

ROAD INFRASTRUCTURE DELIVERY:

IMPROVING OUTCOMES



BRIAN WATTERS

Director, Major Infrastructure

**ROADS & TRAFFIC AUTHORITY
NSW**

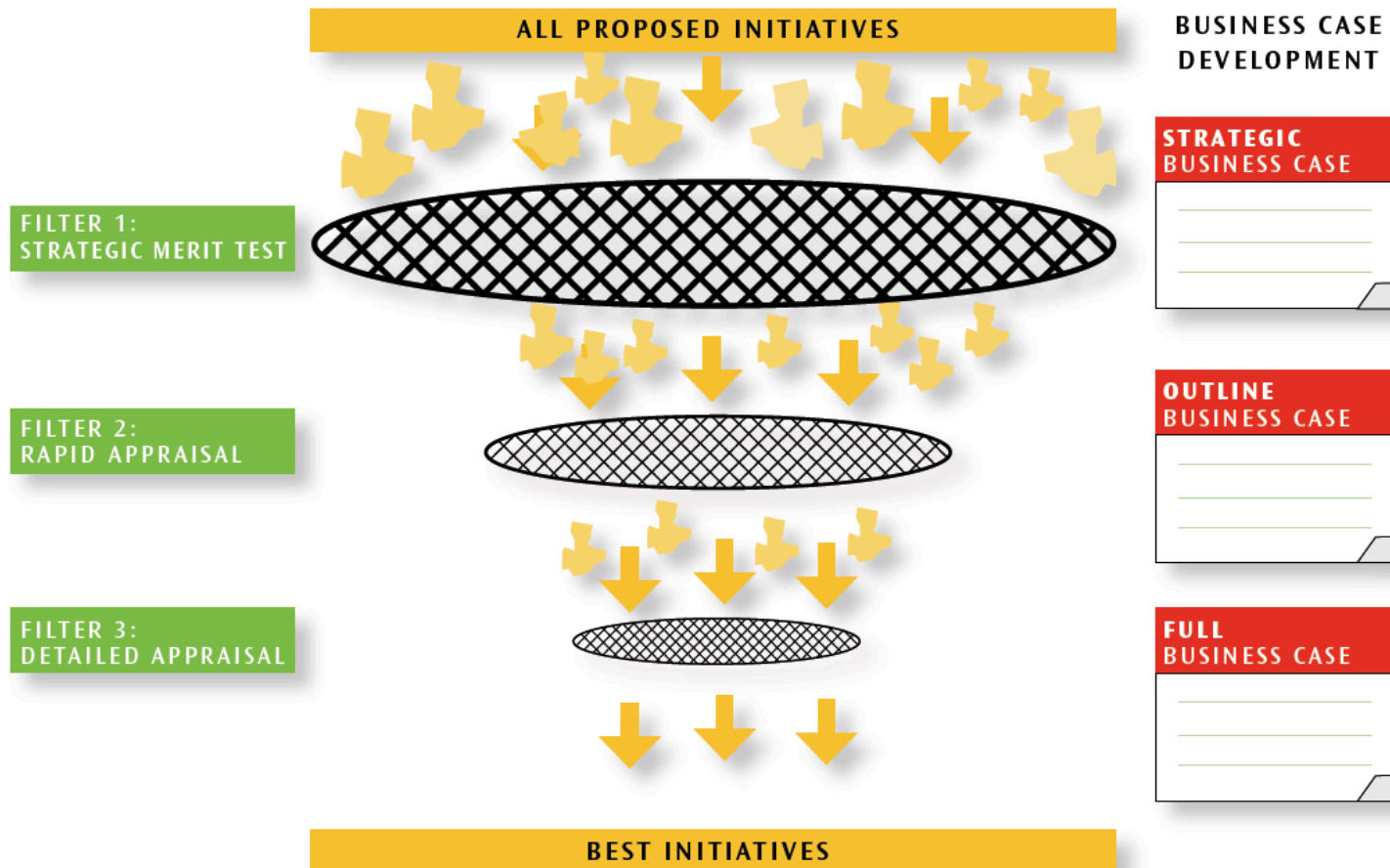
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HOW TO IMPROVE OUTCOMES?

- 1. SELECTING THE RIGHT PROJECT**
 - 2. GETTING THE PROJECT RIGHT**
 - 3. DELIVERING THE PROJECT**
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- **GOVERNMENTS MAKE THE DIFFICULT INITIAL FUNDING DECISIONS**
 - **TRANSPORT OR EDUCATION?**
 - **GOVERNMENTS THEN WANT MAXIMUM OUTCOME FROM THE TRANSPORT BUDGET**
 - **OPTIMISATION OF A CONSTRAINED BUDGET**
 - **NATIONAL GUIDELINES FOR TRANSPORT SYSTEM MANAGEMENT**
 - **THREE STAGE APPRAISAL PROCESS**
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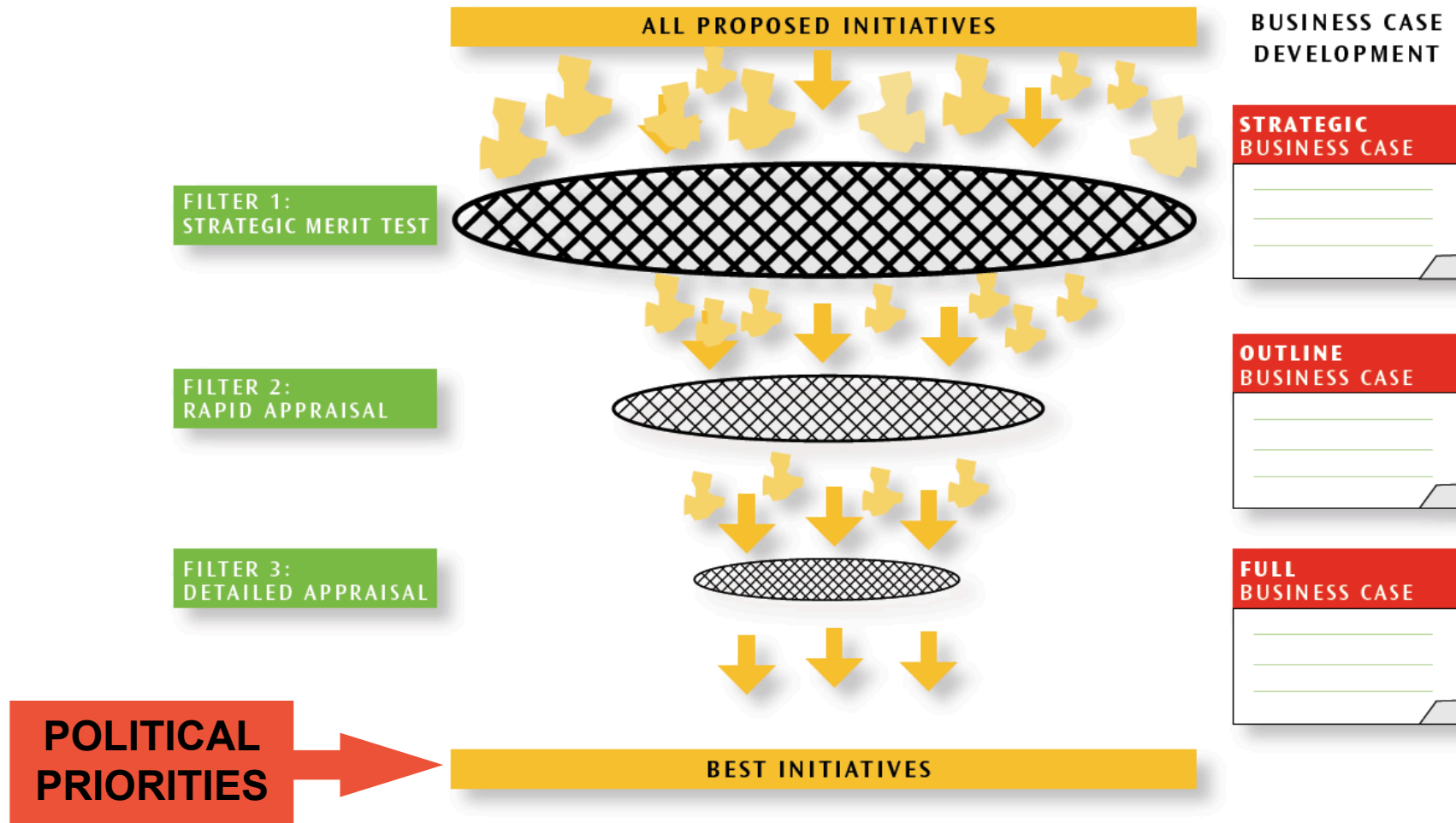
IMPROVING OUTCOMES



- **PROPOSALS ARE PRIORITISED ON ECONOMIC AND INVESTMENT PRINCIPLES**
 - **EMPHASIS ON BENEFIT COST ANALYSIS (BCA)**
 - **FOR ROAD PROPOSALS BCA IS BASED ON:**
 - **TRAVEL TIME SAVINGS**
 - **VEHICLE OPERATING SAVINGS**
 - **ACCIDENT SAVINGS**
 - **FAVOURS URBAN PROJECTS WHICH REDUCE PEAK CONGESTION**
 - **DOES NOT ADEQUATELY REPRESENT POLITICAL PRIORITIES**
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- **WE WORK IN A POLITICAL ENVIRONMENT**
 - **HOW CAN WE HELP POLITICIANS SELECT THE RIGHT PROJECT**
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- **COMPARATIVE CRITERIA (eg. BENEFIT COST RATIO) ARE GOOD FOR COMPARING SIMILAR PROPOSALS**
 - **GOVERNMENTS WANT VARIOUS OUTCOMES**
 - **IMPROVED FREIGHT ACCESS TO PORTS**
 - **IMPROVED BUS SERVICES**
 - **COMPLETION OF DUAL CARRIAGEWAY (eg. HUME, PACIFIC)**
 - **JUSTIFICATION CRITERIA**
 - **SEPARATE PROGRAMS (THEMES)**
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- **DOES THE PROPOSAL GREATLY IMPROVE FREIGHT ACCESS TO THE PORT?**
 - **WHAT IS THE PRIORITY RANKING OF ALL INITIATIVES THAT WOULD IMPROVE FREIGHT ACCESS TO THE PORT**
 - **USE THE THREE STAGE APPRAISAL PROCESS**
 - **COMPARATIVE CRITERIA (eg. BCA)**
 - **POLITICAL PROCESS ALLOCATES FUNDS TO EACH THEME**
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EXAMPLE OF PACIFIC HIGHWAY UPGRADE PROGRAM

- OBJECTIVE IS DUAL CARRIAGEWAY FOR 700 KM**
 - PROJECT LENGTHS APPRAISED AND PRIORITISED**
 - SAFETY**
 - TRAVEL TIME**
 - AMENITY (TOWN BYPASSES)**
 - BCA**
 - LONG TERM STRATEGY BASED ON PRIORITIES**
 - ACHIEVEMENT DEPENDS ON FUNDING**
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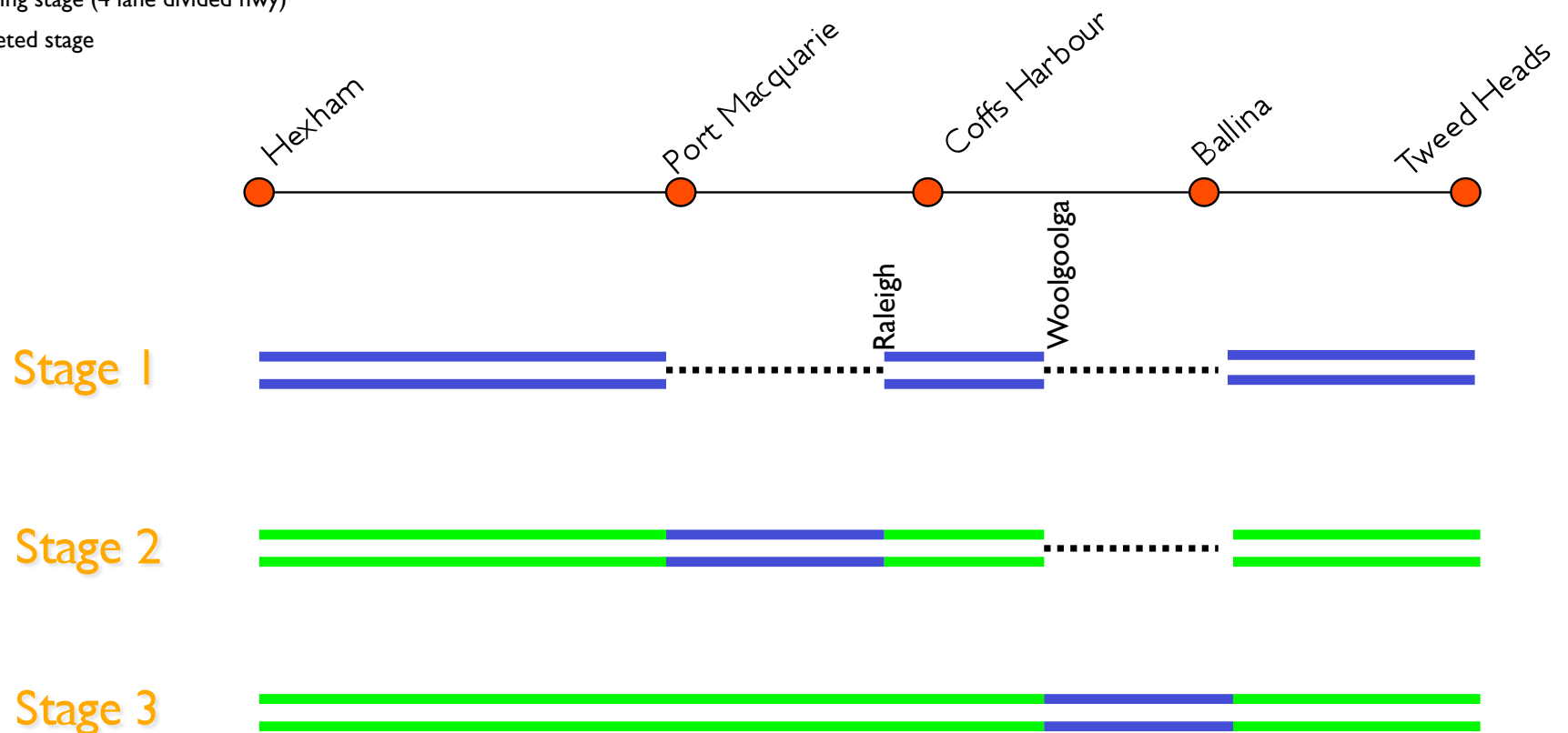
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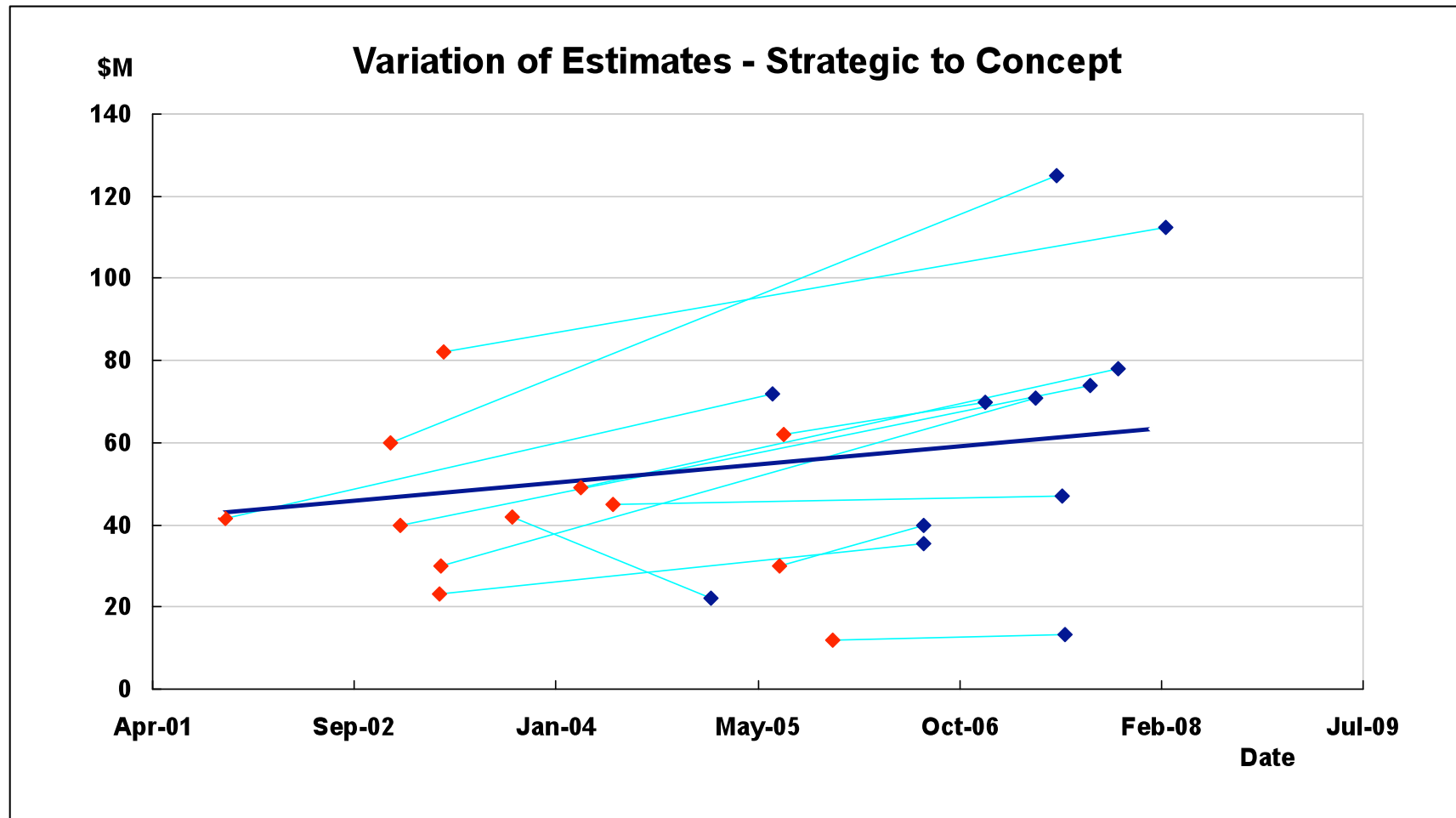
Legend:

- Exist. 2 lane or partly upgraded hwy
- == Upgrading stage (4 lane divided hwy)
- == Completed stage

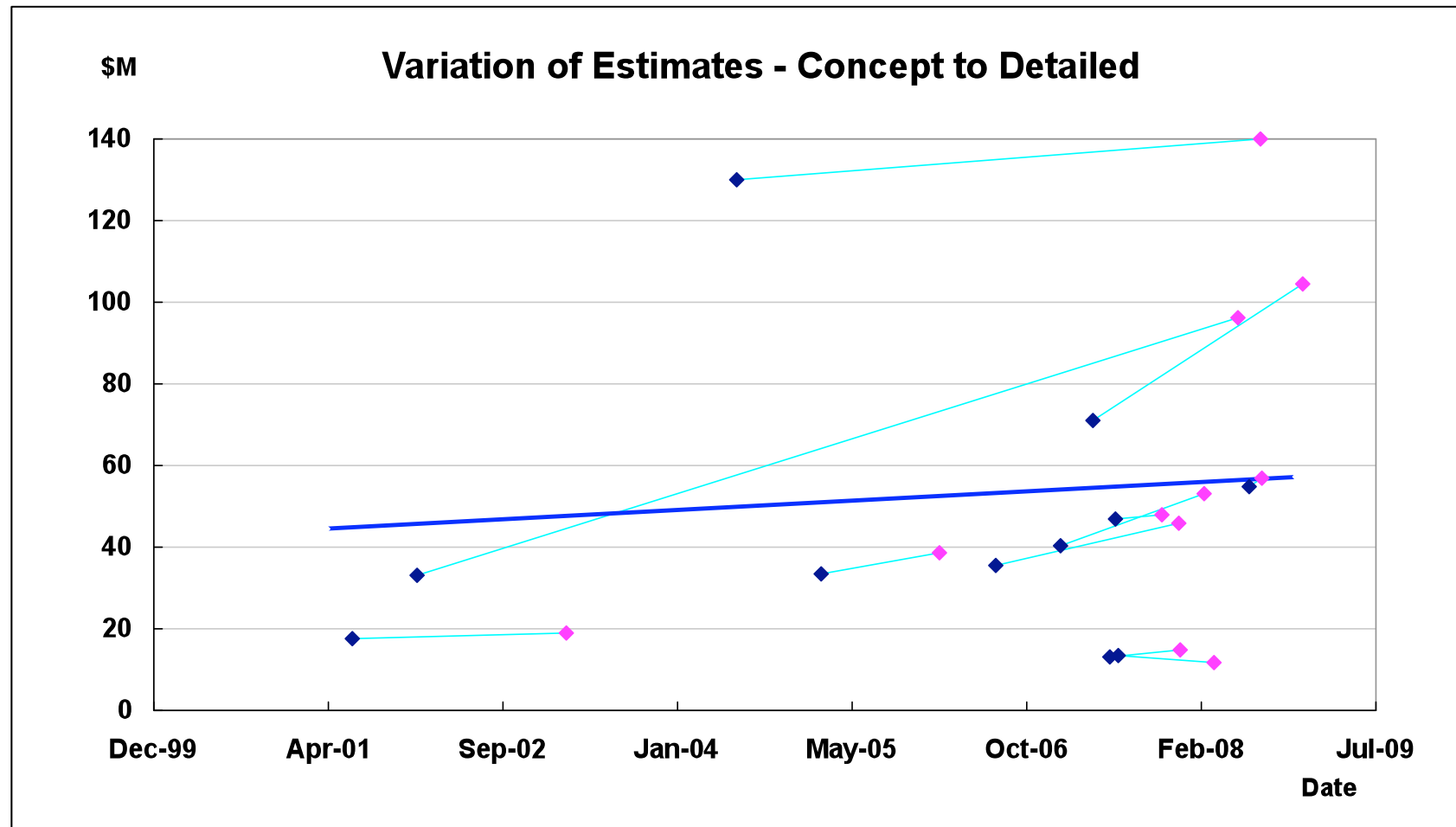


- **POLITICAL DECISIONS RELY ON STRATEGIC COST ESTIMATES**
 - **TIMING OF DECISIONS BASED ON ANNUAL CYCLES (BUDGET, ELECTION)**
 - **PROJECT DEVELOPMENT IS A LINEAR PROCESS**
 - **NOT RELATED TO ANNUAL CYCLE**
 - **STRATEGIC ESTIMATES ARE ALWAYS TOO LOW**
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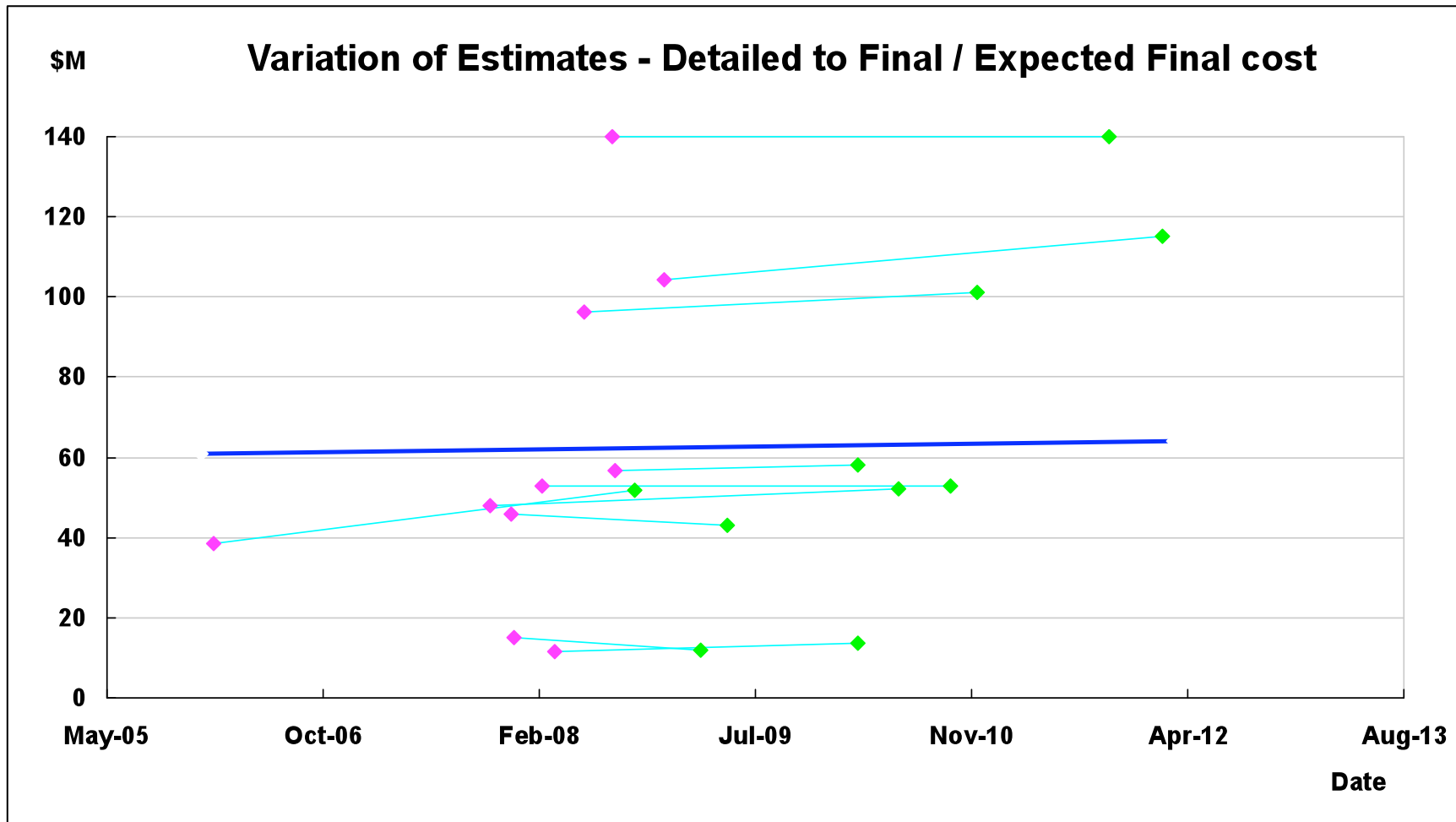


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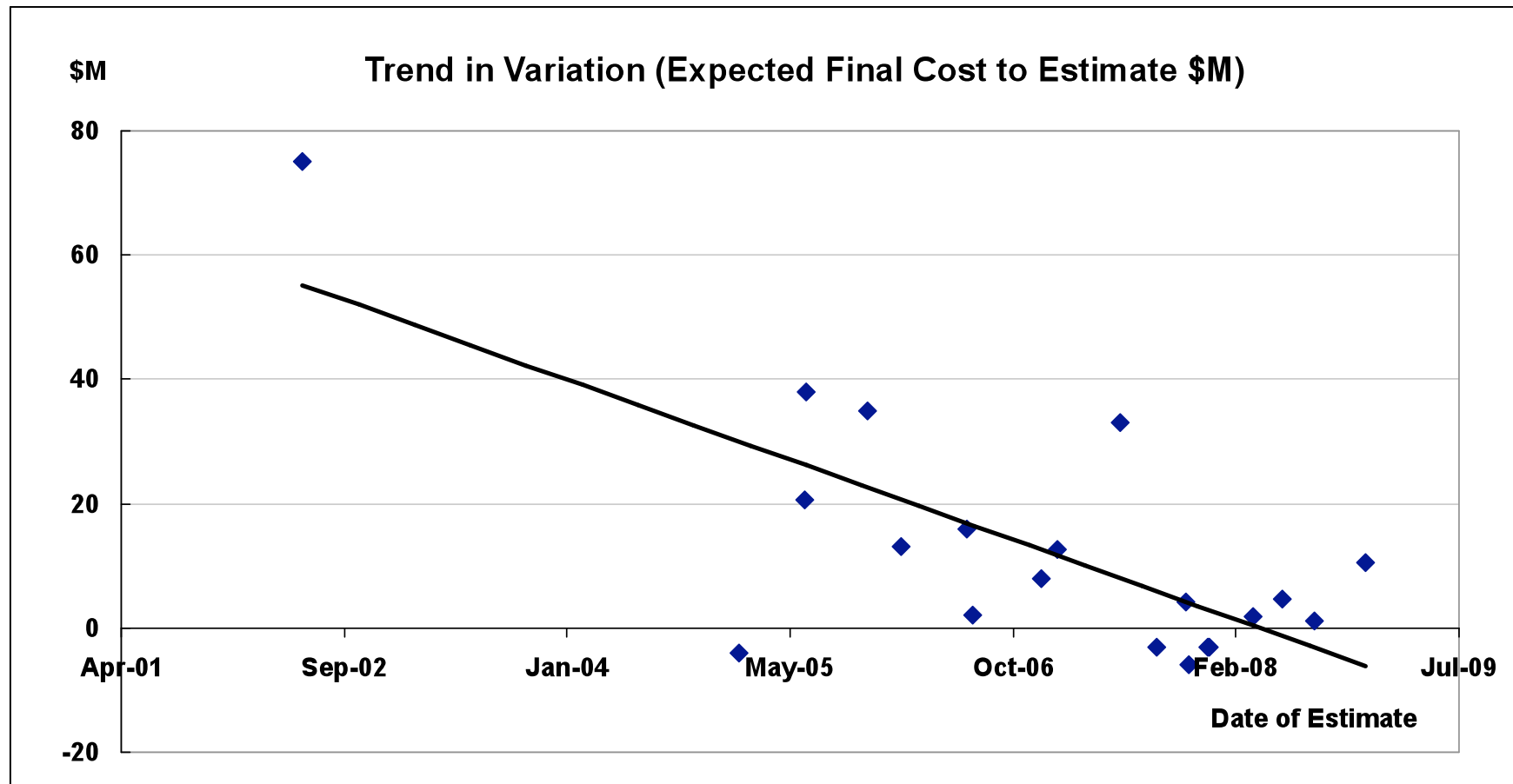
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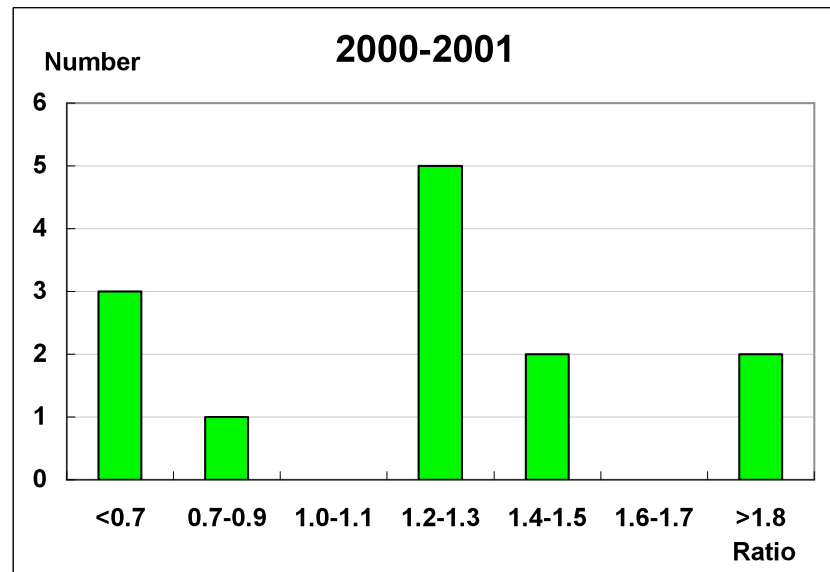
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ROAD INFRASTRUCTURE DELIVERY: IMPROVING OUTCOMES



Ratio of Actual Cost to Estimate - before and after 2001



• GETTING THE PROJECT RIGHT:

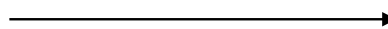
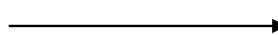
USUAL PROCESS

- SET OBJECTIVES
- IDENTIFY OPTIONS
- CONSULT
- SELECT PREFERRED OPTION
- DEVELOP CONCEPT DESIGN
- APPRAISAL
- CONSULT
- MODIFY
- APPROVAL
- DESIGN
- CONSTRUCT

STRATEGIC ESTIMATE

SCOPE AND COST CREEP

ACTUAL COST



- **GATEWAY PROCESS**
 - **REVIEW AT HOLD POINTS**
 - **MARGINAL CHANGES TO SCOPE**
 - **DO THEY MEET THE OBJECTIVES?**
 - **DO THEY PROVIDE VALUE FOR MONEY?**
 - **CAN WE AFFORD PERFECTION?**
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- **DELIVERING THE PROJECT**
 - **NEW OUTCOMES EMERGE**
 - **EARLY START, TO STIMULATE THE ECONOMY**
 - **QUALITY OF PRODUCT**
 - **CONSTRUCTABILITY AND SITE SAFETY**
 - **DELAYS TO MOTORISTS**
 - **CONSTRUCTION IMPACTS ON ENVIRONMENT & COMMUNITY**
 - **ON-GOING MAINTENANCE COSTS**
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- **TRADITIONAL CONTRACTS RELY ON SPECIFICATION OF PRODUCT, PLUS CONDITIONS TO BE MET**
eg. **CONSTRUCT ONLY, DESIGN AND CONSTRUCT**
 - **PRODUCT WILL MEET SPECIFICATION, BUT NO INCENTIVE TO ACHIEVE BETTER**
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- **ALLIANCE CONTRACTS UTILISE TEAM BEHAVIOUR TO OPTIMISE OUTCOMES**
 - **SHARING RISKS**
 - **OPPORTUNITIES TO SAVE COST**
 - **MOTIVATION TO MEET KEY PERFORMANCE INDICATORS**
 - eg. **QUALITY**
 - ENVIRONMENT**
 - SAFETY**
 - COMMUNITY**
 - EARLY COMPLETION**
 - **OVERALL VALUE FOR MONEY**
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- **SOUTHERN HUME DUPLICATION**
 - **GOVERNMENT ALLOCATED FUNDS UP-FRONT IN 2006**
 - **BASED ON STRATEGIC ESTIMATE**
 - **MUST BE COMPLETE BY 2009**
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- TWO ALLIANCE CONTRACTS**

- DESIGNERS & CONSTRUCTORS WORKED TOGETHER**
 - MAXIMISED SCOPE OF WORK**
 - EARLY START, DURING ACQUISITION PERIOD**
 - UNUSED CONTINGENCIES APPLIED TO
ADDITIONAL SCOPE**
 - TECHNICAL PROBLEMS SOLVED TOGETHER**
 - GOOD QUALITY**
 - GOOD PERFORMANCE**
 - COST SAVINGS TO GOVERNMENT**
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SUMMARY

- **SELECTING THE RIGHT PROJECT**
 - **UNDERSTAND GOVERNMENT OBJECTIVES/THEMES**
 - **USE CRITERIA RELEVANT TO GOVERNMENT**
 - **IMPROVE STRATEGIC COST ESTIMATES**
 - **GETTING THE PROJECT SCOPE RIGHT**
 - **GATEWAY PROCESS**
 - **KEEP ASKING “DOES IT MEET THE OBJECTIVES?”**
 - **DELIVERING THE PROJECT**
 - **NEW OUTCOMES TO CONSIDER**
 - **OUTCOMES INFLUENCED BY FORM OF CONTRACT**
 - **KEEP ASKING “IS IT VALUE FOR MONEY?”**
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