



FINDING THE HOLY GRAIL: THE **INTEGRATION** OF CAPITAL AND MAINTENANCE PLANNING

AGENDA



Introduction

Integrating Capital & Maintenance

Plotting Your Course

One Final Thought

Q & A, Resources & Next Steps



INTRODUCTION



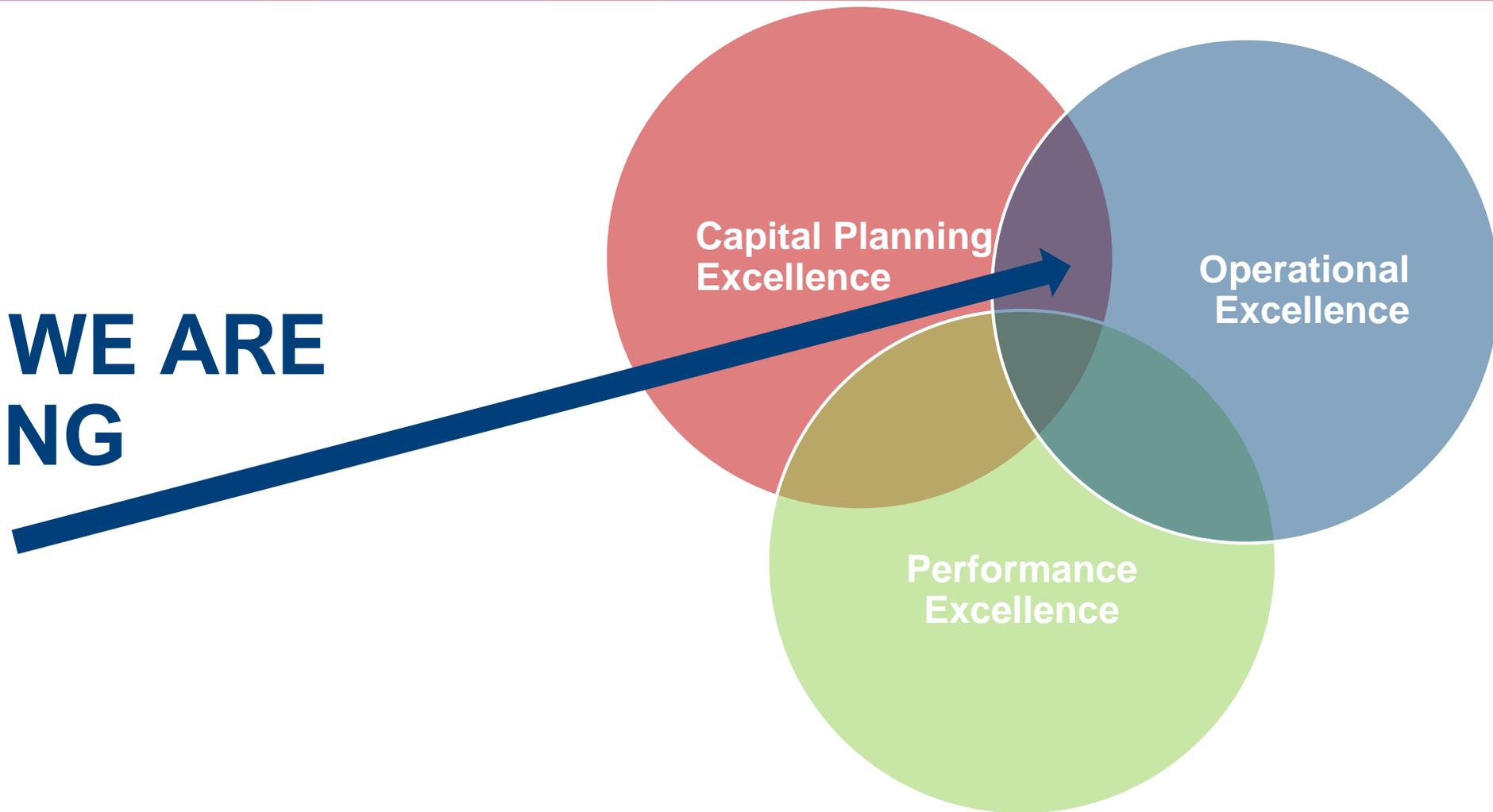
Bill Roth **President & CEO of Roth IAMS &** **Co-Founder of SLAM Technologies**

- Over 30 years of experience collaborating with education institutions across North America on all aspects of facility and infrastructure asset management
- Active member of many industry associations like FEFPA, APPA, NSPMA, NASFA and many others

FCAS ARE JUST THE BEGINNING OF INTEGRATED ASSET MANAGEMENT



WHERE WE ARE FOCUSING TODAY





INTEGRATING CAPITAL AND MAINTENANCE DATA

IMAGINE IF YOU WOULD...

- While assessing a Rooftop Unit being able to see relevant failure history and Preventive Maintenance (PM) details for that Unit
 - Allow you and your consultants to make more informed decisions about renewal timing
- Pulling up a Work Order to do PM on a system, but seeing that it is scheduled for replacement within a year
 - Reallocate O&M resources to equipment that will “be around longer”



WHAT IS STOPPING US?

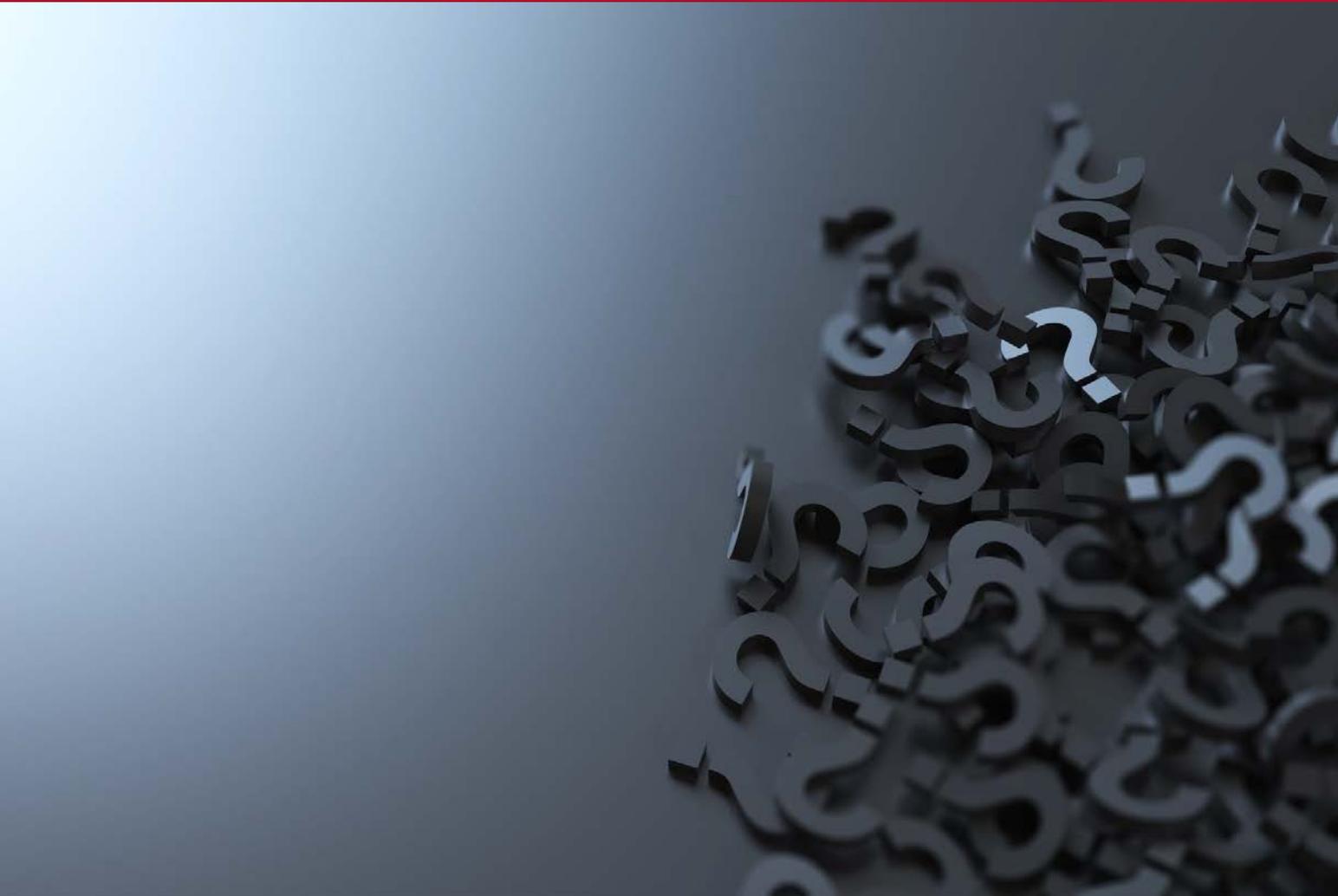
Very few organizations have found any significant link between the O&M and Capital

- Siloed Organizations
- Competing Incentives
- Quality Data
 - Getting it & Maintaining It
- Momentum
- Senior Staff/Management Turn-Over
- Software
- Others?



FIRST THINGS FIRST...

**YOU NEED TO BE TRACKING
WORK ORDERS AGAINST
INDIVIDUAL PIECES OF
EQUIPMENT**



A QUESTION FOR YOU...

**Who is
tracking work
orders against
individual
pieces of
equipment?**



WHAT WE SEE TOO OFTEN

- Tracking Work Orders at the Building-Level
- Tracking Work Orders at the Equipment Type (e.g. HVAC, AHU, etc.)
- Only Tracking Reactive Work Orders
- Not Completing Work Orders, no matter how they are tracked
- Others???



WHY THIS MATTERS

When we don't have work orders tracked at the equipment level and we are not closing out completed orders, we are left to...



IF YOU LIKE IT THEN YOU SHOULD'A PUT A TAG ON IT!

- To track work orders to individual pieces of equipment, you need to have a detailed equipment inventory to track work orders against
- While you're at it, put a tag on it!
 - What's in a number?



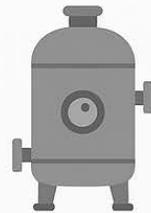
THE DATA CHALLENGE

- O&M is based on Equipment Level Data but only for some elements within a building
 - Generally mechanical and electrical
- Capital is based on Element-Level Data for all elements within a building
- The data overlaps, just at different levels of granularity
 - Rarely connected or linked within an organization

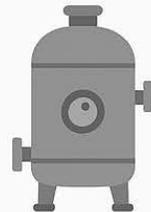


THE SIMPLE MANY-TO-ONE SCENARIO

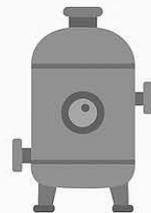
Equipment Inventory



Boiler #1



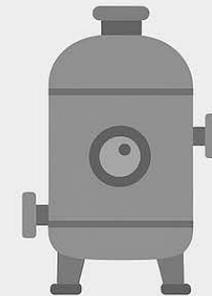
Boiler #2



Boiler #3

Condition Assessments

3 Boilers –
All same age
and condition



THE COMPLEX MANY-TO-ONE SCENARIO

Equipment Inventory



Boiler #1



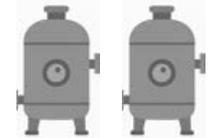
Boiler #2



Boiler #3

Condition Assessments

Two Older and One Newer
Boilers – Qty 2 – Old



Boiler – Qty 1 - New



MANAGING THE MANY-TO-ONE SCENARIOS

- Gets even more complicated with other elements, where there can be many more pieces of equipment, often hidden from plain sight
- The sheer volume of equipment data and work order data can be overwhelming





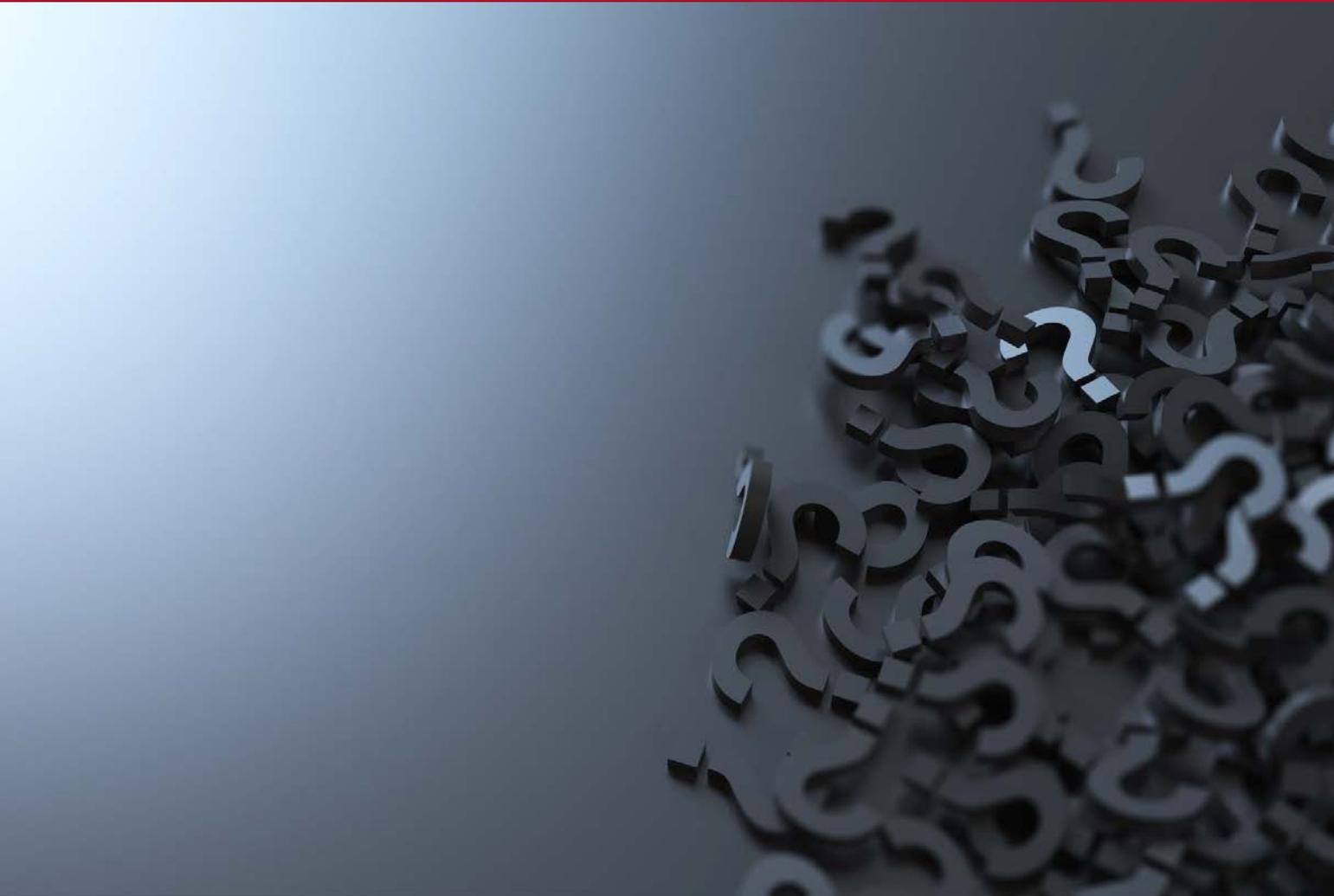
PLOTTING YOUR COURSE

PLOTTING YOUR COURSE

First, you need a data strategy

- How will I organize it?
- How will I get it?
- Where will I put it?
- How will I maintain it?





A QUESTION FOR YOU...

What is Your Data Strategy?



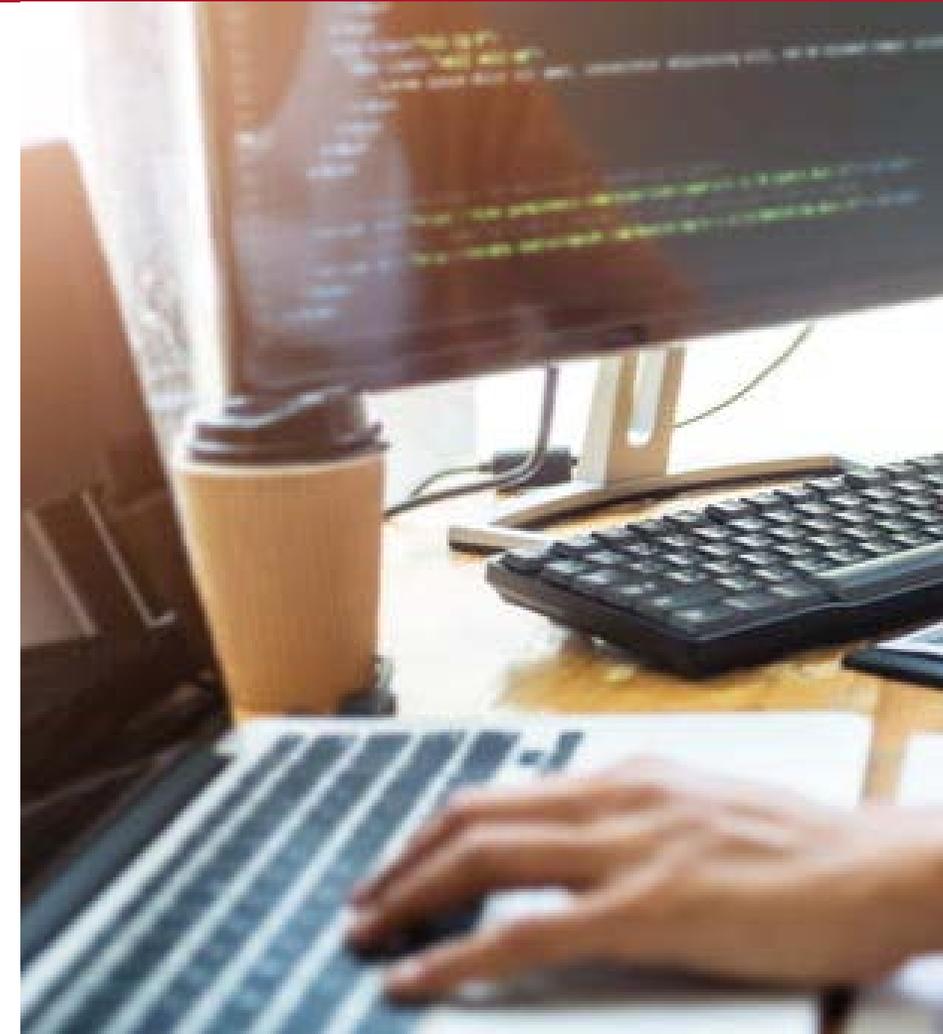
PLOTTING YOUR COURSE

- What O&M data is relevant?
 - Not all work orders impact capital
 - Leaky Faucets, Too Hot/Too Cold, etc.
 - Avoid the “Needle in a Haystack” Approach
 - Work Order creation & review process is key to consistency
 - Assuming users can create work orders, you need some form of experienced screening to determine which are capital-relevant



PLOTTING YOUR COURSE

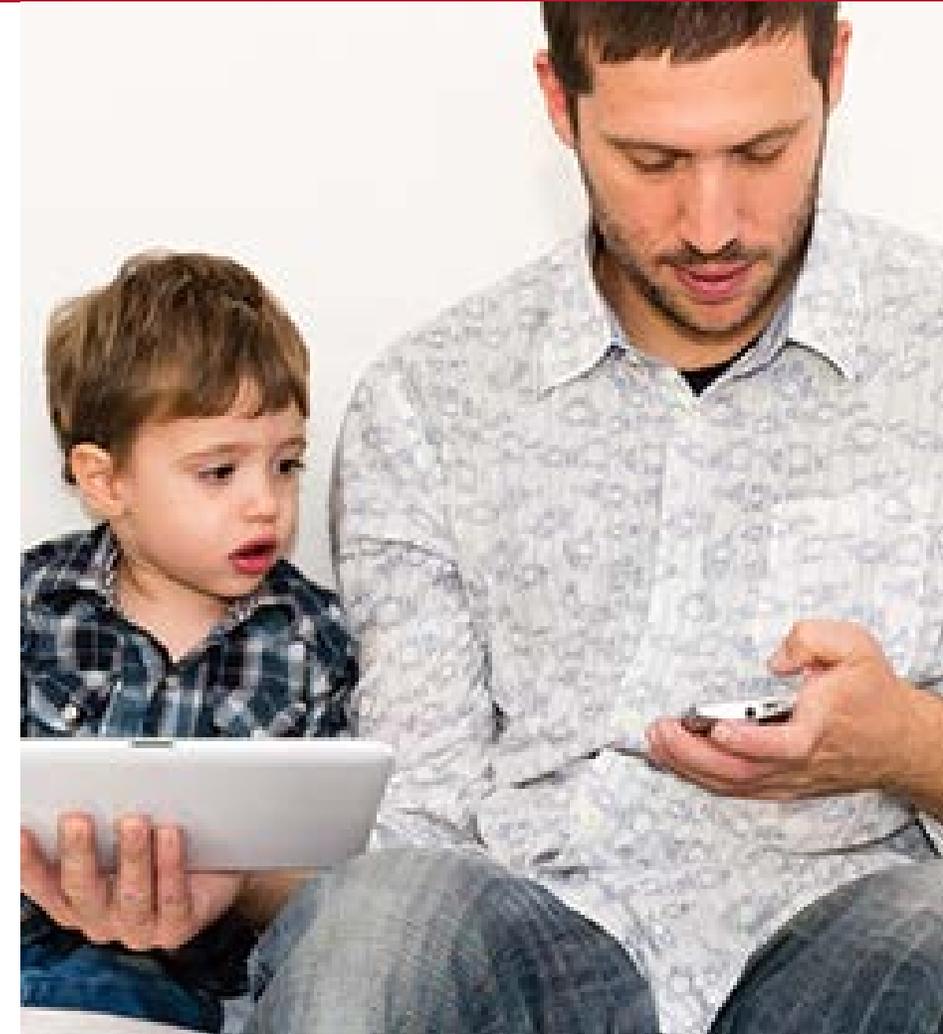
- Need to create a “link” between your Computerized Maintenance Management System (CMMS) and your CAMS (Capital Asset Management System)
 - Need to speak the same language – Uniformat II
 - Need visibility of relevant data between systems
- What other systems are relevant and need to be integrated
 - Financial/ERP
 - Space Planning
 - Other?

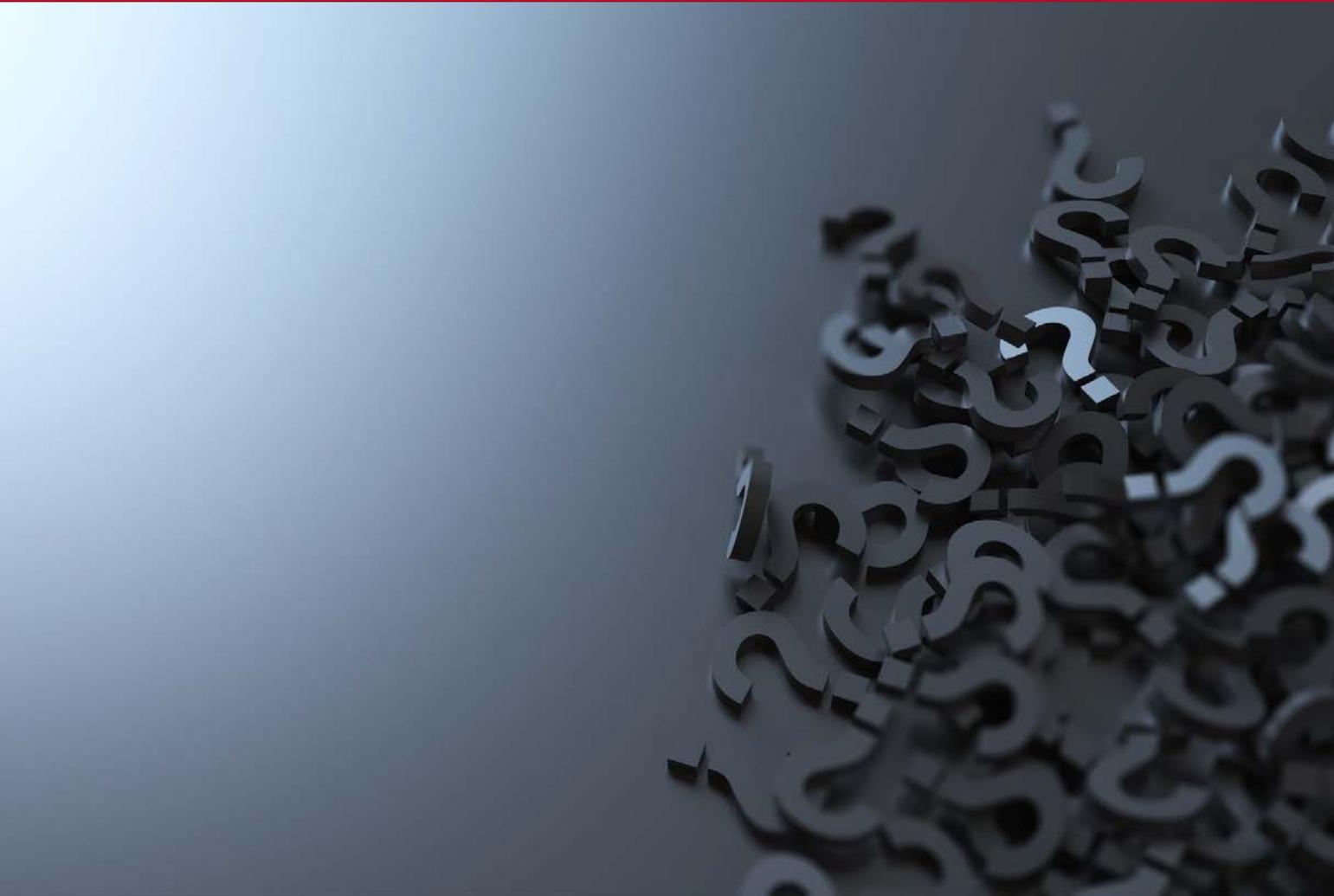


PLOTTING YOUR COURSE

Develop Parent and Child Relationship between Systems

- Don't want the same data in two (or more) different databases
 - One draws that data from the other
- Need a clear workflow
- How frequent is data passed back and forth?





A QUESTION FOR YOU...

**Anyone
feeling
overwhelmed
by all of
this?**



HOW TO GET STARTED

How do you eat an elephant?

- One bite at a time...
- Pick one or two Elements/Equipment Types or one of two buildings to pilot
- Get your software providers talking



One small
piece
at a
time

ONE FINAL THOUGHT



**KEEP CALM
AND DON'T SAY
DM**

DEFERRED MAINTENANCE

This message is brought to you by Roth IAMS
Our vision is To Solve the World's Deferred Capital Renewal and Maintenance (DCRM) Backlog Crisis.

Roth IAMS
Integrated Asset Management Strategies



Q & A

FOR MORE THOUGHT LEADERSHIP SCAN THE QR CODE!



THANK YOU FOR ATTENDING

Connect with us directly!

- Bill.Roth@rothiams.com
- [727-247-9419](tel:727-247-9419)
- Visit our website at rothiams.com
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