



Visualisation and Control Rooms

John Bilsland



- **A bit about me**
- **Network Rail Overview**
- **Individual Self Assessment**
- **Reflection on themes**
- **Overview of Policy Deployment**
- **Policy deployment into visualisation / control rooms**
- **Hits and Tips for success**
- **Questions and Answers**

A bit about me:

- The first 12 years of my career was spent working in the Automotive Industry:
 - Started my Lean journey on the shop floor as an Production engineer and progressed through to position of Global Projects Manager.
- Next 8 years have been spent in the Rail Industry working for NR
- Currently responsible for the
 - Development of a NR Operating Model
 - Maturity Assessment
 - Lean Corporate Strategy
 - Assurance to the board on policy deployment across our business

We run, maintain and develop Britain's rail tracks, signalling, bridges, tunnels, level crossings and many key stations within England, Wales and Scotland

The growing the railway:

- Our priorities when we took over running the railway in 2002 were to improve safety and punctuality, and to reduce costs. These all remain as important as ever.**
- But now the most urgent challenge we face is the need to increase the railway's capacity. Rapid growth in passenger numbers Over the past 20 years passenger numbers have doubled – more than 4.5m people use the network every day. This is twice as many passengers as in the 1920s – when the network was more than twice its current size.**
- Almost 1.7 billion passenger journeys are now made on our railway every year. That's a third more journeys than five years ago and this growth is set to continue**
- This ever-increasing demand on the railway means that congestion is a huge daily challenge. This is why Network Rail is now carrying out the biggest railway investment programme since the Victorian era. Between 2014 and 2019, we are investing more than £25 billion in growing and expanding the railway infrastructure.**

TIMELINE of Improvement across Network Rail



Six Sigma deployed across the organisation. Deployed to every function of the business

Pilot deployment of Lean and visualisation / Control Rooms commenced (Maintenance).

Lean deployment taking place across each business unit. Supported by CEO and board



Six Sigma had limited corporate exposure and faded out as a corporate improvement approach. Knowledge and experience in Six Sigma gradually left the business.

Functional wide deployment (Maintenance and Operations) of visualisation / Control Rooms commenced

EXERCISE: Individual Assessment



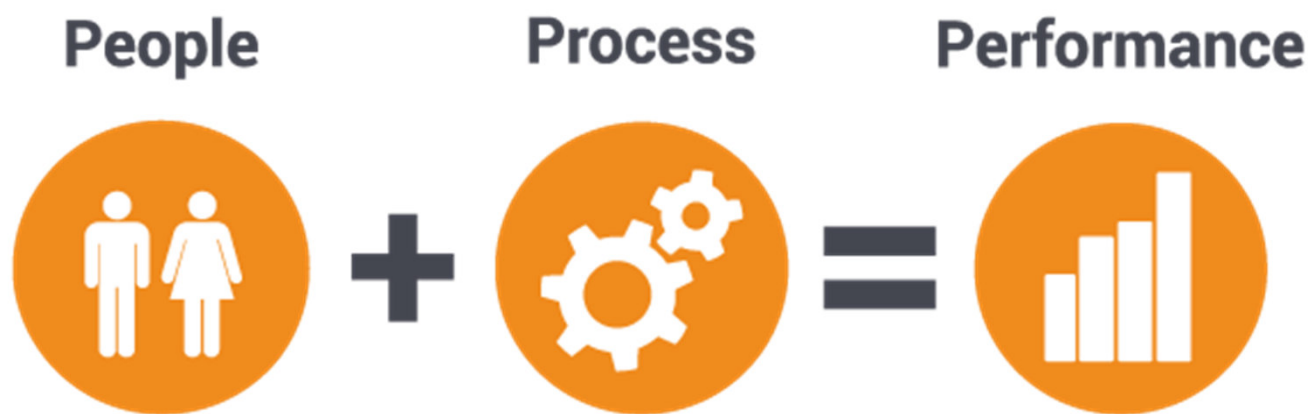
- Individually complete the self assessment form.
- Feedback to the other member of the group.
- Hand out both slides

Time: 25 minutes

Reflection from Self Assessment



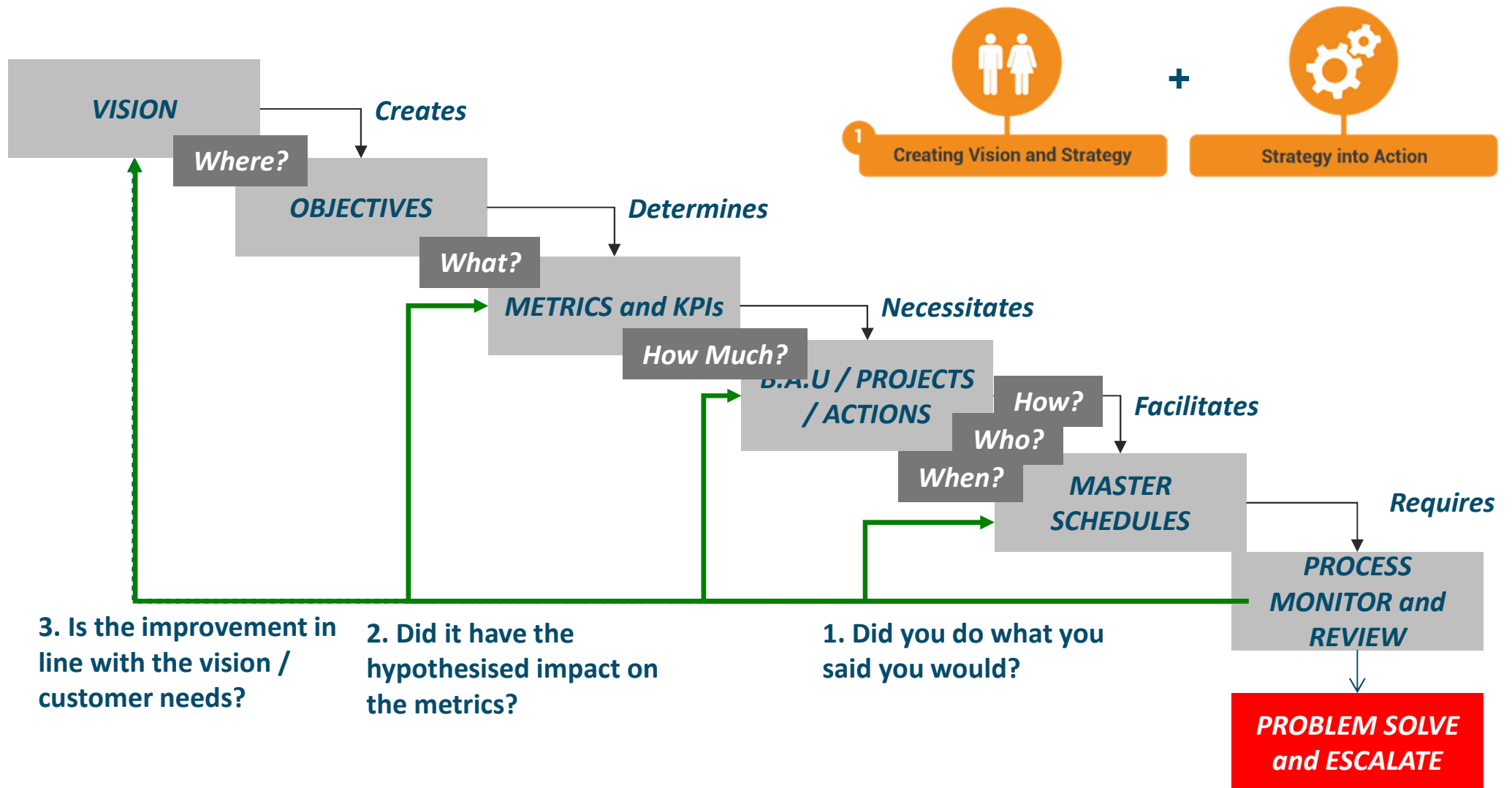
True Transformation requires a step change in both the processes that are used and in the people using them. This combined will lead to a sustainable step change in business performance and an ongoing culture of continuous improvement.



Successful business improvements and transformations require the creation of an organisational structure that will be capable of turning vision into action

- Defining the Vision and Mission
- Measurement and analysis of the current state.
- Driving change initiatives to meet that vision.
- Maintaining and sustaining a continual improvement culture

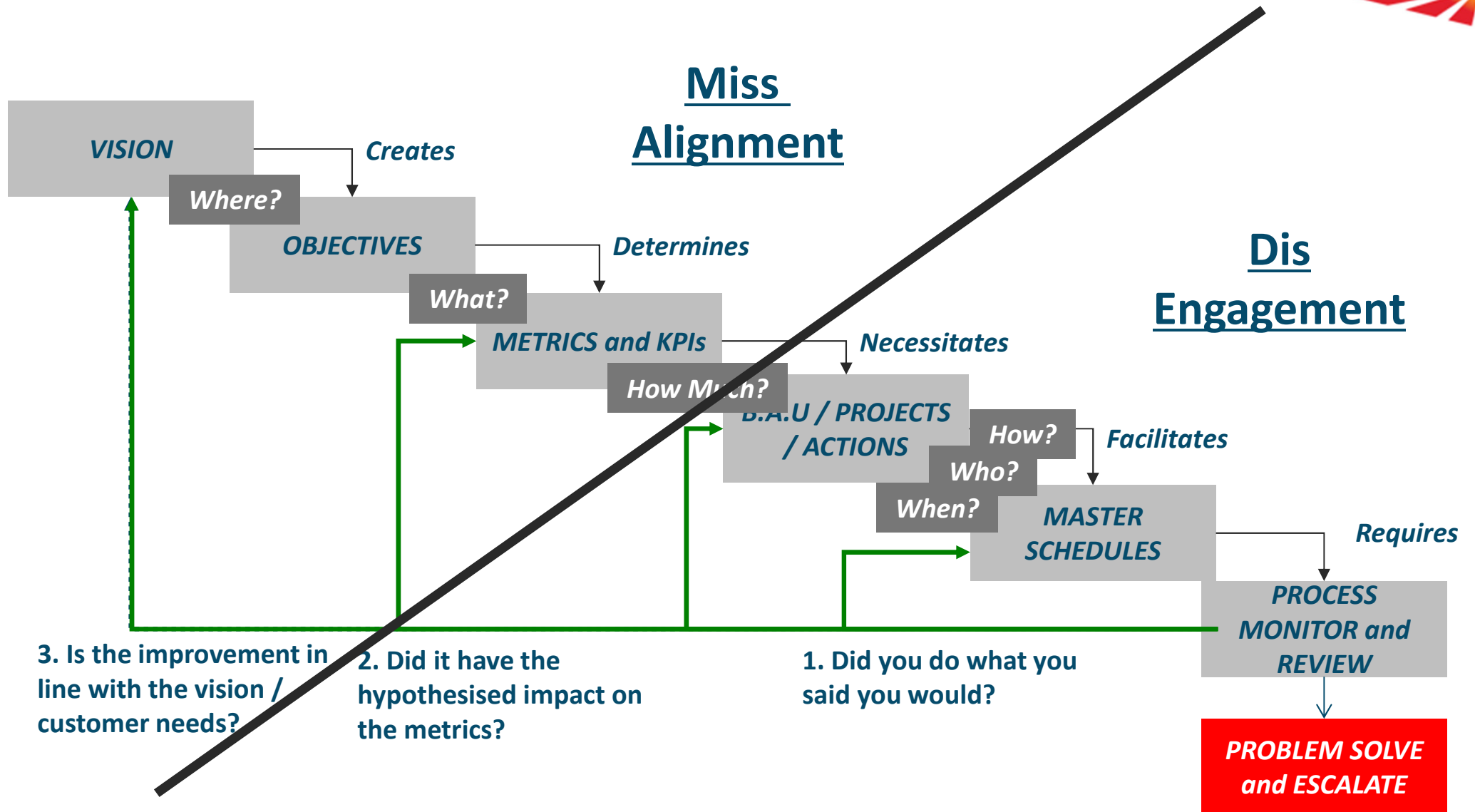
Deployment Model



Why Transformations fail

Miss Alignment

Dis Engagement



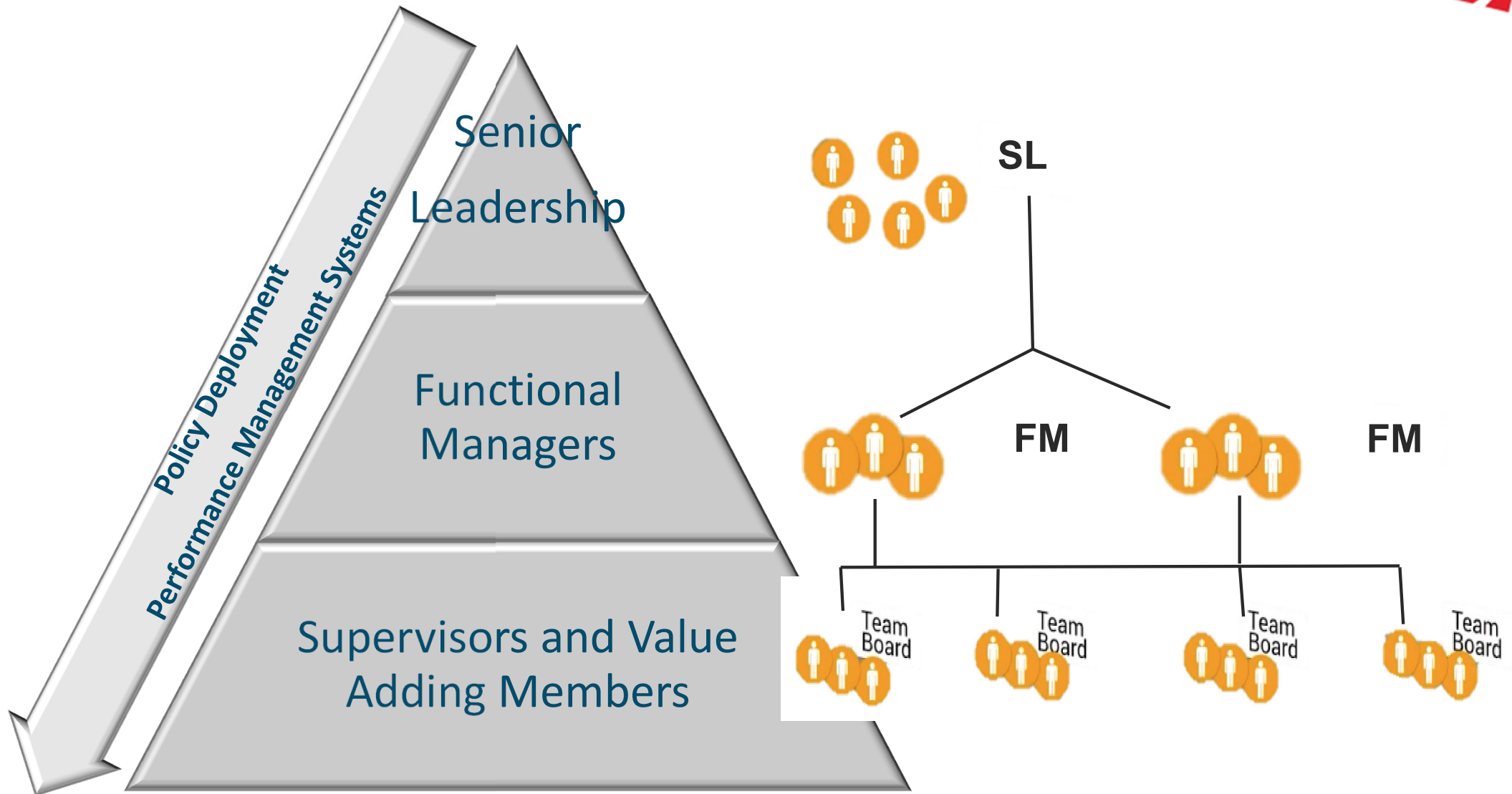
Objectives

Identifying the Strategic Goals and Objectives that will enable and engage the workforce to understand where the business wants to move towards and motivate them to ensure that their contribution counts along the Journey.



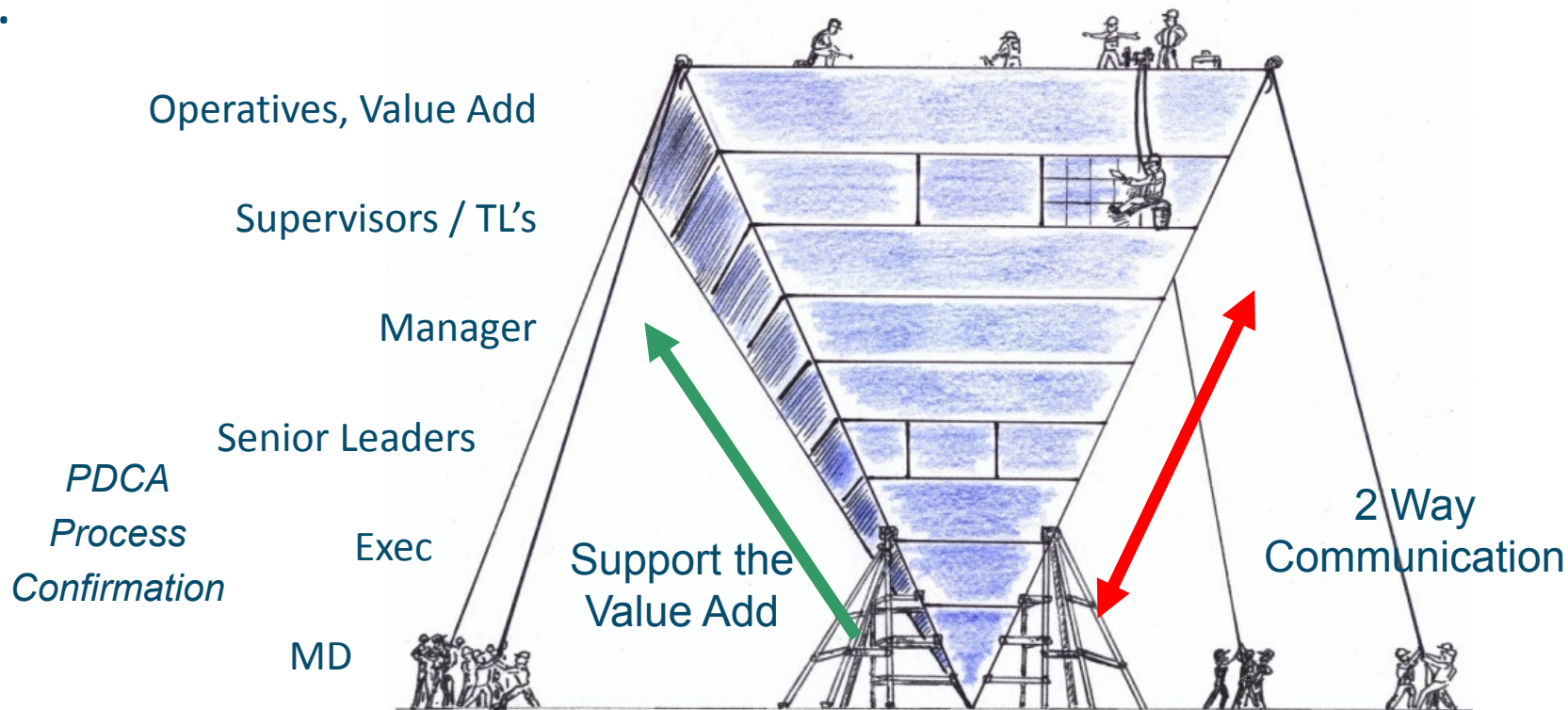


Policy Deployment, Strategy Into Action, Start



WHY, Support and Engage the Value Add

To support the organisation through generation of two way information flow, by establishing further tools within the policy deployment process to support the business performance visually, with a clearly defined escalation policy.



The process of communicating effectively, and the structure to support the entire process are critical elements for successful implementation.



- The performance management Process encourages *“contribution to the whole”, “target orientation”* and *“trust and integrity”* in our day to day business, focused on establishing and enhancing Accountability and Ownership
- Regular, structured, team meetings around whiteboards displaying relevant KPI’s[Key performance indicators], concerns and actions to drive corrective action and continuous improvement.
- Measuring *“the right things right, at the right level and at the right frequency”*
- Social Mechanism for Coaching Conversations

The Goal of Visual Management



Drive ownership & responsibility to all levels in the organisation

Regular dialogue and rigorous Plan, Do, Check, Act (attribute of Go Look See)

All employees recognise, own contribution and understand their contribution to business performance

The right metrics drive our “System”, measure what individuals can control and improve [valid and relevant]

Create the Social Mechanism for Coaching Conversations

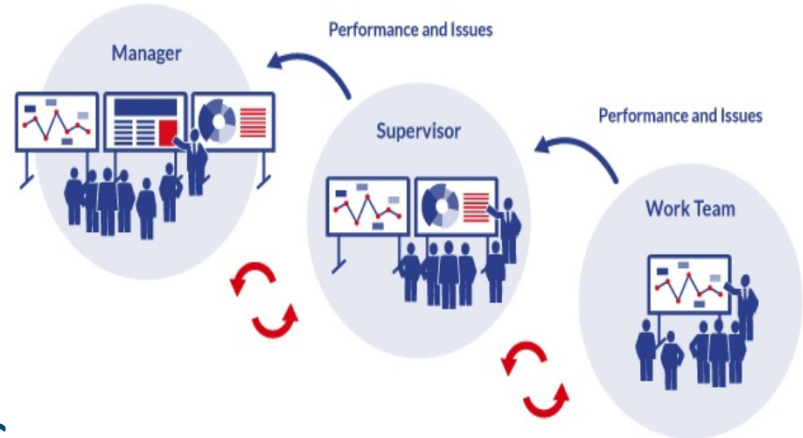
Cascade and Alignment



Level 1 VMC

Level 2 VMC

Level 3 VMC



Social Mechanism for COACHING Conversations

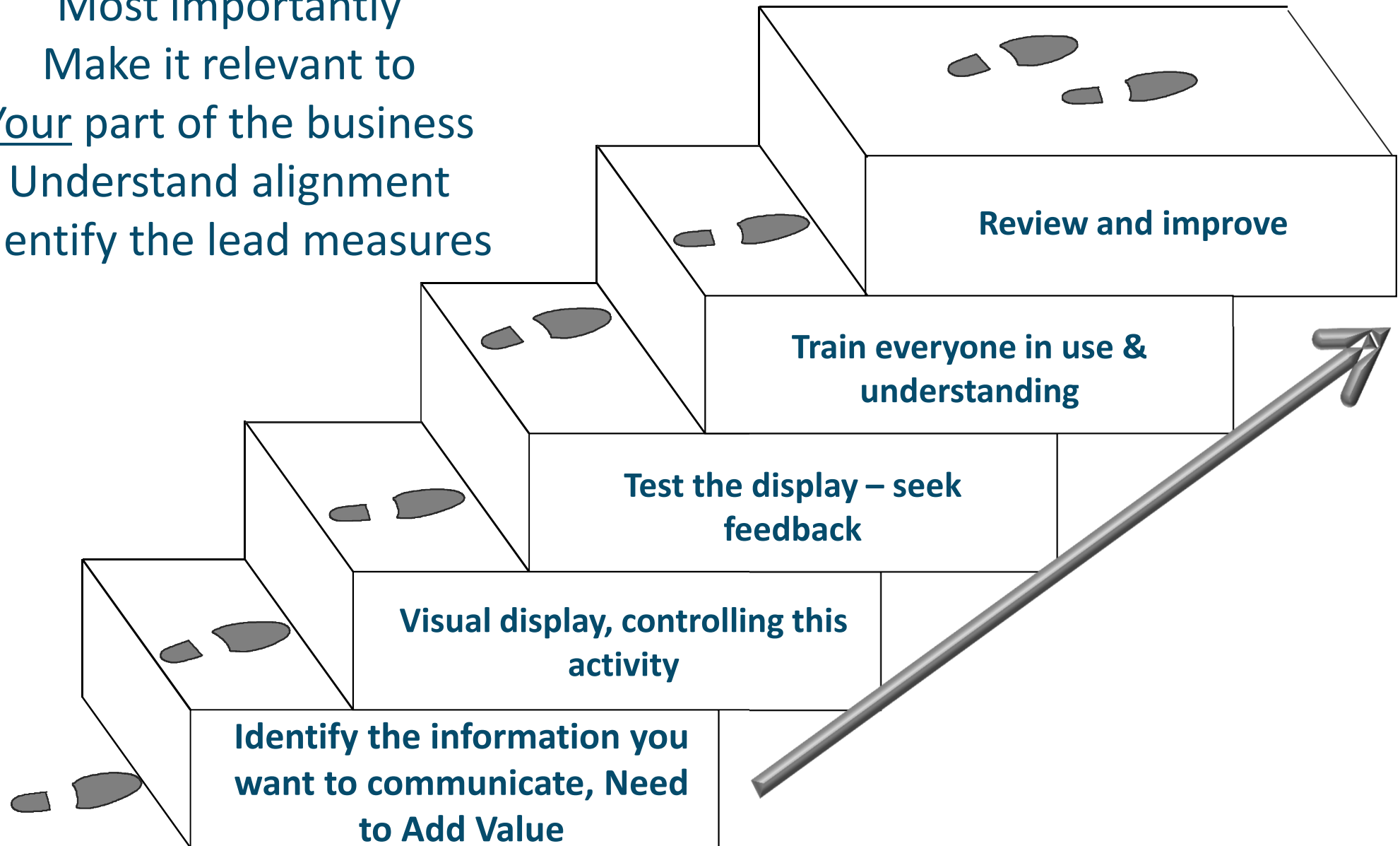
Level 4,5 VMC

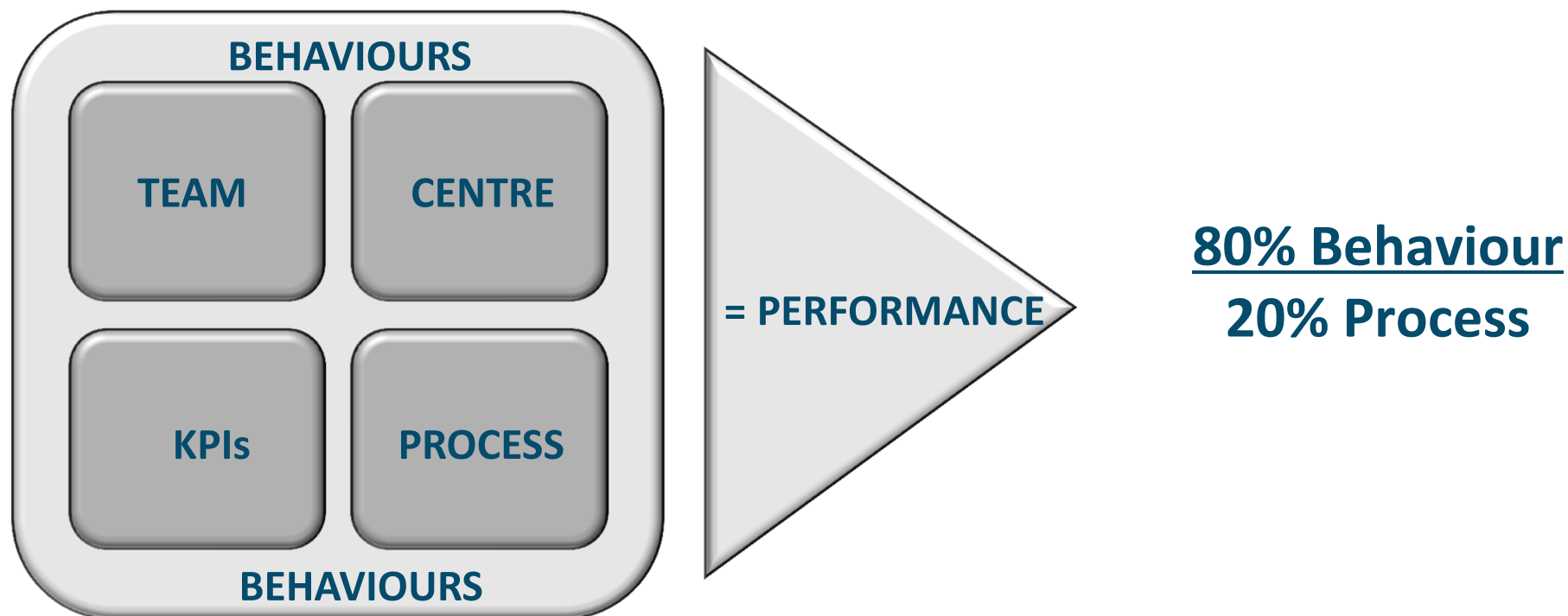
Level 6,7
Daily

Information flows up & down the Management chain

Implement

Most importantly
Make it relevant to
Your part of the business
Understand alignment
Identify the lead measures

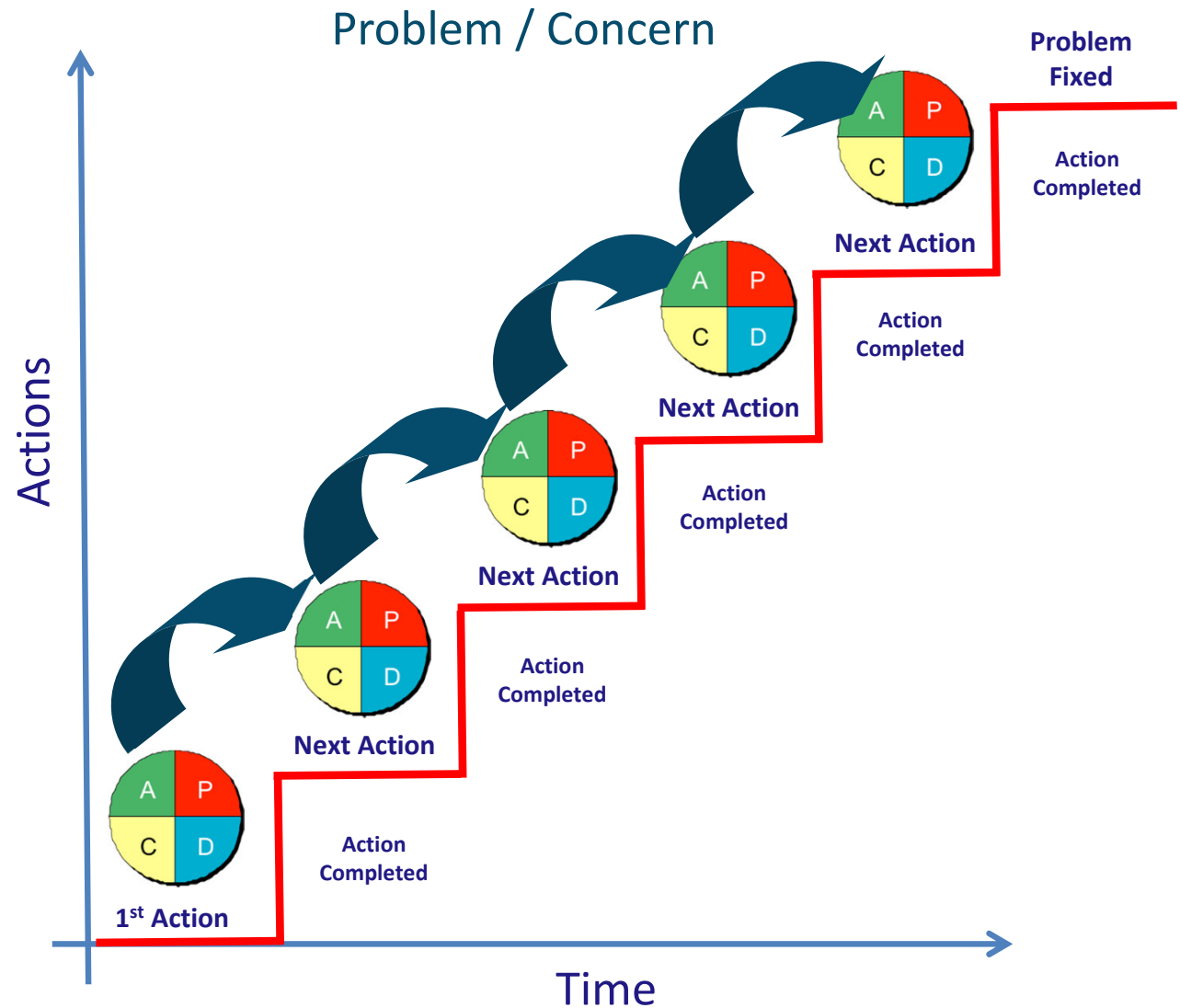




BEHAVIOUR: Demonstrating The Right Behaviours are essential to achieve the Benefits of Performance

Concern, Action (Step by Step approach)

- Problems are solved 'step by step' an action at a time.
- Each action has clear owner
- Each action has clear due date for completion.
- When action is completed and confirmed then 'What is the next action'?
- Repeat until the Problem is solved.



- Data should speak louder than words
- Ideal visualisation should not only communicate clearly, but stimulate viewer engagement, attention and action.
- Well-crafted data visualisation helps uncover trends, realise insights, explore sources, and tell stories
- To use data to provide knowledge in the most effective manner possible (provide relevant, timely and complete data to each audience member in a clear and understandable manner that conveys important meaning, is actionable and can affect understanding, behaviour and decisions)

The ability for anyone visiting to understand within 3 minutes which department you are in, what are that departments key objectives and its current performance status

Any Manger, Leader must be able to very quickly assimilate status and information to make rapid decisions and set priorities

Minute Management

- Seconds – instant Red or Green – Normal or abnormal condition
- 3 minutes – can understand priorities and actions in support of status, understand why there is a gap and what is being done by who and by when

- Standardised Management Approach
 - Through Use Of Information Displayed
- Drive Performance-focused Behaviours
 - By Focus On The Actions Required To Deliver Results
- Recognise The Abnormal Condition
 - By Delays Or Concerns Being Clearly Visible
- Facilitate Effective Prioritised Planning
 - By Common Understanding Of Current Status
- Drive True Problem Understanding & Resolution.
 - By Analysis Of Facts.
- Recognise Contribution And Individuals
 - Through Praise (Gold Stars), Awards

Behaviours:

- Do Not Accept Non-conformance
- Challenge The Condition, Create Positive Tension
- Go, Look, See
- Lead By Example
- Without The Correct Leadership Behaviour, VMC Is Just Another Tool

Examples

Ships Production
Level 1



Ship Production
Level 2 (on Ship)



Ship Production
Level 3 (on Ship)



Maintenance
Depot Front Line



Employee Engagement through



Visualisation
performance
centres

Martin Ball and
the Bletchley team
demonstrate



A DEVELOPING PICTURE

Martin Ball explains how performance is being presented at Bletchley

➔ When Bletchley Delivery Unit (DU) volunteered to be guinea pigs for the visualisation performance centre programme, they didn't know what to expect. But, as infrastructure maintenance delivery manager Martin Ball explains, it's proved a fascinating process.

"The idea is to create a very visual reference point for all the activity, programmes and projects going on in the delivery unit," said Martin.

"We were given a series of white boards to use to pull together all the information that contributes to the successful running of the DU. Where

It was previously on computer screens and in our heads, it's now very clearly laid out on the boards for all to see.

"It allows us to see at a glance where we are doing well, and what areas can be improved on."

A public reminder

A real benefit, says Martin, is that it gives ownership of work areas to individual members of the team.

"Go, safety, health and environment will be the responsibility of one person, while systems support belongs to another. It helps people develop outside of their everyday roles, and

"IT HELPS YOU BE CLEAR ON WHAT YOU'RE DOING AND TO STAY FOCUSED ON DELIVERY"



Visualisation performance centres have now been set up in Stafford, Edinburgh, Cardiff, Swindon and Ipswich delivery unit. Ten more started during July and all delivery units will be underway by September.

keeps us all focused on constant improvement.

"A system of crosses and dots shows which areas are on track and which need attention. Go with close calls, we have a target of zero being open after 28 days. If we miss that target, we'll be looking to discuss our processes. We'll ask, 'why is the figure not zero?' and 'what do we need to do to improve?'

"The final board lists all of the actions that need to be taken and who is responsible for them – it's a very public reminder helps us stay focused on what needs to be done."

Staying focused on delivery

"The information is updated on daily basis and a weekly meeting brings together about a dozen key members of the team to talk through the whole scene and decide what needs to be done.

"The decision on what data to use in your visualisation centre is down to the DU. It's a tool designed to make life easier in delivery units – seeing all your information presented visually is really useful. It helps you be clear on what you're doing and to stay focused on delivery.

"Our team have found it to be a good thing."

HIGH SPEED
LINES MARGIN
TEXT

Visualisation centres create a reference point for all activity in a delivery unit.

Each DU decides what performance data to present

Individuals will own areas of activity and keep them updated

At a glance it Enabled us to see where we are doing well, and where we need to improve

We'll ask Why, is this figure not zero? What do we need to do to improve?

Our team have found it to be a good thing!



FIND OUT MORE

Anyone who wants to see more about how visualisation performance is working for Bletchley can email Martin at Martin.Ball@Networkrail.co.uk.

A section Manager's experience of using Visual Management

Derek Halstead, Section Manager Signalling at Salisbury, has been using visual management for six weeks now. He gives us his views of it:

"I was apprehensive at first as I had never put information like this up on boards before. But now I can really see it working and how useful it is. The Vis meetings pull the team together, show us our weaknesses and allow us to come up with action plans to resolve them.

"We used to have regular meetings around planning and productivity, then a different meeting on close calls and then different meeting on red zone working but now all this information is pulled together into one meeting. The information has always been there but not put together like this and made visible to everyone.

"In helping me to make this a success, I have had a huge amount of support and encouragement from my Signalling Engineer, plus I get structured coaching after each meeting with feedback so I can improve my meetings further.

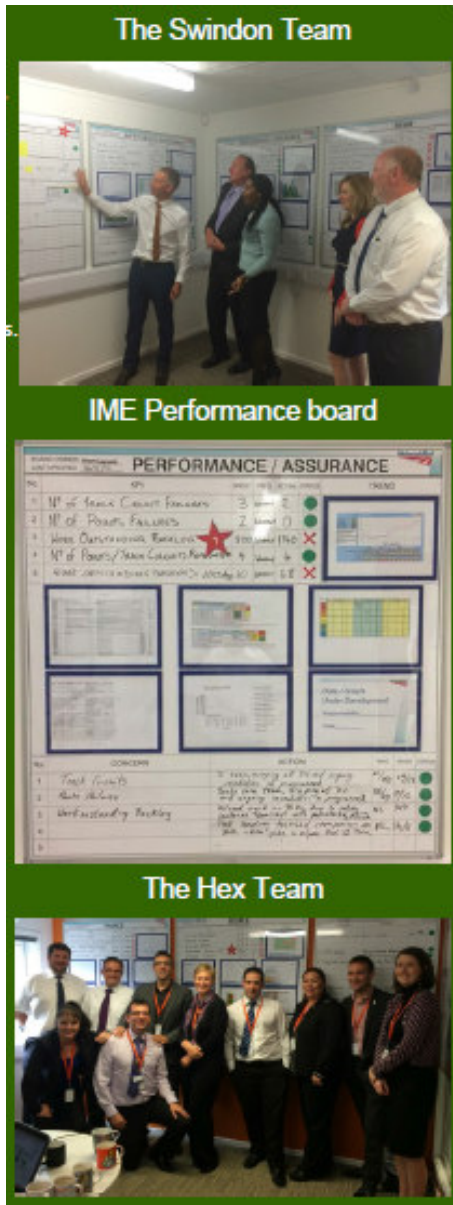
"My team have made changes as a result of visual management and we are heading in the right direction. The Vis meetings bring everyone together and everyone can see how the depot runs and what we are accountable for. As a team, we agree on the actions, so we have a better chance of achieving them as everyone buys into what we are going to do.

"We are continuously improving our Vis meetings by changing and adapting in response to the business. When we have regularly achieved a target, we set a stretch target and we often add new items to the boards so we get even better.

"I run the Vis meetings for Signalling at Salisbury and Yeovil and I think visual management is a very good tool at helping me achieve what is expected of me and the team."



A Delivery Unit Manager experience of using Visual Management



“Through our continued efforts to improve our safe delivery of performance, we need tools within our job to aid us in managing the increasing workloads we face. The introduction of the Visualisation room is one of our key tools that help us deliver this. It has brought organisation, coordination and simply, visualisation of all our key priorities.

Since the introduction of this process, and its prominent dedicated room within the delivery unit, the teams safe performance has grown in stature. As a result we have received recognition from within the route and from national teams in providing a great demonstration of business leadership. I am really pleased and proud of the team in how they have engaged with the process and used it to make a positive difference to our Continuous improvement”.

Performance Management 8mins

NetworkRail



Engagement: Leaderships Role 4mins



- Visualisation is a powerful Lean tool, if applied correctly.
- It will enable improved business performance and improved employee engagement
- Involve teams when creating the KPIs; greater ownership and engagement to the approach.
- If you are new to Visualisation / Control rooms, you may find value in reaching out for support.

See Hand-outs

- **Viz Audits and guidelines**
- **Glide Paths**
- **I also have templated viz boards for you to use.**
 - **If you want these templates, please send me an email and I will send them on.**
 - **John.bilsland@networkrail.co.uk**
 - **My mobile number is 07515 620053**



Visualisation and Control Rooms

Q&A

