ANDE Ecosystem Snapshots Project: Data Display

Summary
ANDE is seeking proposals to build a dynamic external display that uses data from ANDE's Salesforce.com database to visualize the ecosystem of support for entrepreneurs in specific cities and countries. Proposals are due by November 15, but we will consider submissions on a rolling basis up until the deadline.

Background
The Aspen Network of Development Entrepreneurs, a program of the Aspen Institute, is a network of over 275 organizations that support entrepreneurs in emerging markets.

In the past two years, ANDE has created nearly a dozen "ecosystem snapshots" that identify organizations that support entrepreneurs in specific cities and countries around the world. These snapshots were developed to represent a moment in time for each geography. They provide local actors insight into the strengths and weaknesses of a given market, help those actors identify potential partners or business opportunities, and improve the support available to entrepreneurs.

To date, ANDE has typically stored this data in excel spreadsheets and created the maps using power point. With funding from DFID's Impact Programme, ANDE now aims to standardize and professionalize our approach by creating one consistent data collection and display methodology. Specifically, we will connect our online survey tool to Salesforce, where the data will be stored, and then import that data into a dynamic visual display for public dissemination.

See examples of current ecosystem snapshots here. Some maps were created in a standard PowerPoint template (like this one), while others were produced with a graphic designer (like this one).

Objective
A core goal for the Ecosystem Snapshot project is to gain a clear understanding of the actors in each city or country via clearly visualized data with a new front end online display. The design of each snapshot should make the data easy to understand, allow users to hone in on the data most relevant to them, and provide useful insights to practitioners. For example, we want funders to allocate their resources to the gaps in the ecosystem that are most clearly identified with these maps.

We hope that this visualization tool can be used for all of ANDE's ongoing mapping projects globally and potentially could be used for data from other organizations, as well. Finally, the maps should be in one central location, easy to replicate in new markets, and comparable.

Intended Users
Our priority is for the data to be useful and accessible primarily for organizations who support or are looking to support entrepreneurs in emerging markets.

The general user can access data that can be filtered, printed, and shared. The site will include information on the project, sponsors of the project, and enable easy access to data snapshots. ANDE members, and target users, work at corporations, foundations, investment firms, nonprofits, universities, government agencies, or consulting firms. They can access the data to understand general trends, understand their own role in the ecosystem, and assess where need is greatest.

In addition, ANDE will be sharing data with a partner organization who has developed an online directory, Search Inclusive Business. Their target audience are entrepreneurs looking to access these support services. We want to ensure our data display is differentiated from this directory, suited for our intended audience, and focusing on ecosystem-level insights as much as locating organizations.

The Data
We would like this tool built in one of two ways. Either we can export our data from Salesforce then upload and visualise the data in the online mapping display tool; or Salesforce would be connected directly to on the backend to the new front end online display. We are open to either approach as long as it minimizes cost and staff time needed to implement.

ANDE is developing a standard data framework that we plan to implement in snapshots across multiple countries and cities. Each snapshot may include a directory of between 100-400 programs with basic information like HQ country and website, plus more in-depth information based on survey responses from approximately half of those organizations. This in-depth information includes fields like Sector, Stage, Impact Focus, and Program Duration.

Our database has been developed so that the "Ecosystem Mapping" object includes information on "Programs" (this is the unit of analysis for the database) that are also related to "Account" objects. Each account may include multiple programs; and programs may operate in multiple cities or countries, and be represented in multiple snapshots.

We intend that visualizations will be dynamic with crosstabs / filters for 5 - 10 variables (e.g. region, sector, stage of growth, etc.). The data and type of visualizations we'd like to include are similar to some of those in these examples both from ANDE and other mappings. To access this tool, visitors can sign up by providing their name and organizational affiliation so we can track usage on the site.

In the coming year, we plan to conduct at least five new snapshot maps (City or region level: Johannesburg & Pretoria, Port Harcort; Country level: Ghana, Ethiopia, and Rwanda), and

ideally would import data from previous maps into the system as well (especially Lagos, Abuja, Accra, Uganda). We would like each snapshot to be packaged in such a way that we can disseminate and promote each individually, as well promote as the site as a whole.

Based on our past experience with "mapping" projects, we do not intend to use a network map to display data since we find the learning curve for users is challenging, and our data is not structured for network analysis. We prefer the design to enable users to quickly grasp relevant highlights or key take-aways, and then dig deeper to identify specific trends by sector, organization type, etc.

While we haven't seen a site that displays data in the way we are intending to, some of the inspiration for this project comes from others' visualizations, including:

- The Case Foundation's Impact Investing Network Map
- Endeavor's work mapping entrepreneurship networks, for example in Cairo and NYC
- The Kauffman Foundation's work on data for entrepreneurship at a city and state level
- Startup Genome – although they haven't created a dynamic display, their city level research is relevant
- Halcyon Incubator's ranking of social enterprise ecosystems in the US

Technology & Approach

We have not yet identified where these snapshots should be housed, but are open to creating a new site if needed, or housing them on our existing sites: www.andeglobal.org and www.whysgbs.org. We would like the consultant to provide advice on the best place for these visualizations to live, from a user friendliness perspective as well as to make ongoing updates and maintenance most effective.

We see the benefits to working with a firm that builds custom visualizations, and also working with a firm that will support the implementation of an off-the-shelf visualization solution such as Tableau. We are open to both approaches. For either approach, our staff must have the ability to make upcoming changes to the site after the project close without the ongoing support of a consultant. For example, we must be able to edit text, import new data to existing snapshots, and create new snapshots.

The consultant will work with the Aspen Institute's web team which manages hosting. The Aspen Institute's web server software specifications are:

Operating System: Amazon Linux 2016.03 (Redhat-based, CentOS-like)
Linux Kernel: v4.4.5, 64-bit
Web server: Nginx 1.10.1
Language Installations:
• PHP: 5.6 (incl. latest security updates)
• Perl 5.16.3
• Python: 2.7.12
• MySQL: 5.6.32

PHP Modules: php-fpm/fcgi 5.6.25, Zend Opcache 7.0.6
Supported Databases: MySQL, MariaDB

Currently, our web servers are optimized for PHP-based applications. We do not recommend using other server-side languages such as Ruby, Python, or Node.js due to extensive server-side quality assurance that is required for deployment.

Training for Ongoing Updates and Maintenance
In addition to the initial development, we expect to update data quarterly or on an as needed basis when new data is collected. We prefer to manage data updates and any ongoing maintenance ourselves. We plan that ANDE staff will be trained by the chosen firm so that ongoing maintenance of the data and site can be conducted with the internal staff expertise.

In addition to updates to existing snapshots, we expect to be adding new snapshots on an ongoing basis, and would prefer to manage the development of these primarily in-house.

Because we are open to multiple directions, from custom-build visualizations to off-the-shelf software, we ask you to describe the ongoing costs that would be associated with your solution after the project close, for editing, uploading new data, and creating new snapshots. This may include just software subscriptions, or your costs.

Timeline
This project must be completed in the first half of 2018.
Estimated Timeline

- October 16, 2017: Proposals due
- End of November: Firm selected and contract signed
- December 1, 2018: Project Kickoff
- March 15, 2018: Beta Version of tool complete
- May 1, 2018: Final tool live and ANDE staff trained

Proposal Requirements

Please submit a brief, 2-3 page proposal that includes:

- An introduction to you or your firm
- A description of your proposed approach
- Estimated cost
- Estimated timeline
- For ANDE's reference: estimated cost for ongoing maintenance
- Please also include as an appendix a portfolio of past projects/clients

Email to Genevieve.edens@aspeninst.org with the subject line "Ecosystem Snapshots Display Proposal" by November 15.