IT Technology Community

A Community of IFMA

The IT Community is committed to providing appropriate and relevant content to the GLOBAL community utilizing a broad range of communication and publication platforms.

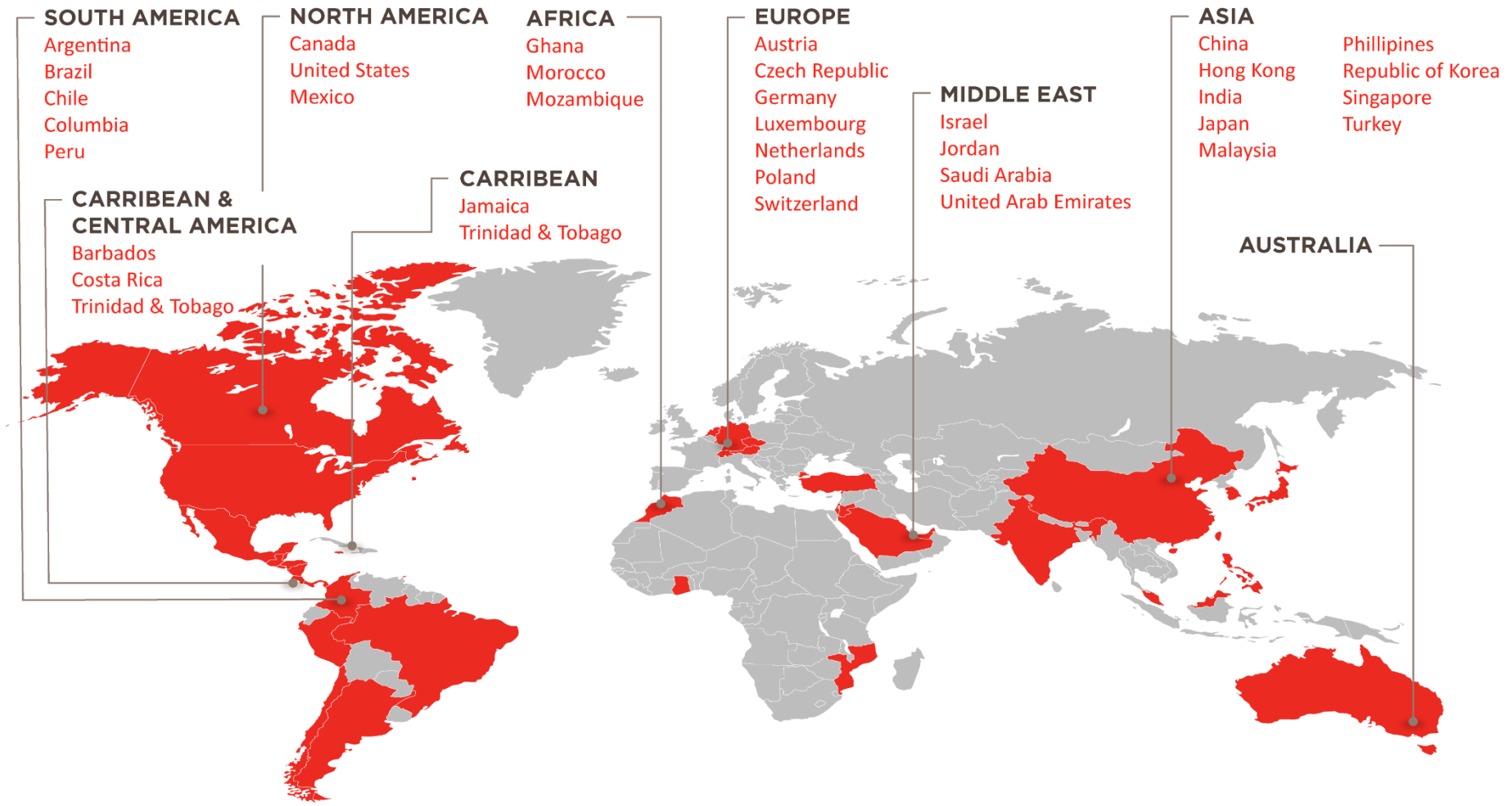
We continuously answer the question,

"How does Technology Support CRE & FM?"

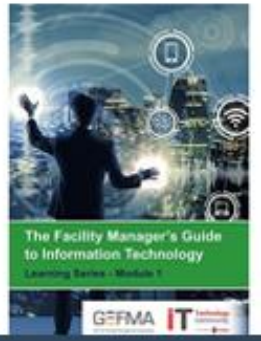
We want to collaborate to share the best case studies!

Many thanks to our Members

We have over 250 Members from over 30 countries



iT Technology Community
A Community of IFMA



Technology Community

A Community of IFMA

Resources

Piloting a Successful Digital Twin Project

LandTech Consultants

ENGINEERING | GEOSPATIAL | REALITY CAPTURE | DIGITAL TWIN TECHNOLOGIES

esri Partner Network Bronze

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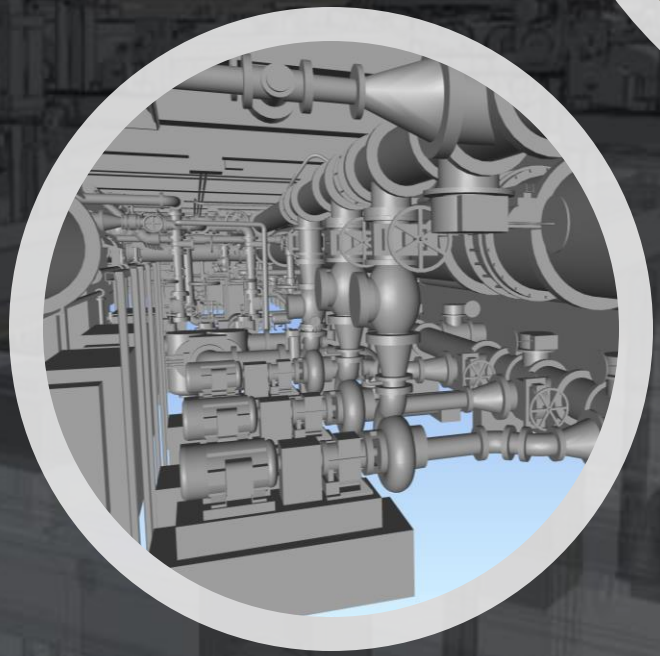
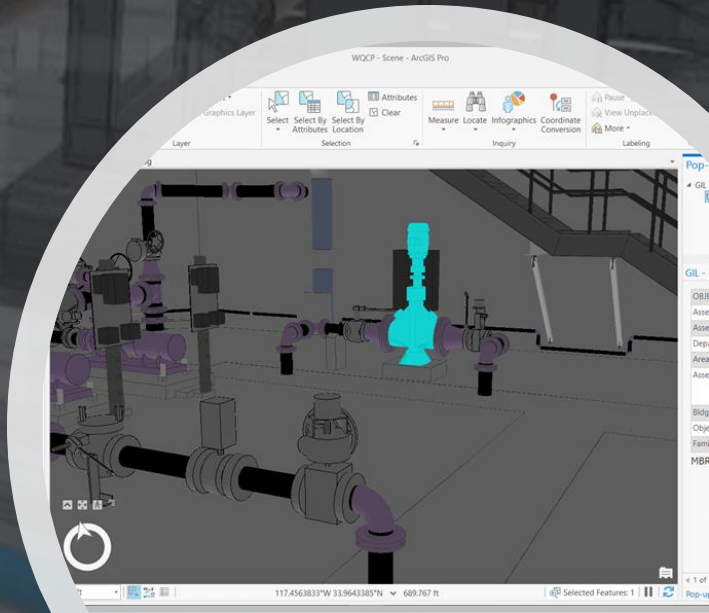
Digital Twins

- What are they?
- Benefits and Features





Poll #1

Successfully Piloting Digital Twin Projects

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So, what’s a pilot

Let’s make sure we’re on the same page…

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A few examples of pilots…

…not exactly what we mean, though

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But this…this was a good pilot!

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What is a pilot project?

- AI Overview: "…a small-scale, preliminary experiment that helps determine the feasibility, effectiveness, and potential outcomes of a larger project before it's fully implemented."
  - Proof of concept
    - New ideas
    - *New-to-us* ideas
  - Test Viability
    - Understand how something works
    - Understand potential issues
    - Test workflows

Seinfeld tested New Ideas

Multiple individual storylines
Antiheroes
Single camera
Fast-paced, quick cutting
Music-led style

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Why do we do pilot projects?

- Manage Risk
- Reduce Uncertainty
- Increase confidence
- Develop a more detailed…
  - Understanding
  - Scope of work
  - Technical requirements
- To get to know each other better
- Bridge gap between research and full implementation

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How do we do pilot projects?

- “Just Enough”
  - Dependent on org and goals
  - Minimize investment to make a decision
- Project Placement
  - Standalone evaluation
  - Phase 1 of larger project
- Setting Objectives
- Who’s involved
  - Stakeholder engagement
  - DIY vs. Vendor-Supported

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What should you watch out for?[1]

- Rushing
- Disorganization
- Un/mis-matched expectations
- Unclear direction
- Too long?
- Resource constraints

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[1]You guessed it.

Poll #2

Successfully Piloting Digital Twin Projects

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GIS Based Digital Twin

Proof of Concept

Water Demo

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Proof of Concept Video

Examples

City of Dekalb, Illinois: Digital Twin

- Pilot Objective: Onsite/Offsite access to asset location and related information
- Scope: Scan-to-GIS, 2 of 5 facilities; Build links asset management system and related documents

"Prior to working with LandTech, identifying individual assets inside of the facility was extremely difficult." Justin Netzer, Utility Superintendent

Benefit: *Seeing is Believing*

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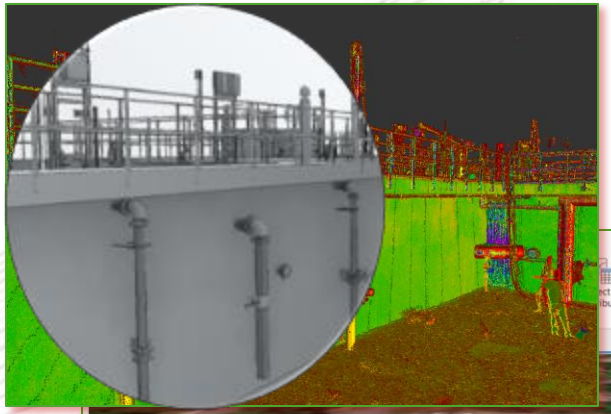
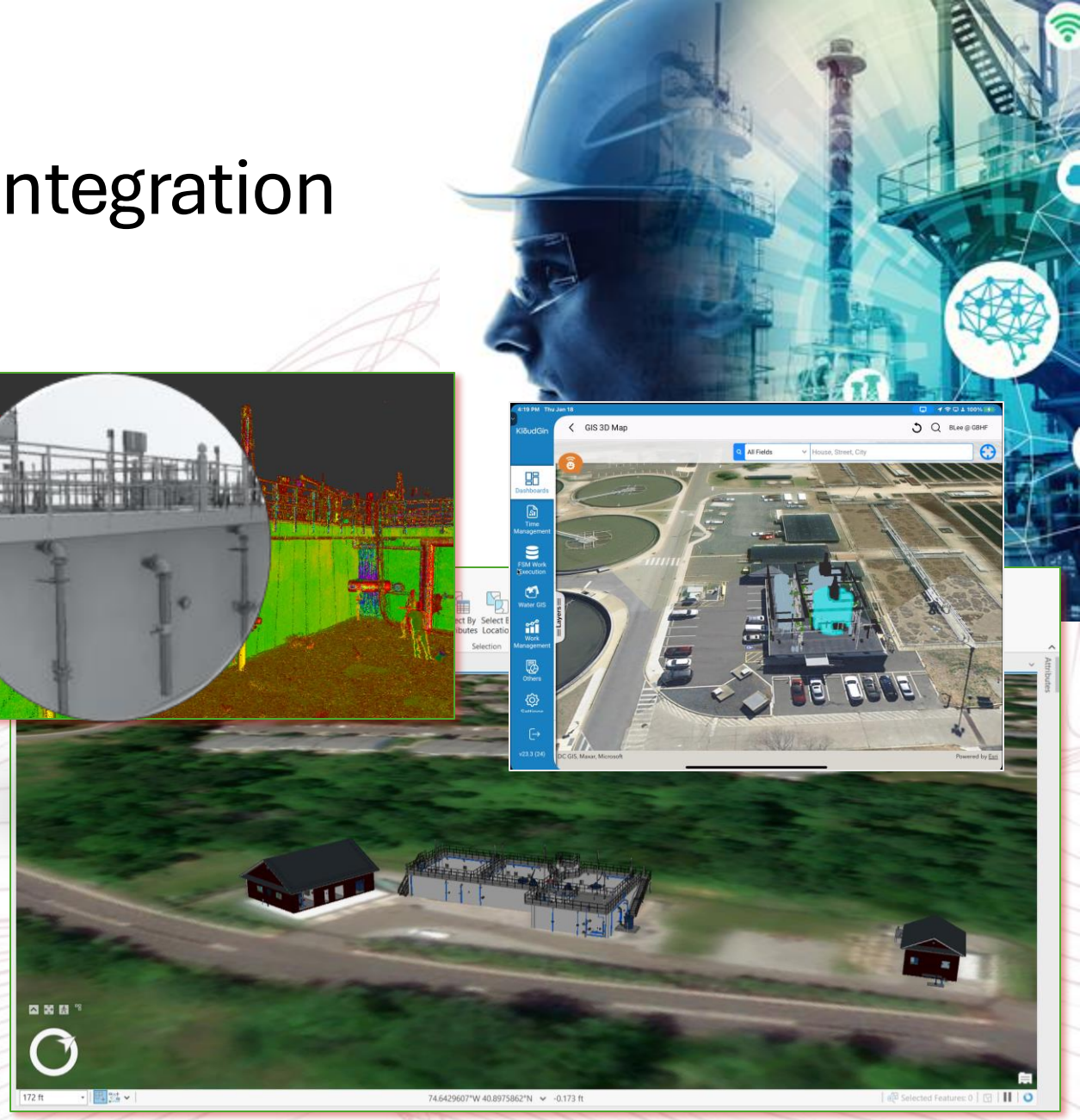
Veolia: Mobile Work Order Integration

- Pilot Objective:
  - Create easy way to identify, locate, and interact with vertical assets and the work order process
- Scope:
  - Scan-to-GIS
  - Integrate with WMS
  - Create 3D mobile capabilities
- Lessons
  - Esri bug identification (WMS compatibility)
  - Building interest





Benefit: *Testing Viability, creating demo resource*

City of Riverside, CA: Digital Twin

- Pilot Objective: Create 3D geodatabase capable of integrating with Oracle asset management platform.
- Scope:
  - Scan-to-GIS
- Lessons
  - Building interest

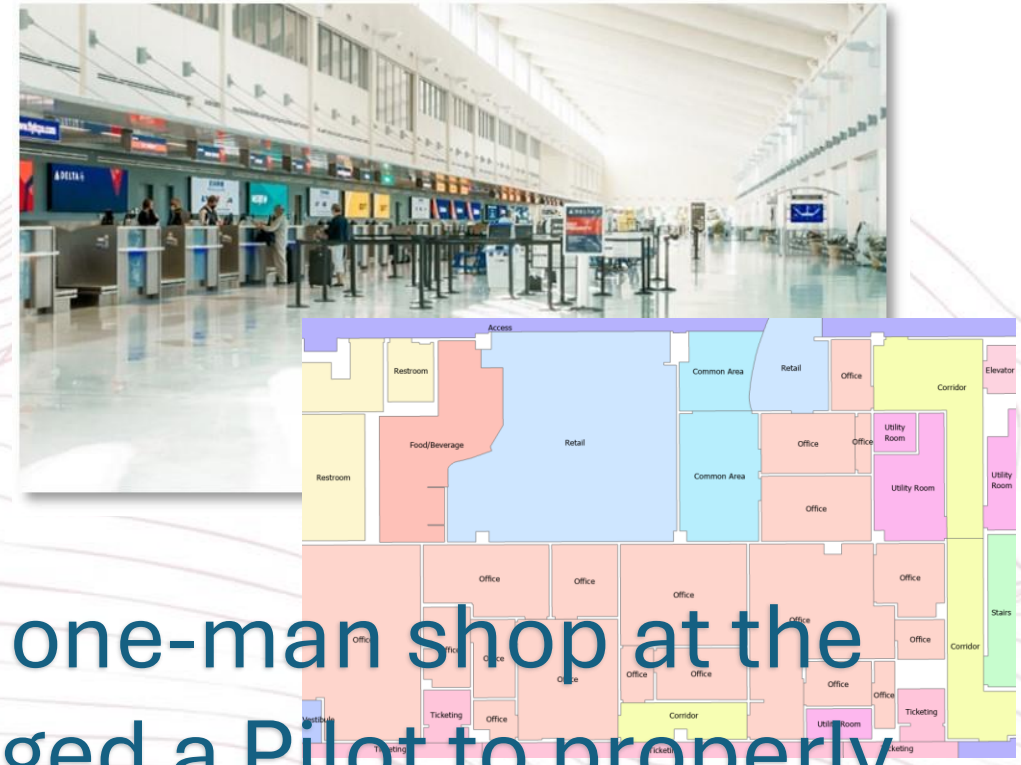
After seeing LandTech's capabilities, we immediately recognized 3D GIS as a solution to improve our vertical asset management for our treatment plant.

Ernest Marquez, Principal Engineer

Benefit: *Seeing is believing; Sharing is caring.*

LCPA[1]: ArcGIS Indoors Proof of Concept

- Pilot Objective: Quickly implement to understand capabilities and workflow resource requirements.
- Scope:
  - Data Migration
  - Content Creation
    - Indoors Viewer (2)
    - Mobile App
    - Routing
- Lessons
  - Building interest



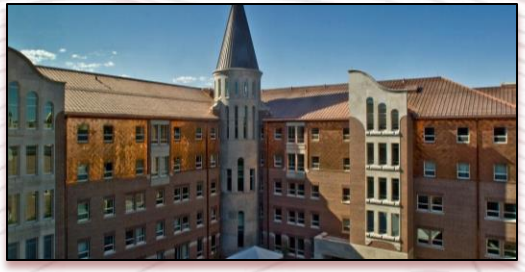
LCPA was a one-man shop at the time…leveraged a Pilot to properly evaluate the system.

Benefit: *Fast-track understanding.*

[1]Lee County Port Authority, Southwest Florida International Airport, Fort Meyers, FL

University of Denver: ArcGIS Indoors for Space Management

- Pilot Objective: Phase 1 of larger full-scale implementation.
- Scope:
  - 4 buildings*
  - Data Migration
  - Content Creation
    - Base apps (2D only)
    - Custom applications and workflows
- Lessons
  - Broad stakeholder involvement
  - Investment in Discovery
  - Refining technical requirements
- Unanticipated Benefits
  - Team building and orientation
  - Trend identification
  - Review/refine existing processes



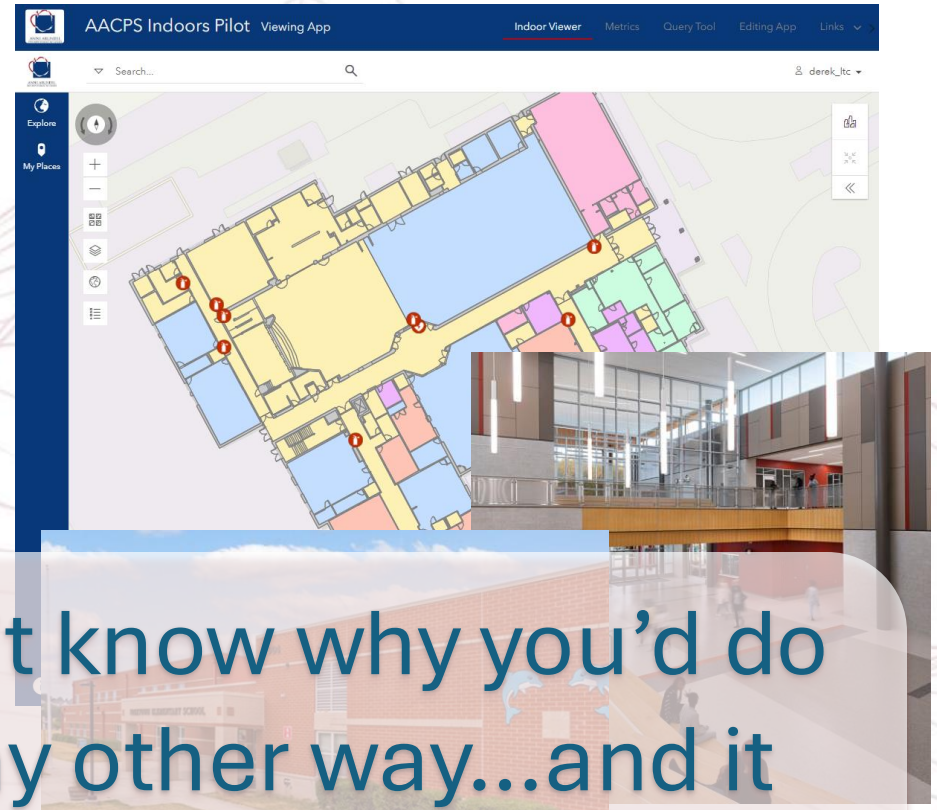
Benefit:

Refine Requirements; Test the Limits; Build Support

Anne Arundel County Public Schools

ArcGIS Indoors Proof of Concept

- 85,000 students, 120+ schools
- Pilot Objective:
  - Need a better way to manage and organize floorplans and space data for general inquiries, internal and external reporting and analysis
- Scope: 4 buildings
- Lessons
  - Started small, built piece by piece
    - One school at a time
    - Import
    - Simple app to collect and verify
      - Iterate, iterate, iterate
    - Additional apps to meet objectives



I don't know why you'd do it any other way...and it builds trust in the vendor.

Howard Hartlein, *Architect, AACPS*

Benefit: *Test viability; Build trust.*

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Conclusions

Pilots are a good idea

Pilots succeed when you…

- Don’t take them too lightly
- Spend time understanding your “Why”
- Explicitly define what you want to get out of it
- Commit to the project and process
- Realize the non-obvious benefits
  - Team building, hidden trends, related process improvements

Questions?

Thank you!

Contact Info

Derek Lutchko
GIS Manager
PHONE: 978-692-6100 x115
EMAIL: dlutchko@landtechinc.com

Chris Lorrain
President
PHONE: 978-692-6100
EMAIL: clorrain@landtechinc.com

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