Smart & Healthy Buildings Readiness Cohort
INNOVATION     COLLABORATION      INCLUSION

MAYOR JERRY L. DEMINGS

LEADERSHIP

ORANGE COUNTY, FLORIDA

MAYOR JERRY L. DEMINGS
1 Resident x 62 Tourists each year
Orange County Convention Center

MORE THAN 29,300 INDIVIDUALS ARE EMPLOYED BY THE ACTIVITY GENERATED AT THE OCCE.

$2,229 AVERAGE ECONOMIC IMPACT PER DELEGATE.

$3 BILLION IN ESTIMATED ECONOMIC IMPACT FISCAL YEAR 2018 - 2019.

MORE THAN 1,200 BUSINESSES IMPACTED BY OCCE ACTIVITY.

CENTER'S ACTIVITY YIELDS TAX SAVINGS OF $121 PER ORANGE COUNTY HOUSEHOLD.
Economic Impact

• Approximately $3 billion in economic impact to the Central Florida region
• Nearly 200 events, conventions, and trade shows
• More than 1.5 million attendees to the destination annually.
Orange County Convention Center

- 2nd largest Convention center in the U.S.
- More than 7 million square feet across two main buildings
- Certifications
  - LEED Gold for Existing Buildings
  - GBAC Star
  - ISO 14001 EMS
- 3 full-service restaurants & 8 food courts
Making OCCC a Model of Innovation & Health Safety

• ‘Back to Business’ Performance & Assurance real-time monitoring
• Launch customer facing applications for improved user experience
Orange County Convention Center

SUSTAINABILITY ACTION PLAN 2040 GOALS

MOBILITY & ACCESSIBILITY → SUPPLY CHAIN → MATERIALS MANAGEMENT → HUMAN EXPERIENCE → BUILDINGS & INFRASTRUCTURE

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GOAL 4:
BEGINNING IN FY21, COUNTY-FUNDED BUILDINGS AND INFRASTRUCTURE WILL MEET NEW HIGH-PERFORMANCE AND GREEN BUILDING STANDARDS

GOAL 5:
ALIGN ENERGY MANAGEMENT STRATEGIES ACROSS COUNTY DEPARTMENTS TO REDUCE 30% OF BUILDING AND INFRASTRUCTURE ENERGY USE BY 2025

GOAL 6:
REDUCE RISKS FOR COUNTY SERVICES AND INFRASTRUCTURE BASED ON REGIONAL RESILIENCE INDICATORS AND UPDATED MITIGATION PLANS
What we will achieve

- **Safety & Health:** “Back to business” and occupant level comfort and confidence.
- **Cost Savings:** Building operations efficiencies and risk mitigation
- **MEP Infrastructure Asset Tracking:** Inventory management, CIP planning, and predictive/preventative maintenance
- **Human Experience:** Improved user and occupant experiences
- **Revenue Co-Generation:** Location based attendee experience
Metrics / KPIs

- **Safety & Health:** Satisfaction surveys, Air Quality Status Shareable Dashboard:
  
<table>
<thead>
<tr>
<th>Temperature</th>
<th>Humidity</th>
<th>CO₂</th>
<th>VOC</th>
<th>PM₂.₅</th>
<th>PM₁₀</th>
<th>O₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>76 °F</td>
<td>22 %</td>
<td>1066 ppm</td>
<td>820 ppb</td>
<td>0 µg/m³</td>
<td>0 µg/m³</td>
<td>759 ppb</td>
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</tbody>
</table>

- **Cost Savings:** Building operations efficiencies and risk mitigation
  - Metrics: kWh, kW, kGal, therms, CW tons ($)
  - Forecasted based on real building data and verified with BAS and load management system
Metrics / KPIs

• Revenue Co-Generation:
  • Product Sales
  • Ads and clicks
  • Company relocations
  • Economic development
  • Research to commercialization
  • Mergers and acquisitions
  • % of Local sales
  • # of local jobs created
Applications

- Large areas, long range, remote monitoring, remote alarms
- Indoor air quality, health, and safety monitoring
- Electric/Gas/Water for whole building data
- Life/Safety systems – Fire
- Leak detection
- CCTV upgrade enhancements
- Predictive/Preventative maintenance: pumps, AHUs, bathrooms, water lines
- Digitization of asset status, condition, performance
HVAC Desired Control Points

- Particulate
- CO2
- VOC
- Foreign contaminant
- Bipolar ionization
- Static Pressure
- In room sensors at breathing level
System Integration

- BAS: JCI / Honeywell
- Door: Lenel
- Fire: Simplex
- Lighting: Lutron (partial)
- CCTV: Aviglion
Discovery & Development Toolkit

- Drawings
- Inventory/Scope
- Utility metrics
- Equipment brands
- Minimum specs
- IT Enterprise Security Standards & Requirements
- MWBE Requirements