



Harnessing Innovation & Technology to **BUILD A CULTURE OF INTEGRITY**



Hard to gain it

Easy to lose it

The Importance of Trust

The trust of citizens in their government institutions is the foundation for a culture of integrity.

Only 43% of citizens trust their government

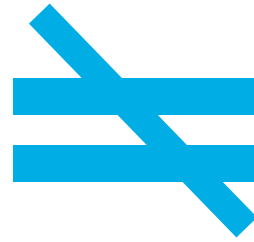
Figure 3: Confidence in national government in 2016 and its change since 2007



Source: Gallup World Poll.

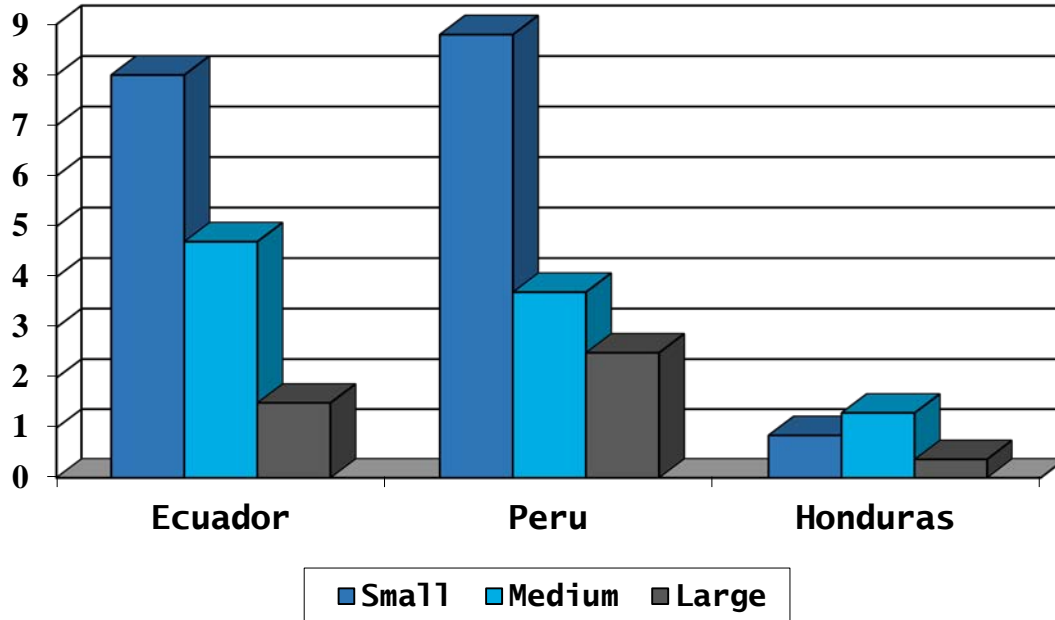
and this
rate is
dropping...

Corruption is a key reason citizens have lost trust in their governments



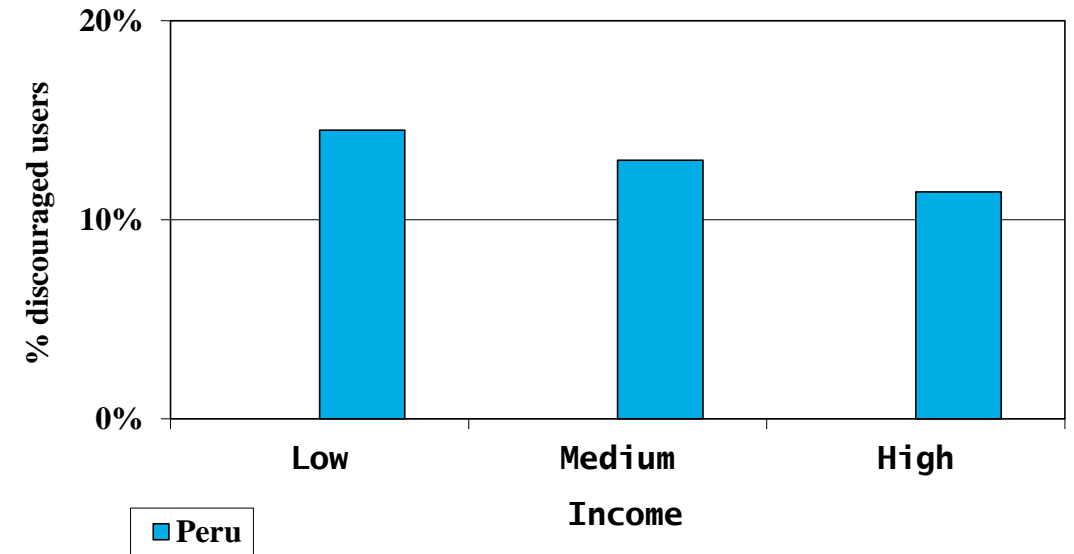
Corruption Also Worsens Inequality & Exclusion

Inequality - Corruption is a regressive tax: Poor & small firms pay more in bribes



WBI diagnostics. % of gross monthly revenue paid in bribes, as reported by managers 2001.

Exclusion - Corruption restricts access of poor households to public services



WBI diagnostics. Discouraged Poor Users Due to Bribes, 2001.

A Culture of Corruption

Corrupt systems make it very costly for individuals to behave honestly

Entrenched corruption creates a higher tolerance among citizens

This weakens incentives to behave honestly – and risks making corruption seem normal

Underscores the Need to Move to a Culture of Integrity

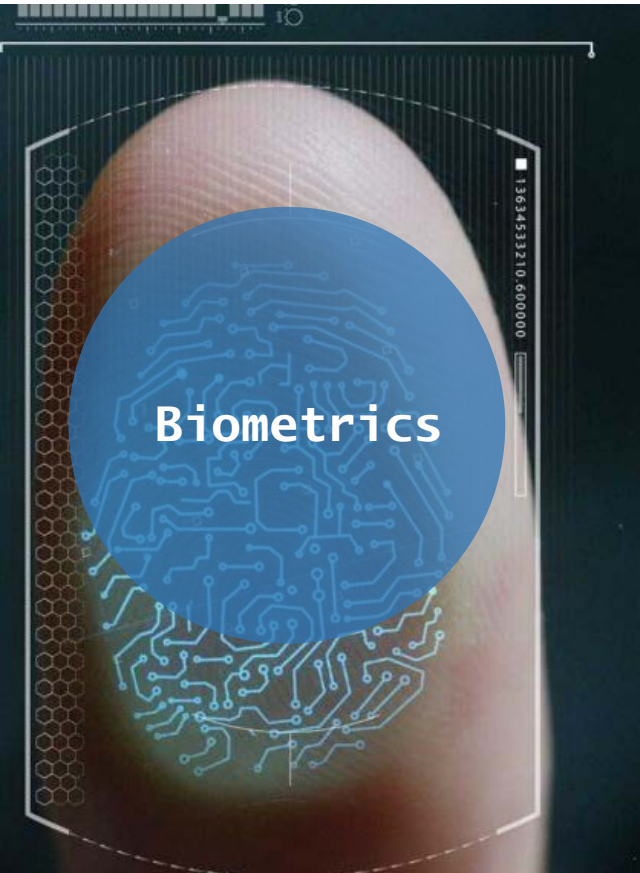
Grow citizen ownership of the anti-corruption agenda

Results in more trust that public institutions operate fairly and ultimately leads to an evolution of norms and standards

Innovations in technology empower citizens to be agents of change that create a culture of integrity...



Innovating Through Technology to Confront Corruption





Biometrics

Biometrics



- Digital Identification Technology creates unique identities for citizens,**
- increasing confidence that:**
 - Government money is going to intended beneficiaries
 - Opportunities for corrupt officials to intervene are reduced

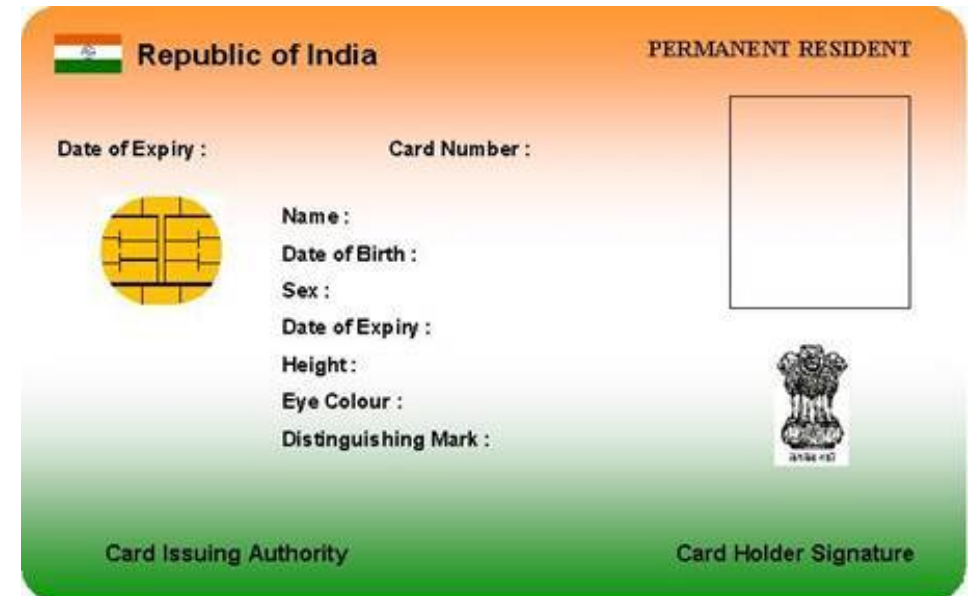
Biometrics

India

Smart cards reduce opportunities for corruption and fraud

Officials were taking a cut of social welfare payments meant for the poor, delaying payments and diverting payments to ineligible beneficiaries

- \$5.5 billion was distributed across 19 million villages
- After two years, payments to smart card recipients were up 35% and they obtained payments almost 30% faster



Biometrics

Fingerprints and facial recognition tools to prevent payments to ghost workers in government

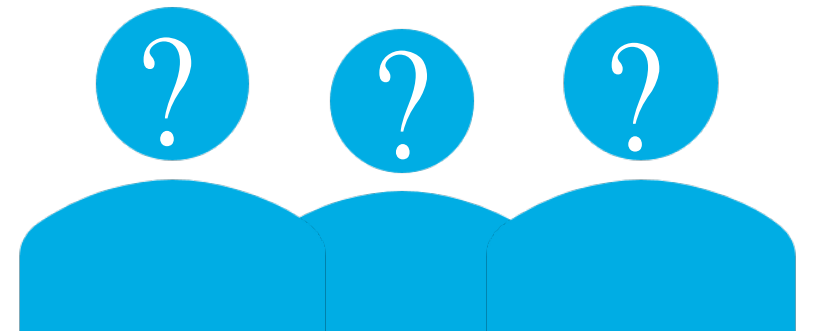
Pakistan

- World Bank funding has allowed the School Education Dept. in Sindh province to use fingerprint biometrics to monitor teacher attendance
- Field teams are dispatched to thousands of schools across the province with smartphones and handheld biometric devices to identify absent teachers
 - System detected fraudulent payments to 40,000 absent teachers



Guinea

- The World Bank has supported the Guinean government's use of biometric data to identify civil service "ghost workers":
- 11,080 out of 101,689 civil servants on the government payroll were either missing or nonexistent
 - The government able to save 20 million dollars in just one year





Digitalization

Digitalization

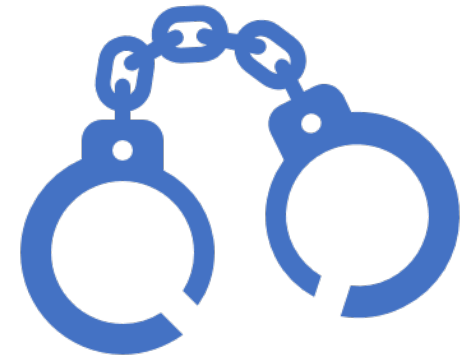
Why Digitalization is Crucial



Reduce discretion
through e-
government



Reduce
interaction
with gate
keepers



Reduce
opportunities
for corruption

Bonus: generates data for both risk analysis and enforcement

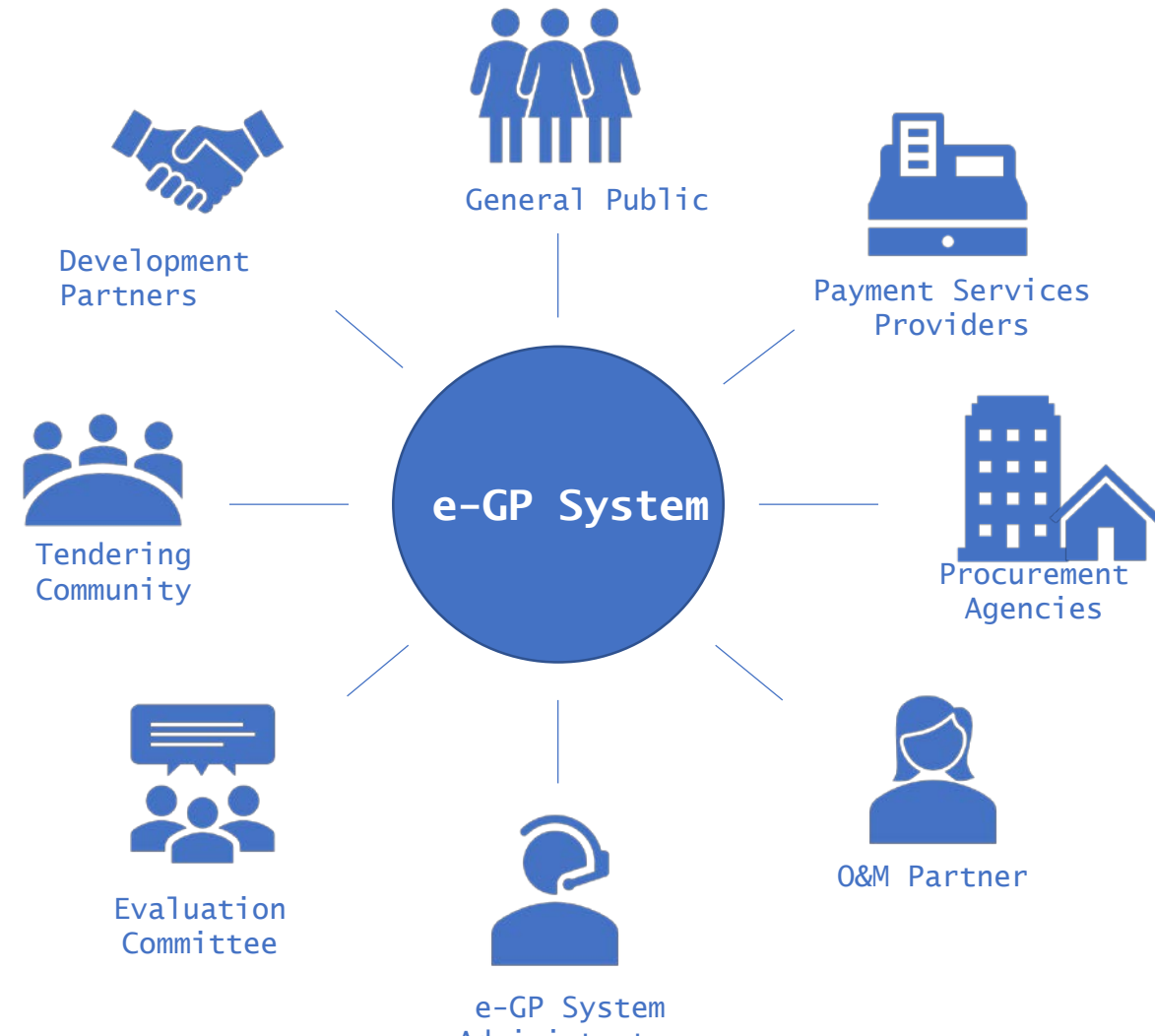
Digitalization

Bangladesh

Electronic procurement creates open access to tenders information



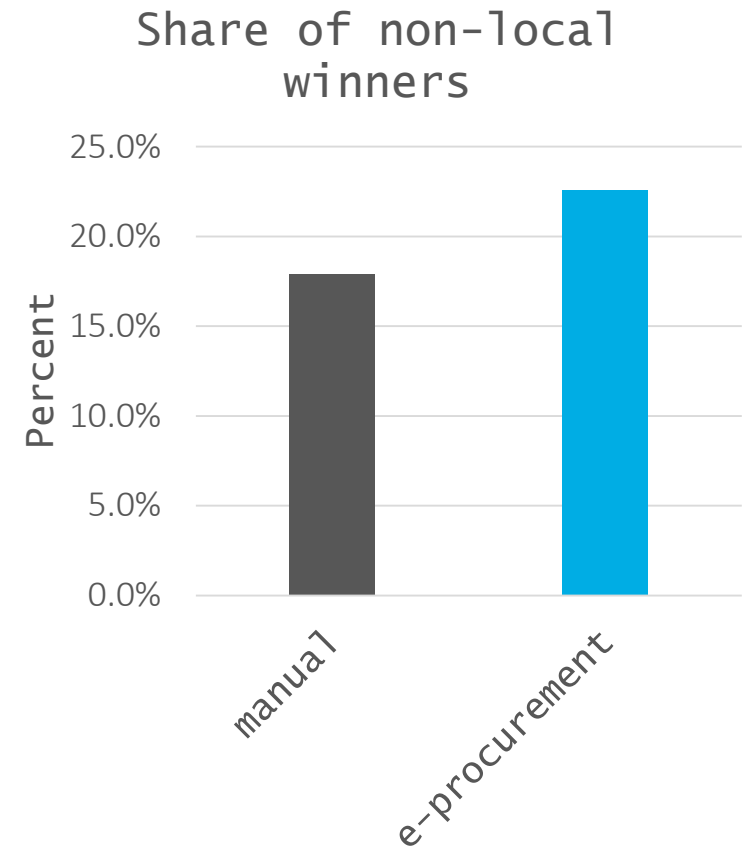
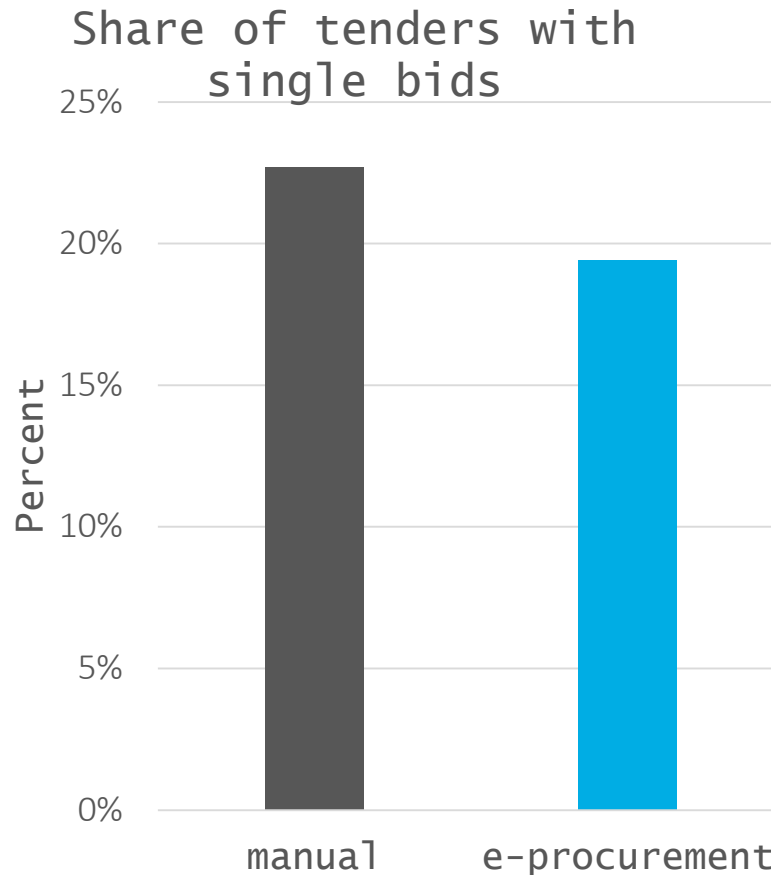
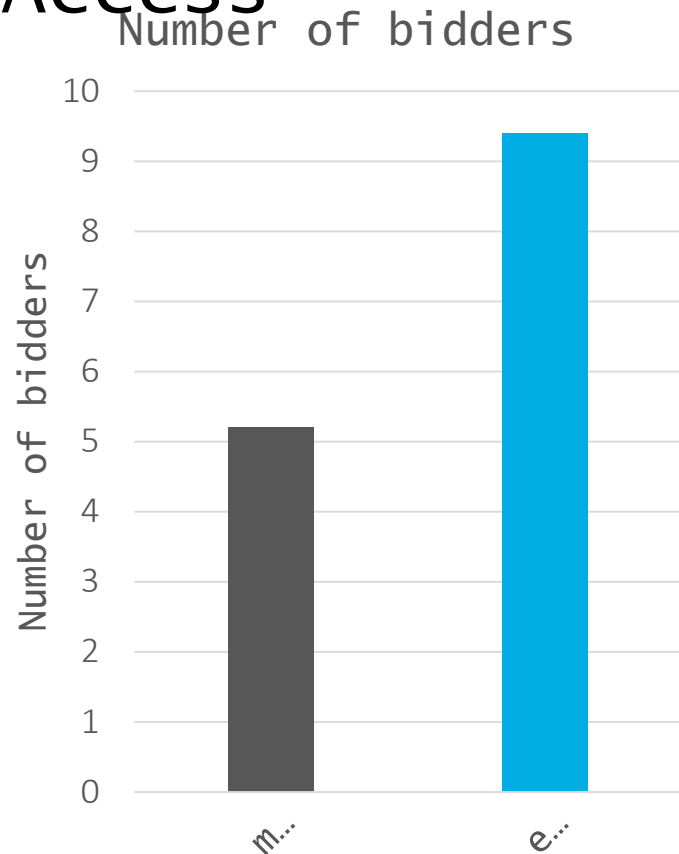
Dhaka, Bangladesh



Digitalization

Bangladesh

Impact of E-Procurement on Access



Digitalization

Madagascar

Leveraging digitalization of data to reduce corruption in customs

The Port of Madagascar **collects 75%** of the country's total customs revenue

Advanced digitalization of data harnessed to monitor customs official's performance



Dramatically reduced tax evasion and common practice of inspectors requesting bribes
Revenues per container **increased by almost 40%** and clearance time **declined by almost 50%**



Digitalization

Kenya



Digitalization

Kenya

Digital payment services can both facilitate & undercut bribery

Kenya M-Pesa Digital Payment Service:

- M-Pesa uses a network of agents to accept the company's virtual currency for payment, and to convert it into real money to be dispensed
- Virtual currency transfers can be made through SMS or phone menu
- 1.7 billion transactions in one year

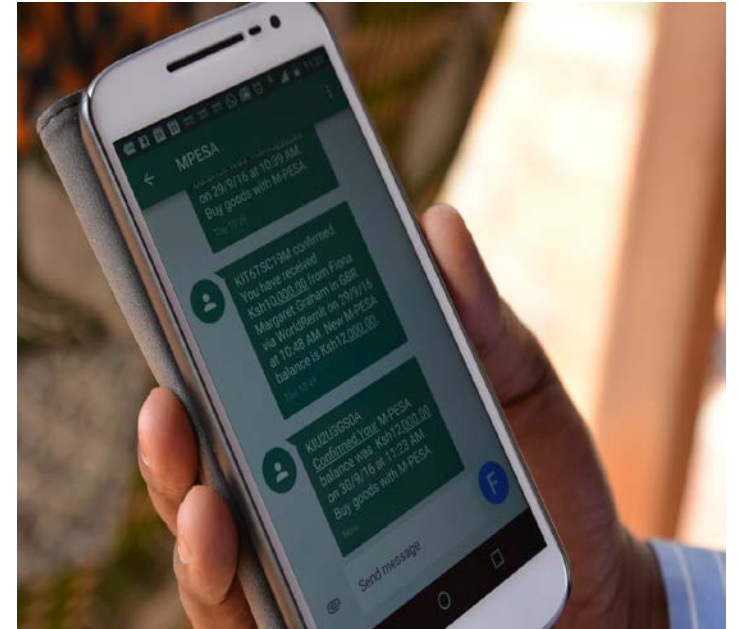


Digitalization

Kenya

Investigating Police Corruption

- Junior officers in the traffic department regularly transferred money through M-Pesa to senior officers
- M-Pesa kiosks around police stations were controlled by police officers to facilitate payments from motorists and junior officers
- Analysis of M-Pesa accounts for showed money transfers far exceeding police officers' salaries
- More than 350 senior police officers fired





Empowering Citizen Engagement

Empowering Citizen Engagement

 *Creating a Two-Way Conversation*

Giving citizens
a chance to be
part of the
solution by
providing data
back to
government to
help
catch corruption

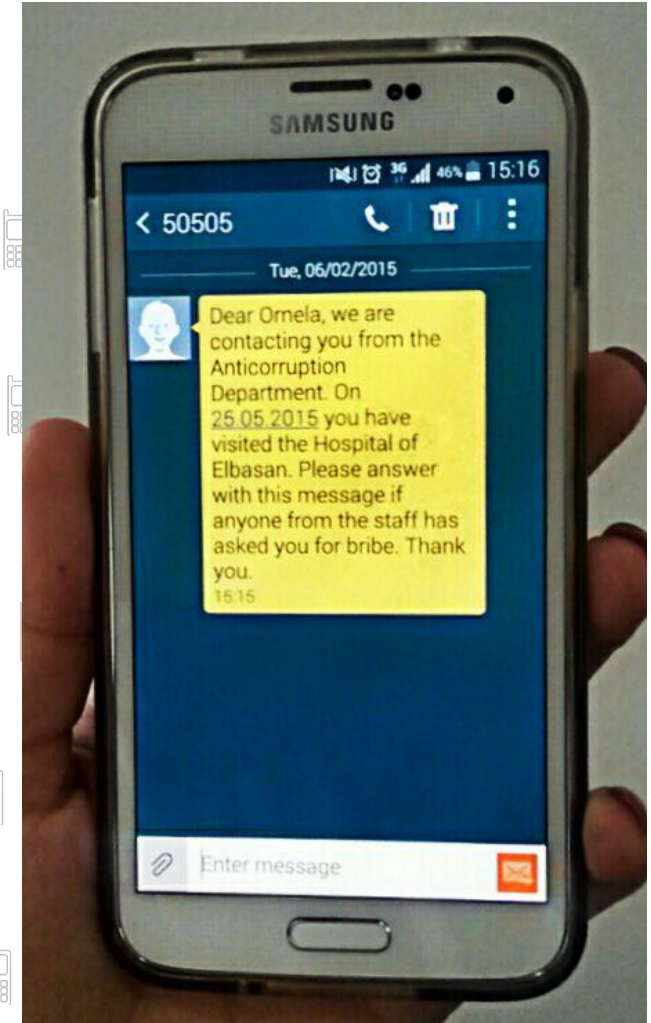


Empowering Citizen Engagement

Albania

Building trust in government one text at a time

SMS-based citizen feedback system proactively solicits information on bribery and service delivery problems within hospitals and property registration services, identified as highest risk for corruption. System contacted **187,000 citizens** and investigated **189 corruption complaints** to date





Using AI & Analytics to Mitigate Risks of Corruption

Using AI & Data Analytics to Identify & Mitigate Risks

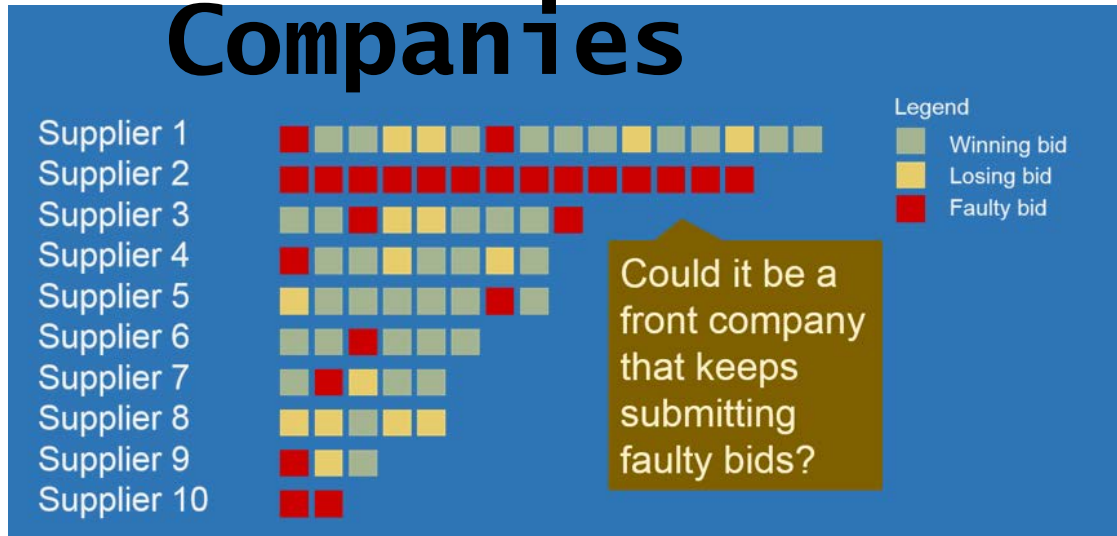
Data analytics and **AI** can create a new generation of powerful tools to identify hard-to-see vulnerabilities. Citizens can be assured that **corruption risks can be mitigated** long before a bribe is paid.



Using AI & Data Analytics to Identify & Mitigate risks

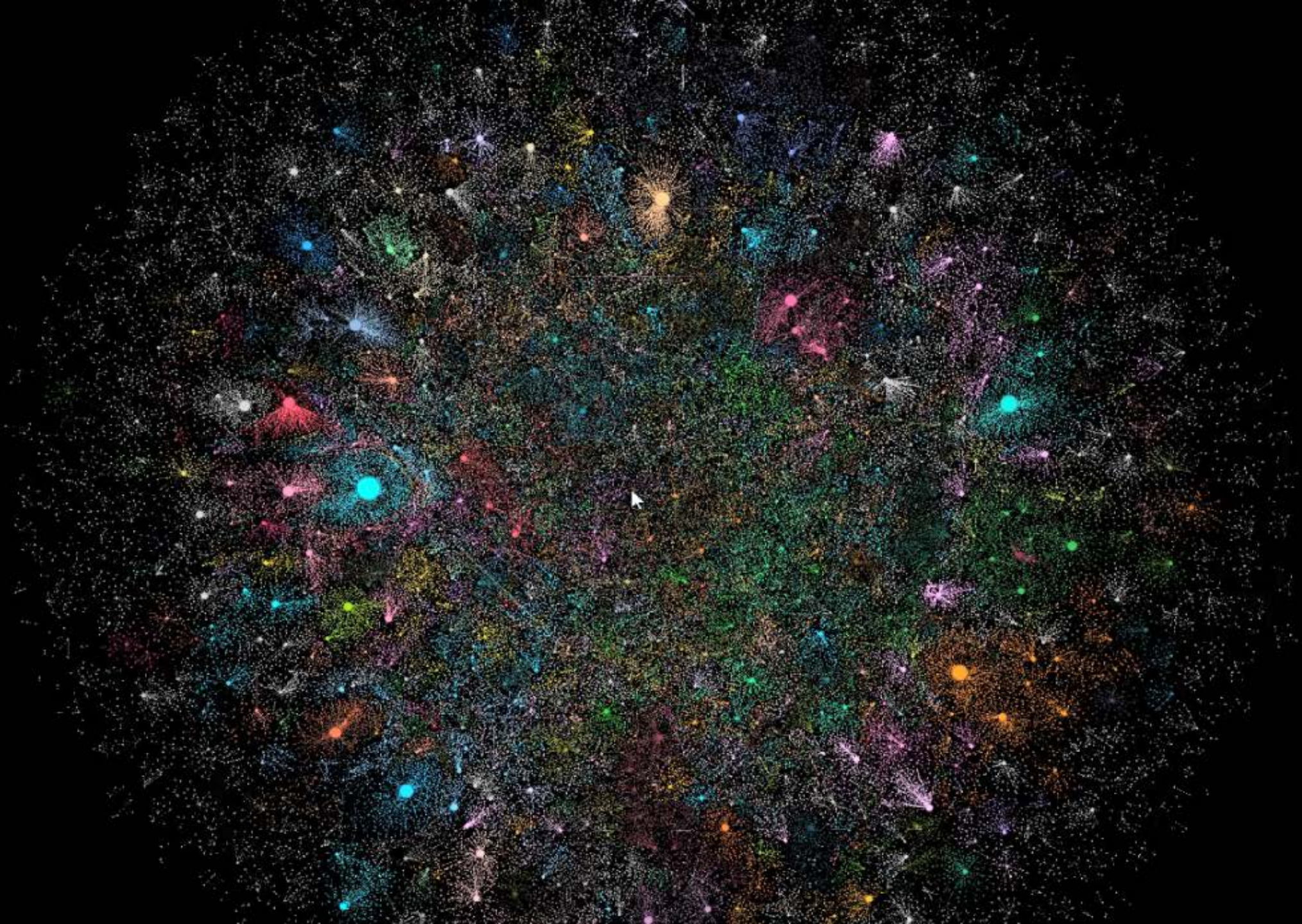
Investigating Bidding Patterns

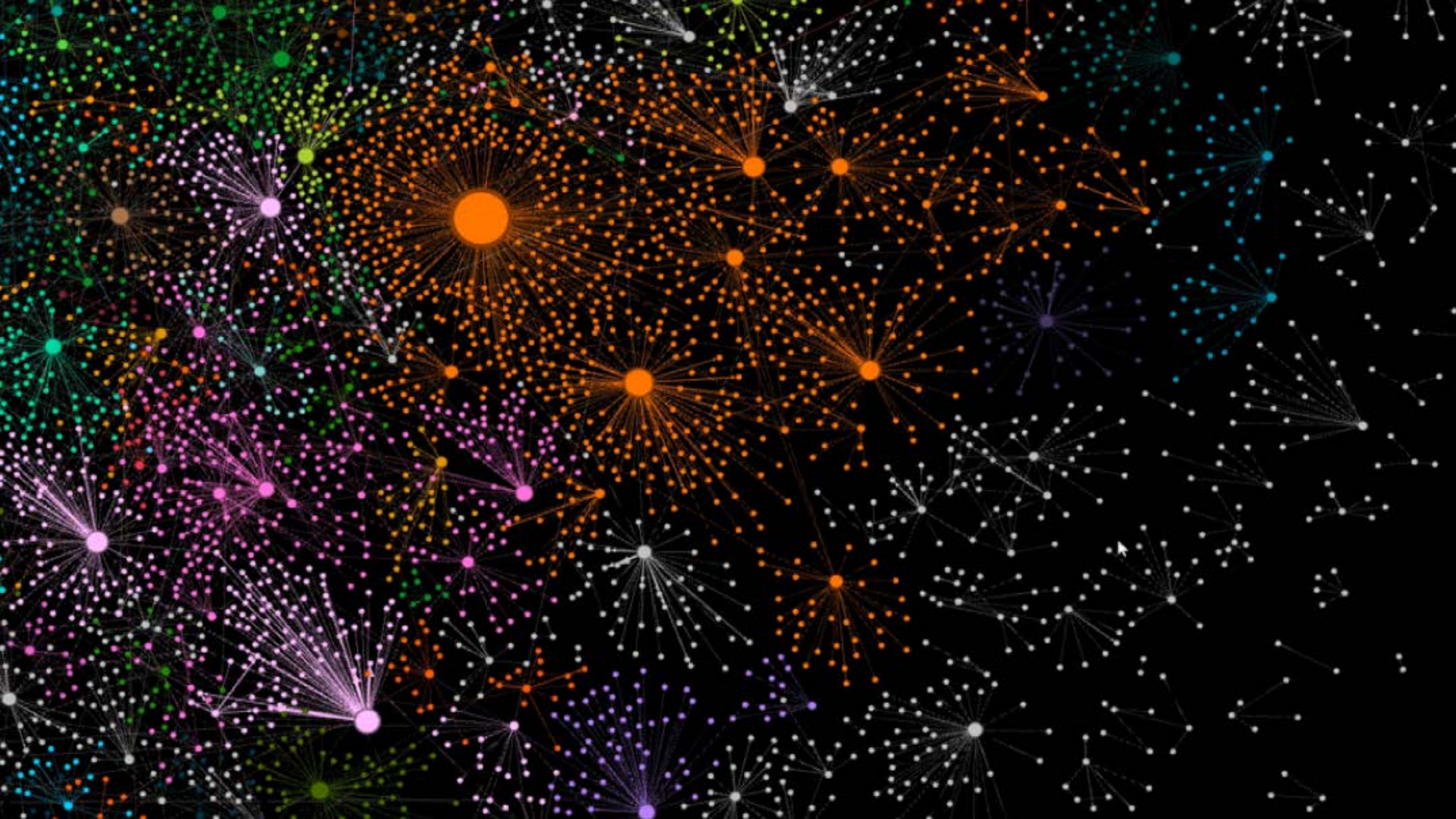
Front Companies



Collusion



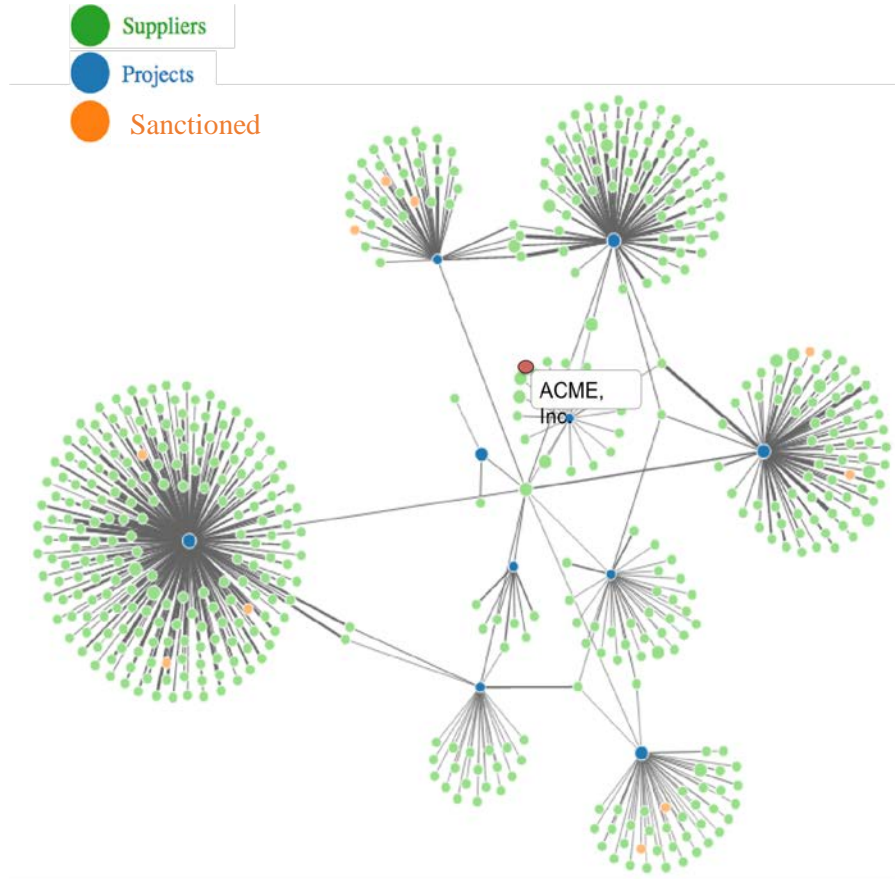






Using AI & Data Analytics to Identify & Mitigate risks

Making connections the human eye can't see



More connections possible...

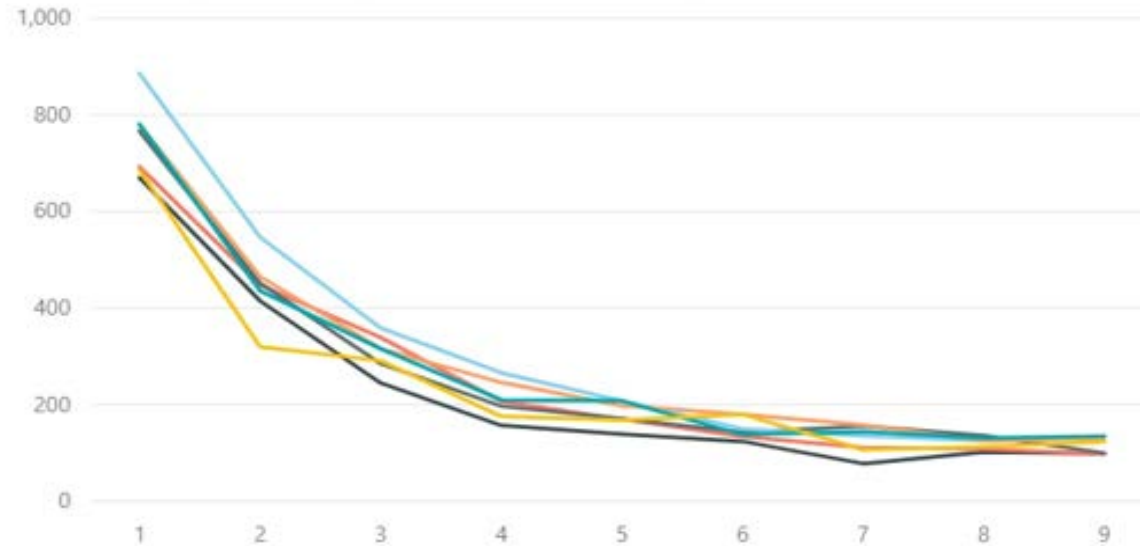
- Beneficial ownership information
- Property records
- Civil and administrative actions
- News reporting
- Social Media

Using AI & Data Analytics to Identify & Mitigate risks

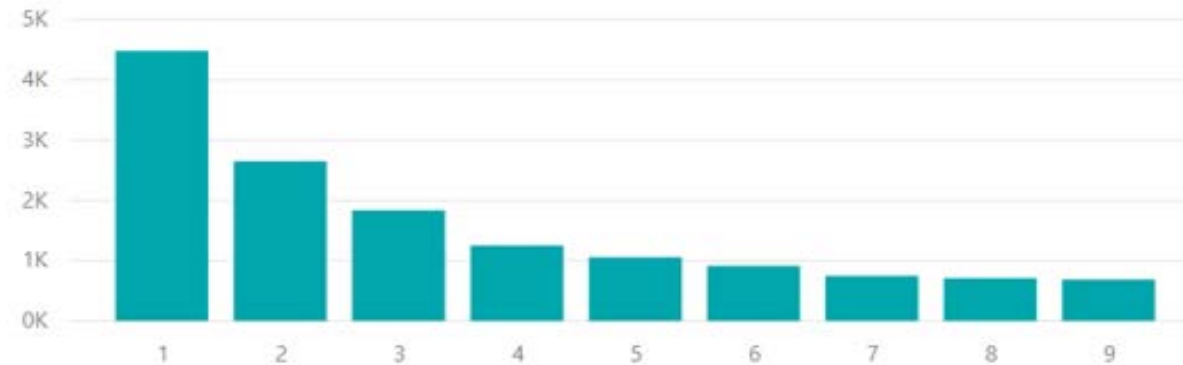
Benford's Law

Contracts by Count of First Digit by Year

Year of contract ● 2011 ● 2012 ● 2013 ● 2014 ● 2015 ● 2016 ● 2017

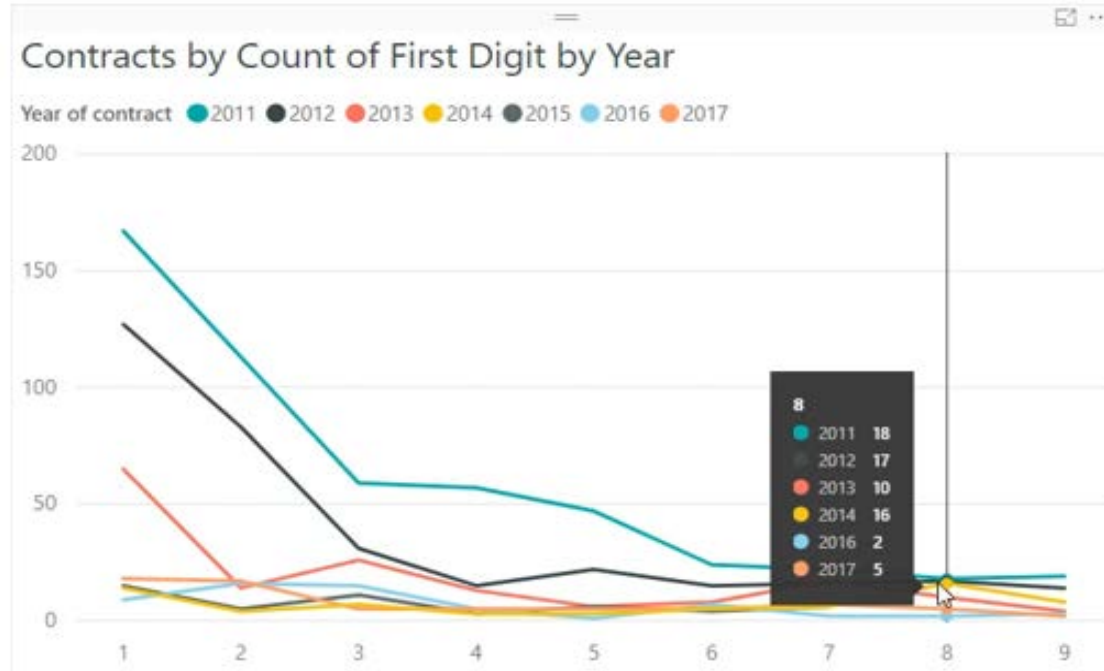


Contracts by Count of First Digit



Using AI & Data Analytics to Identify & Mitigate risks

Benford's Law: Identifying Anomalies





Building a
Culture of
Integrity
*WHAT AWAITS
THE NEXT
GENERATION?*



7th ICAC
SYMPOSIUM
廉政公署第七屆國際會議

THANK YOU

Stephen Zimmermann

