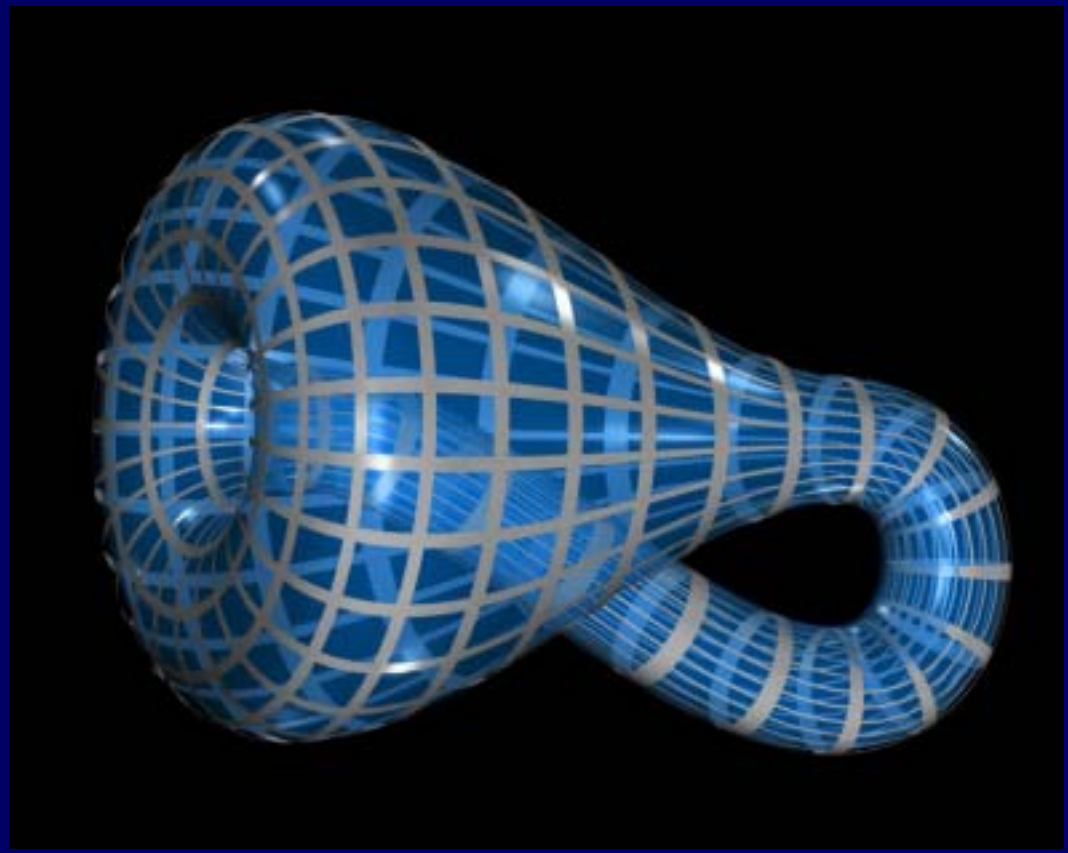
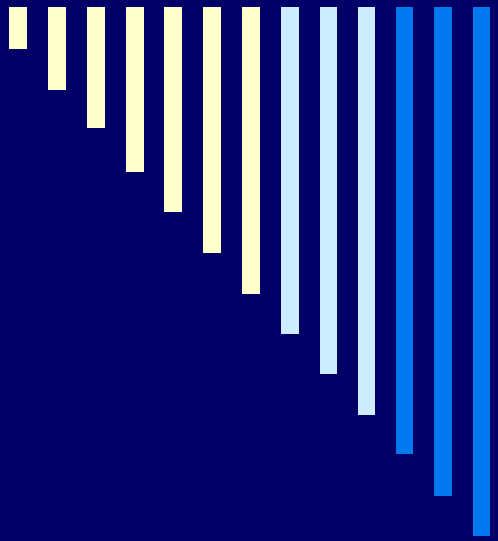
The Klein Bottle



A Connected Sum



Communication in Research Leadership

For the Cooperative Research Centre for **Construction Innovation**

Presented by Dr Cheryl Kerr and Glenys Drew

Communicating in Research Leadership

1. Strategic Vision
   - Projects' 'fit' to vision
2. Strategic Relationships
   - Trust and collaboration
3. Strategic Outcomes
   – Writing from a business perspective

1. Strategic Vision

Strategic Fit to ‘Vision’ in terms of **Construction Innovation**’s Research Management Plan within a culture of Effective Collaboration

Construction Innovation's Vision

'Our vision is to lead the Australian property and construction industry in collaboration and innovation'

The Research Management Plan

Observations

- Structured project development process
- Each ‘Stage’ yields a standard output which becomes input for a ‘Gate’ decision
- Decision-making ‘Gates’ in the RMP are designed to support the principal activities and as outcomes
- Early-stage decision-making more qualitative
- Latter-stages more quantitative in emphasis as ideas/projects move through to commercialisation/application

Key Objectives under Research Management Plan

- Stimulate ideas
- Enhance commercial focus of project selection and management
- Assist efficient effective and optimal allocation of **Construction Innovation**'s resources
- Provide fluid and flexible structure in which technical R&D can thrive
- Deliver enhanced environmental & socio-economic outcomes (p5 plan)

Key Objectives under Research Management Plan

- Align development activity with resource utilisation and expenditure, while reducing commercial risk and increasing likelihood of commercial success
- RMP intended as general roadmap, not to provide rigid rules
- Minimise rework and resource wastage

Challenges

Strategic Fit to Vision

- How decisions are made
- Collaborative culture – goodwill, trust
- Reporting outcomes rather than outputs
- Articulating outcomes from business perspective

Vision

‘Strategic Dialogue’ to explore some vision-directed questions directly from the Strategic Plan:

- Note the key elements to achieving the agreed vision
- Consider what it will take to be the best?
- What are the gaps to getting there?
- Are there any apparent limitations/ factors to address?

Construction Innovation's Strategic Plan

Sets out under 'Achieving our Plan':

'Working collaboratively, our education, communication and commercialisation programs will play a critical role in supporting our core research activities to disseminate the outcomes and benefits to all partners, to the industry and society.'

Construction Innovation's Strategic Plan

Suggests demonstrated best practice in:

- Cutting-edge ongoing professional education
- Cutting-edge consultation and communication

Culture

Innovation

Talent

Strategy

Structure

Partnerships/Mergers

Operation

Leadership

‘4+2’ Characteristic practices

which can significantly affect the Centre’s performance. Ground-breaking five-year study reveals ‘must-have’ management practices that truly produce superior results.

Primary Practices:

- Strategy - *well communicated*
- Operation - *flawless & focused*
- Culture - *‘high-performance’*
- Structure - *reduces bureaucracy*, *simplifies work*

Adapted from Nohria et al, ‘What Really Works: Making 4+2 Work for You’, *Harvard Business Review*, July 2003

Characteristic practices

‘Making 4+2 work for you’…

Research study revealed must have previous four and at least two of the following:

Secondary Practices:

- Talent – *retain and develop*
- Innovation – *anticipates disruptive events*
- Leadership – *connecting, inspiring*
- Partnerships/Mergers – *growth utilising all talents*

Adapted from Nohria et al, ‘What Really Works: Making 4+2 Work for You’, *Harvard Business Review*, July 2003

2. Strategic Relationships

High-Performance Partnerships

Definition

‘An alliance is a relationship that is strategic or tactical, and that is entered into for mutual benefit by two or more parties having compatible or complementary interests and goals.’

L Segil, 1996, Intelligent Business Alliances Century Business Books

Measuring the Factors

- The RADTEQ* and KTEQ* instruments were developed to:
  - assess members' perceptions of team performance
  - understand the differences in dynamics between most effective and least effective teams

* Research and Development/Knowledge Team Effectiveness Questionnaire

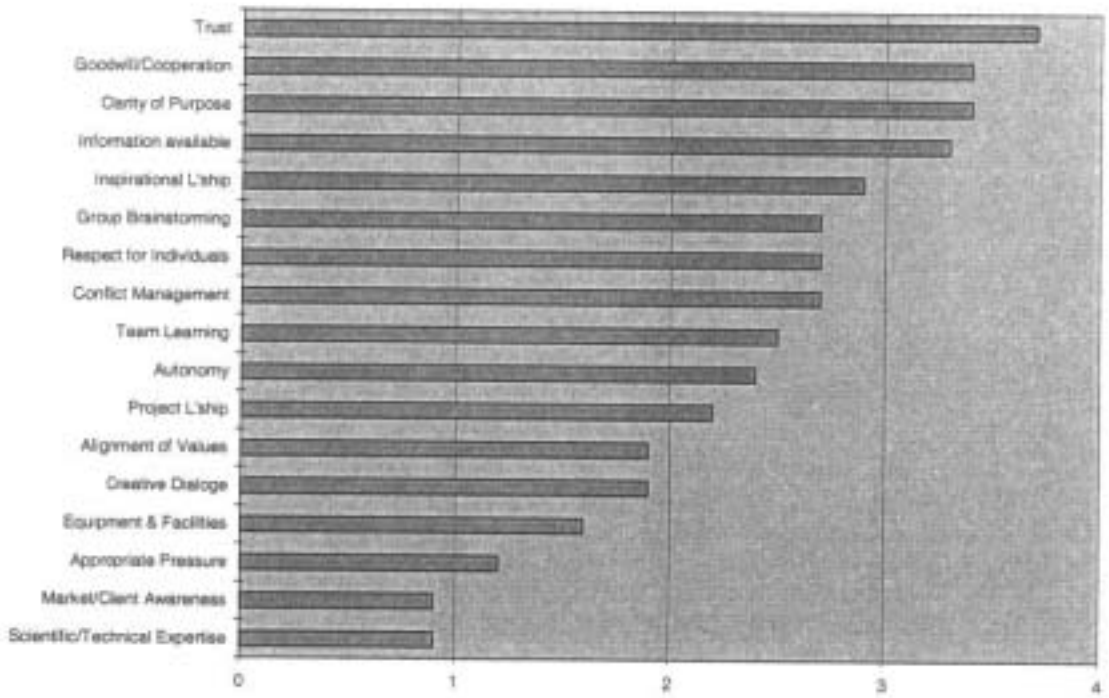
Research on R&D teams

- Data based on:
  - 520 knowledge and R&D teams
  - 2,838 team members
  - An average team size of 5.5 members
- Identified 17 critical factors. Grouped in 4 clusters:
  - Leadership
  - Resources
  - Interpersonal Dynamics
  - Processes

Marshall and Lowther (1997)

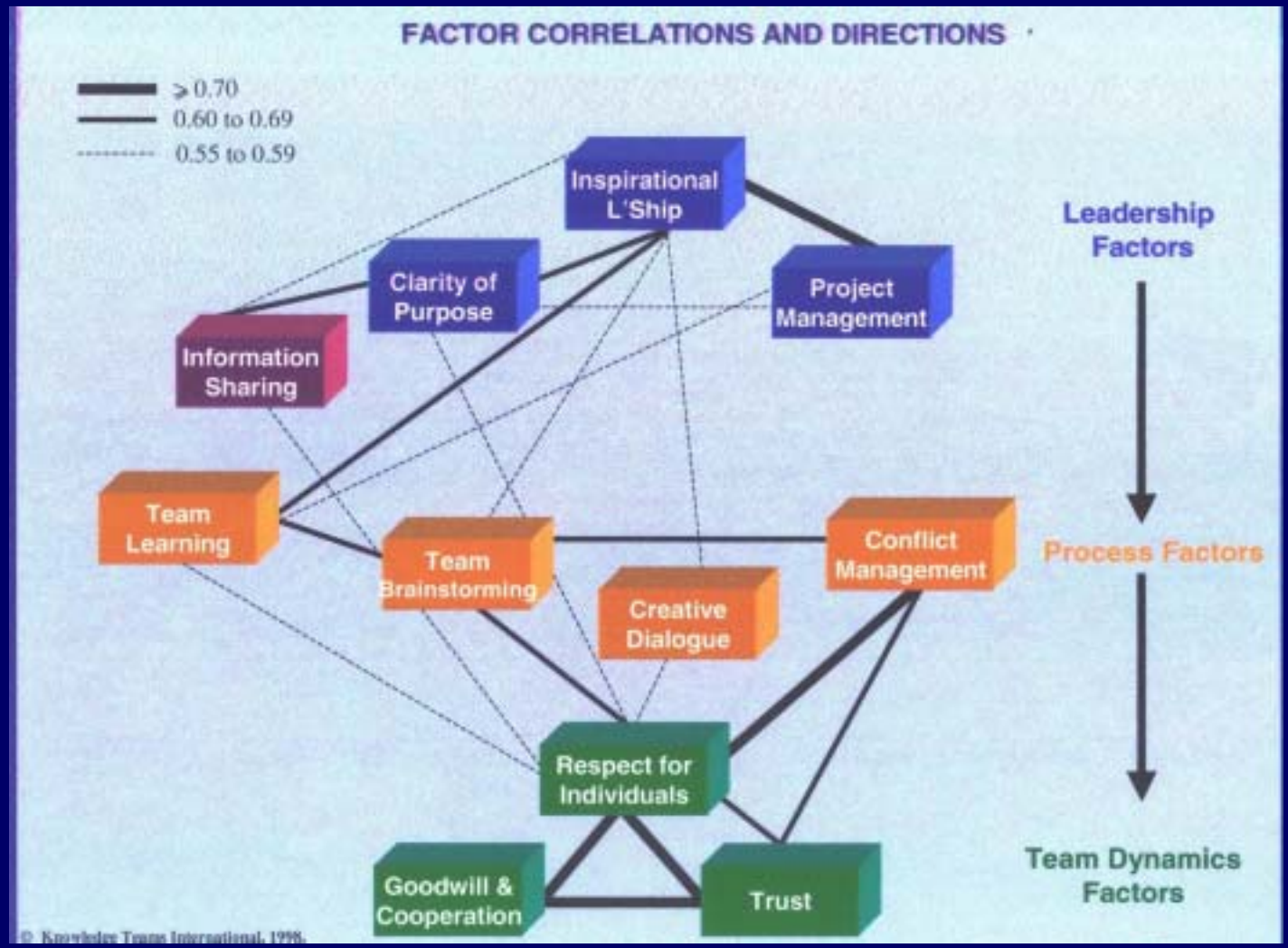
Ranking of Differences

Figure 1. **Ranking of Differences between Most and Least Effective Research Teams. Scores normed to base of 10. (RADTEQ Data Base, 1997.)**



Marshall, R.J. and Lowther, J.M. (1997). Teams in the Test Tube. The 1997 International Conference on Work Teams. The University of North Texas: Dallas

Factor Correlations & Directions



Differences between Factors

- All factors are important
- The “hard” (resource) factors are necessary but not sufficient
- The “soft” (people) skill factors are high discriminators
- These make the difference in team performance

Developing High-Performance Partnerships

Build communication strategy around:

1. Setting direction to vision
2. Building trustful team within **Construction Innovation**
3. External partner issues

Developing High-Performance Partnerships

4. User outcome needs

5. Key legal issues, risk management & other essential bodies of knowledge

- What are the lessons from the past/learnings for the future?
  i.e. How can a high-performance partnership be sustained? What should we do differently?

Principles and Practices for Effective Alliances & Partnerships

1. Managing the Partnership
   - Emphasize the partnership mentality
   - Develop a team of champions
   - Communicate frequently
   - Think long term, but deliver short-term successes

J.W.Botkin & J.B.Matthew, Winning Combinations
John Wiley & Sons, 1992

Managing the Partnership

‘Forecasting is not foresight and the best laid plans mean little without understanding the web of relationships in which they must be enacted.’

Rosebeth Moss Kanter
Strategic Thinking and the New Science, Free Press, 1998

Relationship Management & Information Technology

Instead of asking:
'*What is the information that matters and how do we most effectively manage it?'*

Alliances must ask:
'What are the relationships that matter and how can technology most effectively support them?'

It's the relationships – the formal and informal networks of people - that really govern how the organisation runs and how value is created.

Michael Schroge, 'Manager's Journal, Wall Street Journal, 19 March, 1990

The Importance of Relationship Management

Analytic Management (Content)

- Research strategy
- Industry strategy
- Marketing strategy
- Commercialisation strategy
- Technology strategy
- HR strategy
- Operations strategy
- Financial strategy

Relationship Management (Process)

- Systems thinking
- Capacity to dialogue
- Facilitative leadership
- Receiving and using feedback
- Facilitation to change
- Culture management
- Networking
- Learning organisations/intellectual capital and knowledge

Adapted from John E. Bailey, 1998

Types of Conversation

Debate Discussion Strategic Dialogue

More Conventional

More attuned to individual and group thought and better able to capture and respond to reality

John E. Bailey, 1998

Skills for Dialogue

1. Inquire
   with the intent to learn about self, others and invisible forces
2. Suspend Judgements:
   by hearing all sides and remaining open and curious
3. Explore Assumptions
   by illuminating the "box" we operate within
4. Explore impasses
   '*What do we agree on and what do we disagree on?*'

John E. Bailey, 1998

Skills for Dialogue

1. Issue example
   A proposed project is approved for Stage 3 (*Research Definition: preparation of business case*) and **Construction Innovation** is beginning to talk to industry and research partners
2. Discuss using statements
3. Discuss using questions

Checklist: Strategic Dialogue Characteristics

- The Whole Picture
  begins to emerge from the diversity of perspectives
- Truly Creative Thinking
  begins to emerge as we move out of the 'box'
- Deep Understanding
  and appreciations of all sides and factors begin to develop
- Shared Meaning
  begins to unfold within the group

John E. Bailey, 1998

Possibilities after Dialogue

- Better Decisions
  especially when dealing with complex issues
- Innovative Solutions
  and more creative options and alternatives
- Win/Win Conflict Resolution
  or agreed upon disagreement/alternate perspectives
- Supported Decisions and Aligned Action

John E. Bailey, 1998

Low Trust

- Disadvantages: When trust is lacking
  - Individuals spend time protecting themselves
  - Evidence of power seeking behaviour
  - Risk of hidden agendas

John E. Bailey, 1998

High Trust

- Advantages: When trust is present
  - Open communication
  - Ability to predict other's behaviour
  - Confidence in future success
  - Dependability
  - Willingness to listen
  - Non-defensive behaviour
  - Acceptance of criticism
  - Faster decision-making

John E. Bailey, 1998

Trust in Strategic Alliances

‘A strategic alliance does not imply an unconditional relationship. A strategic alliance relationship is more reciprocal and is based on a mutual set of UNDERSTANDINGS...’

Amicitia

‘Implicit in Amicitia are the conditions that people accept obligations and are committed to their fulfilment, but never to the degree that one person in the relationship will expect the other to endure harm and neglect self-interest.’

John E. Bailey, 1998

Facilitating Trust

- Focus on long-term relationships
- Establishment of Conditions to build relationships
- Equity
- Creation of strategic/economic synergy
- Strategic and operational integration
  - *Experience operating in genuine alliance builds trust*
- Shared vision and compatible goals
- Communication

John E. Bailey, 1998

What does it mean to achieve genuine collaboration in atmosphere of trust and goodwill?

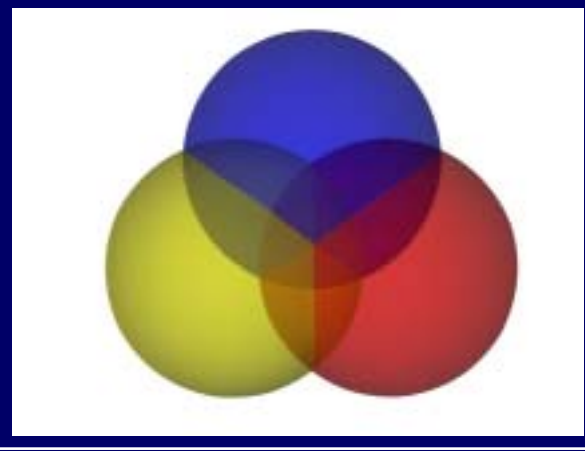
Exercise One

Functional Silos

- Characteristics?
- Benefits?
- What is current/optimal?

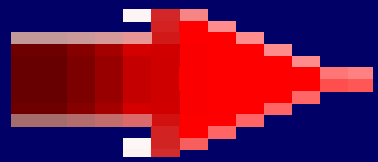
Connecting Spheres

- Characteristics?
- Benefits?
- What is current/optimal?



Culture Continuum

The Traditional Academy / Knowledge Culture



The Emerging Academy / Knowledge Culture

- Supportive of experimentation
- *Appreciative Inquiry*

Educause July/Aug 2003 p. 31

Sound Decision-Making & Problem Solving Using Appreciative Inquiry

Exercise Two

In groups of five:

- Take a typical issue for CI, of particular interest or concern (a decision-making point in the process or problem to solve)
- Person 1 puts the issues briefly
- Person 2 asks open questions, helps explore possibilities, focuses on positive elements within the organisation

Sound Decision-Making & Problem Solving Using Appreciative Inquiry

Exercise Two cont'd

- What are key specific knowledge elements to draw upon in the matter?
- What has prior experience taught?
- What are the gaps in understanding… new/better/more inclusive ways of looking at the matter?
- What is the outcome? Identify improved ways of handling the matter for the future

3. Strategic Outcomes

Outcomes rather than Outputs

- Entails taking a fuller brief, a wider perspective, *possibility-focused* rather than *problem-focused*
- Takes account of relationships involved in issues/decisions
- Takes account of strengths, the success stories and lessons form the past
- Approach tends towards SUSTAINABILITY
  - i.e. of outcomes, reputation, credibility, ‘being the best’, true to vision with ‘benefits to all partners, to the industry and society’.

Articulating Outcomes rather than Outputs

Stage 3 - Research Definition:

represents detailed investigation of research proposal phase and the preparation of business case (RMP, p.10)

Challenge:

Focus prevails through the entire conceptual and development stage, rather than simply at Gate 5 (Decision to Commercialise)

Articulating Outcomes rather than Outputs

Gate 2 (Concept Approval)

*Concept has been approved, project deemed by **Construction Innovation** as exhibiting potential for research and commercialisation*

Gate 3 (Research Definition)

Development phase is completed

Stage 4 (Research)

Project agreement is signed

<u>Exercise</u>

Half the group develops a typical scenario at this ‘Stage’

The other half of the group has specific tasks…

Calculate for Risks

What are the necessary contingency safety net understandings to allow for in project development?

i.e. '…random or uncontrollable occurrences that impede ..progress toward a goal'

Lovallo, D. & Kahneman, D. 'Delusions of Success', *Harvard Business Review*, July 2003.

Calculate for Risks

Example 1

Failing to advise budget over-shoot, budget problems diagnosed too late

'…they're anchored to their original cost estimates and don't adjust them sufficiently to account for the likelihood of problems and delays, not to mention expansions in the scope of the projects'

Example 2

Suddenly it is found that the innovation that is the subject of the project already exists.

'Other competitors will also target the market, convinced that they, too, have what it takes to succeed'

Lovallo, D. & Kahneman, D. 'Delusions of Success', *Harvard Business Review*, July 2003.

4. Articulating Outcomes from a Business Perspective

Articulating Outcomes from a Business Perspective

In creating effective alliances functional silos hinder communication and efficiency. *Triple-A* thinking and strong internal relationships are reflected in user-centred outcomes:

- Agility
- Adaptability
- Alignment

Beth et al, Supply Chain Challenges:Building Relationships, Harvard Business Review, July 2003, pp.65

Applying ‘4+2’ Thinking

Written outcomes reflect:

- well communicated strategy
- focused operation
- high-performance culture
- structure that simplifies work

Why Evaluation Criteria?

The “How to Host a Murder” Game

Types of Submissions

Imagine you are on a Committee determining resource allocation. You receive submissions:

1. set out according to stated requirements and reflect solid examination of all the issues inherent in a Project Selection process
2. consisting of vague ideas and fuzzy logic compatible with brainstorming and innovative idea generation

Adapted from Whitehead Miller Asia Pacific Pty Ltd, 2002

Why Evaluation Criteria?

3. presenting a brilliant research idea with no relationship to strategic alliances in the industry or no relationship to current or future local/global needs
4. providing many well-honed words decribing actual work and process details with no clear vision, structure or logic.

How to decide what to fund?

Consider only those submissions which provide a thorough, appropriate and well written statement against the evaluation criteria

Adapted from Whitehead Miller Asia Pacific Pty Ltd, 2002

The Project Submission Leader's Plight?

You are the Potential Host of the Murder!

The onus is on you to:

- Demonstrate the value
- Demonstrate the ability o the Project to meet all requirements
- Address the overall vision of the Program
- Generate a high level picture of the potential of the proposal
  (p.9 **Construction Innovation** RMP)

The Key Purposes of Evaluation Criteria

To allow the Directors and Committees to:

- Efficiently short-list Gate 1 applicants by comparing Project Claims against criteria
- Eliminate Projects from further consideration on the basis of failure to demonstrate ideas as valid claims against one or more of the criteria
- Structure discussions at Stage 2 and beyond around the criteria, including industry involvement, to establish Project claims agains them
- Provide a benchmark for assessment
- Provide a clear and common basis for responses to Project Submissions.

Addressing Evaluation Criteria

Preventing the ‘Hosted Murder’ from happening

Preparing a quality Project Submission is hard work. It is also time consuming. You cannot leave this work to the ‘night before’.

To produce a quality proposal more quickly:

- Fully understand how to address the task
- Practice writing to the criteria

Adapted from Whitehead Miller Asia Pacific Pty Ltd, 2002

Typical Criteria

There are a handful of criteria that tend to apply to most submissions, whether articulated or not. Generic examples of these are:

- Teamwork skills
- Well-developed communication skills
- Commitment to the delivery of quality of customer/client/partner service
- Flexibility and a willingness to adapt to change
- Enthusiasm and a positive attitude

Adapted from Whitehead Miller Asia Pacific Pty Ltd, 2002

Typical General Criteria for Construction Innovation

- Meeting the objectives of the CRC
- Representing a significant constuction industry innovation
- Exploiting a significant market opportunity in commercial terms

Typical General Criteria for Construction Innovation

More specifically based on:

- Merit
- Differentiation
- Trial and Scoping Study
- Commercialism/Social Good/Industry Benefit
- Measurability
- Sustainability
- Return on Investment

Typical General Criteria for Construction Innovation

Your task is to:

- provide specific examples and
- address each of the criteria to demonstrate that your Project meets them.
- occur at each Stage and Gate
- recognise that the entire process is cumulative
- Part of a seamless process of innovation and research development

Typical General Criteria for Construction Innovation

Writing to these criteria statements at each stage takes:

- time
- energy
- a clear mind
- a good breadth of perspectives
- an understanding of expectations, and
- a lot of patience

Project Evaluation Criteria – Segmenting the Elements

When responding to criteria, you must respond to every element of each criterion.

Process I

Break each Criterion up into distinct phrases as:

Elements and

Segments of the Elements

Project Evaluation Criteria – Segmenting the Elements

Example - Sample 1 Criterion: Project Champion (Project Leader)

*Each project requires someone who is passionate and dedicated within **Construction Innovation** to take ownership and promote the Project through the RMP (p.19, no.2)*

Element: Requires *someone*

Segments: Someone who is:

- *Passionate*
- *Dedicated*
- Willing to *promote* the Project

Now What?

Process II

Brainstorm as many examples, evidence establishing the point in question, or attributes of the Project, for each element and segment. Don't be too selective about what you include at this point – think of as many ideas and examples as you can.

Process III

After the brainstorm activity, go back and select the examples that best address the elements and segments of each criterion

Now What?

Process IV

Now and only now are you ready to write your full responses to each of the criteria for a particular Project. Use the ‘STAR’ method to provide the framework for your response**.**

Remember the 4 C’s
Be -

- Clear
- Concise
- Correct
- Complete

‘STAR’ - a 4-Step Method

Process IV - The ‘STAR’ method is:

- a guide for you to use in response to evaluation criteria
- A framework to keep you focused on what you need to say in your specific responses

Use ‘STAR’ to respond to the criteria at all levels and instances:

- written, and
- verbally at meetings, discussions and interviews

Adapted from Whitehead Miller Asia Pacific Pty Ltd, 2002

‘STAR’ - a 4-Step Method

Use to address and reflect upon the challenges your Project will face in the evaluation process in terms of –

Situation: Brief description of the various situations

Tactics: Options available to you

Action: Course of action you will take

Result: Outcomes

After Segmentation & ‘STAR”

Relating Criteria, Elements, Segments and ‘STAR” developed examples to the Submission Forms.

Once you have unpacked the criteria, brainstormed and used ‘STAR’ to write examples, relate these to specific Submission Forms required at each Gate.

After Segmentation & ‘STAR”

Activity One

Using page 19 Project Evaluation Criteria Explanation. In small groups determine which criteria might provide information for the two Sections in Stage 3, Form 3A

Section “Key Assumptions” No.	Section “Commercialisation”,etc. No.

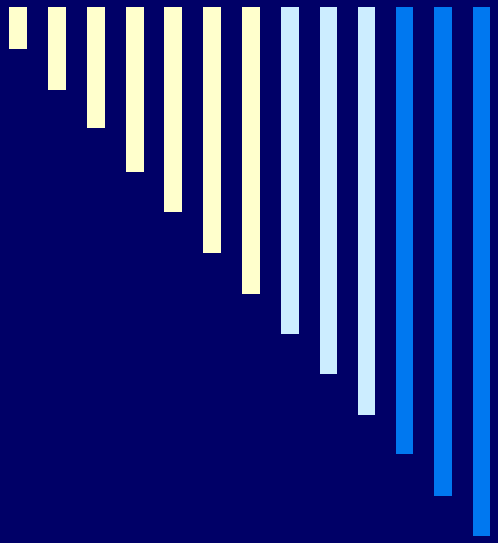
After Segmentation & ‘STAR”

Activity Two, Three and Four

Pages 11, 12, 13

Thank you

Dr Cheryl Kerr and Glenys Drew



Market Needs Analysis

Cooperative Research Centre for **Construction Innovation**

Presented by Helen Skippen

Corporate Context Pty Ltd

Market Needs in Context

1. Capability in STRATEGIC MARKETING
2. Product/service value proposition
3. Targeted markets/segments
4. Competitive positioning and branding
5. Effective marketing mix - operational level
6. Relationships involved at each stage

Strategic Marketing Process

1. Understanding markets
   - Market intelligence - trends, size, shares
   - Competitor position and strategies
   - User profiles, reactions and propensity to change
2. Defining competitive position
   - Differentiation
   - Price
   - Focus
3. Branding - communication the position
4. Marketing Mix - 7 Ps
   - Product; pricing; distribution; promotion; people; processes; physical tangibles

Key Market Relationships

1. External sources of R&D
   - Mutually beneficial partnering with customers
   - New entrants
2. Complementary suppliers - R&D
   - Players from another market space
3. Distribution partners
4. User engagement (before and after sale)

Case Study - SME sector

1. Alpha Business Systems
2. Education sector - student and financial administration software
3. Australian-based
   - Up to $3m T/O
   - Up to 25 employees

Alpha Business Systems - Product R&D

1. Ongoing R&D roll-out
   - Internal resourcing (IR&D grant) +
   - Complementary industry suppliers (Crystal Reports; ABIG Systems; Dialect; Timetabling Australia)
   - Platform development (Sun Microsystems - Java)
   - New sources of R&D from client base - commercialisation; distribution partnering

Alpha Business Systems - Distribution Partnering

1. Direct sales (domestic market), not distribution partnering
2. Global partnerships under investigation
3. Current client relationships facilitate distribution for new releases and new products
   - Beta site testing
   - Reference sites

Alpha Business Systems - User Engagement

1. Appropriate use of primary market research
2. Significant investment in User Group education and feedback loops - “market listening”
3. Significant investment in ongoing client relationship development - “referrer base”
4. Client relationships facilitate pipeline pull through for new products - “value adding”

Market Relationships - Who does it?

1. Operational “sales” or “customer service” vs strategic relationship management
2. Relationships at very senior levels
3. Useful to have more than one set of skills & style
4. Development first, then ongoing management
5. Role of “technicians”