting in FGDC-compliant metadata. The EME has helped EPA streamline its metadata development process across numerous offices, saving the Agency time and money. Since its release, the EME has been customized for several other federal agencies and is being used in all U.S. States and 96 countries around the world. The EME is currently undergoing a major update that will allow EME users to create ISO-compliant metadata.

EPA'S CROSS MEDIA ELECTRONIC REPORTING RULE

Innovate has been supporting implementation of the Cross Media Electronic Reporting Rule (CROMERR) for the past five years. In support of the CROMERR business processes, Innovate provides business process, PMO, and management of physical records and online storage, as well as training and outreach efforts. Innovate consultants have assessed the business requirements, evaluated existing resources, and then re-engineered the way documentation was being collected, stored, and distributed with extensive use of existing resources such as the EPA Portal. More recently, Innovate has supported the migration of CROMERR business processes to a custom implementation of a Salesforce.com platform that integrates database records, online file storage, multiple distinct spreadsheets, and email logs, to manage the application approval process. Innovate's task lead is a certified Salesforce administrator. Under his direction, Innovate has provided development, administrator support, security, and training/outreach support for system implementation.

UNITED STATES GEOLOGICAL SURVEY (USGS): DIGITAL SHORELINE ANALYSIS SYSTEM

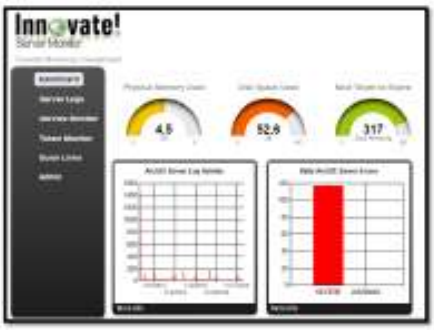
URL: http://woodshole.er.usgs.gov/project-pages/DSAS/

Innovate has worked with the USGS, Woods Hole Field Center to develop the Digital Shoreline Analysis System (DSAS) application. DSAS is an extension to Esri's ArcGIS that computes rate-of-change statistics from multiple shoreline positions and provides valuable GIS-based analytical information products to support workers across the agency.

CITY OF HAYDEN, IDAHO PERMITTING SYSTEM

Innovate contracted with the City of Hayden, Idaho to design and develop an ArcGIS for Server based permitting system. Using a Service Oriented Architecture (SOA), Innovate staff designed and deployed a workflow-centric application to enable City officials to enter, track, and integrate permits into the City's enterprise GIS system. The system interfaces via a web service to an external online payment processing module to conveniently serve citizens and empower the City of Hayden to track their invoices.

ARCGIS FOR SERVER DASHBOARD



The Innovate ArcGIS for Server Dashboard is a configurable, hosted Software-as-a-Service (SaaS) application that provides interactive monitoring of ArcGIS for Server resources including web services, security tokens, and computing resources. In the event of any changes in status, hardware malfunctions, or failures, the Innovate Server Monitor can alert you via email or text message. It ensures that you stay ahead of your ArcGIS for Server application users and meet their expectations in terms of availability and uptime.

EPA NATIONAL COMPUTING CENTER (NCC) GIS SUPPORT

Innovate's support of geospatial activities for the EPA's NCC comprises three main areas - support for the NCC's mission critical geospatial hosting infrastructure, helpdesk support for geospatial users across the EPA, and project-based development and analysis activities. In addition, Innovate has been involved in every aspect of the development of the EPA's Geospatial Platform, from the design and architecture to the development of standard operating procedures, best practices, change management and governance, to outreach and end-user training. Activities include:

- Applications and Web services development, integration, documentation, and maintenance
- Support for cloud-based hosting environments, architecture planning, operations, and security
- Support for portfolio, data, and metadata management
- Support for governance and management of user communities
- Support for program and project management; support for users/help desk

EPA REGION 9 GIS SUPPORT

Innovate currently provides GIS support to EPA's Region 9 headquarters office located in San Francisco, CA. Innovate's staff provide the core GIS abilities for EPA Region 9. This includes creating and managing data, developing web and mobile applications, and providing general GIS services. Innovate's GIS team is responsible for all aspects of on and off-site geospatial support activities, including GIS data collection, development, management, visualization, and dissemination. Our team works directly with EPA Region 9 personnel to manage all GIS data, provide digital and hard copy deliverables, and oversee daily operations in order to support EPA Region 9's internal and external customer base. Innovate also supports EPA Region 9's emergency response planning efforts. One key component of this effort is a collection of web-based mapping applications known as GeoViewers, which allows emergency responders to access important geographic data quickly and easily via desktop computers or mobile devices.

EPA GIS EMERGENCY RESPONSE PLAN

Innovate was the key contractor supporting the development of EPA's Short and Long term GIS Emergency Response Plans. These agency-wide strategic planning documents provided EPA with a general outline of steps and processes that should be followed for EPA GIS support operations in the event of a large-scale emergency response. Innovate worked with EPA's Office of Environmental Information (OEI) to create the plans with input from with numerous EPA Program and Regional office personnel. As part of this effort, Innovate facilitated numerous stakeholder input and review sessions, tracked all input from stakeholders, developed the formal planning documents, and delivered and presented the final plans to EPA. Innovate developed a number of supporting documents to supplement the short and long term plans, including:

- EPA GIS Emergency Response Contact List
- GIS Preparation Checklist
- Key External Agencies and GIS Vendors, Applications, and Software
- EPA Backup Regions for Emergency Response
- Coordination Call Template
- GIS Staff Positions and Team Members
- Enterprise Data and Tool Descriptions
- EPA GIS Standard Operating Procedures (SOP) Template
- ICS Hierarchical Structure

CHESAPEAKE BAY PROGRAM (CBP) METADATA CATALOG

URL: http://catalog.chesapeakebay.net/geoportal/catalog/main/home.page

Innovate personnel were the lead developers of the Chesapeake Bay Program's (CBP) Metadata Catalog. The CBP Metadata Catalog is one of the key components of the CBP Data Enterprise target architecture. It functions as a repository for documentation that describes data sets and services made accessible through CBP's Data Hub and web mapping applications. The content contributed to the catalog is accessible via CBP web interfaces as well as other external sources. Innovate personnel worked closely with CBP staff to design and implement the CBP Metadata Catalog, while also developing policies, procedures, documentation, and training materials for its implementation across the CBP enterprise.

FEMA – RISKMAP

Innovate provided program management support for the Federal Emergency Management Agency's (FEMA's) Risk Mapping, Assessment, and Planning (Risk MAP) program in Region 10. Innovate facilitated the implementation of program management process improvements based on industry best practices and worked to ensure the fulfillment of Risk MAP commitments. Activities included:

- Creation and reporting of monthly Earned Value Management (EVM) analyses to FEMA leadership
- Support of regional program reviews
- Creation of a system to ensure fiscal accountability and timely reporting among the FEMA contractors
- Stakeholder management and facilitating regional communications with FEMA Headquarters;
- Development of risk management processes

COEUR D'ALENE TRIBE RESTORATION PARTNERSHIP

URL: http://www.restorationpartnership.com/

In 2013, Innovate built the website for the Coeur d'Alene Basin Trustee Council's Restoration Partnership. Since the Coeur d'Alene Tribe is a key stakeholder in the Coeur d'Alene Basin Trustee Council, the Restoration Partnership is firmly based on the principles of cultural sensitivity and includes many specific references to tribal cultures. The Restoration Partnership's interactive website is a key component of public involvement in the restoration process. The site features interactive maps, photo galleries, a user comment form, a mailing list sign-up form, animations, and videos.

IDAHO FOREST GROUP SEAMLESS PARCEL DATA VIEWER

Innovate created a solution for obtaining county-level parcel data and serving it in a seamless map layer. Currently the Northwest Parcel map harvests and standardizes data received in various formats from 28 counties located across Washington, Oregon, Idaho and Montana. The data are then post-processed with several natural resource layers and served alongside complementary layers such as soils, the National Hydrography Dataset, Public Land Survey System and Aerial Imagery, to name a few. This system enhances the value of the data for land use professionals across diverse disciplines: utilities, forestry, planning, government and others. This system can be easily expanded to accommodate additional parcel data and cost-share partners, and customized for a client's specific area of interest.

URL: http://innovate.maps.arcgis.com/apps/webappviewer/index.html?id=73ae70b17bac43d5b0f97889d46fd247

QUIL CEDA VILLAGE/TULALIP TRIBES, ARCGIS FOR SERVER AND SQL SERVER SETUP

The Tulalip Tribes, Washington contracted with Innovate to provide GIS and IT services. The GIS work included setup SQL server with SDE in a current server farm. It also involved set up ArcGIS for Server and installing Web Adapter, Migration of MXD data sources to new data SQL server 2012 data sources, and assistance with migrating and reconciling cloud data to SQL servers.

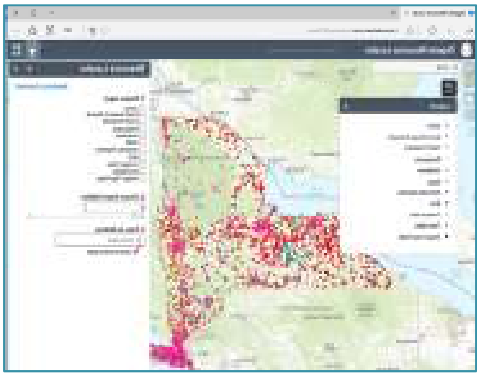
UNITED STATES GEOLOGICAL SURVEY (USGS): GEOSPATIAL LINE OF BUSINESS SUPPORT

Innovate and Grant Thornton form an integrated management team providing Program Management Office (PMO) support to the Geospatial Line of Business (Geo LoB) through the Department of the Interior, United States Geological Survey (USGS). The Geo LoB, a government-wide initiative sponsored by the Office of Management and Budget (OMB), is designed to identify opportunities for optimizing and consolidating federal geospatial-related investments to reduce the cost of government and improve services to citizens. The project involves over 25 federal agencies and many thousands of data sets and users. Its overall objective is to maximize the business value of the federal geospatial investment in geospatial data assets, standards, and acquisition mechanisms.

COMPUTER SCIENCE CORPORATION (CSC) CLIENT: TRUVEN HEALTH ANALYTICS

In this project, Innovate was brought in to provide ArcGIS specific software engineering and development expertise. Computer Science Corporation (CSC) had been contracted by Truven Health Analytics to develop a GIS desktop application that would replace their legacy application that was created using deprecated Esri objects. This application was designed to facilitate healthcare companies making data-driven decisions that involve health care facility locations and a variety of census and other geospatial data. The initial applications created by CSC lacked some functionality and performance requirements that were requested by Truven. Innovate was brought in to help identify the functionality needed and determine how to achieve it using the Esri and .Net programming stack of objects.

ROCHESTER INSTITUTE OF TECHNOLOGY (RIT)



The Rochester Institute of Technology (RIT) was interested in obtaining an Online Organic Resource Locator Tool similar to one made by Innovate for the US Environmental Protection Agency (EPA). RIT staff liked the functionality of the EPA's Waste to BioGas application. However, RIT wanted an application that could use their data. In order to utilize a mapping application, RIT's data sources needed to be converted from MS Excel spreadsheets into a GIS feature class that could support web map services.

Innovate staff is working with designated staff at RIT to determine the best way to configure map services for the web map. RIT staff will publish and maintain the required service on RIT's ArcGIS Server. Once we have tested these services with the requirements of the custom geoprocessing task Innovate will work with RIT staff to configure and possibly consolidate services in order to ensure proper geoprocessing performance level. This task also includes time to work with RIT staff in tuning and configuring the services to adjust layer order, hierarchy, symbology, and visible fields.

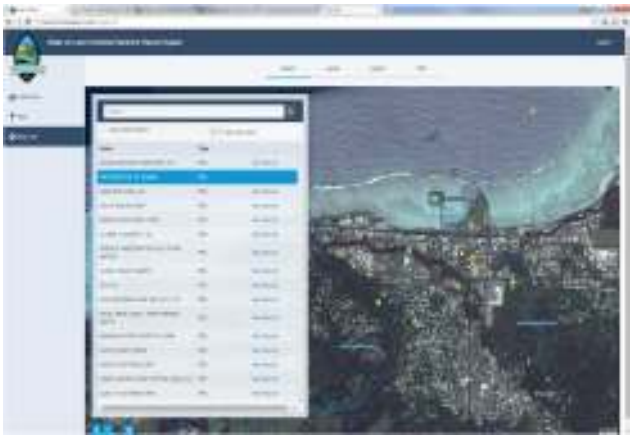
CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATIONS (CTUIR)

Innovate provided technical support to CTUIR's GIS Program for implementation of a new server and upgrading of server software and in the implementation of ESRI's web adaptor for utilizing available security options. The CTUIR GIS Program maintained four servers for administering an enterprise ArcGIS and supported 30 ArcGIS professional licenses and two SDE geodatabase libraries. REST services were used to publish data from an SDE library for use in custom web mapping applications and ArcGIS online account. Two geodatabases and 16 SQL databases were supported. The server configuration included one server box hosting both SQL server and ArcGIS server. The server hardware was replaced which created an opportunity for implementation of changes to the server configuration. Innovate staff separated the SQL server and ArcGIS server. The SQL server was transferred to a new server instance and ArcGIS server was installed on a virtual server. Innovate implemented the new server configuration and transferred databases and upgraded ArcGIS 10.1 to 10.3.

EPA GUAM ENVIRONMENTAL REPORTING SYSTEM

Currently under EPA Region 9, Guam EPA has no centrally managed GIS infrastructure. In response to this need, Innovate is developing the Guam Facility Registry System (GFRS) and additional data applications. The GFRS is a web and mobile-based system that provides tools for agency staff to perform their day to day activities of data collection and editing. The central function of the system is to force users to relate their programs (Hazmat, Solid Waste, Tier II, etc.) data to a common generic entity to ensure all agency staff is aware of all information available about any given facility in Guam. This system will increase Guam EPAs real-time

view of the environment of Guam by visualizing geospatial data via a common dashboard. To support each division/program's daily activities and continued maintenance of the data inside their area, we are developing interest tools to enable storage, access, integration, standardization, management, and sharing. The newly structured system allows greater sharing of Guam EPA's environmental data both internally and externally to US EPA via the Exchange Network.



- To provide Guam EPA with better tools to make their jobs easier while also being more productive.
- To create a better, more up to date, clearer understanding of the environment of Guam.
- To facilitate sharing of information between programs at Guam EPA and between Guam EPA and US EPA.
- To organize all data and into one secure location that can be routinely backed up.

USGS EARTH RESOURCES OBSERVATION AND SCIENCE CENTER (EROS) TECHNICAL SUPPORT

Innovate is fulfilling the US Department the of Interior (DOI), U.S. Geological Survey's (USGS) continuing requirement for science, engineering and technical support necessary to assist the USGS Earth Resources Observation and Science Center (EROS).

Information Technology services included:

- Project management
- Systems engineering
- System administration
- Helpdesk
- Configuration management
- Hardware/software management
- Custom software development
- Systems security
- Database administration
- Network services
- Web design and administration
- Data management and computer operations

USGS/EROS Center - Sioux Falls, SD