Key barriers and potential solutions for developing adaptation strategies for infrastructure

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Manidis Roberts is a leading Australian consultancy specialising in the planning, approvals and delivery of major projects in property, transport, water and energy sectors.
Presentation overview

• **Key barriers** to the development and implementation of an adaptation strategy in the delivery of infrastructure
• Offer **potential solutions** through lessons learned from rail infrastructure case studies, namely:
  – Gold Coast Rapid Transit
  – Sydney Metro
  – PhD research by Jane Scanlon, UWS
Key barriers

- Translating science and projections
- Not considered early in planning
- Governance structures
- Lack of ownership
- Limited social considerations
- Risk adverse behaviour
- Communicating to stakeholders
- Lack of consistency across regulations, tools or standards
Translating science and projections

- Little research on how vulnerable transport will be in future
- Use of localised modelling and mapping to inform decision making
- Inform corridor / station location (vent shafts etc)
Not considered early in planning

- Consider interrelationships with:
  - Risk management
  - Policy framework
  - Project sustainability
  - Design
- Embed in procurement documentation
- Encourage life-cycle thinking
- Need to create synergies with good infrastructure delivery practice
- Need to understand what the transport network will look like in the future and the sensitivity of the rail sector
Lack of ownership

- Need for capacity building of project team – to improve understanding
- Obtain ownership at the executive level
- Use of KPIs and KRAs to drive performance

‘From an environmental professional perspective it’s difficult to push something onto other parts of the organisation’

Environment manager, rail authority
Limited social considerations
Risk adverse behaviour

‘We have conservative standards that have worked for 100 years’
Proponent design manager

• Not seen as a big problem yet – temptation to worry about it later
• Belief that the uncertainty is too great to warrant taking action now
Communicating to stakeholders

- Formalised early key stakeholder engagement
- Both internal as part of capacity building and external as part of communications plan
- Identify stakeholders
- Ensure stakeholder needs and expectations are addressed
- Public consultation
Lack of consistency across regulations, tools and standards
Any questions?

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