



icINFRASTRUCTURE



ALASKA
MUNICIPAL
LEAGUE

INTRODUCTION TO ASSET MANAGEMENT

Alaska Municipal League Conference 2023

Iain Cranston

CEO, Lead Trainer, icInfrastructure

iain@icinfrastructure.com

6th December 2023



Iain Cranston

- Originally from the UK, moved to North America in 2011
- Founded icInfrastructure in 2017
 - **Passionate about training and building AM capacity**
- ISO 55000 Global Committee / TC251 Expert
- Canadian Network of Asset Managers, Board of Directors 2014-2017
 - 2017-2022: PM for CNAM's "New to AM" & Competency Framework
- Asset Management Consultant, CH2M/Jacobs 2011-2017
 - PM for How to develop an AM Policy & Strategy Handbook
- Before that...Lean & 6 Sigma, Local govt + Water, Engineering Degree



icINFRASTRUCTURE



iain@icinfrastructure.com



[Iain Cranston](#)



[@iaincranston](#)

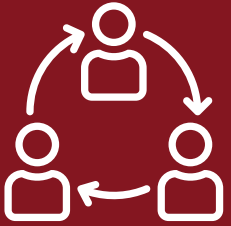




Our Agenda

- ◆ What is “Asset Management”?
- ◆ Benefits to you and your Community
- ◆ Communities Getting Started Formalizing AM
- ◆ Open Q&A

Copy of slides available
iain@icinfrastructure.com



WHAT IS ASSET MANAGEMENT?

And why now?



Our Value

Our Assets &
Infrastructure



Community
Quality of Life

What is an “asset”?



icINFRASTRUCTURE

An “asset” is an item, thing or entity that has potential or actual value to an organization.

Source: ISO 55000



International
Organization for
Standardization

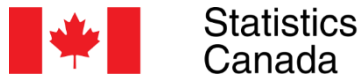


North American Infrastructure Outlook

Canada Infrastructure Report Card



Asset Category	Subcategory	# And % in Poor/Very Poor Condition	# And % in Fair Condition
Roads, Bridges, and Tunnels	Roads	146,255 km (16.4%)	201,283 km (22.6%)
	Bridges and Tunnels	9,661 Structures (12.4%)	20,502 Structures (26.3%)



US Infrastructure Report Card




By 2039, America's overdue infrastructure bill will cost the average American household \$3,300 a year, or \$63 a week.

\$10 trillion
in GDP



More than 3 million jobs
in 2039



\$2.4 trillion
in exports
over the next 20 years



Source: <https://infrastructurereportcard.org/>
<http://canadianinfrastructure.ca/>

Bad Infrastructure => Impacts to Public Services

What about Alaska's Infrastructure?



























Alaska's Overall
Infrastructure
Grade

C-

Unique challenges in Alaska

- Unique transportation system – 75% of communities are inaccessible by road
- Many communities are still in need of safe and efficient water and wastewater systems
- Many communities at risk from natural disasters like flooding, severe storms and wildfires

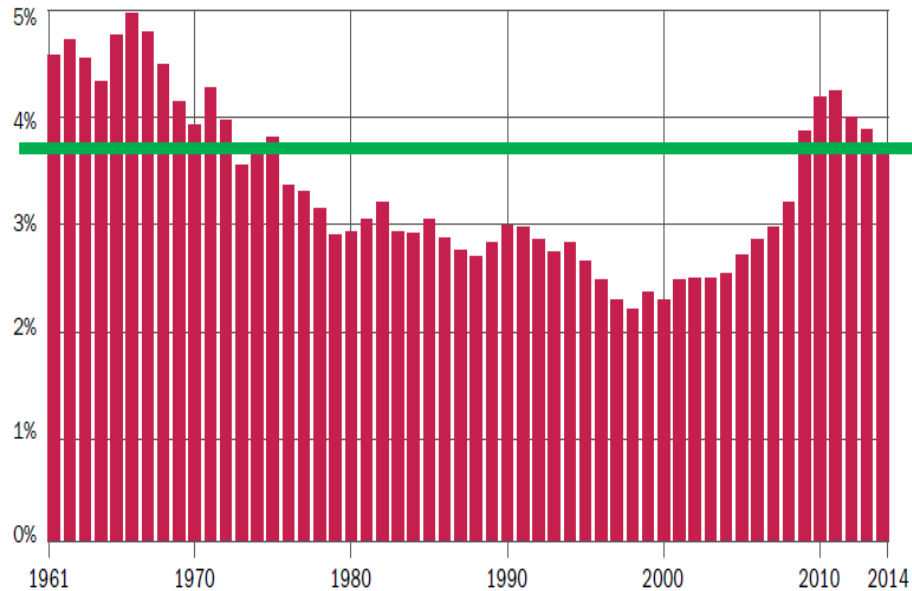
Alaska Infrastructure Grades

 AVIATION 	 BRIDGES 	 DAMS 
 DRINKING WATER 	 ENERGY 	 MARINE HIGHWAYS 
 PORTS 	 RAIL 	 ROADS 
 SOLID WASTE 	 TRANSIT 	 WASTEWATER 

<https://infrastructurereportcard.org/>

Decades in the making...

Figure 2: General Government Gross Fixed Capital Formation as a Percentage of GDP⁷



Source: <http://canadianinfrastructure.ca/>

Asset Management helps infrastructure owners refine and communicate their NEEDS

“The United States has been underinvesting in infrastructure for decades, and American families and businesses will reap the economic consequences unless the federal government undertakes a major course correction.”

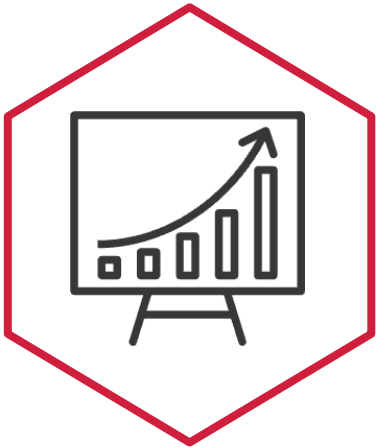
*Chairman John Yarmuth,
hearing September 25, 2019*



Source: <https://budget.house.gov/publications/report/strong-infrastructure-and-healthy-economy-require-federal-investment>

Photo: NBC Montana

Is old infrastructure our biggest challenge??



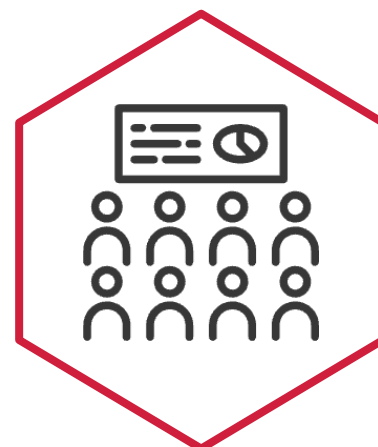
Population Increase/ Decrease



Climate Issues



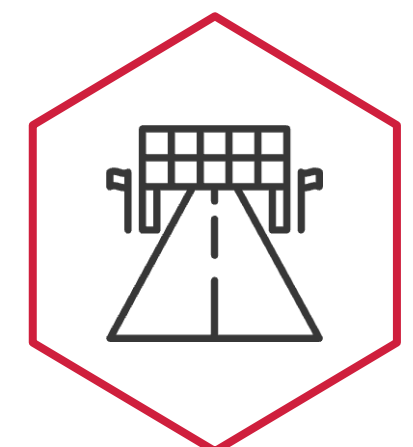
Funding



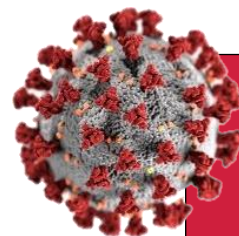
Community Expectations



Staffing shortages



Aging Infrastructure



Impacts of Covid-19

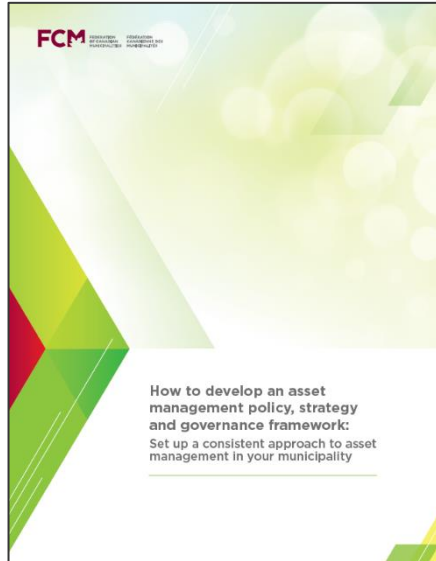
What's impacting you and your community??

Other Challenges...

So what is “Asset Management”



icINFRASTRUCTURE



Source: FCM Leadership in Asset Management Program (LAMP)

This is not something “new” – it’s better connecting what we are already doing and filling in some gaps

“Asset Management is an integrated approach, involving all organization departments, to effectively manage existing and new assets to deliver services to customers.”

The intent is to maximize benefits, reduce risks and provide satisfactory levels of service to the community in a sustainable manner – providing an optimum balance.

Good asset management practices are fundamental to achieving sustainable communities.”





BENEFITS

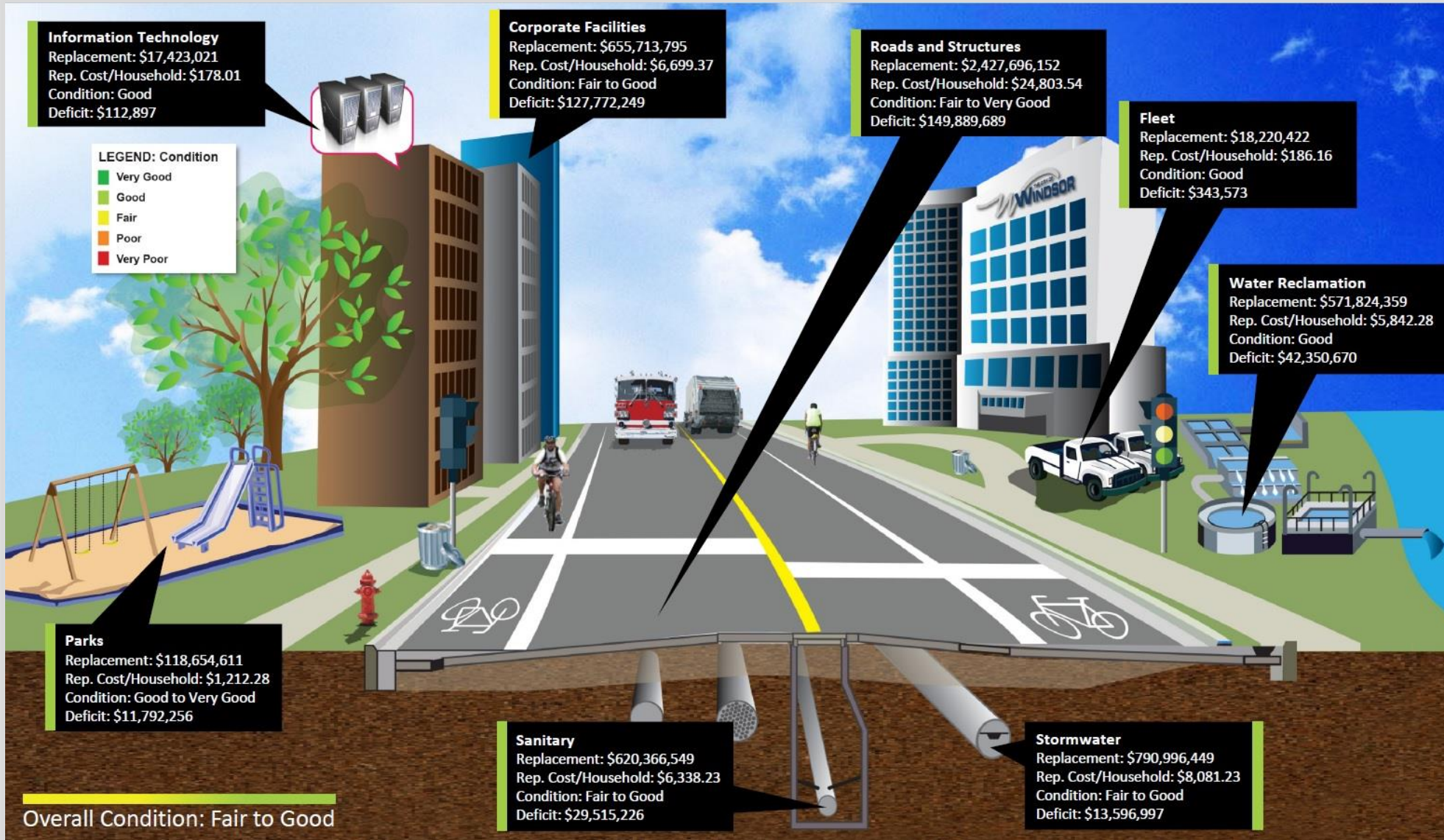
To Communities and Organization



Community Services and Our Assets



icINFRASTRUCTURE



Infrastructure assets exist to deliver **services** to our communities.

To provide **value**.

Source: City of Windsor ON, Asset Management Plan (2013)



Benefits of AM to *Your Community*



BETTER
UNDERSTANDING
OF CHALLENGES
THAT ARE FACED



BETTER
UNDERSTANDING
OF WHERE THE
MONEY GOES



BETTER
APPRECIATION
FOR COMMUNITY
SERVICES



IMPROVED
CONFIDENCE IN
COMMUNITY
MANAGEMENT



IMPROVED
TRUST THROUGH
TRANSPARENCY

Poll – Rates vs Services?

Do you have the right rates/tax revenue/user fees coming in for your community services to be sustainable and continue long into the future?

Yes

No

Don't Know / Unsure



Benefits of AM to *your organization*

- Clear alignment across organization with strategic goals
- Find the optimum balance for your organization
- Budgets and rates are set for a sustainable future
- Departments work together more effectively
- Clear list and business cases for 'shovel ready' projects

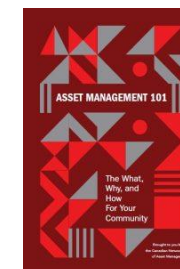




“We are ready for major funding announcements - reports and applications can be generated quickly with on hand information.

Incoming Councillors and staff have a solid knowledge of where the municipality stands with its assets and the financial strategy to maintain and replace those assets.”

Councillor Liz Welsh, Town of Petrolia, Ont. Pop. 6k



Source: CNAM
AM101 Booklet
Free download from
www.cnam.ca

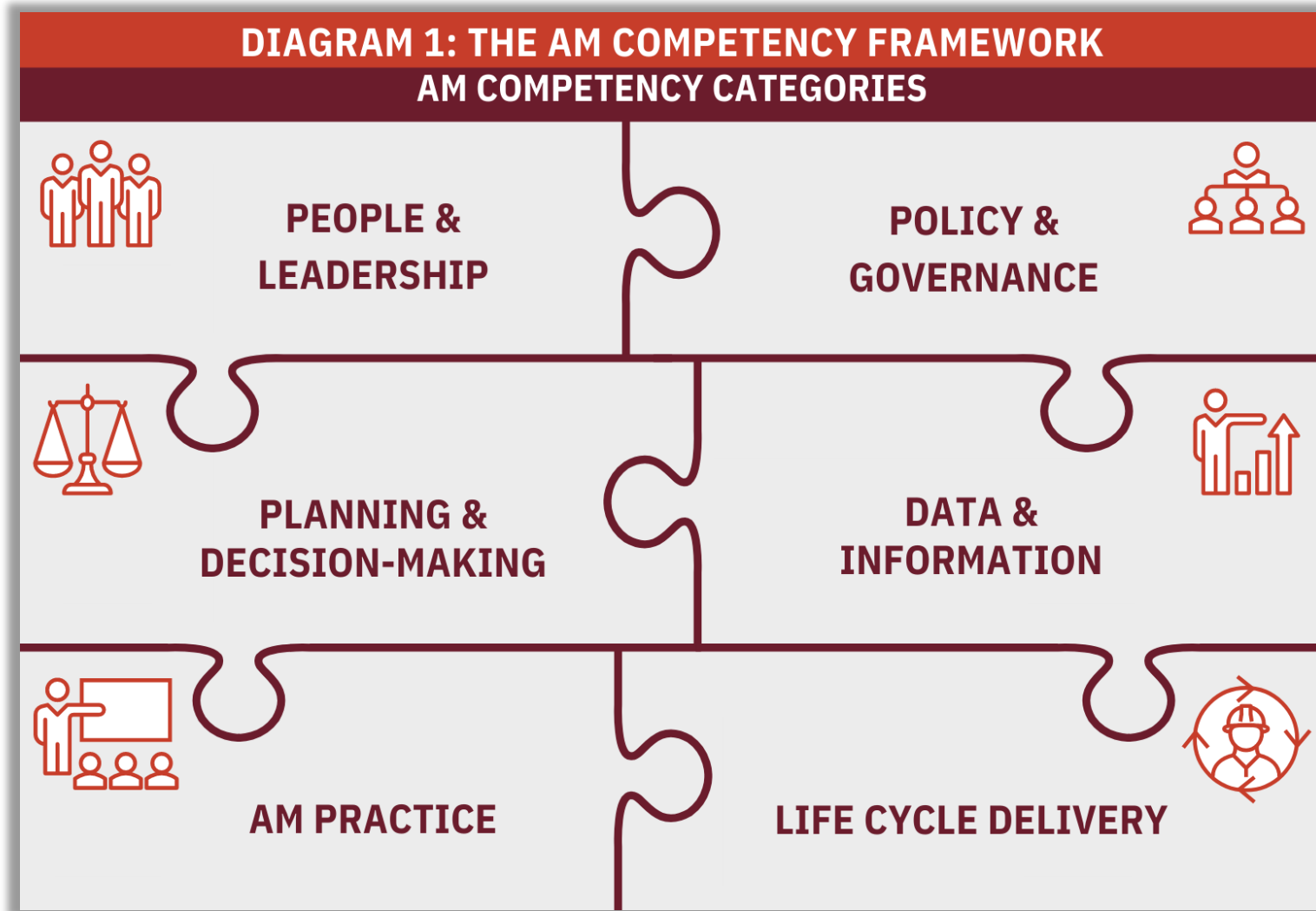




ASSET MANAGEMENT PUZZLE PIECES



Asset Management Core Organizational Elements

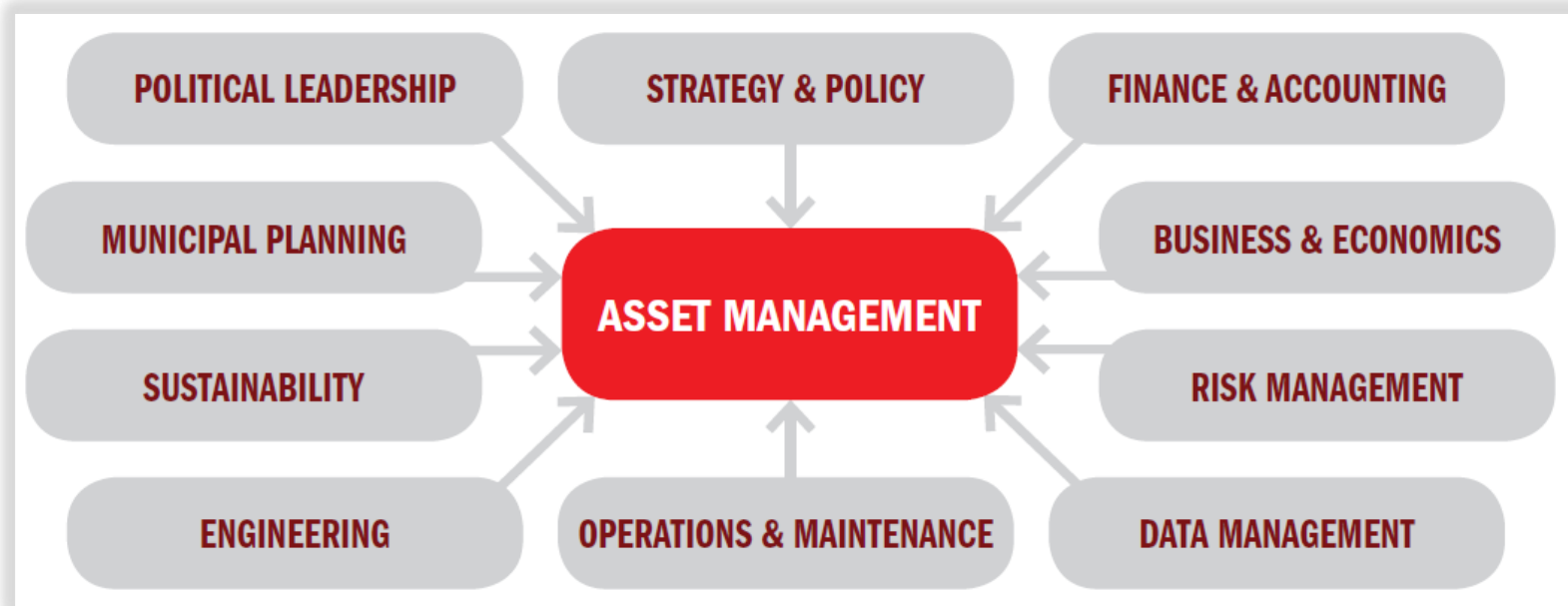


Source: CNAM Asset Management Competency Framework

People and Leadership

STAFF ARE CRITICAL TO ASSET MANAGEMENT

*People do Asset Management



Source: CNAM AM101 Booklet



Policy and Governance

Figure 1.2: The hierarchy of an asset management system



Interested in
future webinars
/ training?

Source: FCM How to Develop an Asset Management Policy and Strategy

Do you need help getting buy-in from leadership?

"[The Policy has] definitely been a tool that we've been able to reference back to, including when we brought the Asset Management Plan (AMP) to Council with recommended funding levels. The Policy really was a way in which to remind ourselves administratively and with Council, as to what we committed to in those policies and what our goals are."



Melissa Osborne,
Senior Manager of Asset Planning at City of Windsor

Free 60min webinar
recording on
Developing AM Policy

<https://icinfrastructure.com/why-your-organization-should-have-an-asset-management-policy/>

Data and Information



Lots of different data sets needed from across your organization



Asset Data







- Inventory, location, condition, service etc.

Service Data

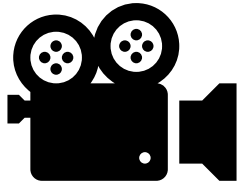
- How are our assets performing? What are our customers expecting?

Financial Data

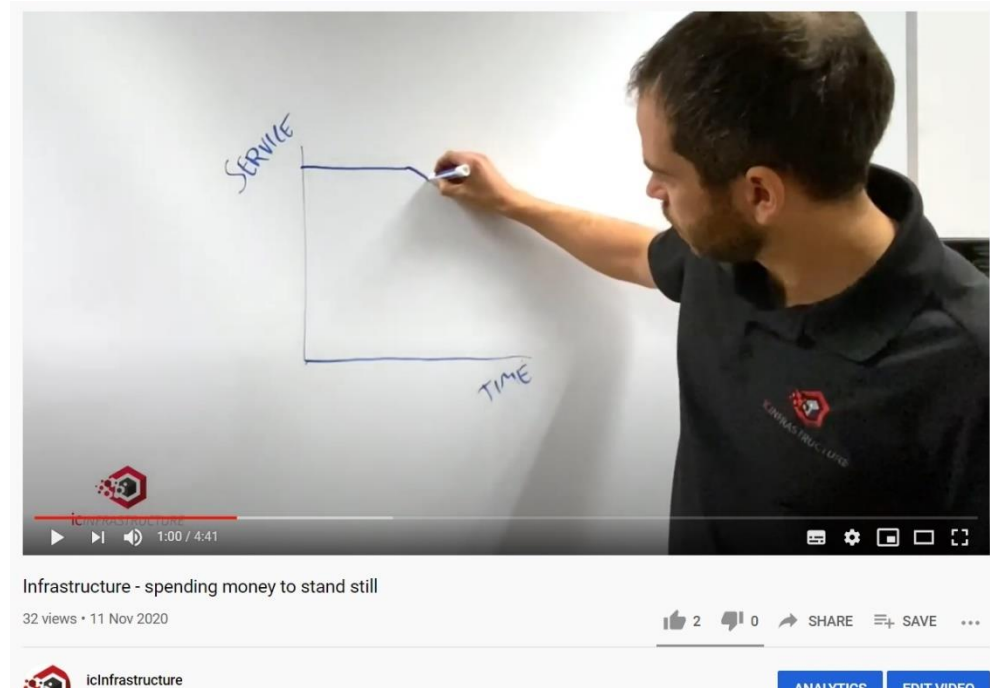
- Do we understand the full life cycle costs of our asset base?

Value	External Customer	
	Current Trend	Future Trend
Accessibility		
Availability/Reliability		
Quality		

Infrastructure – Spending Money to Stand Still



5min



<https://www.youtube.com/watch?v=OT1qpU39CDA>

Life Cycle Delivery

- ◆ 'Managing assets' part of asset management
- ◆ Managing the asset through all stages of the life cycle
- ◆ Must consider **whole life cost**

"Managing Assets" vs
"Asset Management"
ISO55000 TC251 Memo

Upfront Capital costs can be as little as 20% of the full life cycle costs



True Cost



MIC Asset Management
Champion Graduate



”

"We need to start discussions with rate payers and elected officials on the true cost of asset ownership, on what it costs us to run the systems. From there, we can start talking about levels of service and more sustainable rates."

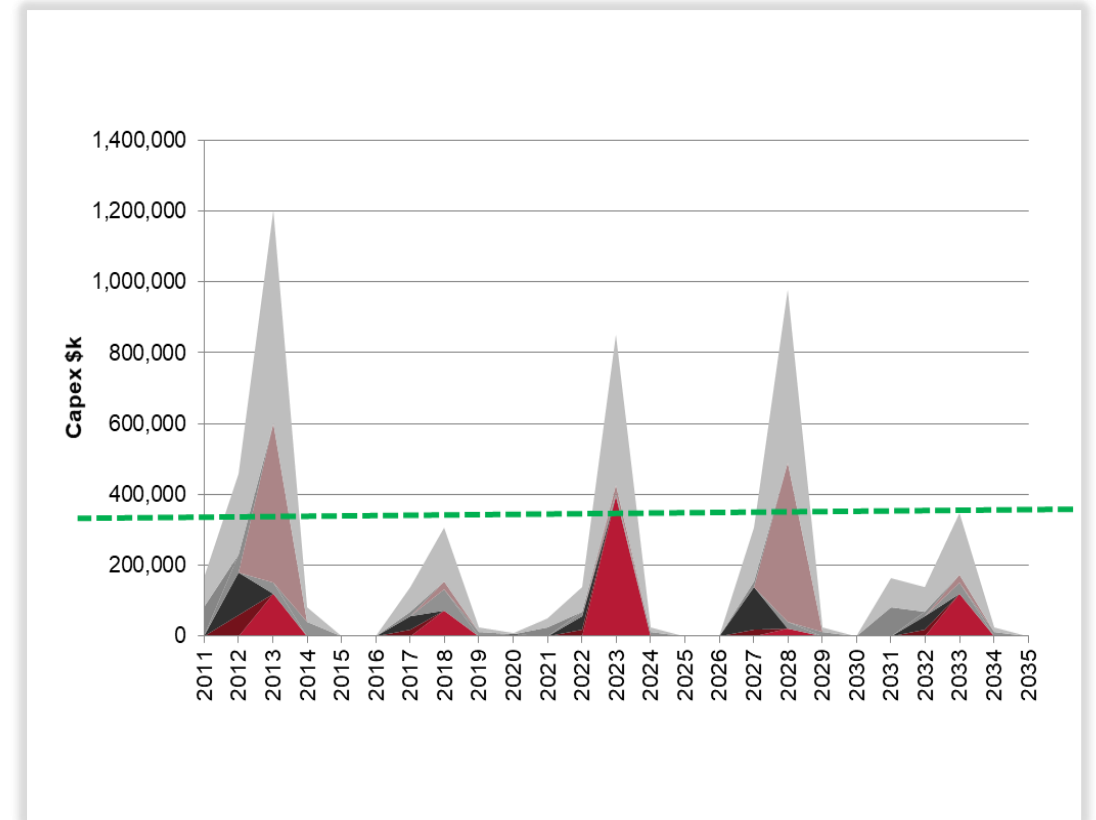
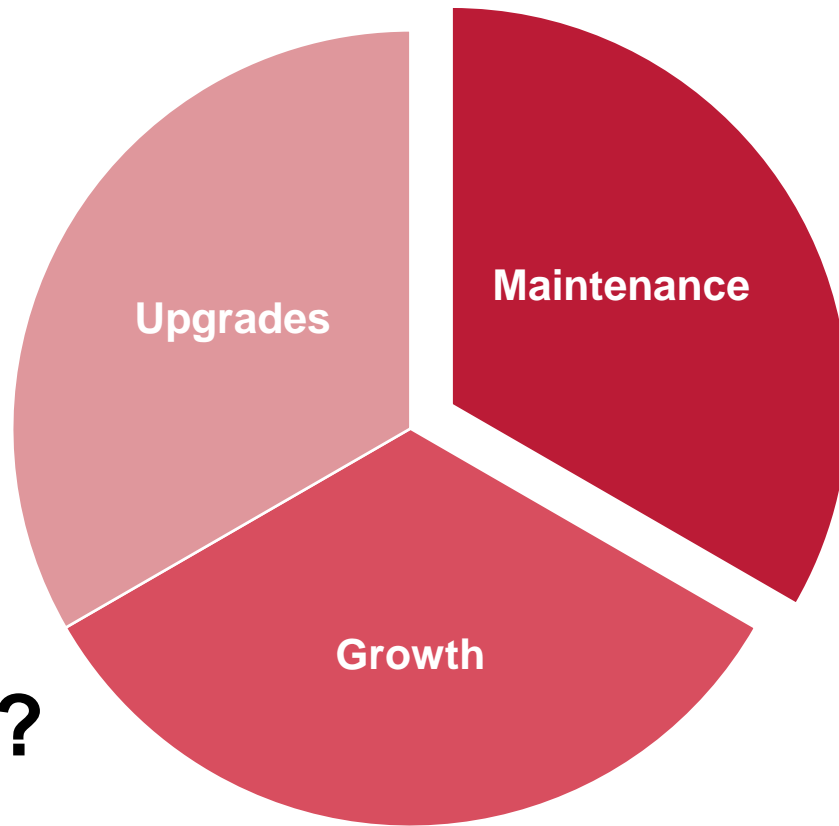


Carrie Ricker Cox
Member of Michigan's Water Asset Mgmt Council
(WAMC)
Chief Engineer for Oakland County

Investment Planning for Infrastructure

Other Considerations

% split??



Investment Planning for Infrastructure

Now we know what we need...

- ◆ Maintenance \$
- ◆ Growth \$
- ◆ Upgrade \$

(Across Short-, Medium-, and Long Term)

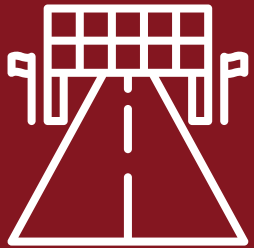


But... how do we fund it?

- ◆ Reserves? Are we saving enough?
- ◆ Debt? How much can we borrow?
- ◆ Rates/Fees? Are we charging enough?
 - ◆ what is the community willing to pay for?
- ◆ State support: Gas Tax, others?
- ◆ Federal support?
 - ◆ who can best articulate the NEED?

And what about needs that we don't fund... ?

... or fund but can't deliver??

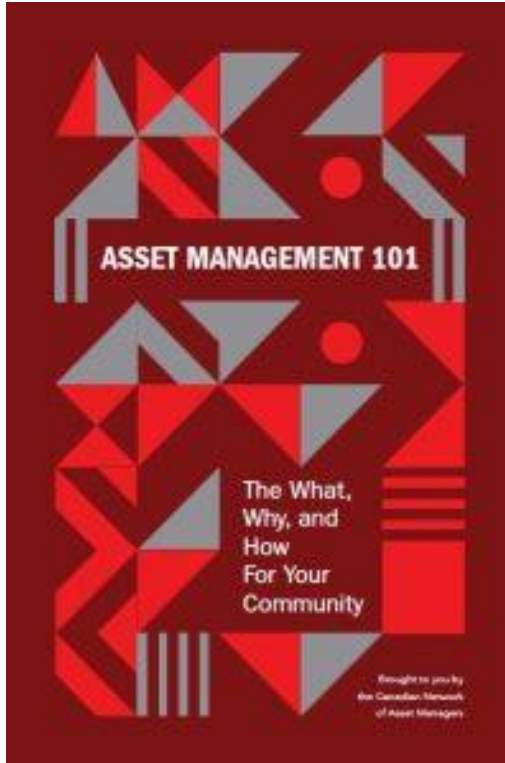


COMMUNITIES GETTING STARTED FORMALIZING ASSET MANAGEMENT

Learning from others, no need for reinventing!

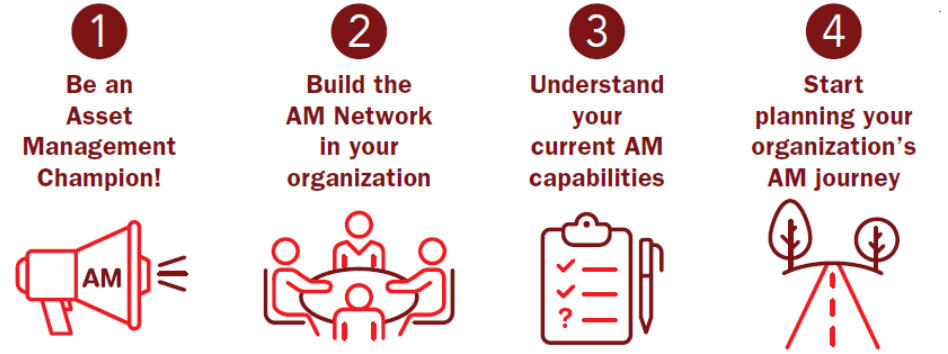


Guide to Formalizing AM



Free download from
cnam.ca/New-to-AM

INITIAL STEPS



ASSET MANAGEMENT COMPETENCIES



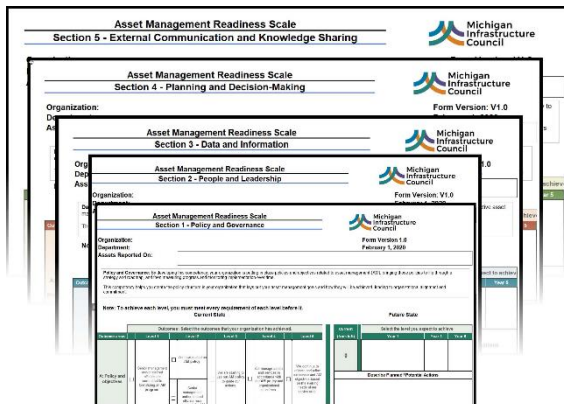
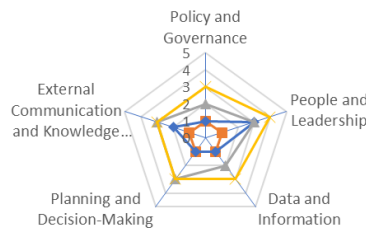
RESOURCES TO HELP



Where are we now?



- ◆ Gap Assessment Tool for organization AM practices
 - ◆ Identify good/bad with your ‘Steering Committee’
- ◆ Federation of Canadian Municipalities’ AMRS
 - ◆ AMRS = Asset Management Readiness Scale
 - ◆ Foundation of “MAMP” program

- ◆ Michigan Infrastructure Council’s AM Readiness Scale
 - ◆ Already American’ized
 - ◆ Free Excel tool www.michigan.gov/mic
- ◆ Use for Future Goals, Priorities, Roadmap



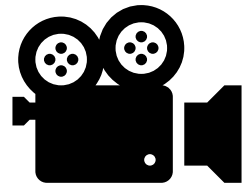


KEY TAKEAWAYS

Recap - The Bigger Picture



FCM Video: Why Invest in Asset Management



5min



FCM FEDERATION OF CANADIAN MUNICIPALITIES FÉDÉRATION CANADIENNE DES MUNICIPALITÉS

FCM AM Library shout out

<https://fcm.ca/en/resources/mamp/video-why-invest-in-asset-management>

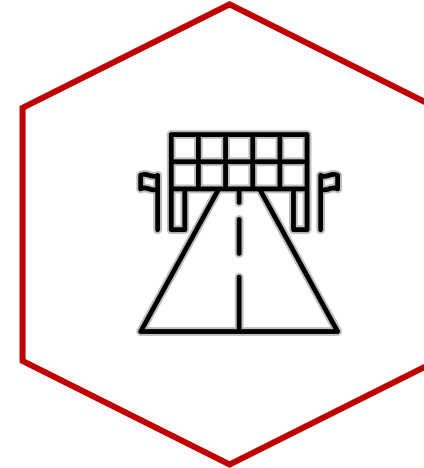
Key Takeaways



Come Together.



Where are we now?



Next Steps. How. Who.

Want more?

Join me at 3pm today in
this room for

*“Implementing
Effective Asset
Management”*

This was WHAT / WHY...
next session
HOW do you start your
journey.





Thanks for your time! Any Questions?

Copy of slides available,
email me

Iain Cranston

CEO / Founder, icInfrastructure

iain@icinfrastructure.com