

**Incorporating Principles of Sustainable
Development within Design & Delivery of Major
Projects:
Study Undertaken for the Institution of Civil
Engineers & The Actuarial Profession**

The RAMP project – outline

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Overview

- Clients:
 - The Institution of Civil Engineers
 - The Actuarial Profession
- Focus
 - Risk Analysis & Management Handbook – RAMP
- Aim
 - To incorporate principles of sustainable development within the design & delivery of major projects
- Time
 - 18 months: January 2009 – June 2010

Steps & deliverables

- Step 1
 - Preparation of inception report ***Inception Report***
- Step 2
 - Literature reviews ***Literature Review Report***
- Step 3
 - Questionnaire investigations & analyses ***Survey Report***
- Step 4
 - Appraisal framework & development
 - Seminar
- Step 5
 - Synthesis & reporting ***Final Report***
 - + ***New RAMP Handbook chapter***

Step 2 – Literature reviews

- Seven sectoral papers on treatment of environmental & social concerns in project appraisal from viewpoints of:
 - economist – actuary – civil engineer – transport planner – environmental planner – social & community planner – city & regional planner
- One overview paper:
 - perspectives of sustainability visions as applied to MUTPs
- All papers prepared by invited contributors from academic or consultancy backgrounds
- ***Literature Review Report***
 - synthesis of preceding contributions
 - compare and contrast study of each contribution
 - plus material from main OMEGA study of MUTPs
- Presented May 2009

Step 3 – Questionnaire investigations - surveys

- Aim: 60 interviews with key people from banks, public bodies, development agencies, consultancies & NGOs
 - 40 Hypothesis-led + 20 Pre-Hypothesis = 60
 - actual achieved 44 H-L + 14 P-H = 58
- Agencies / institutions - UK & international
 - target 20 Hypothesis-led total
 - actual 26 Hypothesis-led
 - 15 UK + 11 international
- Case studies - UK & international
 - target 20 Pre-Hypothesis + 20 Hypothesis-led = 40 total
 - actual 14 Pre-hypothesis & 18 Hypothesis-led = 32 total
 - UK, France, Sweden, USA
- **Survey Report** presented December 2009

Step 3 – Questionnaire investigations - method

- **Structured interview**
 - questionnaire sent in advance – unless PH & HL at same session
 - timing usually P-H half-hour, H-L one hour
 - recorded - digital recorder
- **Operational issues**
 - time needed to arrange date & time – most interviewees very senior
 - overseas interviews funding & time - addressed by careful planning
 - summer holidays!
 - delays in ‘chasing’ some target interviewees & finding replacement
- **Compilation**
 - interview transcribed & checked
 - copy sent to interviewee for checking (correction?)
 - H-L interviews analysed in detail to draw out key points into separate files as basis for Step 4 papers

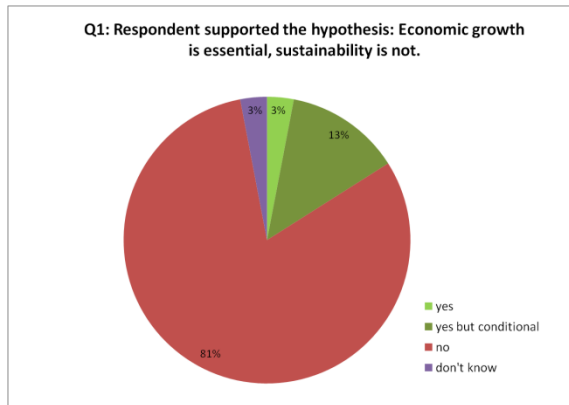
Step 3 – Questionnaire surveys - findings

- Valuable compilation of material
- Wide range of topics & opinions
- - but a lot of clear guidelines
 - the passage of time: issues change
 - the objectives of growth: quality of life or quantity of things?
 - generating & choosing projects
 - establishing values: whose values, what is the basis?
 - absolutes v. measures
 - environmental v. social: social assessments still lagging
 - consultation & engagement
 - professional practice & leadership
 - international v. national: how far do countries differ?

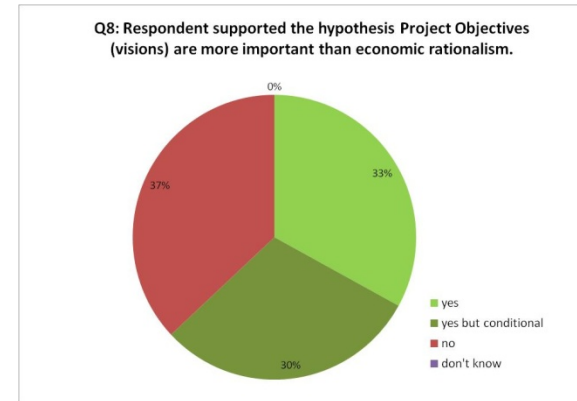
Step 3 – Questionnaire surveys – findings +

- Responses to four key hypotheses:

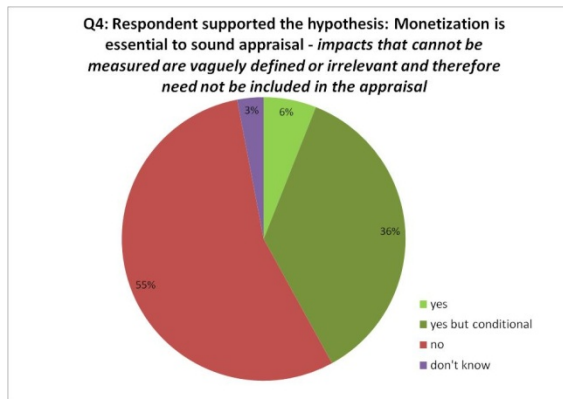
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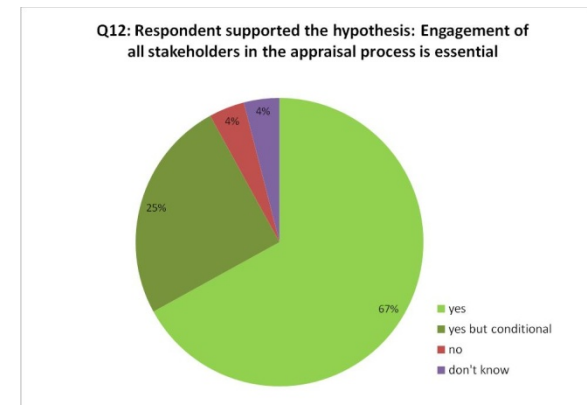
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Step 4 – Framework development

- Initial papers prepared & presented – December 2009
 - Improving the treatment of risk, uncertainty & complexity
 - International appraisal systems for project & transport
 - Monetization of environmental & social factors in appraisal
- Further papers prepared & discussed – March 2010
 - Sustainable Development
 - Multi Criteria Analysis
 - Sustainable Business Case
- Papers based on material from
 - the literature reviews
 - the questionnaire investigation findings
 - the findings of the main OMEGA project
 - other sources as appropriate

Steps 4 & 5 – Concluding stages

- Review & discussion – Seminar 1 April 2010
- Preparation of draft Final Report for discussion with clients – May 2010
- Preparation of draft additional chapter for RAMP Handbook for discussion with clients – May 2010
- Submission of ***Final Report*** – June 2010
- Submission of *additional chapter for RAMP Handbook* – June 2010