# WHICH FCA DATASET IS RIGHT FOR YOU?

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# AGENDA

| | |
|---|---|
| 🤝 | **Introduction** |
| 🍽 | **Setting the Table** |
| 📋 | **What is Integrated Asset Management** |
| 📰 | **All About the Data** |
| 💭 | **The Condition Continuum** |

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# INTRODUCTION

# INTRODUCTIONS – ROTH IAMS



## Bill Roth

➤ President & CEO of Roth IAMS

➤ Co-Founder of SLAM Technologies

➤ Over 28 years of experience collaborating with public sector institutions across North America on all aspects of facility and infrastructure asset management
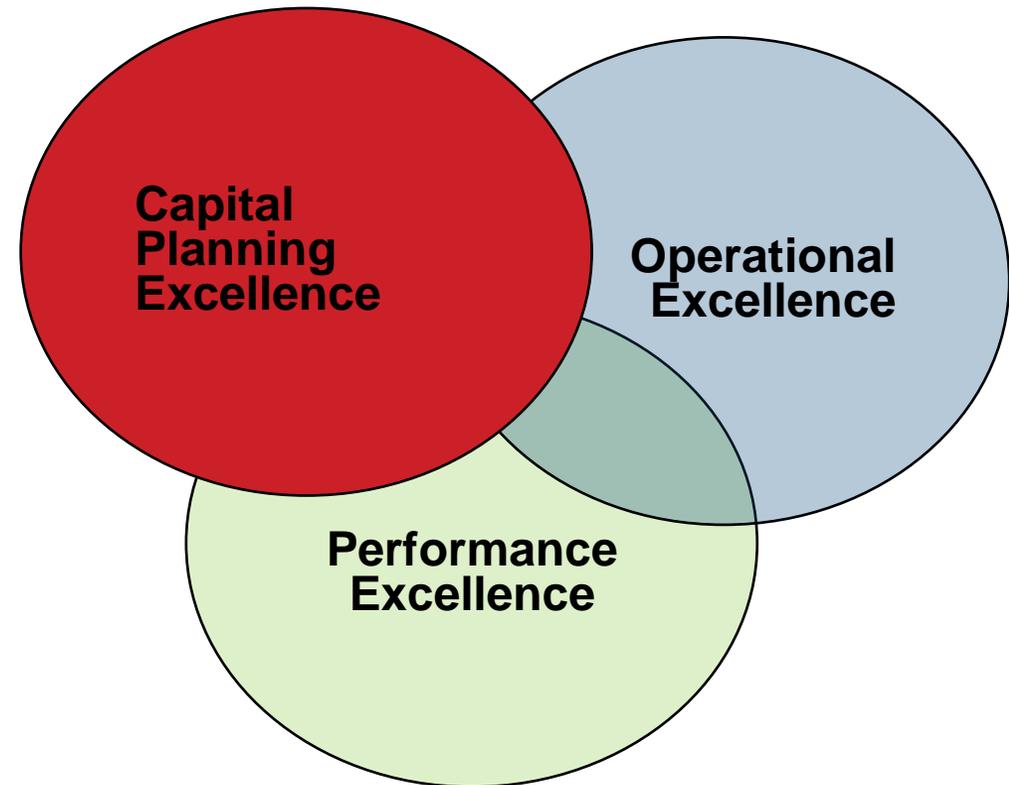
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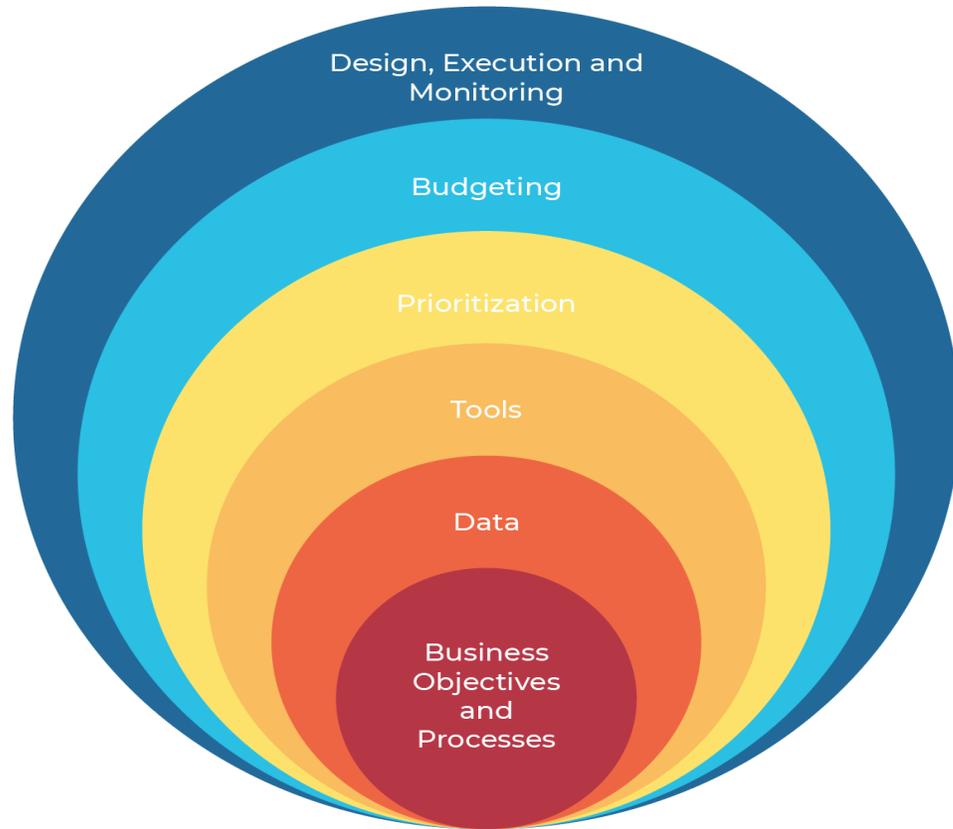# SETTING THE TABLE

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# WHAT IS INTEGRATED ASSET MANAGEMENT?

# IAM – WHERE IS OUR FOCUS NOW?

Capital Planning Excellence

Operational Excellence

Performance Excellence

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## The IAM Framework – "The Onion"

➤ As with everything related to Asset Management, we recommend that you start with gaining clarity of your Business Objectives and Processes

➤ Base your data decisions on the clarity gained about your business objectives and processes, considering both your current and future definitions of success.
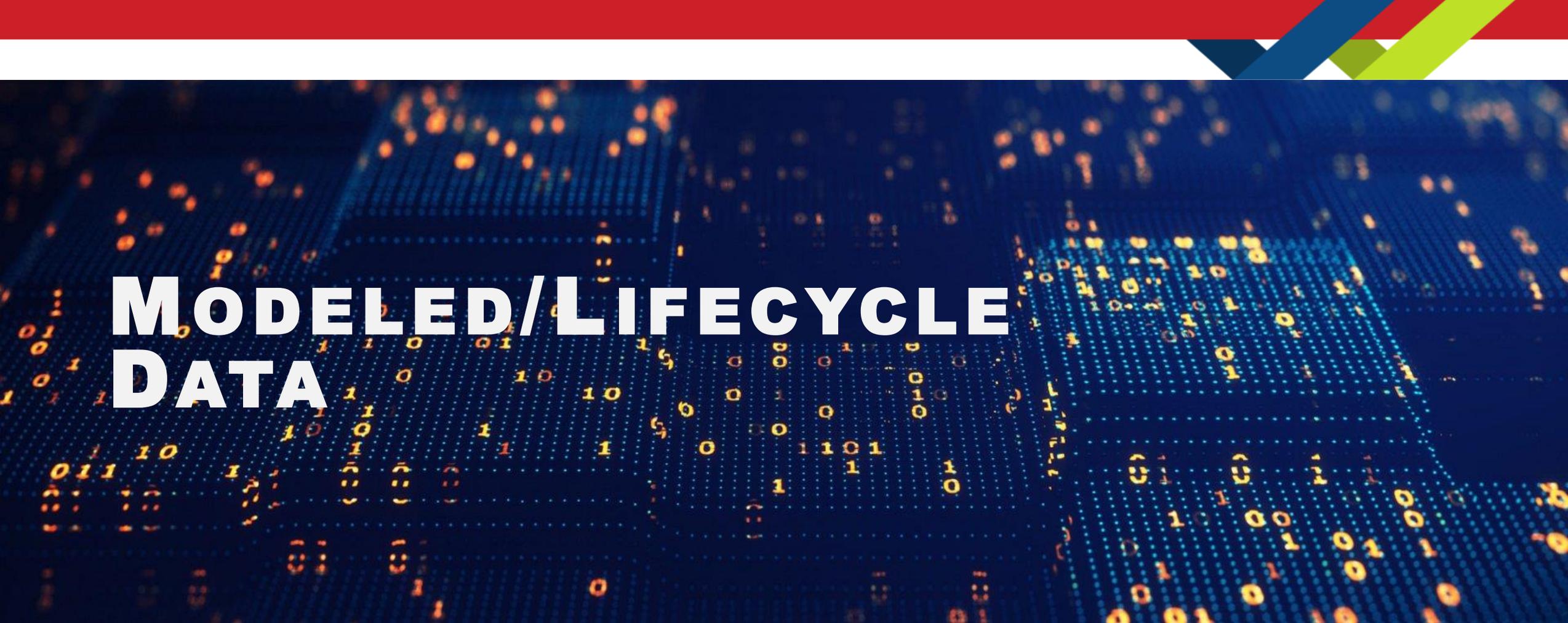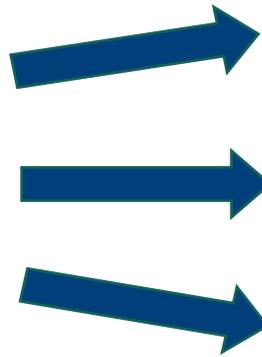
# MAIN TYPES OF DATA

Three Main Types of Data
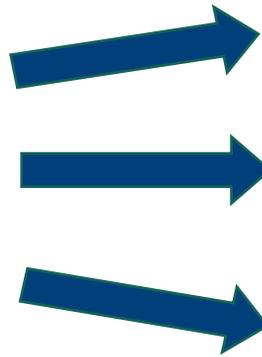
→ Modeled/Lifecycle Data

→ Time-Limited Forecast of Needs

→ Element-Level Inventory

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# Modeled/Lifecycle Data

# MODELED DATASETS

Three Types Modeled Datasets

Building-Type Models

Client-Informed Models

Validated Models

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# Building Type Models

➢ Categorize your portfolio into building types (use, construction type, etc.)

➢ Develop a high-level list of elements within a typical building or each type, with unit costs and Expected Useful Lives (EULs)

➢ Use the date(s) of construction and/or major renovation of the building as the baseline

➢ Create a lifecycle model for the theoretical elements within each building

# Client-Informed Model

➢ Standard list of elements is reviewed by knowledgeable staff within a client organization

➢ Actual elements present are confirmed and those not present are eliminated

➢ Confirmation and expansion on specific types of certain elements (Roof, Walls, Finishes)

➢ Date of Installation/Construction are updated at the element-level.

**Building Elements Checklist**

| BCIS ref | System | Comments |
|---|---|---|
| 1 | SUBSTRUCTURE (all work to underside of screed or lowest floor finish) | |
| | Excavations | |
| | Foundations | |
| | DPM | |
| | Concrete floor | |
| 2A | FRAME | |
| | Load bearing frame | |
| | Floor and roof beams | |
| | Roof trusses | |
| | Stanchion and beam casings for structural or protective purpose | |
| 2B | UPPER FLOORS | |
| | Upper floors | |
| | Continuous access floors | |
| | Mezzanines | |
| | Structural screeds | |
| | Suspended floors over basements | |
| | Balconies | |
| 2C | ROOFS | |

| | | |
|---|---|---|
| | Roof structure construction including eaves and verges, plates and ceiling joists, gable ends, internal walls and chimneys above plate level, parapet walls and balustrades | |
| | Roof coverings | |
| | Roof screeds and finishing | |
| | Flashings and trims | |
| | Insulation | |
| | Eaves and verges treatment | |
| | Roof drainage (note 5C) | |
| | Roof lights | |
| | Pavement lights | |
| 2D | STAIRS | |
| | Construction of stairs, ramps and landings other than floor levels | |
| | Ladders | |
| | Escape staircases | |
| | Stair finishes | |
| | Balustrades and handrails | |
| 2E | EXTERNAL WALLS | |
| | External enclosing walls | |
| | Chimneys forming part of external walls | |
| | Curtain walling, rails and cladding | |

# Validated Model

➢ Limited on-site assessment to adjust the modeled data
  ➢ Adjusted replacement values
  ➢ Condition rating
➢ Typically validates short-term modeled needs (5-Years) and leave the rest as purely modeled data
➢ Can include photos of elements, but not always



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# Benefits

➢ Great Place to Start Building Momentum
➢ Can be developed relatively quickly
➢ Least expensive method of gathering condition assessment data
➢ Provides an order of magnitude financial forecast of DCRM where none previously existed.



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# Limits of Modeling

➢ Not a real-world representation of the actual buildings within a portfolio
➢ Data cannot be used as the basis of an actual capital or maintenance plan due to a lack of granularity
➢ Critical to understand the limitations and reliability of the data when working with non-facility stakeholders

# When Modeling Works Best

➢ Getting started on an AM program

➢ Funding/time/resources are limited

➢ Looking for an order of magnitude for your Deferred Capital Renewal and Maintenance (DCRM) Backlog

➢ Portfolio has similar building types

➢ Limited availability of internal resources to manage data

➢ Don't have or plan to have Asset Management Software in-place



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# Time-Limited Forecast (TLF)

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# Time-Limited Forecast (TLF) of Needs

➤ On-Site Assessment that gathers data only on elements that have a recommended need within a specific time frame (Typically between 5 and 10 Years)

➤ Only anecdotal information gathered on the "rest" of the building

➤ Photos captured of all elements within the evaluation period of the report



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# Benefits of TLF

➤ Give a picture of the actual elements within a building and their actual condition beyond modeling

➤ Begin to gather condition rating and photos for some elements within a building

➤ Less expensive than a full element-level inventory



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SHELF LIFE
BY _____ DATE _____
EXPIRES _____

## Limits of TLF

- Data has a limited shelf life as time passes
  - Rots on the Vine
- Cannot project longer-term Facility Condition Indices or DCRM
  - Leads to short-term planning
- Reassessments are essentially "starting over"
- Limited ability to calculate CRV based on the dataset (Sum of the Parts)


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## When TLF Works Best

➢ Finance or acquisition-level reports for the private sector

➢ Initial on-site assessments

➢ Limited ownership time horizon

# Element-Level Inventory (ELI)

# Element-Level Inventory

➢ Gather detailed information on all elements within the building, regardless of remaining useful life
  ➢ Capture photographs
  ➢ Can include gathering of additional data (Make, Model Serial Number) on some elements
➢ Can include cyclical renewals
  ➢ Future additional replacement of certain elements with shorter Expected Useful Lives
➢ Most advanced condition dataset

# Benefits of ELI

➢ Ability to plan for the entire lifecycle of a building
  - ➢ Longer-term FCI trends
  - ➢ Unlimited forecasting period
➢ Detailed data that can easily integrate with Operations and Maintenance Planning (CMMS Integration)
➢ Reassessments require reduced effort
  - ➢ Assuming the data is kept up-to-date based on completed capital renewal projects
➢ Supports CRV calculation (Sum of the Parts and Other methodologies)

## Limits of ELI

➢ Highest cost scope of work

➢ Requires significant input from knowledgeable stakeholders

➢ Granular dataset requires additional resources to maintain overtime

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# When ELI Works Best

➢ Mature facility and asset management system/program in-place

➢ Desire to accurately forecast over a longer period of time (20 plus years)
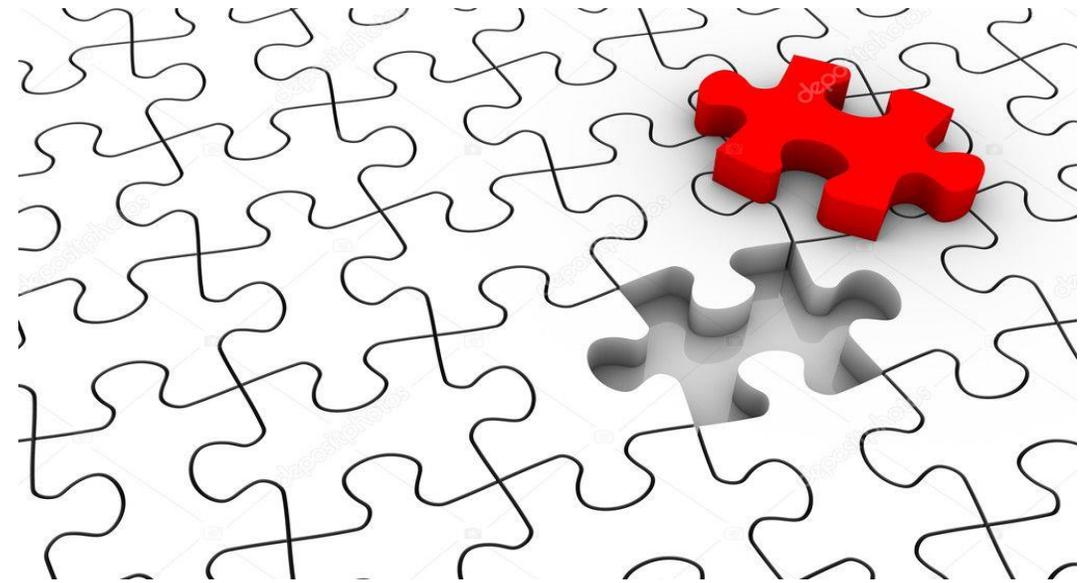
THE CONDITION CONTINUUM

# A Question for You?

# Webinar
## ASK BILL ANYTHING ABOUT FACILITY ASSET MANAGEMENT

Bill Roth is the CEO of Roth IAMS and the Co-Founder of SLAM Technologies.

📅 **Thursday, February 29th**      ⏱️ **12:00 PM**

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**10 YEARS** 2014 - 2024

▶ **REGISTER NOW**

**Go to our webinar page on rothiams.com/webinars to register**

**We've included a link in the chat**

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Q & A

# THANK YOU FOR ATTENDING

▶ Visit our website at **rothiams.com**
▶ Follow us on **LinkedIn**
▶ Connect with us directly through email at **bill.roth@rothiams.com** or call **(727) 247-9419**
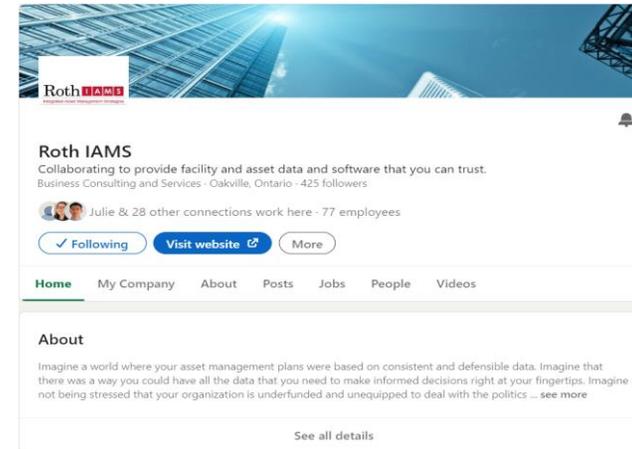


**Dive Into Our Thought Leadership**