

# Ashe County

## Planning Department

### Staff Report

Date: 9/26/2016

#### **RE: ESRI and Leica Geosystems: Smart Communities Innovation Challenge**

#### **Summary:**

ESRI a leader in geographic information systems (GIS) and Leica Geosystems a leader in spatial measurement has teamed up to stimulate innovative approaches in government services. This challenge will award a government agency (federal, state or local) with a package of software, training and GPS collection hardware. If awarded this would add to the county's already robust GIS data collection. This is a challenge and not a grant, with no match required. However, before starting on the application the Planning and Tax Departments wanted to seek approval to commit staff time to preparing the application.

#### **Attachments:**

1. Application Materials – ESRI and Leica: Smart Communities Innovation Challenge



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## **Esri and Leica Geosystems Announce the Smart Communities Innovation Challenge: Mobile Government Edition**

### **Ten State or Local Governments to Receive Software, Hardware, and Training to Develop Mobile Public Domain Applications Related to Any Government Discipline**

#### **Introduction**

Esri, the world leader in geographic information system (GIS) software, has announced its Smart Communities Innovation Challenge. Esri is joined by longtime partner Leica Geosystems, a world leader in spatial measurement. Leica has stepped forward as Esri's first collaborator to bring support to governments, which both companies hope will stimulate innovative approaches to government services.

The Smart Communities Innovation Challenge is an open call for demonstration projects that help bring groundbreaking ideas of federal, state, and local governments to reality. The intent of the program is to offer assistance in transforming their work by providing them with technology, training, and encouragement to get started. In exchange for this support, the developers of the winning projects are required to share their work by extending the application code, concepts, and best practices they create through an open source, code-sharing platform. This program consists of hardware, software, and training, which collectively total \$143,250.

The goal of this program is to foster transformational approaches to improving the productivity and efficiency of mobile fieldworkers. This program recognizes that enterprises may have particular field data collection challenges that smartphones can't ideally meet. Projects are required to validate the value of GIS and Global Positioning System (GPS) technologies for collecting data, optimizing workloads, and providing real-time information that supports field mobility. Reviewers will look for ideas that support complete workflows extended to back-office processes such as operational dashboards.

Projects must demonstrate increased efficiencies in collecting data for decision support or elevated productivity in delivering government services. The Esri and Leica Geosystems software, hardware, and training grants will be awarded to 10 federal, state, regional, tribal, or local governments within the United States.

#### **Program Description**

The Esri and Leica Smart Communities Innovation Challenge Mobile Government Edition has been established with three goals in mind. The first objective is to bring forward and catalog innovative ideas from the government community at large on how to solve real-world problems. The second objective is to provide assistance to thought-leading governments that will champion change. The grant will assist in jump-starting winning proposals. Finally, our intent is to identify applications with universal appeal that can be shared between governments through an open exchange hub.

The program is designed to help define mobile government as it applies to all government disciplines. Examples of eligible categories include, but are not limited to, public safety, health and human services, land records, public works, economic development, urban planning, forestry, climate change, and water resource management. We are looking for applications that demonstrate accurate location-based mapping and increased efficiency of field crews, resulting in the reduction of errors in data collection. The applications should focus on the collection of stationary or moving data elements for the advancement of real-time mobile government.

### **Definition of Mobile Government**

Today's mobile government is looking to incorporate field data collection that can quickly update back-office systems and databases. Applications such as executive dashboards provide insight that moves agencies from static data collection to a more responsive position. Once analyzed, this data can be communicated with other agencies and the public in the full spirit of transparency and accountability. Location-based technologies can enable documentation, processing, and management of government issues in real time, taking advantage of the entire mobile workflow. For example, human services staff could locate and inventory homeless populations in the field while communicating a need for a quick response to support at-risk populations such as veterans, the elderly, and young children.

The best examples of projects could draw from, but are not limited to, areas such as facility inspections, emergency reporting, asset inventory, environmental management and monitoring, employee routing, code enforcement, population and housing enumeration, mosquito abatement, and sign inventory. While innovative ideas are embraced, Esri and Leica prefer applications that enhance daily work efforts as a means of supporting the primary objectives of the program.

To be considered, each agency must thoroughly communicate an understanding of the two technologies and what it will take to implement them. Eligible applicants must have some basic capacity for GIS in their organization. The program is not designed to initiate a GIS program but rather to enhance an existing one. Likewise, each agency must agree to make the development of the application a priority as a means of cultivating timely and meaningful educational materials for the benefit of other government agencies.

### **What Is Supplied?**

Each winner will be provided the following:

- (1) Zeno 20 Android CDMA or UMTS
  - Battery
  - AC adapter
  - Hand strap
  - Stylus
  - Soft bag
- (1) Zeno Connect on Android
- (1) L1/L2 GPS/GLONASS
- (1) Two-year Zeno Connect Bronze CC

- (1) Esri ArcGIS for Desktop Basic single use
- (1) ArcGIS Online subscription Level 1
  - ArcGIS Open Data
  - ArcGIS data and basemaps
- Esri Collector for ArcGIS application
- (1) Navigator for ArcGIS 5-user pack
- Survey123 for ArcGIS software
- (1) Live instructor-led Virtual Campus Training course that will be customized for this grant

To learn more about these Esri software offerings, we encourage you to visit the Esri Products website at [esri.com/products](http://esri.com/products). The Leica Geosystems website can be viewed at [http://www.leica-geosystems.us/en/GIS-Asset-Collection-Management\\_102773.htm](http://www.leica-geosystems.us/en/GIS-Asset-Collection-Management_102773.htm).

### **Eligibility and Qualifications**

The program is open to all forms of state and local governments in the United States, as well as all departments within a government organization. Examples of governments that are eligible for this program include the following:

- Federal
- State
- Regional
- Special districts
- County
- City
- Townships and Villages

The government entity must identify at least one staff member who will be responsible for using the hardware and software. Likewise, the GIS and GPS technologies granted must remain in the possession of the recipient site. An outside consultant can work with this staff member, but the government may not forward the licenses or hardware to that consultant.

Priority is given to organizations that do one or more of the following:

- Projects that tie GIS and GPS to daily workflow
- Projects that communicate innovative government practices through the use of GIS and GPS
- Projects that demonstrate or encourage the sharing of geographically enabled GIS/GPS data with multiple jurisdictions and with interagency or interdepartmental projects

## **Provisions**

Program recipients must agree to

- Become a reference site for Esri and Leica Geosystems.
- Have their organization's name used in Esri and Leica Geosystems press releases and educational marketing campaigns.
- Document and provide the open source mobile application code to Esri for posting on the Codeshare website no later than January 31, 2017.
- Provide the mobile application code on other open source, code-sharing platforms of the organization's choosing.

## **Performance Reporting**

Project winners must provide Esri and Leica Geosystems with an article that contains a case study. Articles should be no longer than 2,000 words and should highlight the recipient's method of integrating GIS and GPS into daily work efforts. This article must be provided digitally to Esri within six months of the grant award. Articles should be accompanied by screen captures of Esri software in .tif or .bmp format. Photographs of government employees using GIS and GPS should also be provided in .tif or .bmp format. Project winners own the copyrights in the article and photographs. However, project winners will provide Esri and Leica Geosystems with the royalty free, perpetual, worldwide right to reproduce and publicly display the article, photographs, and any information contained therein in presentations, seminars, trade shows, publications, and marketing materials in any format desired by Esri or Leica Geosystems.

## **Additional Information**

The demonstration program is limited to one hardware, software, and training grant per eligible government organization. Applicants do not need to be current users of Esri software or Leica Geosystems hardware. Current customers of Esri and/or Leica will receive equal consideration in the awarding of the grants.

- Applications will be accepted beginning August 15, 2016.
- The official deadline for all submissions is October 14, 2016, at 5:00 p.m. (Pacific time).
- Awards will be announced on October 31, 2016 at <http://go.esri.com/mobile-grant>.
- The submission deadline for articles related to the implementation of mobile government applications is May 1, 2017.
- Esri and Leica Geosystems websites will be used as official notification media on the date designated as the award announcement date. Formal letters notifying the sites selected will follow.
- All recipients must agree to have their organization's name used in Esri and Leica Geosystems press releases and marketing efforts.
- Maintenance of Esri software and Leica equipment will become the responsibility of the program recipient.

No product or training substitutions in the grant offerings will be extended. The program is offered with the understanding that the complete hardware, software, and training suite will be used in its entirety for the purpose of developing a mobile government application for future distribution via a public domain website.

The public domain website includes a standard public domain disclaimer that expressly states the script is being placed in the public domain or is freeware, so that the script may be freely used and redistributed. It is provided as is without warranty of any kind, and there is no technical support provided.

## **Procedure for Applying**

**Submissions must be received no later than 5:00 p.m. (Pacific time), October 14, 2016.**

There is no application form. We request that applicants submit a description of their proposed mobile government demonstration project as a Microsoft Word document. Applicants must address each of the following items in the format requested below:

- A. Letter of support signed by agency head (one page maximum)
- B. Organizational profile with the following details (one page maximum, double-spaced):

- Organization name
- Organization agency or department responsibilities (25 words or less)
- Organization mailing address
- Organization physical site address including street name and number
- Estimated population within demonstration project or jurisdiction
- Estimated number of employees in organization
- Primary organization contact
- Primary contact phone number and email address (email required for Virtual Campus and initial notification)
- Secondary organization contact
- Secondary contact phone number and email address (email required for Virtual Campus)

- C. Information on the proposed GIS/GPS demonstration project with the following details (three pages maximum, double-spaced):

- Proposed program name
- Proposed program description
- Proposed program goals and objectives
- Proposed units of measure for determining success of project (e.g., time savings, cost savings, productivity increases)

(D–H: three pages maximum, double-spaced)

- D. Diagram of workflow of the problem your organization is trying to solve

- E. Description of your current use of GIS technology
- F. Description of the GPS and/or mobile device currently used by your organization
- G. Description of plans to distribute data and mobile application derived from this mobile demonstration project throughout your organization
- H. Description of anticipated additional uses of technology provided after initial project has been completed
- I. After the launch of the demonstration project, provide the total number of fieldworkers you anticipate will use the final product
- J. Description of perceived benefits or return on investment (Optional: You can also include any appendixes containing photos, screen captures, and graphs that illustrate your proposal. These do not count as part of the page limit requirements.)

### **Submitting Your Application**

**Applications must be submitted through the official Smart Communities Innovation Challenge website.**

**Your submission must be received no later than 5:00 p.m. (Pacific time), October 14, 2016.**

### **Review Process**

An internal team of Esri industry solutions managers and Leica solutions managers will review all applications to determine the finalists.