



Governing for Success

• UTILITY RELOCATION S.W. to Water
• STORM SEWER
• EB FROM ROAD

PH 03 EB WB MAIN LANES

- 36" RCP Line 11"
- 36" & 24" RCP Line 10" & 11"
- MSE#33 42" Drill Shafts
- MSE#33 CIR Wall
- EB ML Rdwy Embk. Ty C/B-EB (205-243)
- MSE#33 Screen Wall
- MSE#32 Leveling Pad
- EB ML 6" L.T.S.
- MSE#32 Set Panels
- EB ML 12" Flex Base (205-243)
- EB ML 6" Ty A ACP (205-243)
- EB ML 11" CRCP (205-243)
- WB ML (205-243) Guard Rail

Construction CPM Conference
January 20 - 23, 2019
San Diego
Patrick Weaver PMP, PMI-SP

Governing for Success: the governance framework needed to optimize delivery

1. It is impossible to fix a problem that is not allowed to be recognized or seen
2. Good governance is needed to create the culture needed for effective management and controls to function properly

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Presentation Outline

- Case study: London's Crossrail – will be the **Elizabeth Line** after opening
- The difference between management and governance
- How governance and management interact
- How ISO 21505 can help
- Conclusion

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Crossrail

- A 118-kilometre railway line under development in London and the home counties of Berkshire, Buckinghamshire & Essex, England



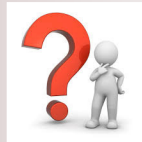
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Crossrail

- Crossrail is **BIG**
- £14.8bn (US\$18.9bn)
- Largest civil engineering project in Europe
- Started 2008
- Opening December 2018



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Crossrail

- **Was on time and on budget from 2008 until 2018**
- July 2018: 93% complete, budget increased from £14.8bn to £15.4bn
- August 2018: Opening delayed until Autumn 2019
- KPMG review project



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Crossrail

- KPMG report:
- **Between £1.6bn and £2bn needed to complete project**
- **Full opening delayed until 2020**
- **No firm date announced (yet)**
- The project's catchphrase "on time and on budget" has been totally obliterated



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Crossrail

- The project's catchphrase '***on time and on budget***' has been totally obliterated



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Crossrail

- The small problem: some stations not finished in the West and in the city
- The **BIG** problem.....

Signalling



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Crossrail

- Signalling requires the integration of three separate systems:
 - The section between Paddington and Heathrow uses the European Train Control System (ECTS)
 - West of Heathrow and east of Stratford, the train uses Network Rail legacy systems with safety enhancements
 - the central (tunnel) section uses a modern communications-based train control system.

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Crossrail

- An electrical transformer explosion at an east London station in 2017
- This delayed tunnel trials until February 2018
- Those tests have not gone as well as Crossrail management hoped
- But: ***Hope is not a strategy!***

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Crossrail

- **Why is this news now?**
- In 2015, *The Independent* reported that engineers and rail experts were struggling to create interfaces that would allow trains to switch from legacy signalling systems to newer ones
- In October, Crossrail's head of technical assurance said that integration was still a massive challenge

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Crossrail

- **Communication failure 1**
- Sir Terry Morgan said Crossrail had raised concerns about progress with the mayor of London in July but had still been working towards a December 2018 launch
- He has since resigned!

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Crossrail

- **Communication failure 2**
- The Mayor of London, Sadiq Khan claimed he only found out about the delay two days before it was made public in late August 2018, despite having regular briefings with the Crossrail board

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Crossrail

- **Communication failure 3**
- Transport for London (TfL) was told of a **likely** pushback on 19 July 2018
- A statement made by TfL to the London Stock Exchange in July made no mention of a delay, despite the likely impact on its businesses

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Crossrail

- Arguing about who knew what 6 months before opening is irrelevant
- **The governance failure is not allowing action to be implemented in 2015**
- Protecting the mantra **'on time and on budget'** was more important than solving issues!



ELIZABETH LINE

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Complex Systems

- We know complex electro-mechanical systems are a major risk
- Baggage handling systems.....
 - Denver
 - Hong Kong
 - T5 Heathrow
- **It is the #1 risk for new Intl. Terminals**



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Complex Systems

- Signalling systems delay:
 - Rio Tinto Pilbara train automation project
 - Adelaide tram extension
 - Moreton Bay Rail Link (MBRL)
 - Danish ERTMS programme



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Complex Systems

- Parallels: Baggage/Signalling systems
- They cannot be installed until late in the project
- They are complex software systems
- They control mechanical systems
- They have a significant human interface
- **They are massive risks!**

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Governance failures

- Wrong culture
- Lack of transparency
- Lack of rigour in reporting
- Lack of effective independent oversight
- **The problems could have been identified in 2015 if someone had looked properly!**

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Governance -v- Management

- **Governance and Management are different functions**
- Governance sets the rules and objectives for the organisation
- Management works within the rules to achieve the objectives

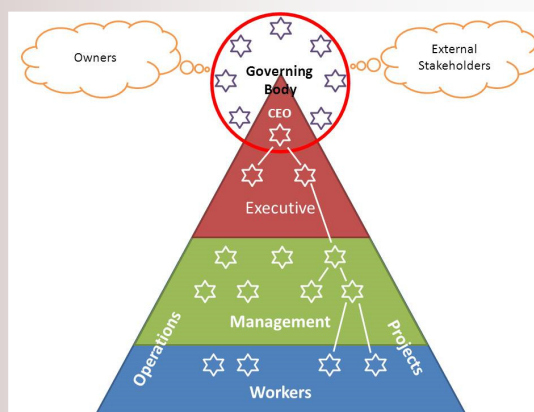
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Governance -v- Management

- The governing body is responsible for governing the organisation to achieve **Conformance** and **Performance**



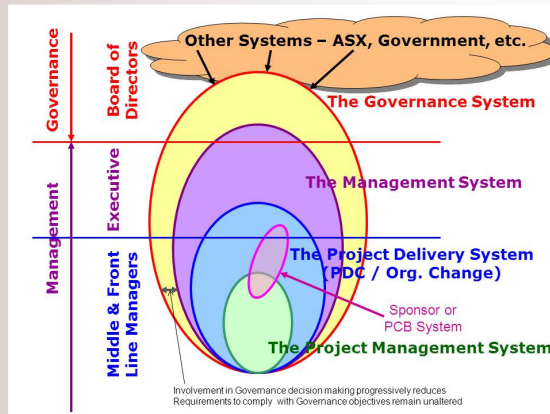
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Governance -v- Management

- Some governance functions may be delegated to management
- The governing body remains accountable
- Delegations must be designed



See: https://www.mosaicprojects.com.au/WhitePapers/WP1084_Governance_Systems.pdf

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Functions of Management

- Henri Fayol (1841 – 1925) defined the five functions of management in *Administration Industrielle et Generale*
 - To forecast and plan
 - To organise
 - To command or direct subordinates
 - To coordinate
 - To control (*our type of control*)
- These functions are 100 years old!

See: https://www.mosaicprojects.com.au/WhitePapers/WP1094_Defining_Management.pdf

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Functions of Governance

- Dr. Lynda Bourne proposed six functions of governance in 2014
 - Determining the objectives of the organisation
 - Determining the ethics of the organisation
 - Creating the culture of the organisation
 - Designing and implementing the governance framework for the organisation
 - Ensuring accountability by management
 - Ensuring compliance by the organisation

See: https://www.mosaicprojects.com.au/WhitePapers/WP1096_Six_Functions_Governance.pdf

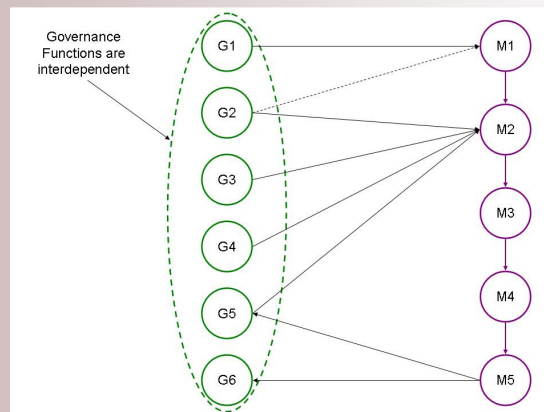
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Governance & Management

- Governance and management systems are dependent on each other

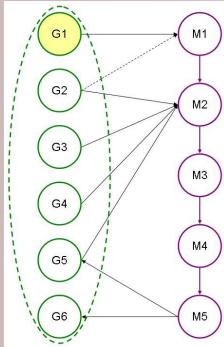


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G1 – Set Objectives



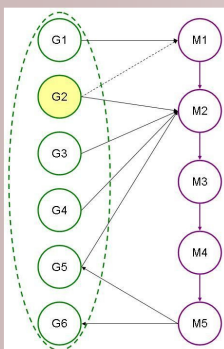
- The Governing Body determines the objectives of the organisation:
 - Vision and mission statements
 - Strategic objectives

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G2 – Determine the ethics



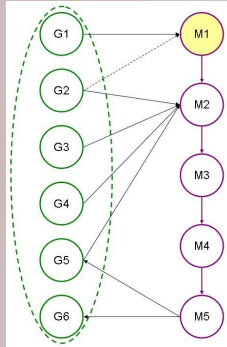
- The Governing Body sets the ethical standards of the organisation by:
 - Policies and statements
 - ‘Walking the walk’
 - Employing ethical people
 - Sanctioning unethical behaviour
- **Ethics start at the top**

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M1 – Forecasting & Planning



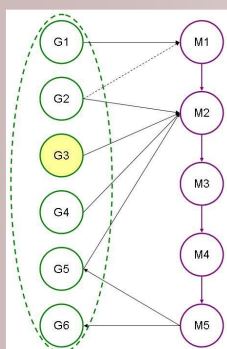
- Strategic planning (Joint responsibility)
- Tactical planning
- Operational planning
- **Portfolio management**
- **Project and program planning**

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G3 – Culture



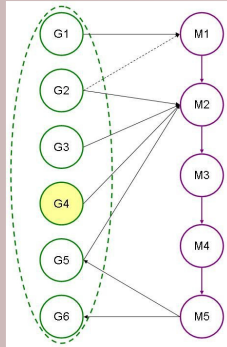
- Designing and developing the culture of the organisation
- The right people
- The right way of working
- The right approach to stakeholder engagement
- **Honest & truthful reporting**

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G4 – Governance Framework



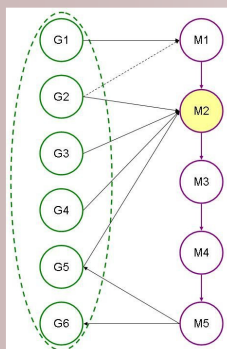
- Designing the organisation
- Accountabilities and responsibilities
 - For management and managers
 - For delegated governance functions
 - For decision making
 - For reporting and escalation routes

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M2 – Organising



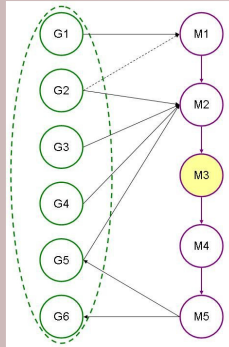
- Developing the organisation's structure based on governance requirements
- Maintaining the organisation
 - Ethics
 - Culture
 - Capabilities
- **PMOs and 'management of projects'**

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M3 – Directing the Work



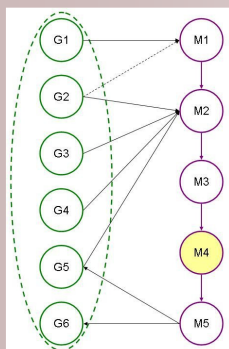
- Directing and leading lower level managers and workers
- Ensuring subordinates conform to standards
 - Ethics
 - Culture
- Decision making, risk and issues management
- Stakeholder engagement

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M4 – Coordination



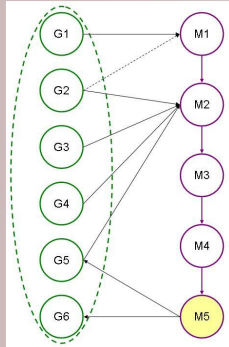
- Balancing competing needs and issues
- Ensuring the other 'functions of management' integrate and support each other
- Ensuring performance and conformance of the organisation and its people

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M5 – Controlling



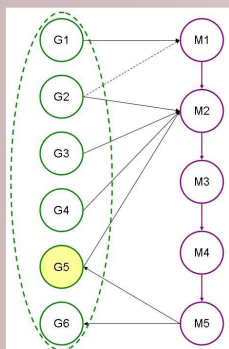
- Ensuring the ‘right plans’ are in place and in use
- Comparing actuals against the required standards at appropriate intervals
- Taking corrective and preventative actions
- **Reporting on performance and conformance**

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G5 – Accountability



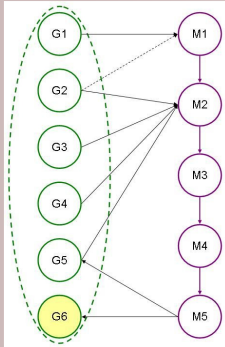
- Holding management to account
- Requiring improvements in the organisation (M2)
- Taking other corrective and preventative actions
- **Based on reports**
 - Ensuring the right information is available at the right time is a key governance issue

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G6 – Compliance



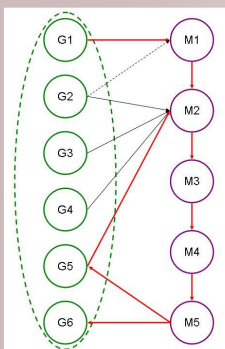
- Providing stakeholders with assurance on the organisation's
 - Conformance
 - Performance
 - Future directions
- Conforming to regulatory and other requirements
 - SOX, etc.
 - CSR, etc.

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Governance & Management



- If projects and programs are a significant element in the organisations activities...
- Project controls are a critical element in the overall cycle
- Both for management and for governance
- **But we need a well governed organisation to operate effectively!**

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ISO 21505

- Project, programme and portfolio management - Guidance on governance
- Published 2018
- **Provides guidance on the framework and principles for the governance of projects, programmes and portfolios from pre-project considerations to post-project evaluations**

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ISO 21505

- Governance Guidelines
 - Establish and maintain framework
 - Enable Performance
 - Support ethics and sustainability
 - Support information integrity, security and disclosure
 - Respect stakeholders
 - Establish and monitor management policies (risk, safety, etc.)

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ISO 21505

- Typical ISO standard
 - Describes 'what' is needed
 - Does not go into 'how' it is achieved
- The existence of an ISO standard will remove the option for management 'not to know'
 - Failure to conform will expose management to negligence claims / class actions

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ISO 21505

- 21505 also provides project controls professionals (PMO managers, etc) with a lever to start organisations on a journey towards better information systems
 - The final DIS (draft international standard) will be released for comment soon
 - The final standard will be very similar
- 21505 = 'What', we also need 'How'

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Governance Failures

- G2 and G3 – Ethics and culture, the governing body allowed the myth of *'on-time and on-budget'* to override everything else
 - This continued through to July 2018 when the Chair of the Board stated they were still working towards a December opening
 - A robust and honest culture would have stated the true position

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Governance Failures

- G4 – Governance Framework, the governing body either ignored information or did not get information
 - Robust risk reporting and assessment
 - Realistic schedule and cost reporting
- *There are none so blind as those who do not wish to see*

The English version of this proverb has been traced back to 1546 (John Heywood).

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Governance Failures

- G5 – Accountability, the governing body failed to hold management accountable
 - For maintain effective reporting systems
 - For actioning emerging issues in 2015
- G6 Compliance, the governing body has failed to comply with is statutory reporting requirements

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Governance Failures

- The UK politicians are arguing about who knew what in the second half of 2018
- The information was (or should have been) available to identify significant risks in 2015
 - Assuming robust project controls

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Governance Failures

- Governance failures have escalated a difficult problem to a major political crisis
- In 2015 money could have been invested to solve the problem
 - Including building prototypes to test interfaces in real time on real trains
 - The cost would be a lot less than the current 'holding costs' for the project

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Conclusion

- Crossrail's governance failures outlined above have damaged its primary business objective (G1) of delivering a major service 'on-time and on-budget'
- This failure is also jeopardising Crossrail 2 and the HS2 rail projects



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Conclusion

- This audience cannot make governance changes – we need ‘C-Suite’ people
- But you can influence your senior management
- Bad news does not get better by ignoring it (or sacking the message bearers)

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Conclusion

- We can use this opportunity to enhance the status of project controls
 - Increase professionalism through training and certification
 - Become strategic as well as tactical
 - Chief ‘project officer’ in the ‘C-suite’
 - Improved tools and techniques
 - Robust reporting
- ISO 21505 can provide the validation

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Questions Please

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Mosaic's Scheduling home Page
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