

Asset Management in a Rapidly Changing World

What do you truly need and what can you reasonably expect?

Wayne Reed

NEPIC Best Practice In Industrial Asset Management Conference

November 20, 2019

Advisian

Worley Group

advisian.com



NEPIC Best Practice In Industrial Asset Management Conference

ASSET MANAGEMENT

Overall asset management philosophy and planning

What do you *truly* need and what can you *reasonably* expect?

This session will enable participants to consider their situation and what pressures they face; and what they can logically expect as outcomes or benefits from improved asset management:

- Setting the scene: Things are changing fast;
- What is asset management?
- Asset management or managing assets?
- Why do you need asset management? What are your **actual** needs?
- What are the likely benefits of asset management?
- How to get from where you are to where you need to be.

My contention is that...



- 1 You **NEED** to make better decisions, but...
- 2 You must **KNOW** what your key questions are;
- 3 Everything else exists (only) to support and manage the consequences of your decisions.

/ Setting the scene...
Things are changing **fast.**

Fourth industrial revolution



There are **three reasons** why today's transformations represent **not** merely a prolongation of the third industrial revolution but rather the arrival of a fourth and distinct one:

1. **Velocity:** The speed of current breakthroughs has no historical precedent;
2. **Scope:** When compared with previous industrial revolutions, the fourth is evolving at an exponential rather than a linear pace;
3. **Systems impact:** Moreover, it is disrupting almost every industry in every country. The breadth and depth of these changes herald the transformation of entire systems of production, management, and governance.

Source is:- <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>

Challenges and opportunities for asset owners

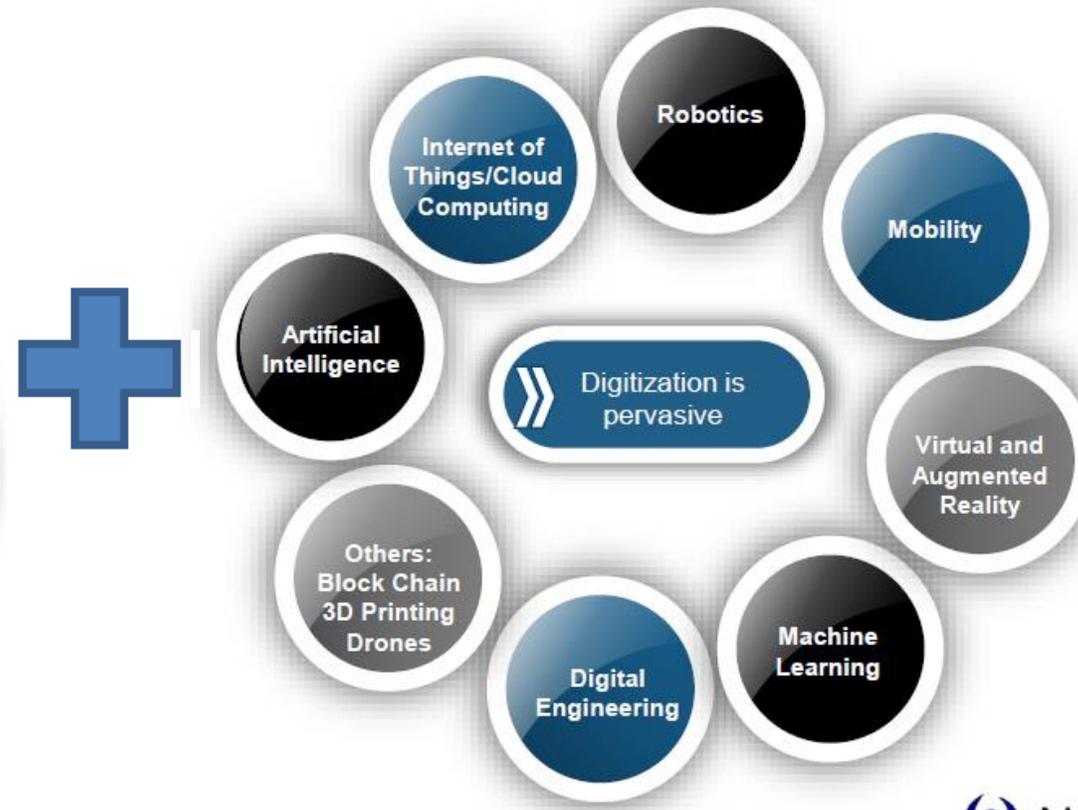
The 4th Industrial Revolution and Changing Asset Management Requirements

Roop Lutchman, P.Eng. | GHD Ltd.

Challenges facing asset owners today



Challenges facing asset owners tomorrow



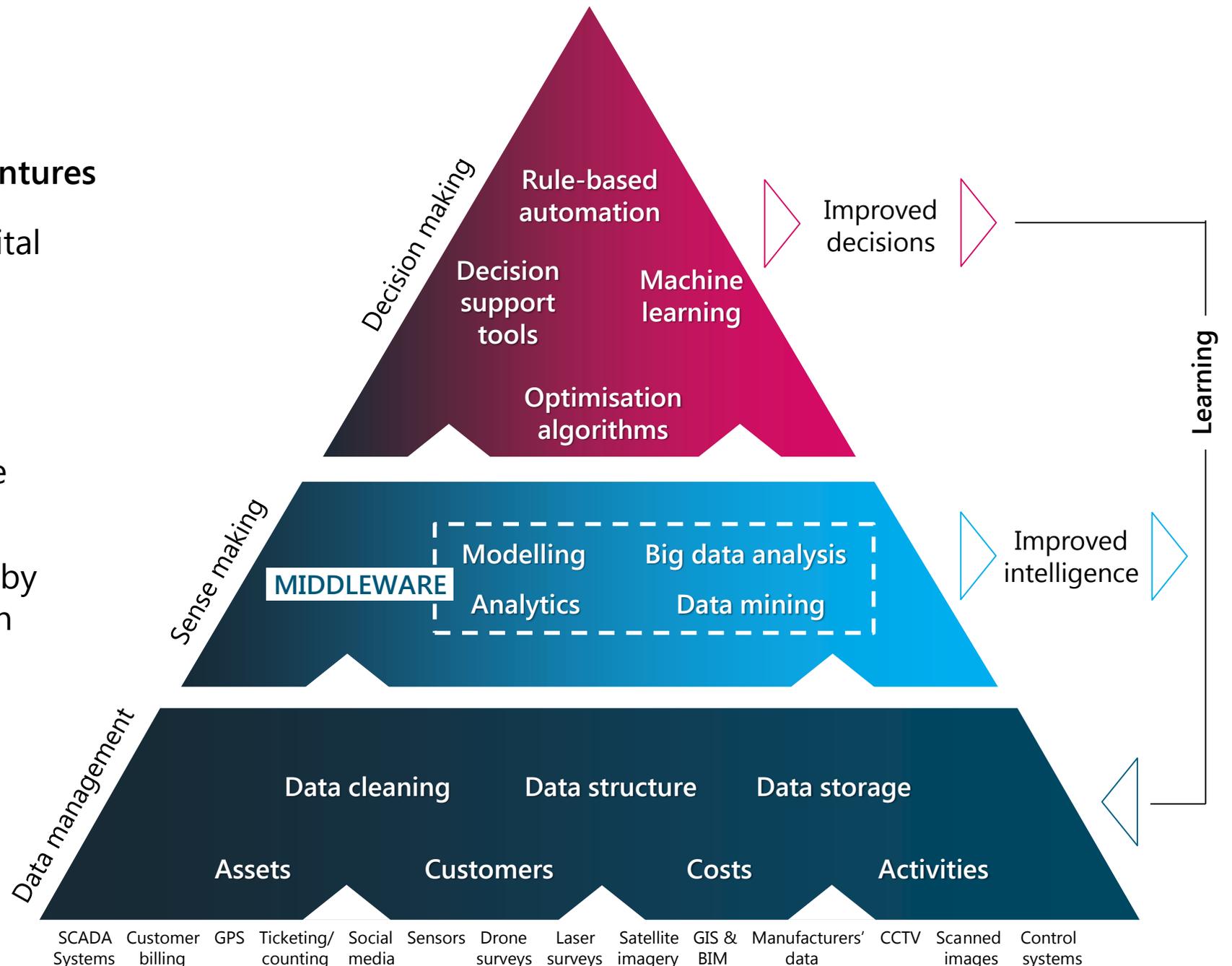
Digital Twin

*Mott MacDonald Digital Ventures

"Digital twins are realistic digital representations of physical things..."

What distinguishes a digital twin from any other digital model is its connection to the physical twin.

...a digital twin unlocks value by supporting improved decision making...*



/ What is asset management?

- Asset management is a multi-disciplinary business activity comprising financial, technical and risk components;
- Effective control and governance of assets by organisations is essential to realizing value from their use through the management of risk;
- The value derived through the use of assets is determined by the organisation.

Source is:- IEC TS 62775:2016

/ Asset management or
managing assets?

Which are you *(really)* doing?

Asset management or managing assets?



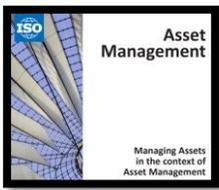
Since the first invention of tools, mankind has been maintaining assets.



The discipline of asset management involves strategic approaches to whole life management of assets.



Managing assets is not asset management.



When you listen, what are others *really* focused on?

Managing assets vs. asset management: They *are* different. **You must be brutally honest about which you are doing.**

Managing Assets	Asset Management

Consider ISO 55010:2019. Asset management.

Guidance on the alignment of financial and non-financial functions in asset management

4 Why alignment between financial and non-financial functions is important

4.1 General

Top management often struggles with many asset-management-related questions because of a lack of alignment due to barriers within the organization, e.g. language/terminology differences, information/data standard quality differences, and poor coordination between the organization's financial and non-financial functions in asset management. Some examples of questions include the following.

- How can I be sure I am getting best value for my stakeholders from my assets?
- How do my assets contribute to the delivery of the organization's strategy and objectives? Which assets are critical for it?
- What are the risks (and opportunities) to the organizational objectives arising from its assets?
- What level of investment do I need to make in assets over both the short and longer term (TotEx) to deliver my organizational objectives and how do I prioritize this investment?
- What is the cost of delivering products or services to meet customer satisfaction and how can I use this to inform my pricing?
- How do I determine the cost impacts of environmental and social changes, and the resilience of my assets to these changes?

- How can I know the total cost of ownership (TCO) of my assets?
- Are we making decisions that provide short-term cost savings but, due to lack of adequate asset management involvement, are leading to higher long-term costs?
- How can I get the necessary funding commitment to ensure the long-term financial sustainability of my assets to be able to continue meeting the objectives of the organization?
- How can I obtain enough information on the asset base for reporting purposes, enable correct and timely decisions, and understand the nature and use of seemingly conflicting information from different sources?
- Are my stakeholders confident about the asset verification/valuation/existence/necessity/impairment tests?
- Do I have the financial information to make evidence-based asset management decisions?
- What assets are not delivering the value expected and what assets are costing more than anticipated?
- What liabilities, and hence cost, are the assets exposing us too?
- Do my financial statements really reflect the state of my asset portfolio including leased assets?
- For my outsourced services, how are the associated costs tracked and managed through an appropriate internal control?
- How can I obtain/maintain competitive advantage through my assets used?

Are these questions being *asked and answered routinely* in your organisations?

/ Why do you need asset management?

Asset owners face increasing pressures: Safety, legislative, economic, regulatory, quality

Optimise management of assets by balancing performance, costs and risks.

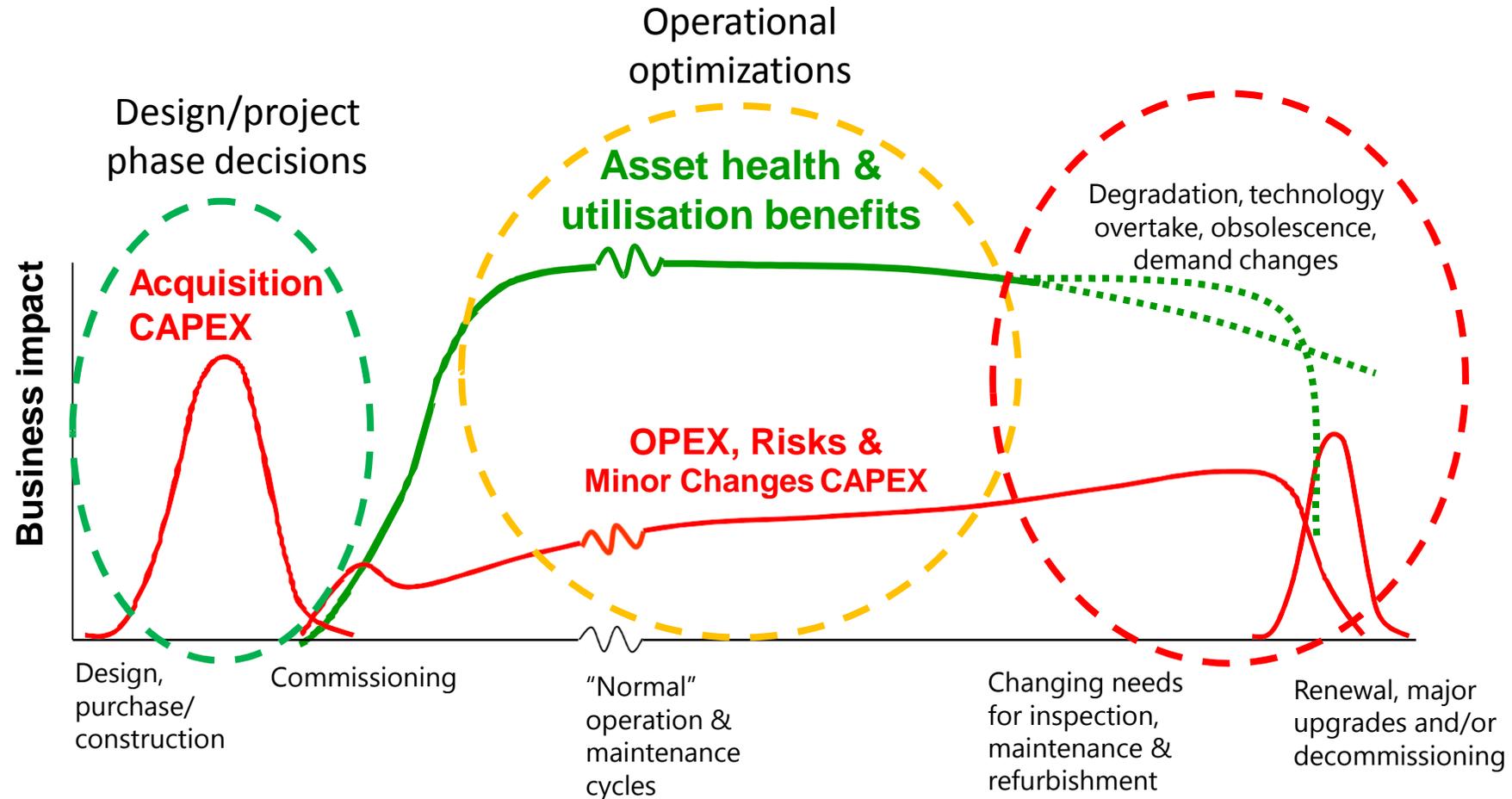
Asset management is not new, but what **is** new:

- Recognising 'good practice' involves balancing multiple factors concurrently;
- Alignment of policies, strategies, plans, and actions;
- Line of sight through the organisation;
- It's about fusion of people, process, and plant.

It's NOT all about technology and/or software.



Different decision environments¹



Be in no doubt. You are in ALL of these decision environments *concurrently*.

1. Source: http://saama.org.za/wp-content/uploads/2014/06/Jack-Huggett.Asset-Management-decision-making.SALVO_.pdf

/ What are the likely benefits of asset management?

Which do *you* **need** to realise?

What are the benefits of asset management

The benefits of asset management include, but are not limited to:

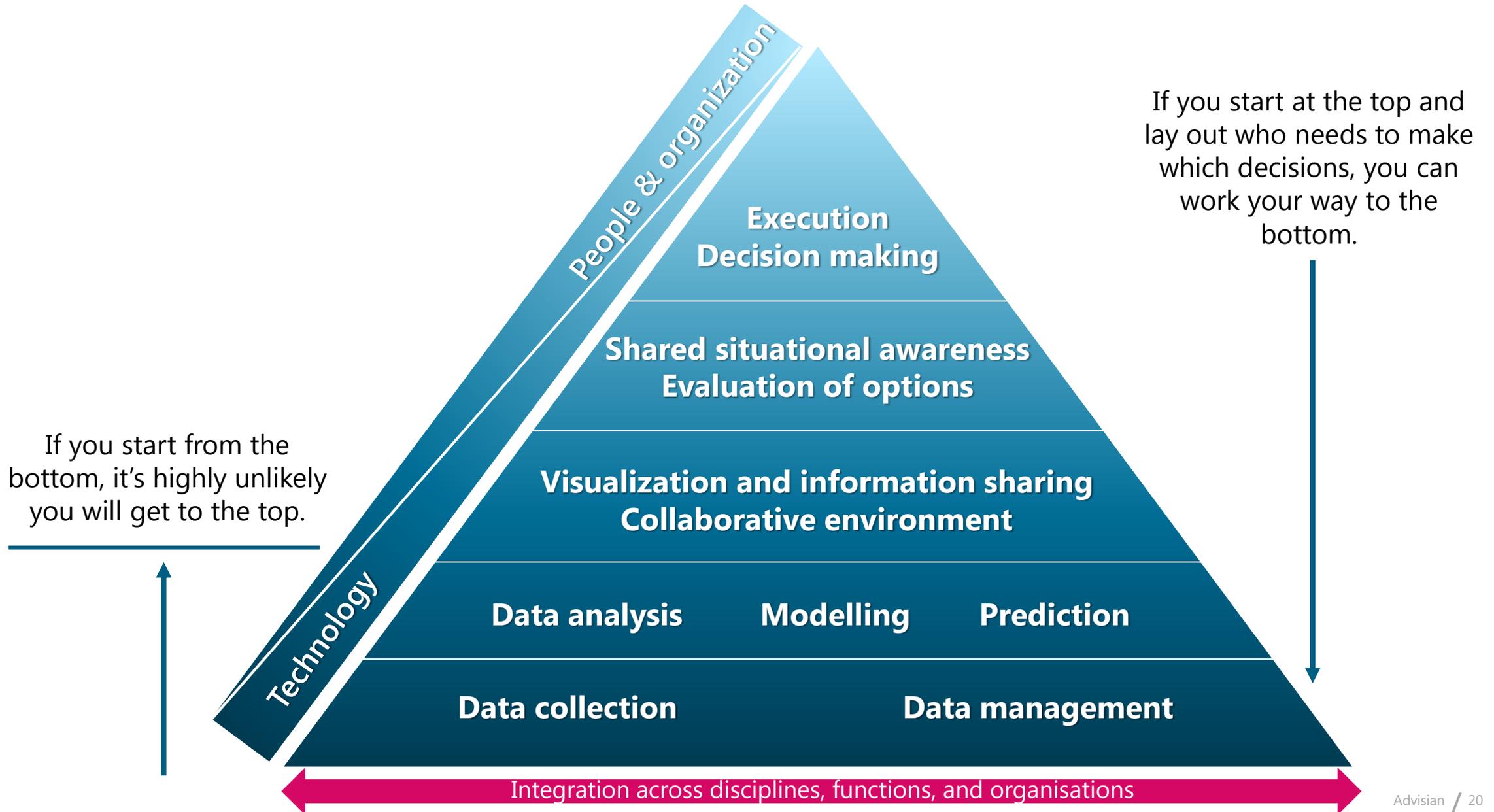
- Improved financial performance;
- Informed asset investment decisions;
- Managed risk;
- Improved services and outputs;
- Demonstrated social responsibility;
- Demonstrated compliance;
- Enhanced reputation;
- Improved organisational sustainability;
- Improved efficiency and effectiveness.

Which of these benefits
do you **need**?

/ How to get from where you are to where you need to be.

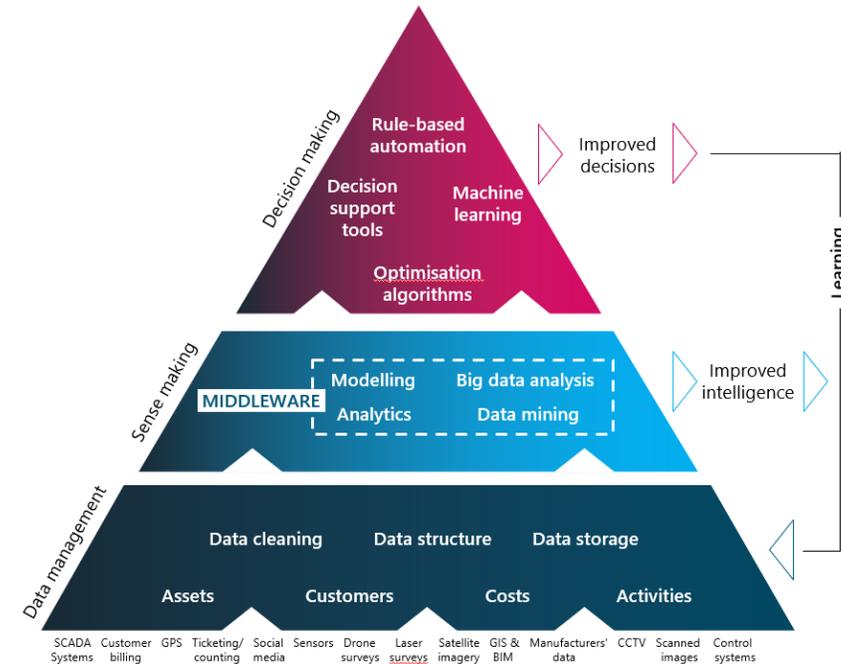
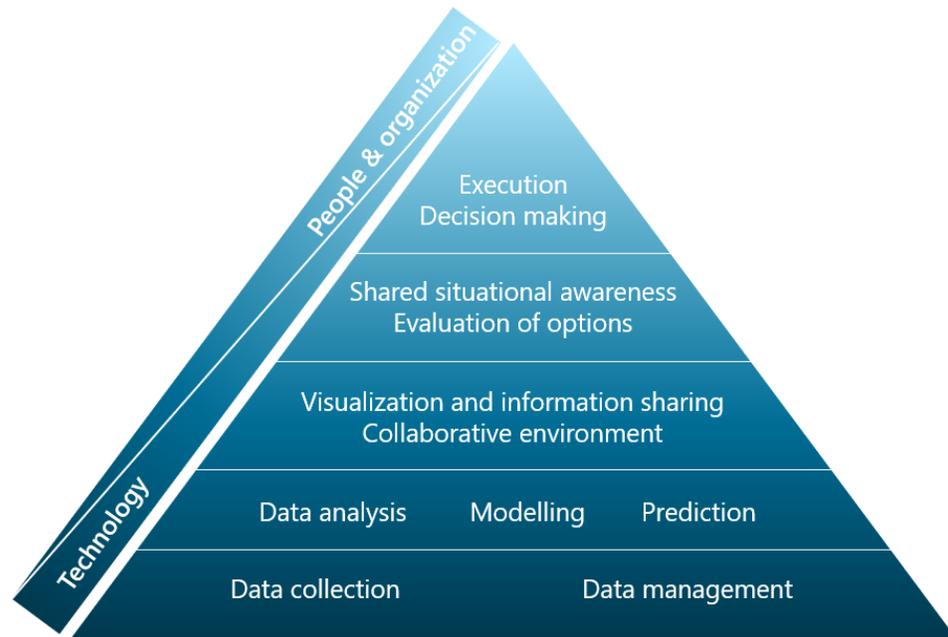
You **must** know what your key questions are, and which have to be answered, relied upon, and then **acted upon** as best decisions.

Where are you and your team by your functions?



Digital tools and techniques to enable decision making

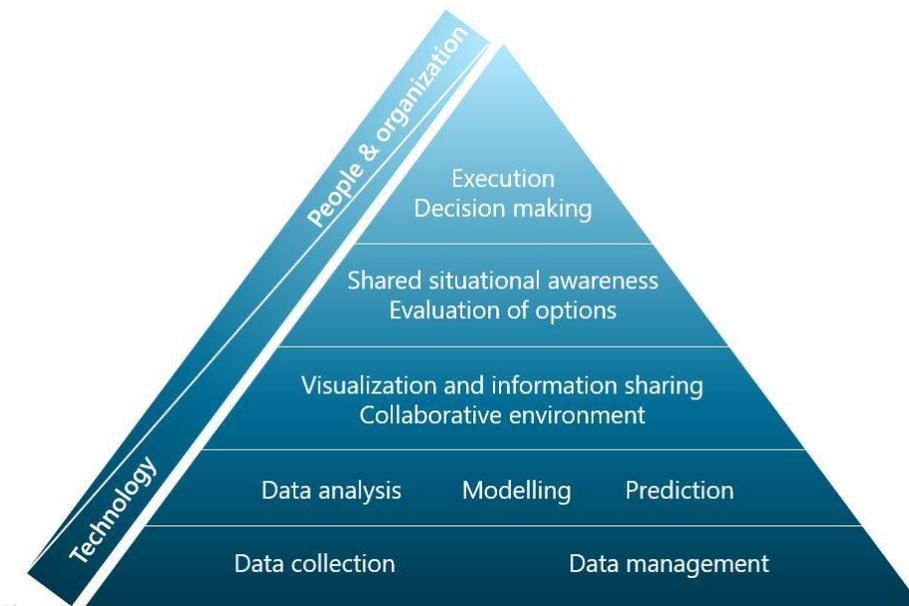
Placing these two graphics side by side shows an **interesting perspective** of the necessary tools and techniques that the digital wave can provide to enable improvements in decision making.



You must **KNOW** what your key questions are,
and which have to be answered, relied upon, and then acted upon as **BEST DECISIONS**.
Everything else exists (only) to support the timing and quality of **MAKING** these decisions.

How to get from where you are to where you need to be

- Stay informed and current; look **beyond** ISO 55000/1/2 and **study** IEC TS 62775; ISO 55010 & ISO 31000;
 - Then talk with your accounting colleagues; risk managers about fiscal matters; risk management and ultimately the triple-bottom-line;
- Be **brutally honest** about who and what you are now;
- If needed, have your team take the IAM Foundation Award;
 - <https://theiam.org/professional-development/training/foundation-award/>
- Do you have a robust baseline of your balanced performance?
- What are the **must deal with** topics?
- What are the **choice** topics?
- Who are the stakeholders for your endeavor?
- Conduct an assessment (self-assessment first) and come to terms with your relative maturity.



– https://www.bsigroup.com/LocalFiles/EN-AU/55001%20Asset%20Management/Resources/ISO_55001_Self_Assessment_WEB_AU.pdf

For more information

Mr. Wayne Grant Reed

MSc., IEng., MIET., MIAM

Senior Consultant - Asset Management

Advisian Downstream & Market Services

Europe, Middle East & Africa (EMEA)

Downstream Asset Management Practice

Park Square, Bird Hall Lane

Cheadle, Manchester, SK3 0XF, United Kingdom

P + 44 (0) 161 495 5610 | **M** + 44 (0) 785 750

8210 **E** wayne.reed@advisian.com

Advisian

Worley Group

advisian.com



Advisian

Worley Group

DISCLAIMER

This presentation has been prepared by a representative of Advisian.

The presentation contains the professional and personal opinions of the presenter, which are given in good faith. As such, opinions presented herein may not always necessarily reflect the position of Advisian as a whole, its officers or executive.

Any forward-looking statements included in this presentation will involve subjective judgment and analysis and are subject to uncertainties, risks and contingencies—many of which are outside the control of, and may be unknown to, Advisian.

Advisian and all associated entities and representatives make no representation or warranty as to the accuracy, reliability or completeness of information in this document and do not take responsibility for updating any information or correcting any error or omission that may become apparent after this document has been issued.

To the extent permitted by law, Advisian and its officers, employees, related bodies and agents disclaim all liability—direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of Advisian and/or any of its agents)—for any loss or damage suffered by a recipient or other persons arising out of, or in connection with, any use or reliance on this presentation or information.

PRIVACY NOTICE

Advisian is subject to various privacy laws. Advisian's Privacy Notice is included in this document. Additionally, information on how personal data provided by your organisation to Advisian is processed can be found at <https://www.advisian.com/en-us/who-we-are/privacy-policy>.

The information you provide as part of Advisian's business relationship with you will be used by or on behalf of Advisian and its affiliated companies and subsidiaries as part of the Worley Group (Group):

- To carry out due diligence on you and/or your company as a prospective counterparty to Advisian. This includes assessing financial standing, HSSE profile, technical and quality standards, and corruption/money laundering risk.
- If necessary, to enter into or perform our contract with you.
- To manage our services.

Advisian consults private risk intelligence databases and publicly available sources of information, such as sanction lists, on an ongoing basis in order to comply with its internal anti-money laundering, and bribery and corruption prevention processes, and to prevent, detect or investigate dishonesty, malpractice or seriously improper conduct.

If you choose to provide Advisian with personal information on directors, officers, employees and/or owners of your company or any third party's personal information (such as name, email or phone number), you represent that you have the relevant person's permission to do so.

We may share your information:

- With our third party service providers who perform business operations on our behalf.
- As part of a sale of a Group subsidiary or brand to another company.
- To protect and defend Advisian.
- When required by law and/or government authorities.

Given the global nature of Advisian and the Group's business, personal information may be transferred internationally for these purposes (but remains protected by the Group's Privacy Policy).

We retain your information:

- Only as long as is necessary for the purpose for which we obtained it and any other permitted linked purposes (for example, where relevant to the defense of a claim against us). So, if information is used for two purposes, we will retain it until the purpose with the latest period expires; but we will stop using it for the purpose with a shorter period once that period expires.
- In relation to your information used to perform any contractual obligation with you, we may retain that data whilst the contract remains in force plus seven (7) years to deal with any queries or claims thereafter.
- In relation to any information where we reasonably believe it will be necessary to defend or prosecute or make a claim against you, us or a third party, we may retain that data for as long as that claim could be pursued.

Our retention periods are based on business needs and your information that is no longer needed is either irreversibly anonymised (and the anonymised information may be retained) or securely destroyed.

If you do not wish to provide your personal information to us, we may not be able to proceed with a business relationship with you.

For further information on how your personal information is processed, please visit our website at www.advisian.com for further details on the Group's Privacy Policy.

Advisian

Worley Group