Agenda

• Peak Performance: Then and Now
  -- SRA Timeline
• Innovation Fund
  -- Demo: Situational Awareness Tool for Office of Special Events and Office of Emergency Management
• Peak Academy
  -- Analytics Highlight: DEH Inspections
• Next Steps
Original Peak Performance Framework

Citywide Goals / Impacts
- Youth
- Jobs
- Safety Net
- Sustainability
- Customer Experience

Strategic Planning
- Strategic Plan
- Performance Metrics
- Analysis
  - Dashboard Development
  - ID Value Streams
  - ID & Prioritize Innovation Opportunities
  - Create Innovation Plan

Innovate!
- People
- Process
- Technology
  - JDIs – Just Do Its
  - RIEs – Rapid Improvement Events
  - Projects - Larger scope, usu. Multi-agency
  - New/Updated Technology
  - Strategic Resource Alignments (SRAs)

Innovation Fund $

Celebrate!
- Financial
  - Hard $ Savings (budget impact)
  - Soft $ Savings
- Service Level Improvements
- Human Development

DENVER TECHNOLOGY SERVICES
CONNECT WITH US  311 | POCKETGOV | DENVERGOV.ORG | DENVER 8 TV
Key Takeaways:
1. Mayor must commission the work and make the implementation decisions.
2. When consulting is required, specialists are better than generalists.
Innovation Fund

Andrea Denis, Director
TS Program Management Office
Innovation Fund Facts

• Formed in 2008
• Originally called Information Technology Investment Council (ITIC)
• Executive Sponsor is Mayor’s Office representative
• Chaired by BMO
• Comprised of 11 standing members from CFO, CIO, CAO, OHR, CPD, DHS, MOS, DPR, DPW
• Annual Investments ranged from $4.2 million – $11 million
• Transitioned from IT System Upgrades and Replacement Projects to Innovations

**iFund Mission:** To measurably improve CCD operations and service delivery by investing in breakthrough and continuous improvement programs and projects.
The Portfolios

- Technologies that improve business processes and/or operations that can be disruptive
- Technologies that help grow the institution within the current business models
- Technologies that are embedded in operation
iFund Portfolio Metric

- **Transform (4)**: 2015
- **Grow (9)**: 2015
- **Run (4)**: 2015
- **Transform (4)**: 2016
- **Grow (5)**: 2016
- **Run (2)**: 2016
- **Transform (5)**: 2017
- **Grow (2)**: 2017
- **Run (2)**: 2017
- **Transform (8)**: 2018
- **Grow (4)**: 2018
- **Run (1)**: 2018
2017 iFund Project Schedule, Scope, Budget

Project Snapshot

- # of Projects
- Within Budget?
- Within Scope?
- On Time?

Legend:
- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec
Accela Example: Run to Transform

• Core project = Run
• Recent projects = Transform!
• Accela Citizen Access (ACA)
• 5 Quick Permits (Roofing/Siding, Boiler/AC, Mechanical, Plumbing, Electrical)
  -- Comprises 80% of Quick Permit volume
  -- 70% online adoption rate within 1 month
  -- 150-200 permits now issued daily
  -- Reduced counter wait times from 1 hour to 30 minutes or less
  -- Resulted in 90% Customer Satisfaction rating
• Short-term Rental
  -- 100% automated
  -- Issued 2,000 licenses online since August 2017
• Neighborhood Inspections in the Field
  -- 15% increase in Building Inspector productivity
  -- 20% increase in ZNIS Code Officer productivity
Situational Awareness Example: Transform

- Geospatial situational awareness application
- Purpose: To monitor the impacts of emergencies and special events on the community and day-to-day city operations.
- Can be used by public safety, transportation, event management agencies, stakeholders and the public
- Live Demo
2018 Innovation Investments

• DPD Mobility in the Field (Computer-Aided Dispatch to Smartphone)
• Chatbot for Customer Relationship Management
• Smart City Downtown Living Lab
• Salesforce
• Accela
• Workday Expense Module
• Workday Accounts Receivable Module
• Electronic Warrants
• Data Transformation
• Time and Attendance System
• Fleet Management System
• District Attorney Diversion Program Case Management
The following are examples from a software demonstration of the Situational Awareness tool
Situational Awareness:

Building an operations dashboard for emergency management
Objective

Create a geospatial situational awareness tool to be used by public safety, transportation, event management agencies, stakeholders and the public to monitor impacts of emergencies and special events on the community and day-to-day city operations.

- Use existing GIS tools and internal resources
- Use current internal and open-source data
- Streamline and consolidate pre-planned road closure information
- Imbed a real time awareness of safety in the public domain
Previous State

No ability to quickly and effectively assess impacts of an emergency or special event on the community.

<table>
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<tr>
<th>August 10-21, 2016</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tr>
<td>Key: Impact (0-50): YELLOW</td>
<td>Event Category</td>
<td>Location</td>
<td>Event Held in Council District Set Up</td>
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<tr>
<td>Mid Impact (50-100): ORANGE</td>
<td>Special Events</td>
<td>Traffic</td>
<td></td>
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<tr>
<td>High Impact (60-100X plus): RED</td>
<td>Special Events</td>
<td>Traffic</td>
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* Denotes Site Map

<table>
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<th>Friday, August 12th</th>
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<tr>
<td>1. 2016 Annual Holy Family Festival</td>
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<tr>
<td>2. Last Fling Free Concert</td>
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<table>
<thead>
<tr>
<th>Saturday, August 13th</th>
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<tbody>
<tr>
<td>1. 10K for Food Allergy</td>
</tr>
<tr>
<td>2. Back-to-School Family Night</td>
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<tr>
<td>3. Jefferson Park Farm and Flea Market</td>
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<tr>
<td>4. Denver Opera</td>
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<tr>
<td>5. South Park Hill Run &amp; Rumble</td>
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<tr>
<td>6. Awakening Colorado Memorial Run</td>
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<tr>
<td>7. 2016 Annual Holy Family Festival</td>
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<td>8. CO2 Annual 5K</td>
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Emergency

Status?
Identifying the Data sources

911 Calls
- Data is replicated to a SQL Server DB out of CAD system at near real-time

311 Cases
- Data is replicated out of Salesforce database to Oracle DB warehouse every 15 minutes

Special Events
- Spatial data didn’t exist; business process change; web-based editing app to create data; join with tabular data

Xcel Power Outages
- [https://xcelenergy-ags.esriemcs.com/arcgis/rest/services/XcelOutage/MapServer/](https://xcelenergy-ags.esriemcs.com/arcgis/rest/services/XcelOutage/MapServer/)

Stream Gauge Levels
- [https://data.digitaldataservices.com/arcgis/rest/services/UrbanDrainage/](https://data.digitaldataservices.com/arcgis/rest/services/UrbanDrainage/)

Traffic Conditions
- [http://geospatialdenver.maps.arcgis.com/home/item.html?id=ff11eb5b930b4fabba15c47feb130de4](http://geospatialdenver.maps.arcgis.com/home/item.html?id=ff11eb5b930b4fabba15c47feb130de4)

Weather
- [http://geospatialdenver.maps.arcgis.com/home/item.html?id=da53700b1f324cc685c4d3bcc00c12f6](http://geospatialdenver.maps.arcgis.com/home/item.html?id=da53700b1f324cc685c4d3bcc00c12f6)

Road Closures
- Closures associated with Special Events created with OSE data; point data pulled from permitting database (Accela); planned improvements

Critical Facilities/Basemap
- SDE/Enterprise GIS Datasets
Future Development

- Build additional agency-focused dashboards
  - Fire, Police, 911, 311
- Road Closure data – business process improvements
- Multi-view dashboards (focused pages with additional analytics, Power BI)
- Social media feeds
- AVL feeds (GeoEvent Processor)
Questions?

Office of Emergency Management & Homeland Security
Email: EOC.Operations@Denvergov.org
Phone: 720-865-7600 (main)
Denver Peak Academy

2017 Report
Denver Peak Academy

Two Offerings:

Training and Partnership

**Training:** Black Belt and Green Belt

**Partnership:** 6-12 month assignment where a Peak analyst is assigned to work with a city agency to move the needle on 1-3 major processes selected by the agency. Agency makes a commitment to training employees, focusing on key measures, and supporting and giving structure to innovations. The agency signs a statement of work with Peak.
Denver Peak Academy

What is a Peak Partnership and what are the results?

Peak Partnership

Executive Leader:

Lag measures

Training, Data, Facilitation, Innovation

Frontline Employees:

Lead measures
MOVING THE NEEDLE WITH PARTNERSHIPS

PRESENTED BY DREW BROWN
PARTNERSHIPS

• “embed” in an agency for 6-12 months
• Work on 2-3 larger issues
• Train front line staff in black belt and green belt
• Facilitate innovation workshops
• Coach leadership
• Analytics and dashboarding

Building a ‘School of Innovation’ and Finding Ways to Improve Local Government
PUBLIC HEALTH INSPECTIONS
THE +/Δ

- 50+ active cases per investigator
- Inconsistent regulation enforcement
- No formal onboarding procedures
- Sporadic job duty training
- Minimal supervision
Reduce overall caseload

Increase consistency of regulation enforcement
Current State

- 150+ regulations to enforce
- 50+ active cases per investigator
- Complaint based
- One case had been open since 2002!
- Mold, bed bugs, hoarders, etc.
- Pools, tattoo parlors, shelters
### 90+ Day Complaints

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<tr>
<th>Investigator</th>
<th>Received Date</th>
<th>Days Open</th>
<th>DEHID</th>
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<tbody>
<tr>
<td>Reid Matsuda</td>
<td>8/18/2017</td>
<td>112</td>
<td>2017-RH-CMP-0641</td>
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<td>Joshua Vidal</td>
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<td>2017-RH-CMP-0676</td>
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<td>Nathan Mueller</td>
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<td>Antonio Pasquarelli</td>
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### 120+ Day Complaints

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<td>Keith Smith</td>
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COMPLAINT MAP
Housing Team Active Case Dashboard

- Antonio Pasquarelli
- Emily Andrea
- Joshua Vidal
- Keith Smith
- Nathan Mueller
- Reid Matsuda

**Average Days Open**: 172
**90+ Days**: 164
**120+ Days**: 140
**Total Open Cases**: 320

Last Refresh: 12/8/2017
Planned Next Steps

- Shift from organizational reporting to value stream focused on mayoral priorities.
- Incorporate “the future”
  -- Futurist thought into policy-making
  -- Predictive analytics to make existing wealth of data more actionable