

Leadership, Organisation, Policy, Strategy and Risk

UKNIAF RD0011 Workshop 1

7th October 2021

Presented by:

- Stephen Mead



Agenda

- Leadership
- Organisation
 - Asset Manager
- Policy
- Strategy
 - Performance Management
- Risk



Why Asset Management?

The key reasons for adopting asset management are:

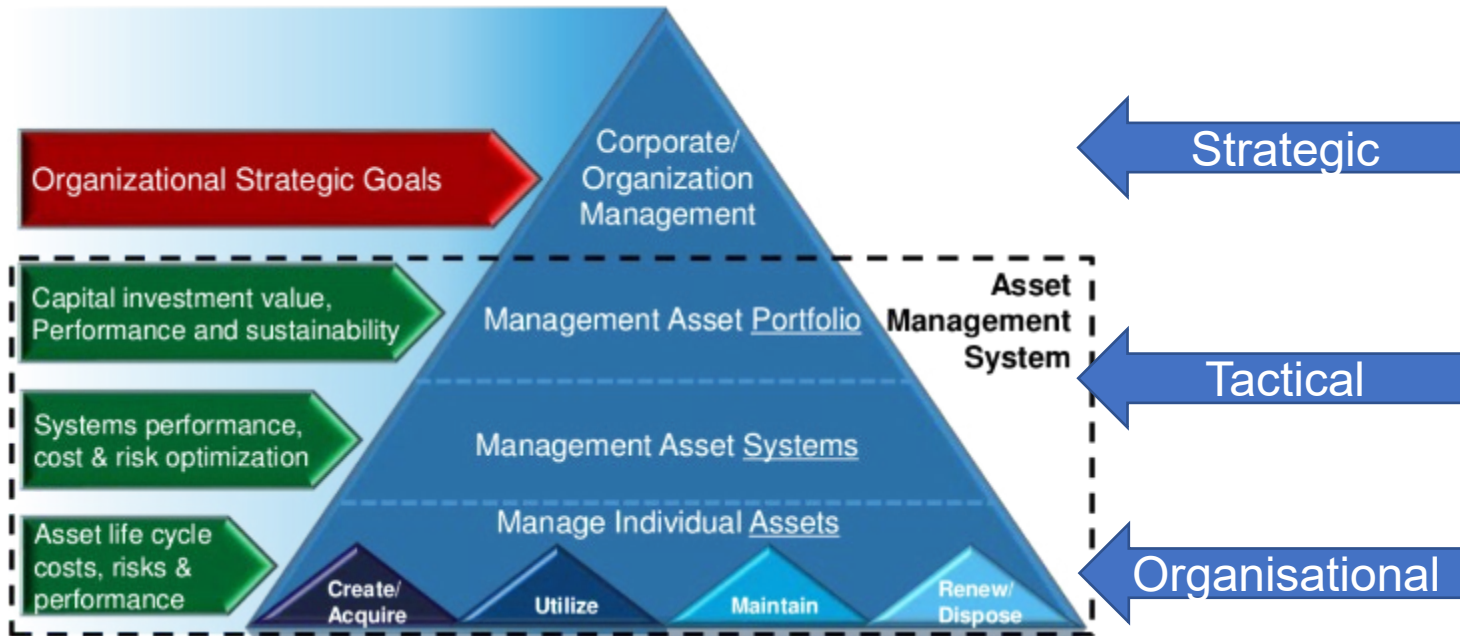
- Reduce the cost of operating the asset in a robust transparent way
- Reduce the investment capital costs
- Improve safety for stakeholders
- Reduce the risk to stakeholders both operators and users
- Deliver improvement in the performance of assets
- Deliver a robust method for measuring performance
- Deliver a sustainable and long term approach to the management of the asset
- Support carbon reduction and climate change agendas and initiatives



Leadership



Asset Management Roles



Provides – Leadership, high-level vision, goals and objectives, direction, defines what the organisation wants to achieve

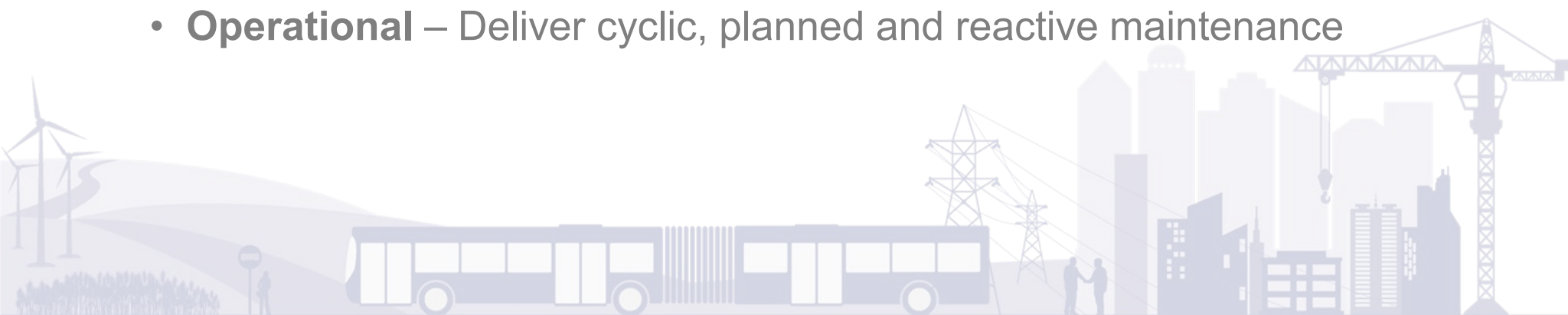
Manage data, analyse, plan and report, use data and risk to determine the most effective maintenance and replacement of the assets, and where to concentrate finance and resources to deliver a safe and reliable network

Surveys, inspections, assessments, management and deployment of resources in undertaking cyclic, planned and reactive work.



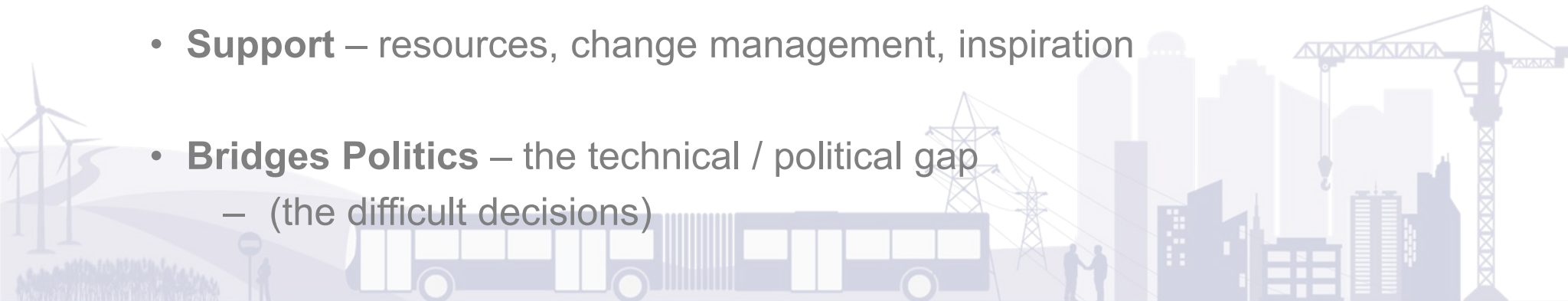
Who does what?

- **Corporate** – Lead and Direct
 - Strategic – Direction and plan
- **Tactical** – Analyse and plan – how, when, why, where,
 - Prioritise what who
- **Operational** – Deliver cyclic, planned and reactive maintenance



Leadership – what does it provide?

- **Direction** – aims, goals and objectives of the organisation
 - (political and practical balance)
- **Funding** – financing asset maintenance and replacement
 - (limited funding)
- **Accountability**
 - (but don't forget incompetency and negligence)
- **Support** – resources, change management, inspiration
- **Bridges Politics** – the technical / political gap
 - (the difficult decisions)



Leadership and the organisation

Good leadership should result in the organisation sharing

- Same direction
- Same aim
- Same responsibility
 - Leadership and the organisation are all involved in the process of getting the highway network in the best possible shape for the user
 - It's a responsibility that FERMA can't ignore



The Role of Leadership In Asset Management

The single most important factor in the successful implementation of Asset Management is the buy in from Top Management and the Leadership team.

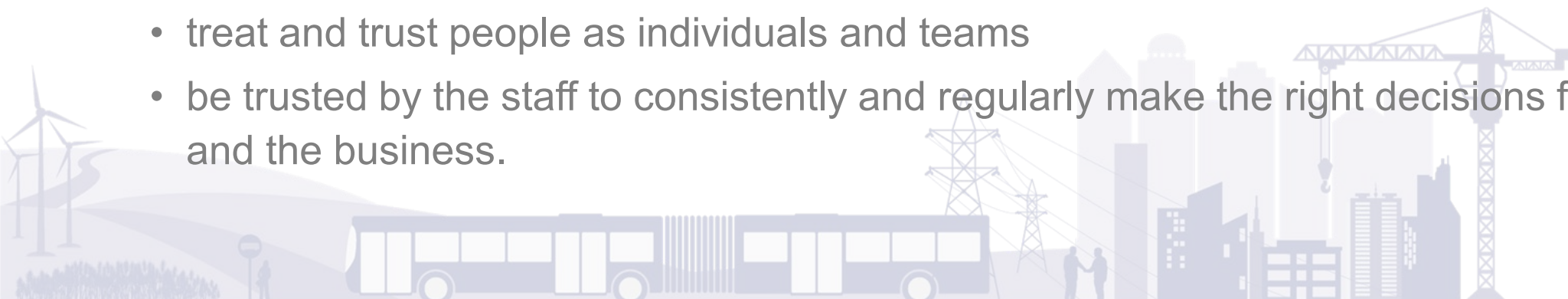
- It is important that the leadership team within an organisation has a full understanding and clear vision of how to optimise the use of its assets and gain maximum benefits across the organisation.
- It is their role to clearly articulate this vision and to communicate it in a persuasive and practical way while giving directions. This ensures organisational commitment to the longevity and evaluation of assets during the Asset's lifecycle.



Leadership and the organisation

The leadership team are also tasked with making decisions with relation to the core assets of an organisation, these may well impact individuals utilising the assets as well as the performance of the organisation. Therefore they have to:

- be decisive in the face of ambiguity
- give confidence to stakeholders on the direction and benefits of particular assets
- inspire and motivate staff to achieve the organisation's goals
- provide support
- treat and trust people as individuals and teams
- be trusted by the staff to consistently and regularly make the right decisions for the assets and the business.



How can the Leadership team demonstrate their commitment to Asset Management?

- Provide clarity around the organisational objectives
- Communicate the future direction of the business including the likely objectives and changes in risk appetite
- Ensure employee engagement in developing most likely scenarios for future planning
- Demonstrate willingness to listen to reasoned arguments about interaction between objectives and constraints
- Decide what are the various stakeholders' requirements and how these will be communicated and reported
- Be clear about the businesses requirements in relation to the asset management system



To summarise, it's a contract

- The leadership's ability to understand current and future demands of the business and its assets are critical to the success of not only asset management, but also the achievement of the relevant strategic objectives.
- To meet this, the Asset Management team need to provide realistic options looking at cost, risk and performance.

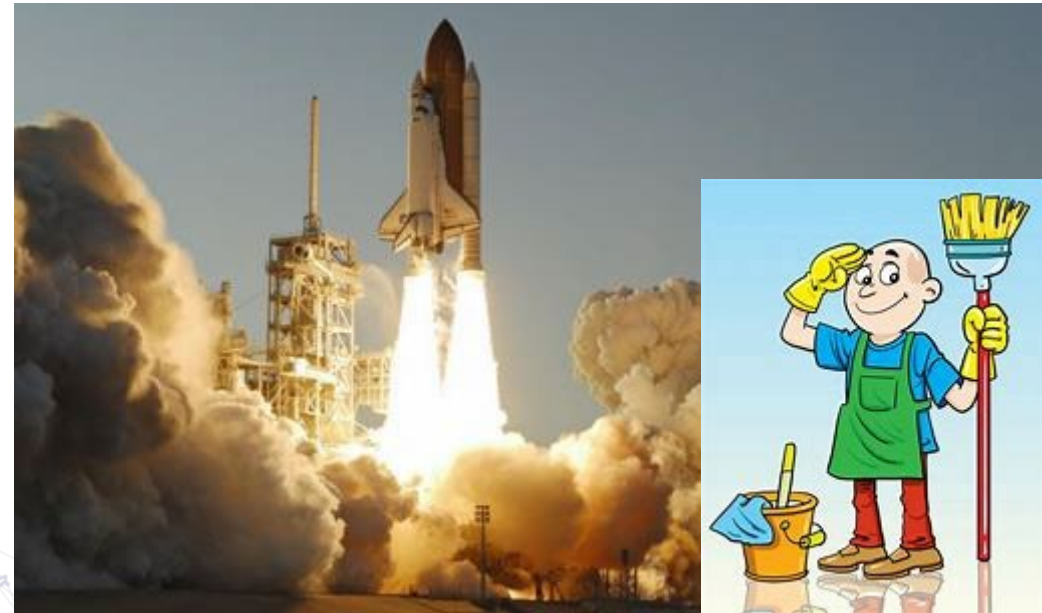
.... and the organisation may have to change!!!



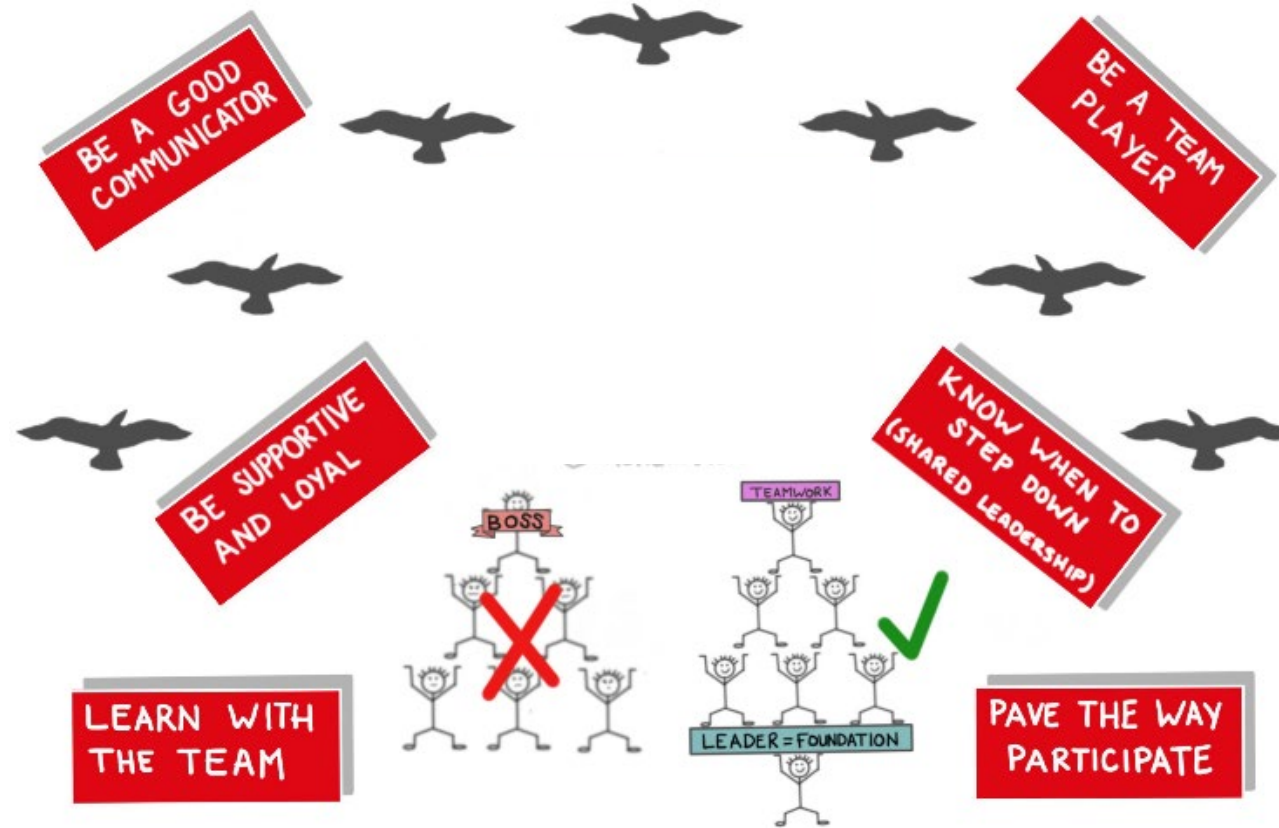
Changing the way we work, the way we think

- Asset management **is not** maintenance management, it's lifecycle management
- It's something that requires the organisation to change
- Everyone has an effect on the asset
- Everyone has a part to play

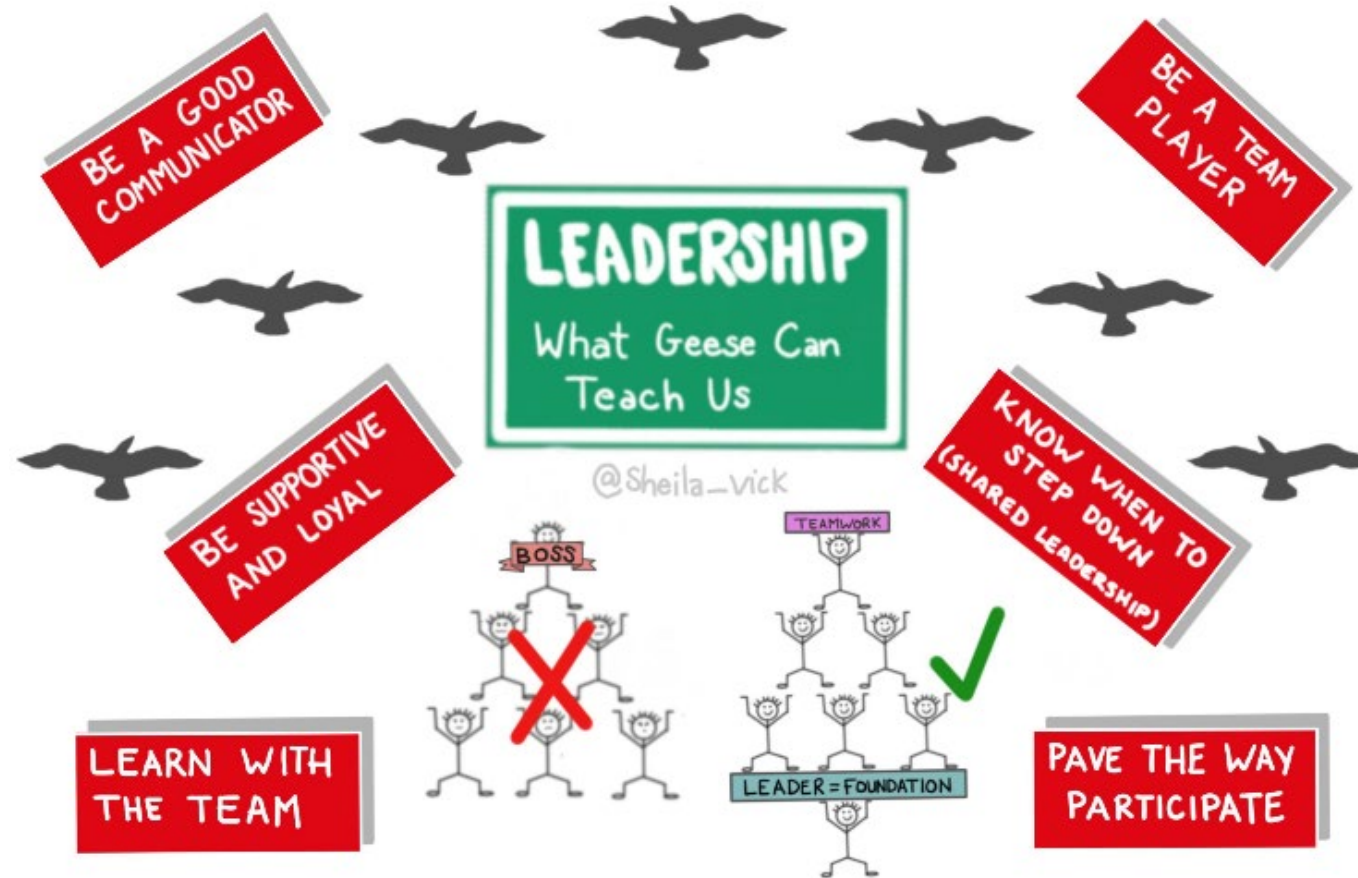
Everyone has a responsibility
to making the asset perform better



... and to change, effective leadership needs to

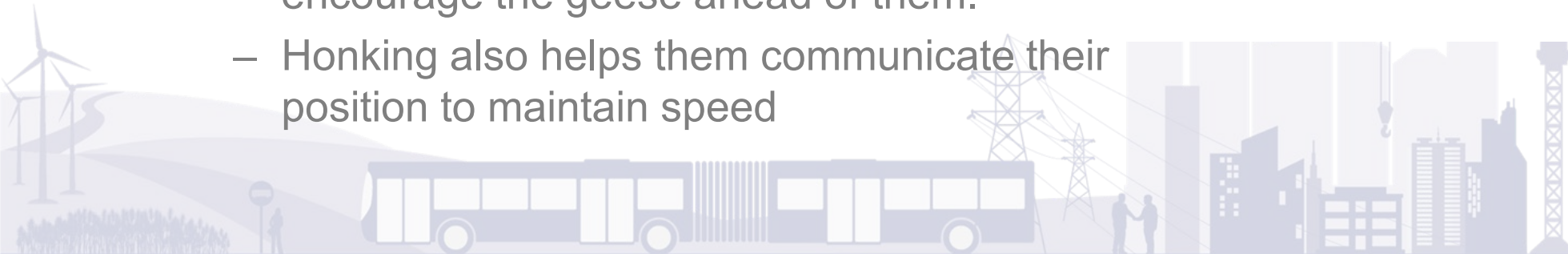
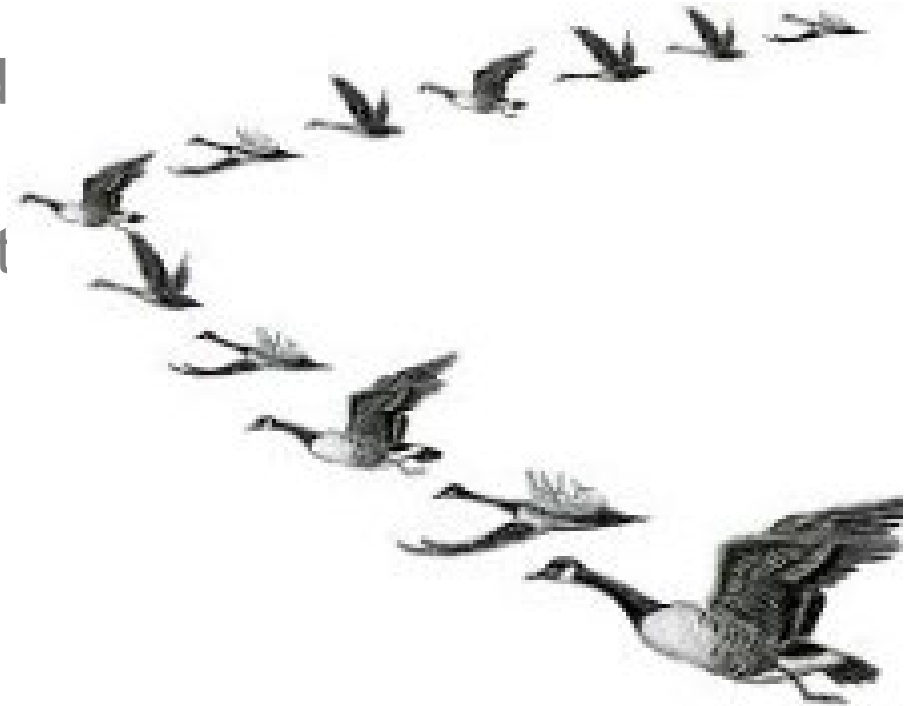


Let's look at the benefits and what geese can teach us...



Communication

- If you've ever seen a flock of geese flying overhead, you've probably noticed their unique "V" formation. It turns out, that the inherent nature of geese in flight has a lot to teach us about leadership, connection and teamwork.
 - Geese flying in a V-formation and honk to encourage the geese ahead of them.
 - Honking also helps them communicate their position to maintain speed



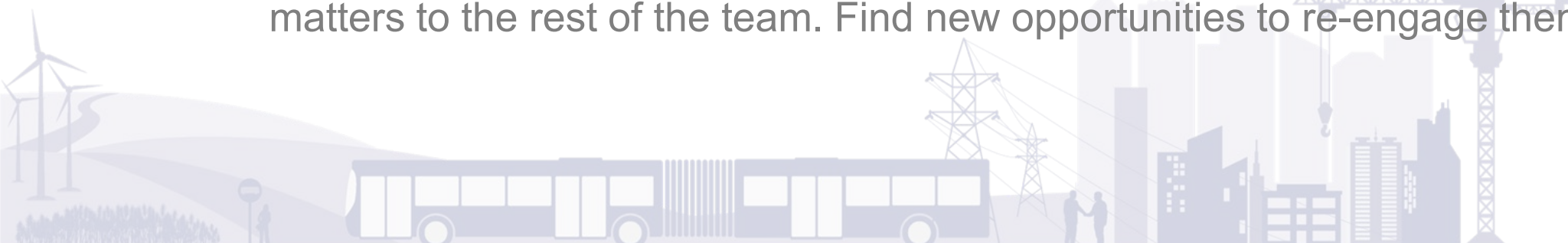
Working together

- As each goose flaps its wings, it creates an “uplift” for the birds that follow. By flying together in one “V” formation, the whole flock adds 71% more momentum than if each bird flew alone.
 - There’s power in unity when a group of people are working toward a shared goal. Great teams recognise and leverage the strengths of each individual, which enable them to accomplish much more than if they were working alone.



Provide support and an open dialogue

- When a goose falls out of formation, it suddenly feels the drag and resistance of flying alone. It quickly recognizes this and moves back into formation to take advantage of the lifting power of the bird immediately in front of it.
 - When one team member is struggling and not showing up as a team player, there's a real risk of morale and productivity issues for the whole team. Quickly address your concerns by inviting your team member into a collaborative dialogue and revisiting the teams' vision, values and goals. Explain how they contribute and why their role matters to the rest of the team. Find new opportunities to re-engage them.



Share the burden – it's not all down to the asset manager

- When the lead goose tires, it rotates back into the formation and another goose flies into the leadership point position.
 - It builds trust and confidence when team members take turns doing the hard tasks and sharing leadership. Like geese, a team is interdependent on each other's skills, capabilities and unique talents. By sharing responsibility and accountability, we develop stronger, more connected teams.



Encourage and value your staff

- Geese flying in formation honk to encourage those up front to keep up their speed
 - When's the last time you gave a shout-out or “honk” to your team? In teams where there is consistent encouragement and recognition, productivity is much greater. The power of encouragement, i.e. to give someone support, confidence, or hope, is the quality of “honking” that creates the culture of connection every team desires.



Look after the staff

- When a goose gets sick or wounded, two geese drop out of formation and follow it down to support, assist and protect. They stay until the goose dies or can fly again. Then, they launch a new formation or catch up with the flock.
 - The very best teams mirror the instinctive behaviours of geese and stand by each other in difficult times, looking out for one another and caring deeply about each other's well-being.

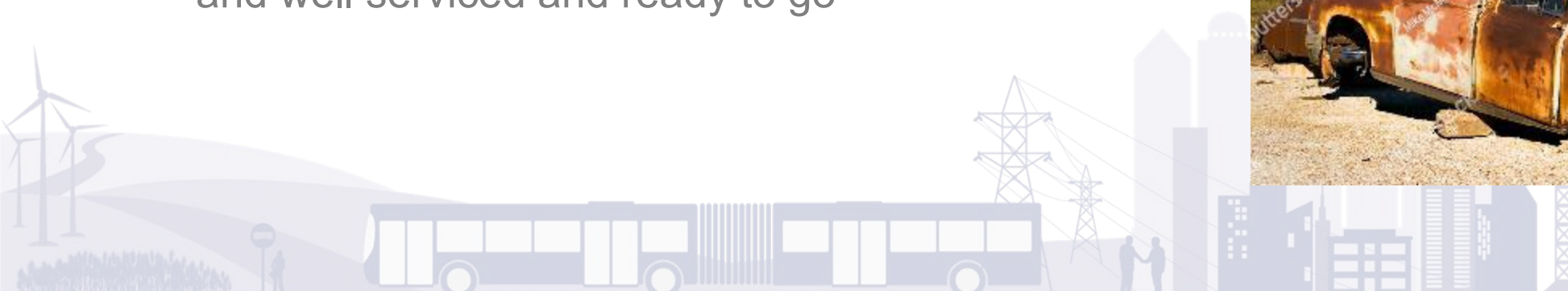


- Get farther, together. ...
- Share leadership. ...
- Be encouraging. ...
- Communicate. ...



Who is an Asset Manager?

- Everyone is an asset manager in one way or another
- Most of us own property, cars, and money for example
- Successful, honest and transparent asset management means taking a long term view of possessions
- A good asset manager will own property in good condition and a car which is generally roadworthy and well serviced and ready to go



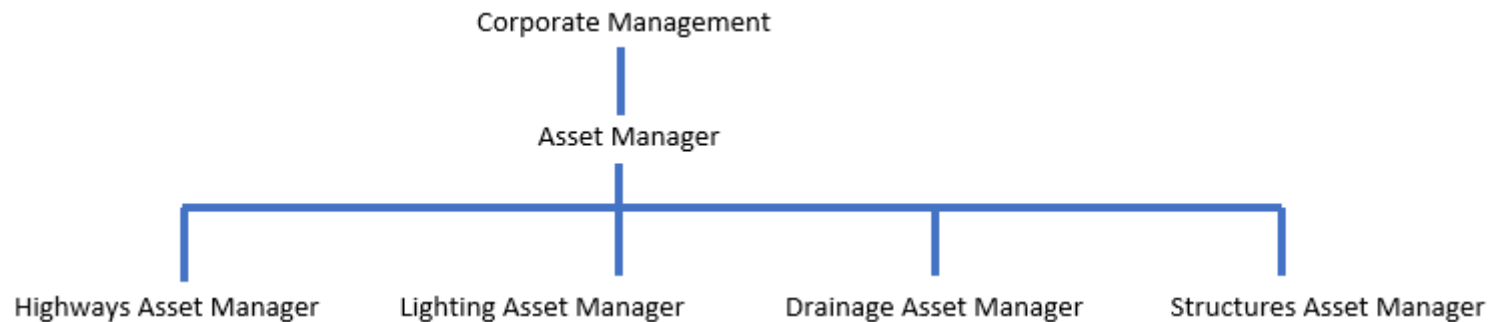
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Asset	Actions	Benefits
House	Clean, paint, repair and monitor	Will keep the property in a safe and habitable condition
Car	Check safety, service, repair and monitor	Will keep the vehicle in a safe and serviceable condition
Aspirations/ future purchases	Consider longevity, maintenance versus cost of replacement, need, value for money	Planning for the future, minimising expenditure on maintenance, maximising longevity
Holiday	Value, benefit, cost, cost benefit analysis	Relax,, recharge & health
Life	Drink and drugs often shorten the lifecycle Fitness and healthy food tend to prolong it	Alive and healthy

Asset managers in the organisation

- Everyone who is responsible for an asset is an asset manager
 - Asset manager
 - Asset group manager
- Is the Drainage Asset Group Manager different to the Drainage Manager, no he just needs to think differently



Asset manager competencies

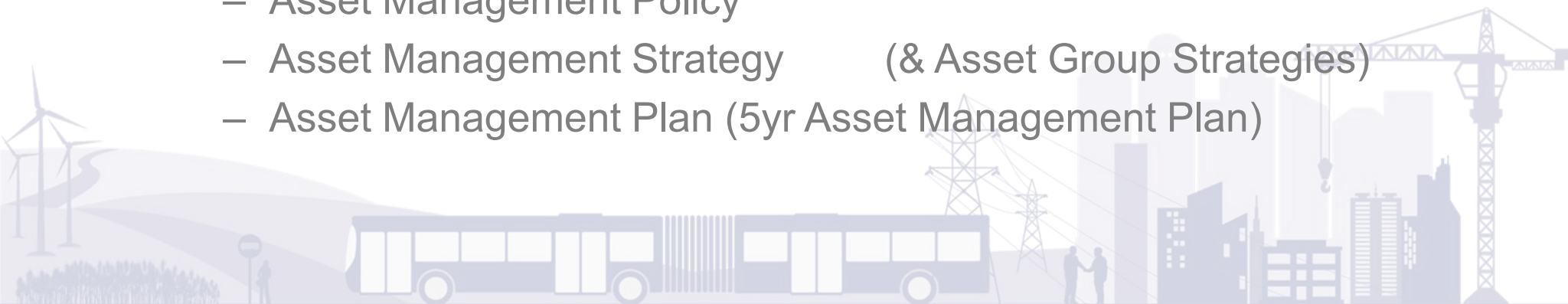
- Determine policy and strategy to achieve the aims, goals and objectives of the organisation
- Understand – Data, it's collection, update and value in decision making
- Analyse – Risk, risk of asset failure, risk of short-lived maintenance solutions, risks to safety
- Plan – Make use of lifecycle planning, plan for the future and what future budgets might be needed
- Enable – lifecycle plans to become a plan of activities that could be developed into annual delivery plans
- Report – Performance, outputs, successes
- Improve - The condition and longevity of assets and maintenance and management practices by monitoring and learning (Lessons Learned)

Policy and Strategy



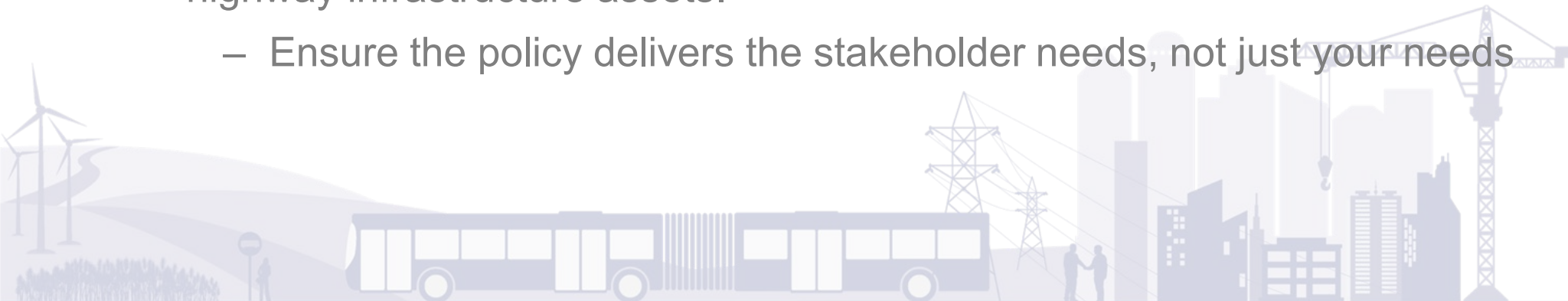
An asset management framework

- Asset management comprises a series of components that are interlinked and provide a process to manage an asset through its life cycle.
- An asset management framework is usually a set of documents which outlines the systems and processes that have been adopted by the organisation to ensure that they have considered their responsibilities with regards to maintaining that asset.
- It usually contains the following documents:
 - Asset Management Policy
 - Asset Management Strategy (& Asset Group Strategies)
 - Asset Management Plan (5yr Asset Management Plan)



Asset Management Policy & Strategy

- Demonstrate the commitment to adopting the principles of asset management by senior decision makers.
- Document the principles, concepts and approach adopted in delivering your business
- Set out the desired headline levels of service from implementing asset management.
 - Safety, Reliability, availability, Sustainability
- Facilitate communication with stakeholders of the approach adopted to managing highway infrastructure assets.
 - Ensure the policy delivers the stakeholder needs, not just your needs



Policy

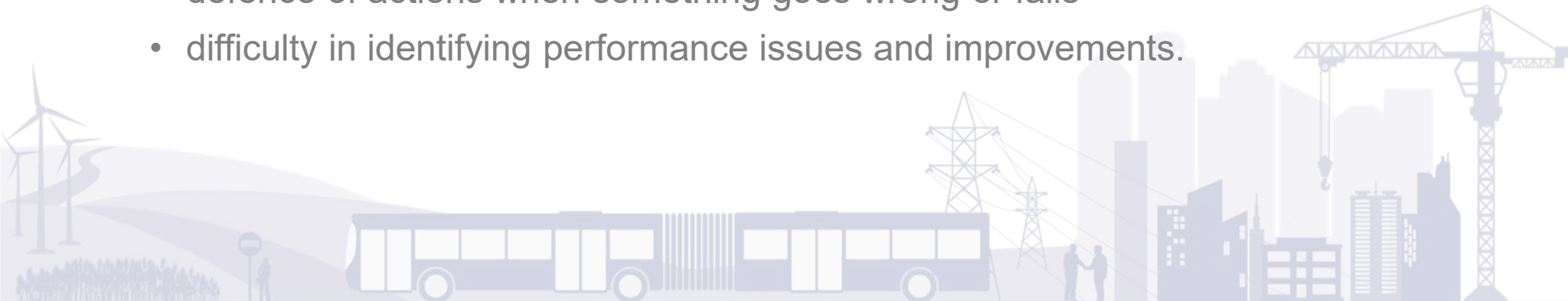
An organisation's policies and strategies define

- how it will operate
- the aims for delivery of its goals and objectives

Good Asset Management within an organisation needs policy and strategy documents to be recorded, adhered to and reviewed annually.

The consequences associated with not having policy and or strategy documents in place include

- lack of direction
- defence of actions when something goes wrong or fails
- difficulty in identifying performance issues and improvements.



What is an asset management Policy?

A policy is a high-level statement of the organisations intent.

For example:

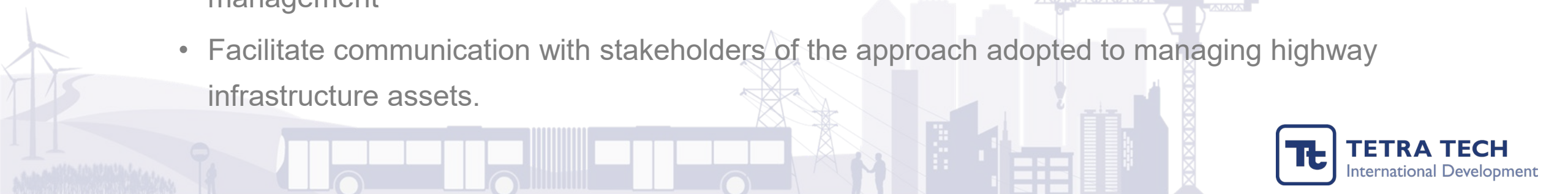
- Government policy is a rule or principle that guides decisions that should result in positive outcomes that enhance the community.

For example – the Council recognises the importance of its local highway network in supporting the delivery of services and achieving the overarching Council vision and transport goals and is committed to applying asset management principles to the management and maintenance of its highway infrastructure”



Asset Management Policy

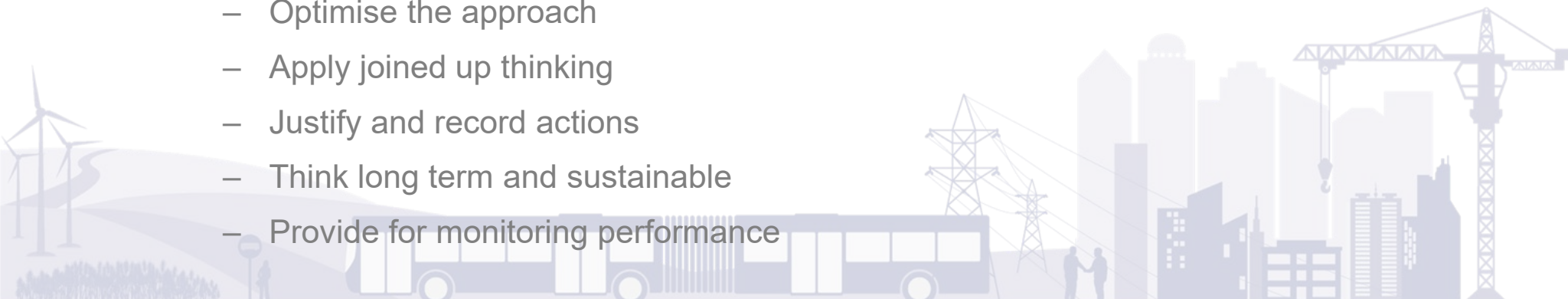
- The asset management policy is a short and concise document that describes the principles adopted in applying asset management to achieve the company's strategic objectives
- It provides a visible commitment to achieving the benefits that can be delivered through asset management and should be established at the highest level
- Ideally, it is a one or two page, stand-alone document that is readily accessible
- It demonstrates the commitment by senior decision makers and should do the following:
 - Make reference to the goals and objectives of the organisation
 - Set out the principles, concepts and approach adopted in delivering a business using asset management
 - Facilitate communication with stakeholders of the approach adopted to managing highway infrastructure assets.



What is a Strategy?

A strategy is a plan of action designed to achieve a long-term or overall aim.

- For example:
 - a plan for moving and setting out troops for a potential battle (a strategy / strategic move)
 - a specific play / tactic devised by the coach and team so as to win a football game
 - a marketing strategy that might look at cost, demand, delivery, product and promotion to ensure the organisation can secure and maintain the market share for its product.
- Strategies need to be coordinated across all assets and have the following attributes:
 - Recognise values and use them to prioritise
 - Consider the risks
 - Optimise the approach
 - Apply joined up thinking
 - Justify and record actions
 - Think long term and sustainable
 - Provide for monitoring performance



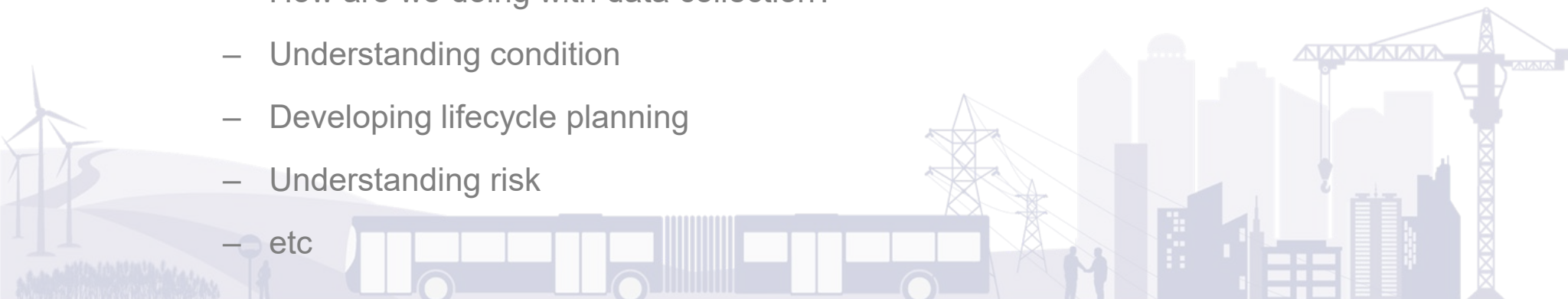
Strategy

- It's a road map



And it has a ...

- Start and a Finish
 - We know the direction
 - We may get diverted
- Need to know how well we are doing
 - Performance Management
 - How far, what's its cost, efficiency (fuel consumption), time, are we on track, can we get back on track?
- In asset management terms that means
 - How are we doing with data collection?
 - Understanding condition
 - Developing lifecycle planning
 - Understanding risk
 - etc



Asset Management Strategy

- Should be a clear and concise high level document setting out how asset management is delivered for the organisation to meet its long term corporate goals and objectives.
- Sets a clear direction for implementation of asset management and provides a link with other relevant documents
- High level plan, broken down into key elements that will require further detail about the specific process and procedures that need to be put in place.
- Provides guidance to employees and an understanding of how the organisation will deliver its product for the customer and investor.

Should cover:

- The strategy for developing asset management
- The strategy each asset group to develop asset performance forward and annual plans

A strategy should

Set out a plan – details and processes

Define what the asset is

State how the condition of the asset will be measured

State the level of service of the asset (condition based)

State what needs doing and how much it will cost to get it to the required level of service

The process for making investment decisions and the priorities for funding

Identification of any critical assets and management of risk associated with those, as well as all other assets

Initiatives undertaken to improve any asset management activities

Specific aspirations or plans and a timescale and funding strategy to achieve them



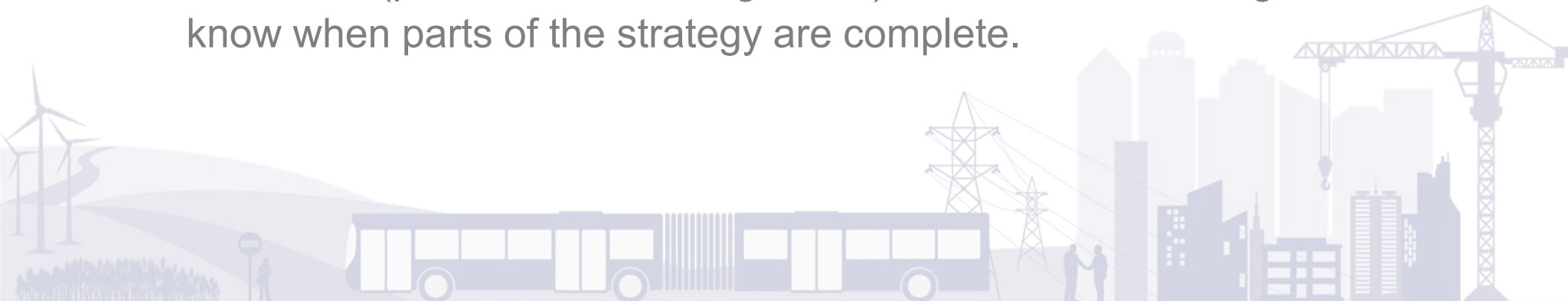
A good strategy makes the case for funding

- Sets out what can be achieved – condition projection and scenarios
- Understands the costs
- Understands the risks
- Requires Data (condition & inventory) – up front investment
- Identifies future rewards



Strategic approach

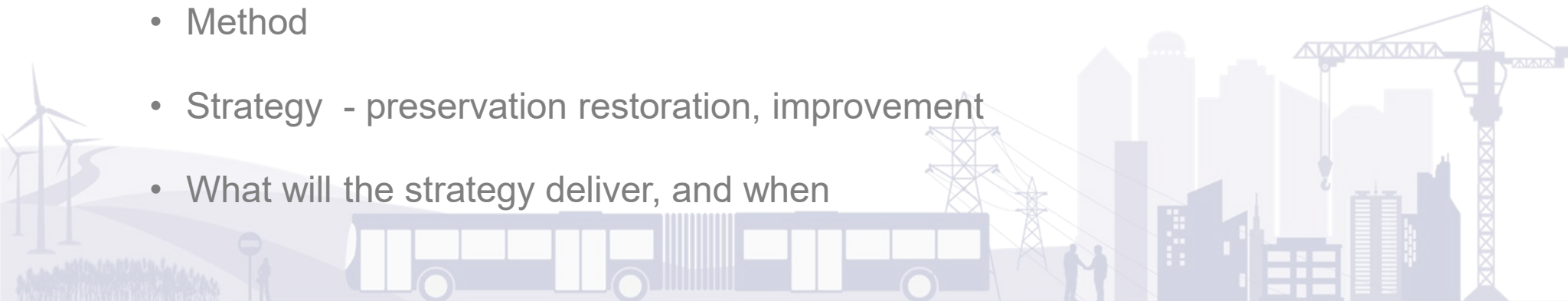
- Strategies may comprise one or more of the following approaches and may set out an intention to move from preventative state to improved:
 - Preventative – preventing further deterioration and ensuring a safe asset
 - Restorative – returning an asset to its original condition
 - Improve – improving the asset and its serviceable state
- Finally the strategy should set an overall time frame for delivery and set out how it will be monitored (performance management) and also how the organisation or stakeholder will know when parts of the strategy are complete.



Strategies for asset groups

A policy and strategy for each asset group

- What it is
- Why it's important
- Service level
- Performance management
- Funding
- Method
- Strategy - preservation restoration, improvement
- What will the strategy deliver, and when

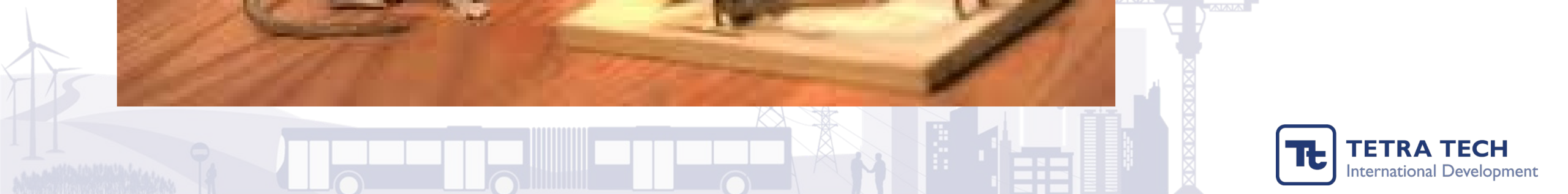


Effective policy and strategy provides

- Plan
- Execution
- Timetable
- Milestones
- Outcomes
- Performance measurement
- Performance management
- Accountability



Risk



What Risks

Asset loss / damage

legal

human

reputation

Service

financial

safety

reduction /

environmental

failure

social

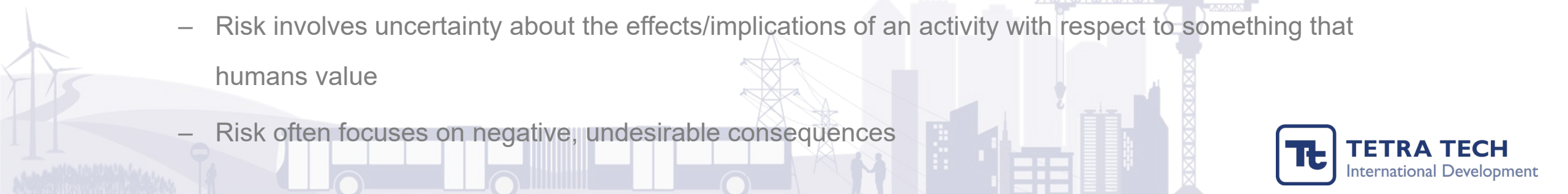
operational

contractual



Defining Risk

- **Risk** is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a **hazard**. It may also apply to situations with property or equipment loss, or harmful effects on the environment.
- Risk refers to an uncertainty about the effects or implications of an activity, or event potentially affecting health, well-being, wealth, property, business, or the environment, and often focuses on the resulting negative consequences
- In simple terms
 - Risk is the possibility of something bad happening
 - Risk involves uncertainty about the effects/implications of an activity with respect to something that humans value
 - Risk often focuses on negative, undesirable consequences



How do we feel about risk?

**He who risks and
fails is better than he
who does nothing at
all**

**If you risk
nothing you
risk everything**

**The fear of risk
never goes away**

**Feel the
fear and
do it
anyway**

**The biggest
risk is doing
nothing**

So why is understanding risk important?

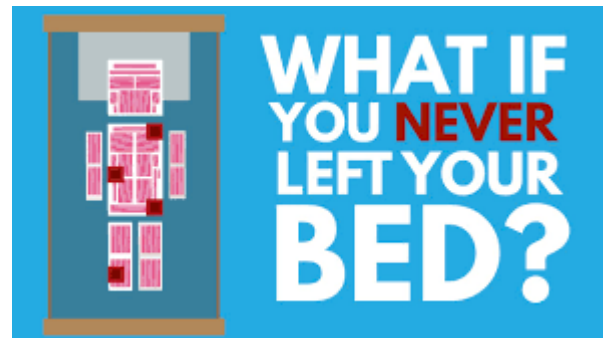
Risk concentrates our mind on where we should be putting our resources

- Climber – concentrates on harness, belay points, rope knots
- Car driver – concentrates on speed, road surface, bends, how relevant is the radio
- Making a cup of tea – concentrates on the boiling water



Why take risks?

- A totally risk averse organisation makes no progress
- So you have to take risks to make progress



Do we understand enough to take risks?

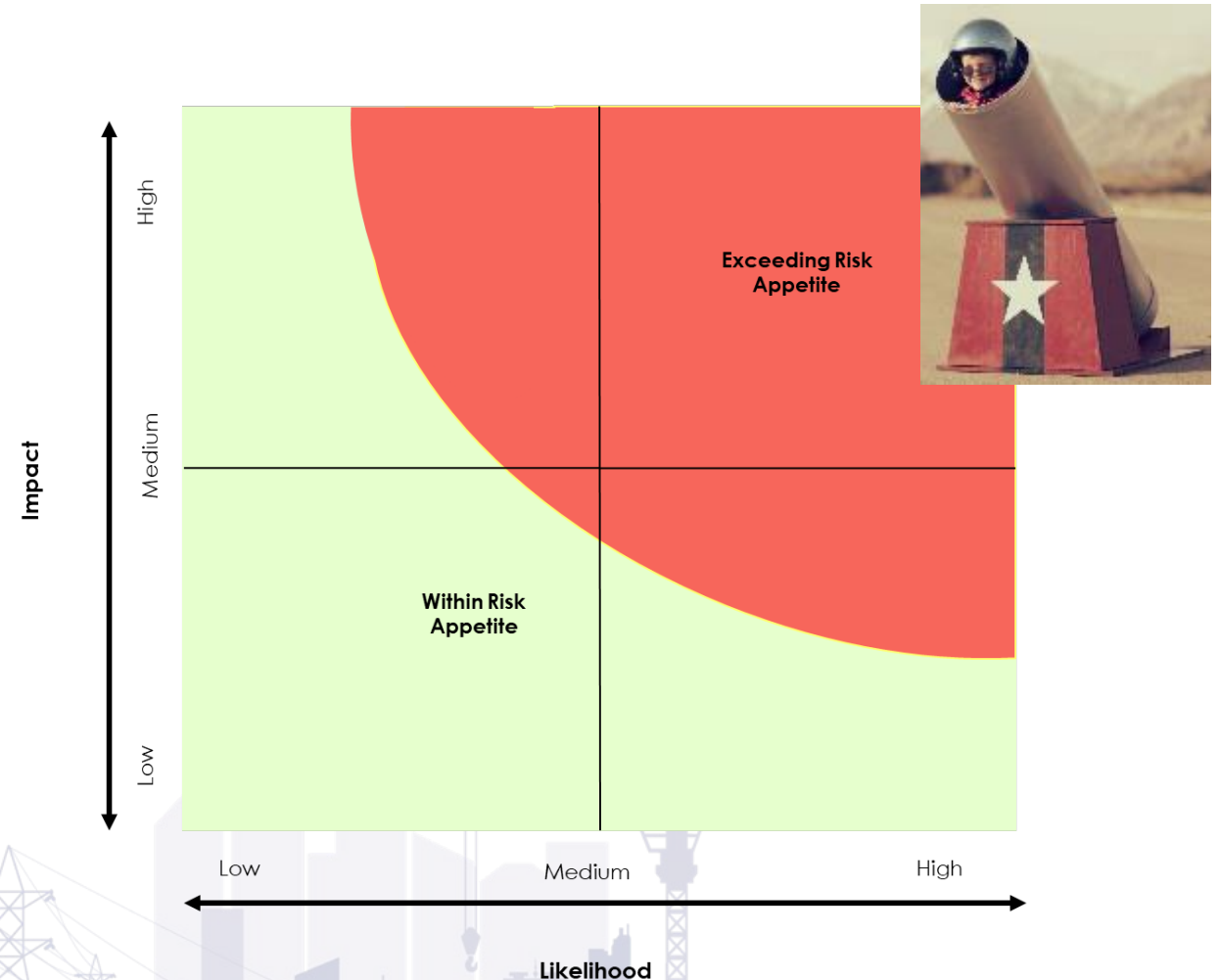
- Known knowns
 - Risks known and understood to some level
- Known unknowns
 - Risks that are potential risks, but not yet understood
- Unknown knowns
 - Risks where all the necessary information is known, but the whole picture is not understood enough to take any action
- Unknown unknowns
 - The biggest risk as these are risks that are completely unexpected and that nothing is known about



How far depends on Appetite for risk

- Risk appetite describes the level of risk that an organisation will take in pursuit of its goals and objectives before action is deemed necessary to reduce the risk.
- It represents a balance between the potential benefits of innovation and the threats, that change inevitably brings.

"Amount and type of risk that an organisation is prepared to pursue, retain or take"



Risk tolerance and capacity

- Risk tolerance reflects the level of returns that an organisation is willing to withstand in their planning, its an important component to consider and those individuals or organisations with a higher net worth and more disposable income may afford to take greater risks.
- Risk capacity is the amount of risk that the individual or organisation can afford to take to reach their goals and objectives and should be balanced against the rate of return.



Mapping risk

- Identify
- Map
- Assess
- Communicate
- Mitigate

- Can we plan for risk – Risk Assessments



Using a Risk Register

- Individual risks should be identified and included within a Risk Register comprising all risks likely to affect the assets or delivery of the organisation's goals and objectives.
- Risk registers provide the opportunity for those risks associated with the assets maintenance and management to be identified. These may be **corporate, tactical, or operational**, and ensuring risks are referenced in this way assists in clarifying ownership of how these risks will be managed in the future.
- For example, one of the common risks arising in the maintenance of the highway infrastructure assets is a lack of funding for staff and resources to deliver effective asset management. Whilst this affects the tactical and operational areas of the service the provision of funding is a corporate issue and as a consequence should be referred to the corporate level for resolution. An example of a risk register can be found in figure 11 and illustrates the level of detail that can be recorded against an asset.

Identify Risk - Simple

ID	Date raised	Risk description	Likelihood of the risk occurring	Impact if the risk occurs	Severity Rating based on impact & likelihood.	Owner Person who will manage the risk.	Mitigating action Actions to mitigate the risk e.g. reduce the likelihood.
1	[enter date]	Project purpose and need is not well-defined.	Medium	High	High	Project Sponsor	Complete a business case if not already provided and ensure purpose is well defined on Project Charter and PID.
2	[enter date]	Project design and deliverable definition is incomplete.	Low	High	High	Project Sponsor	Define the scope in detail via design workshops with input from subject matter experts.
3	[enter date]	Project schedule is not clearly defined or understood	Low	Medium	Medium	Project Manager	Hold scheduling workshops with the project team so they understand the plan and likelihood of missed tasks is reduced.



Identify Risk – add a risk score

Risk ID	Risk Ref	Subject	Risk Type	Risk Group	Risk	Possible Service Levels / Pis	Consequence	Probability of Event	ORR1	Consequence of Event	ORR2	Inherent Risk Score	Mitigation
AB-0001	Reviewed 18-12-18	Arboricultural	Strategic / Tactical	Operational	No formal processes or procedures		increased safety risk, difficulty defending claims	HIGH	5	MEDIUM	3	✖️ 15	Employed new Manager to deliver new processes
AB-0002	Reviewed 18-12-18	Arboricultural	Operational	Service Failure / Reduction	Day to Day enquiries not being dealt with	Monitor enquiries / inspections, defects raised, defects actioned for work, defects resolved, inc time to meet each stage	Risk of missing high risk situation which will lead to increased safety risk, difficulty in defending claims	HIGH	5	HIGH	4	✖️ 20	Temporary staff being used and no substantial triage being undertaken to risk assess any enquiries
AB-0003	Reviewed 18-12-18	Arboricultural	Strategic / Tactical	Service Failure / Reduction	Not understanding maintenance need within the department	Use Pis to understand budget and manpower resource requirements	Not able to set budgets and understand service levels	MEDIUM	4	HIGH	4	✖️ 16	Employed new Manager to deliver new processes and understand the budgets required

Assessing and scoring risk

- Severe
- High
- Medium
- Low
- Negligible

LIKELIHOOD OF EVENT OCCURRING	CONSEQUENCE OF EVENT OCCURRING				
	NEGLIGIBLE	LOW	MEDIUM	HIGH	SEVERE
NEGLIGIBLE	1	2	3	4	5
VERY LOW	2	4	6	8	10
LOW	3	6	9	12	15
MEDIUM	4	8	12	16	20
HIGH	5	10	15	20	25
KEY TO RISKS					
LOW		MEDIUM		HIGH	



Communicate Risk

- Who do we tell?
- When do we tell them?
- How do we tell them?
- Why do we tell them?
- What do we tell them?
- Where do we tell them?

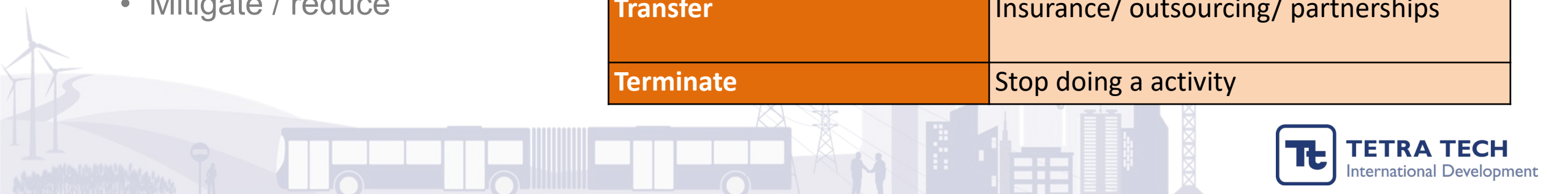


Mitigating risk



- Transfer
- Program
- Manage
- Live with
- Terminate
- Tolerate / accept
- Mitigate / reduce

Response	Which means?
Tolerate	Do nothing 'extra' to manage the risk.
Treat	Mitigating the risk by managing either: <ul style="list-style-type: none"> • the likelihood • the impact • or both
Transfer	Insurance/ outsourcing/ partnerships
Terminate	Stop doing a activity



Where can we take risks?

Where we can afford to, perhaps

- Low flow roads – less traffic
- Low speed roads – less speed
- Non essential elements of the network
- Where mitigating measures are in place
 - Speed reduction
 - Single flow



How can we use risk?

- To identify where areas of the organisation or the infrastructure network are vulnerable
 - Risk Register - Action plan and address

- To prioritise works from a forward works plan
 - High risk – action required
 - Low risk – defer / no action



Encouraging the use of risk - UK Road Funding

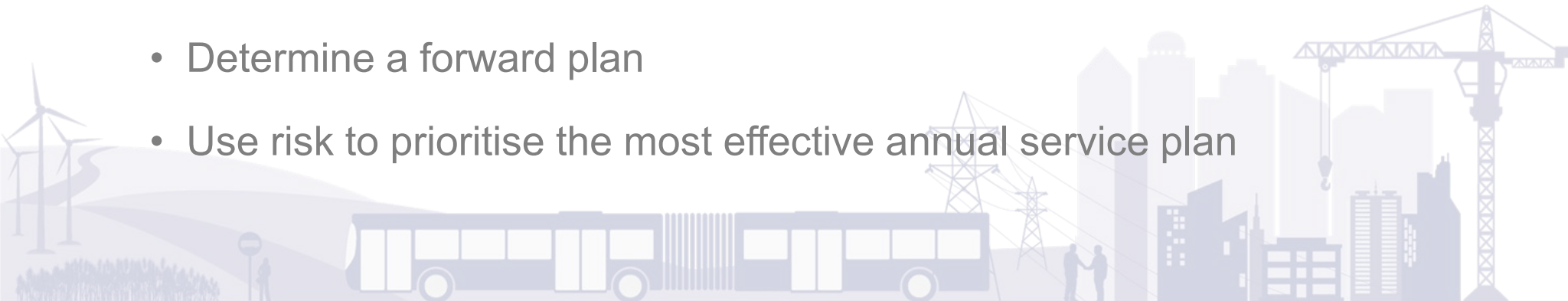
- Road Funding does not meet the maintenance need based on a planned lifecycle approach
- However the UK Dept of Transport won't fully fund maintenance as it stifles
 - Innovation
 - Using a risk based approach
 - Improving efficiency



... and don't forget, the purpose of asset management is to reduce risk

... and we're better at doing that if we understand

- What we have
- The condition it's in
- The service lives
- The costs
- And can produce a lifecycle plan / condition projection model
- Determine a forward plan
- Use risk to prioritise the most effective annual service plan



Next steps

- Reflect on the asset management principles discussed today
 - Are there initiatives/topics FERMA is already working on/towards?
 - What are priorities for FERMA?
 - Is there a strategy in place for the development of asset management in FERMA?
 - Where can UKNIAF support be best targeted?
- Invitation for the next workshop will be sent out in due course.
- Next workshop will cover:
 - Road Hierarchy
 - Data
 - Data collection methods
 - Data management



Leadership, Organisation, Policy, Strategy and Risk

Presented by:

- Stephen Mead

UKNIAF RD0011 Workshop 1

Thank you for your presence