BUENOS AIRES: SHARE DATA, RETHINK INFRASTRUCTURE AND GET CREATIVE

Martin Alalu, Open Government Director, Province of Buenos Aires, shared his experience of using data to manage an emergency in the City of Buenos Aires. He showed how sharing data and being creative can enhance the policy-making process and improve citizens' lives.

In 2012, Buenos Aires suffered a massive power outage which left thousands of people without power for several days. The challenge was to solve the power problem technically (the responsibility of the private power companies), but also to provide assistance to the public (the city's responsibility).

The major obstacle was that the power companies refused to provide information about where the power outage was happening, so the city could not answer even basic questions like:

CITY OF BUENOS AIRES

🇦🇷 **CAPITAL OF ARGENTINA**

SIZE: 203 KM²

POPULATION: 2.9 MILLION PEOPLE

PLUS: AN ADDITIONAL 2 MILLION PEOPLE PER DAY WHO TRAVEL IN FOR WORK

- Where is the power outage happening?
- For how many hours or days is it going to last?
- How many people live in affected areas?
- Who lives there – for instance, especially vulnerable people?
- How many buildings are there and what are they used for?

"The major obstacle was that the power companies refused to provide information about where the power outage was…"

Alalu's team had to think about different ways to understand where the power outage was happening and who was affected. They wanted to build a platform that showed them the status of the power on every block and street in the city.

"We were forced to be creative," he said.

Use what you've got
The team started to think about the city as a platform and how they could use the infrastructure that was already in place to gather real-time information about what was going on. The first thing they identified was the "network backbone", such as the more than 300 Wi-Fi hotspots throughout the city. These could also be used as sensors to inform the city whether they had a power supply or not.

By using existing assets, they gained real-time data from 900 data points, but they still needed more information. Next they looked at the more than more than 60,000 streetlights that are on every block and street. They have a management system to show whether they have a power supply or are damaged, etc., so could also act as sensors.

Alalu's team met with the streetlight office and Philips Lighting. The Philips' API reported the status of the streetlights every five minutes and much can be concluded from the results: If one streetlight is out, maybe it's an isolated problem; if there are others, you might have an outage.

The team built an interactive platform for the emergency team to understand where the power outages were happening and for how long. They also tried to engage citizens, offering them a way to report power outages. They could also act as 'sensors'.

When the team looked at the newspaper coverage on the outages and compared it with their platform, the information on outage locations was the same, which validated their approach.

Actionable data
Next, to make things easier for emergency services, Alalu's team built a dashboard that answered questions on the location of power outages, the number of houses affected, how many schools had been impacted etc. Although this gave the emergency services a quick picture of what was happening, they still needed time to interpret this information, when the really needed fast, data-driven decisions about priorities and where to go first. For example, get to houses that had been without power for a long time and elderly people. Like many cities, Buenos Aires has demographic differences in different areas, and this data helped them rank priorities.

The teams used:

- census data (open data)
- street grid (open data)
- land use (open data)
- streetlight location (open data)
- streetlight status
- the network backbone

Although much of the data was open, Alalu said what made the project a real success was people sharing information

PROVINCE OF BUENOS AIRES

SIZE:
203 KM²

135 LOCAL GOVERNMENTS

POPULATION:
16.9 MILLION PEOPLE

What's next?
Now the focus is on opening up data right across the province of Buenos Aires and engaging citizens with it. "It's a huge challenge," Alalu said, but it is well supported. The new governor of Buenos Aires has signed the first ever executive city order to make all city agencies open their data to increase innovation and improve citizens' lives.

"Wish me luck", Alalu concluded. "I hope to share more good news next time."