

INTEGRATION OF RISK AND VALUE MANAGEMENT

**Institute for Risk Management
Special Interest Group
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Presentation

- Background to VM / VE
- Introduce VM & VE ideas and concepts
- Link VM / VE to programme and project management delivery
- Process of VM / VE - Case study
- Conclusions

Background To The Presentation

- VM/VE in 2007 will be into its 60th year, the first four decades were dominated by North American developments
- Past 10 years seen a spread of developments into Europe, Australasia, China (HK particularly)
- VM emerged strongly into construction internationally in the 1980s; it has been increasingly linked with risk management
- Divergent thoughts have emerged about the VM/VE process and its implementation and has been contextualised and localised, with a range of different standards also emerging internationally

SUMMARY OF CURRENT ISSUES FOR VM IN THE UK

- A focus on the customer, integrated processes & teams, partnering the supply chain through project processes
- Proper accountability for public funds (lowest cost) is not to be used as an excuse for missing opportunities to deliver better VfM
- Large, regular procuring clients in the public and private sectors are driving through change in the industry, backed by Government at all levels
- VM/VE Mandatory in some procurement routes; along with risk management



VALUE MANAGEMENT – WHAT IT IS
& WHAT IS IT NOT

BASIS OF VM

- Team and Function based management methodology that fits into a wider organisational context and orientation
 - Corporate
 - Programme and/or Project
 - Service and/or product
- It is a style of management
- It is a structured, challenging, analytical and mediated process involving key stakeholders
- Using right team, right time
- It is a change oriented methodology

VALUE?

Customer
End User
focused

Subjective Component

'Soft' Evidence

Teams and Individuals
Making decisions and choices
about cost and price

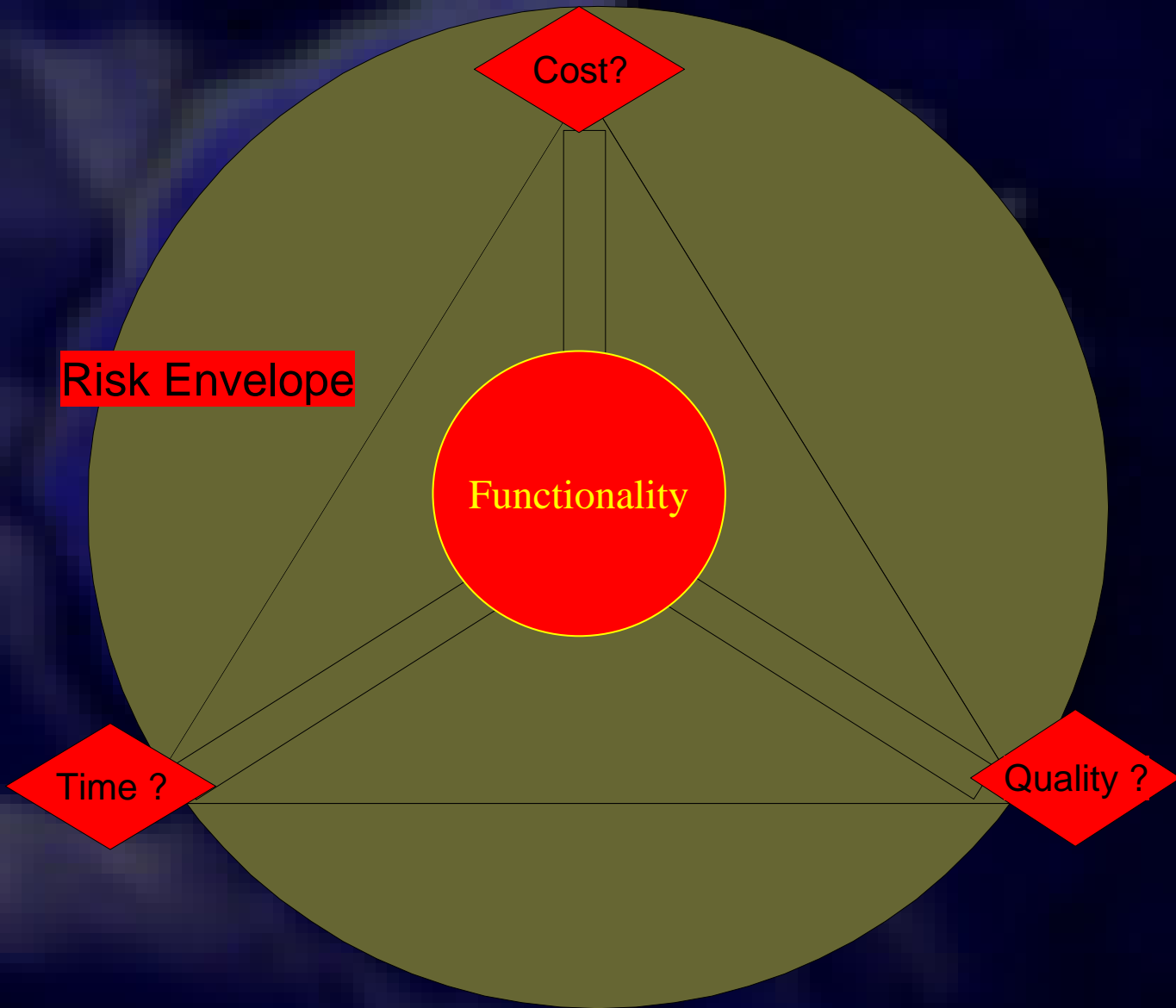
Impacted by
Perceptions, Attitudes
Culture, Hierarchy

Objective Component –
'Hard' Evidence

Objective measures:

- Cost – resources used
- Market based exchanges - price

Impacted by
Industrial, Economic
Social and Political
Frameworks Operating



A DEFINITION OF VALUE MANAGEMENT

Value Management is concerned with making explicit the *whole life package* of benefits a client requires from an investment / business project at an appropriate cost

HOW

Introducing Innovation and Improvements to the project

Using the right team

At the right time

Through co-operative working, joint problem solving and seeking out opportunities

Whole life view

WHY INVEST IN THE FIRST PLACE?

A DEFINITION OF VALUE ENGINEERING

Value Engineering is concerned with making explicit the *whole life package* of benefits a client requires from the appropriate technical project at an appropriate cost

HOW

Introducing Innovation and Improvements to the project

Using the right team

At the right time

Through co-operative working, joint problem solving and seeking out opportunities

Whole life view, especially during design and construction

AM I INVESTING IN THE RIGHT TECHNICAL SOLUTION?

Risk, Value and Opportunity



Value & Risk

- Our experience indicates that risk and value management have different mindsets
 - Value thinking is much more positive and opportunity focused
 - Risk is much more threat focused
 - Experience also indicates that it is better to look at opportunities first, the risk of opportunities not being delivered and then general risk areas
- Risk can be viewed as a threat to value either being created, delivered or enhanced
- VM is a function based methodology; risk could also be seen as a threat to functions being delivered

VALUE BASED THINKING

CORPORATE STRATEGIC DIRECTION

MANAGING PROJECT VALUE

LAND AND PROPERTY

PROPERTY ASSET MANAGEMENT

STRATEGIC PROGRAMME / PROJECT MANAGEMENT

VALUE & Strategic Fit

NEW FACILITIES OR REFURBISHMENT

PROCUREMENT AND CONTRACT STRATEGY

MANAGEMENT OF CHANGE

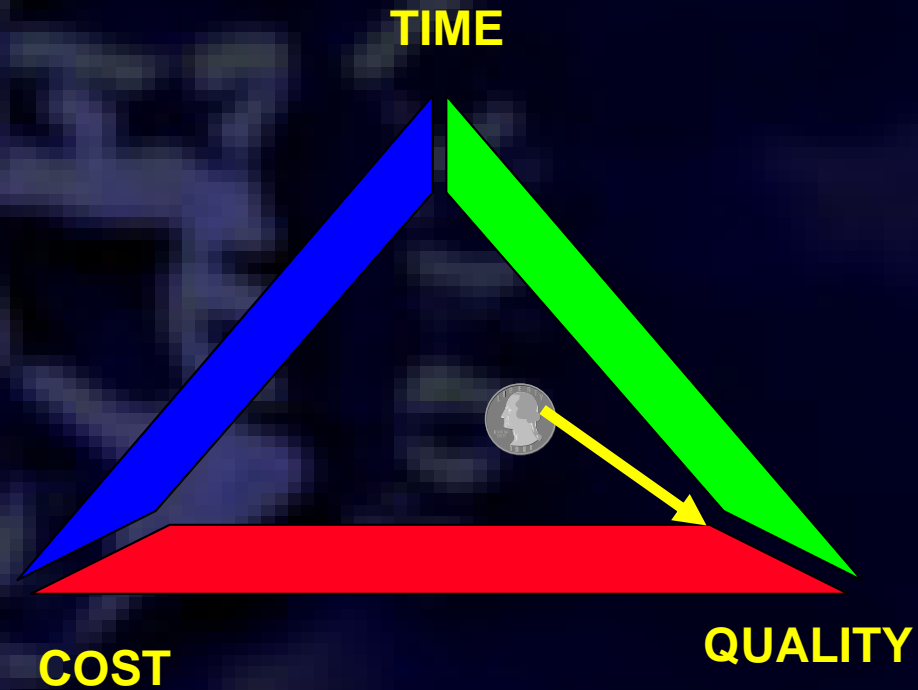
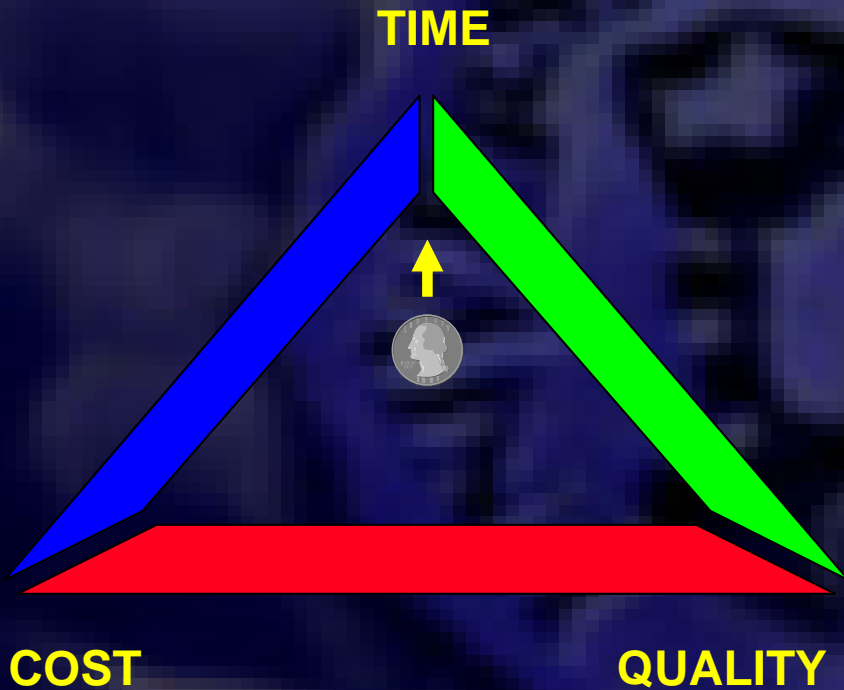
TECHNOLOGICAL

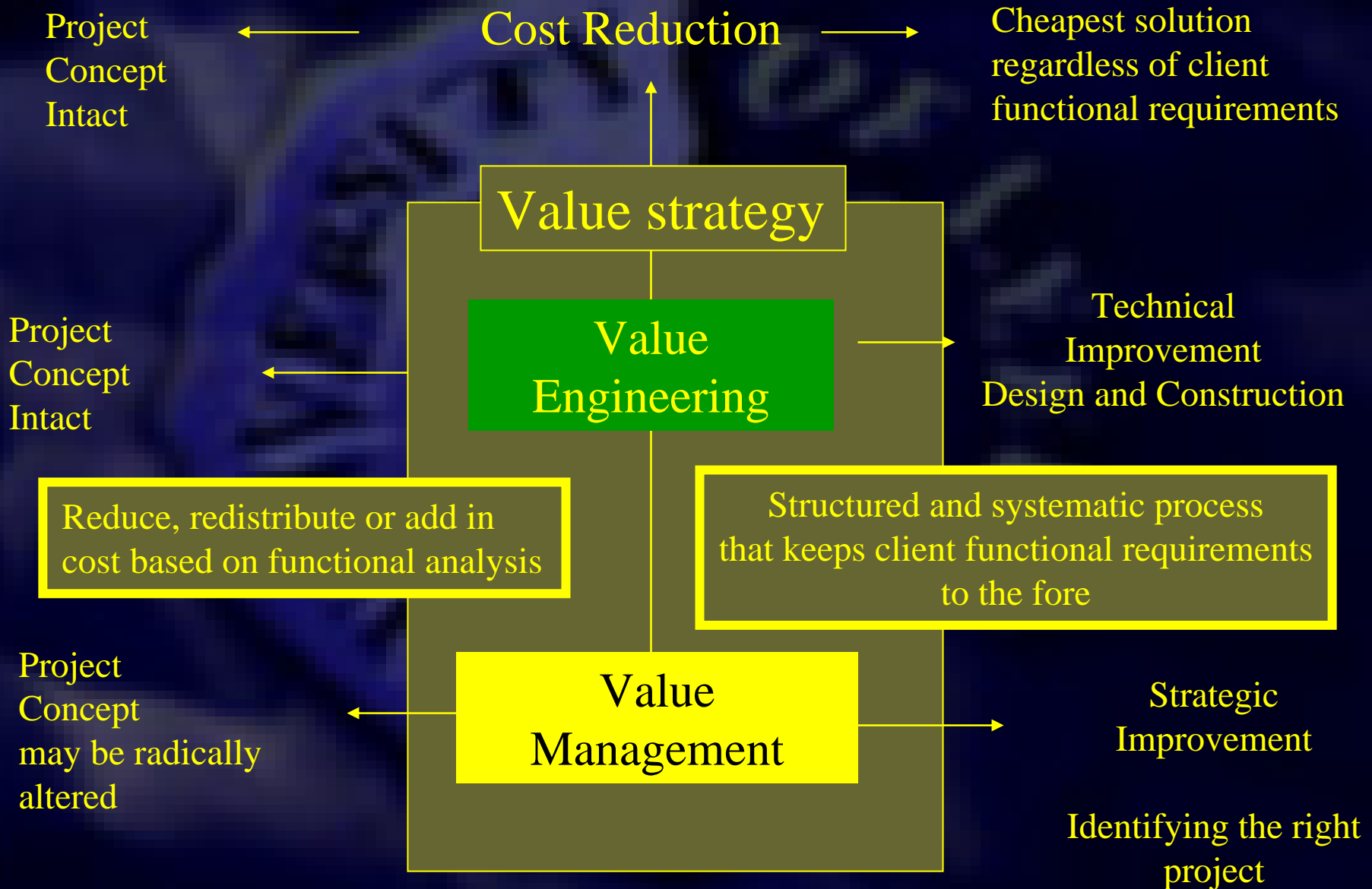
ORGANISATIONAL

UNCOVERING DIFFERENT PERSPECTIVES

CLIENT PERSPECTIVE

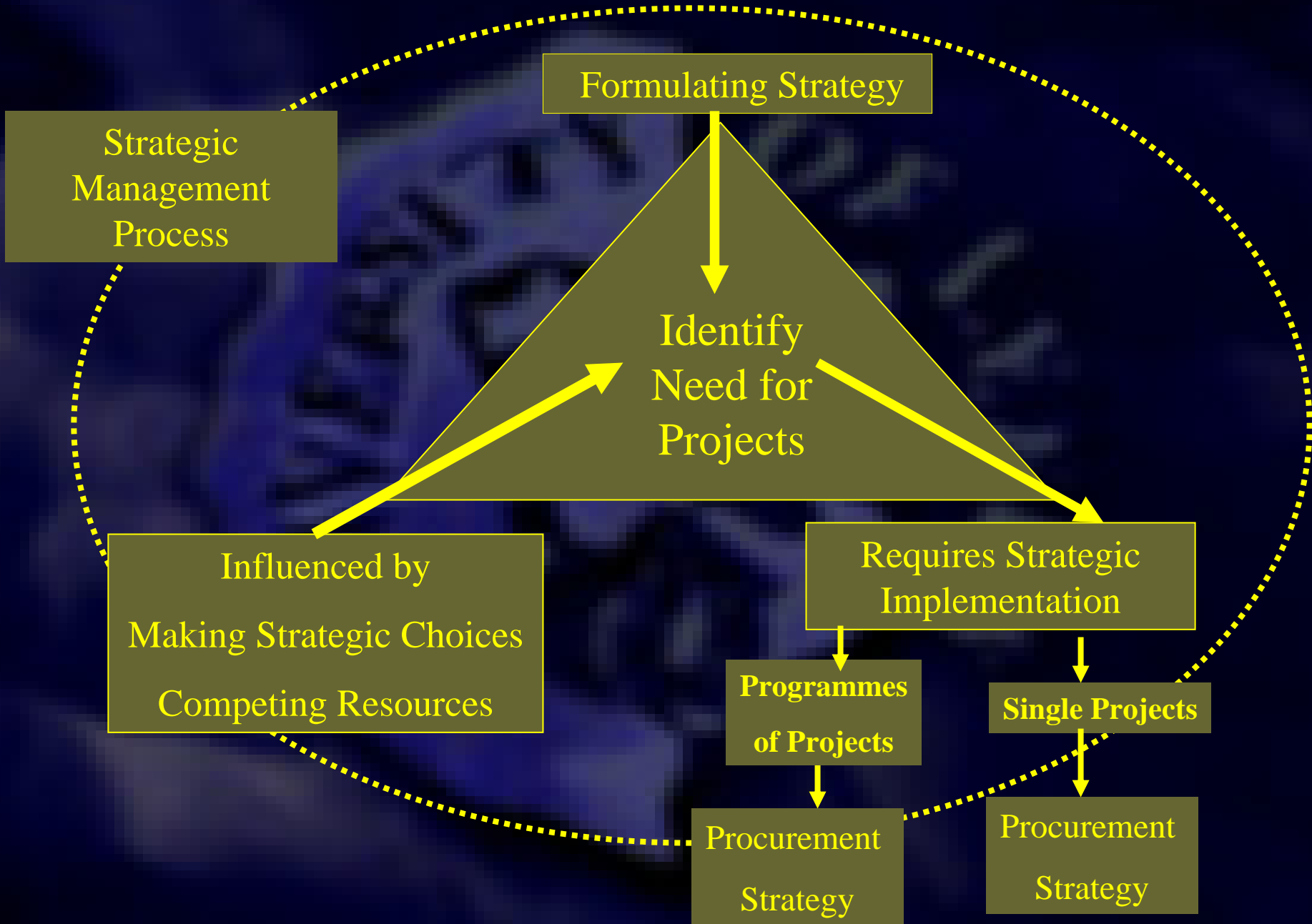
DESIGN TEAM PERSPECTIVE



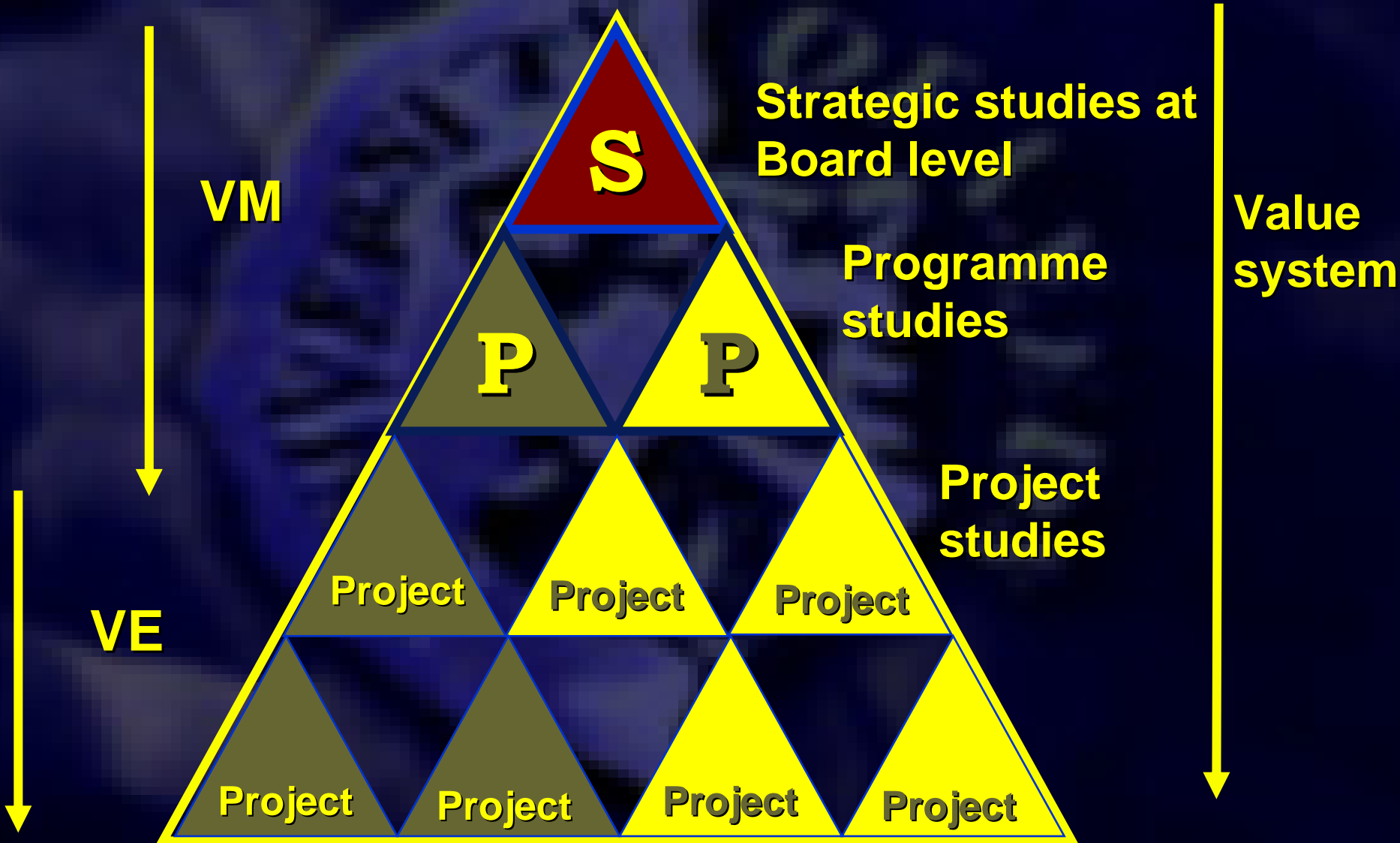




EXAMINE THE ROLE OF VM
IN THE
PROJECT VALUE CHAIN
AND PROJECT DELIVERY PROCESS?

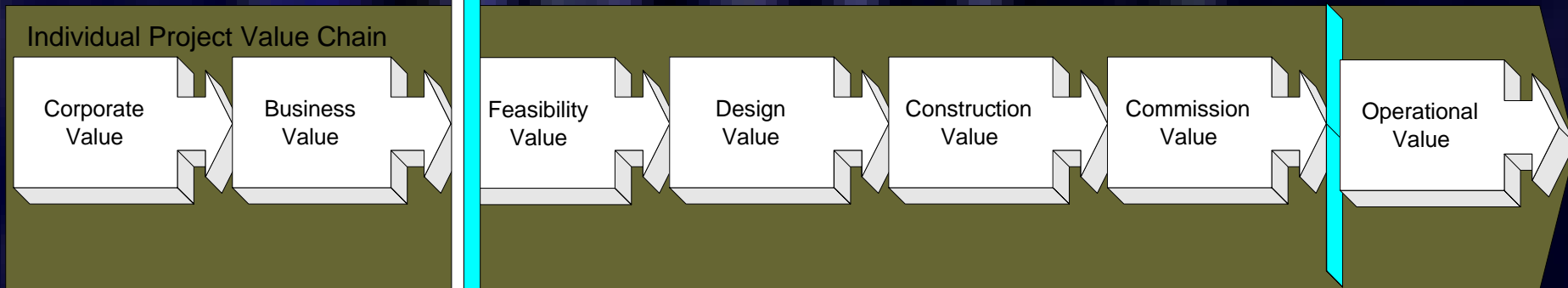
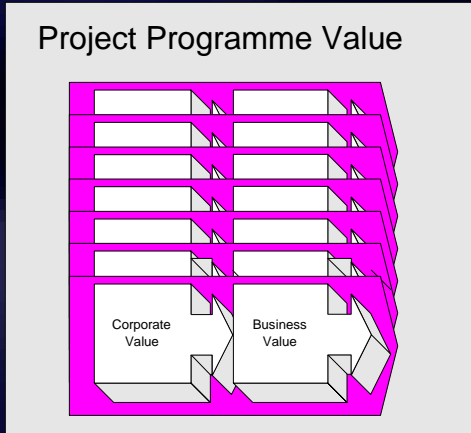


VM / VE Study Cascade



The Project Value Chain

Each stage and process should be adding value – maintaining the ‘value thread’



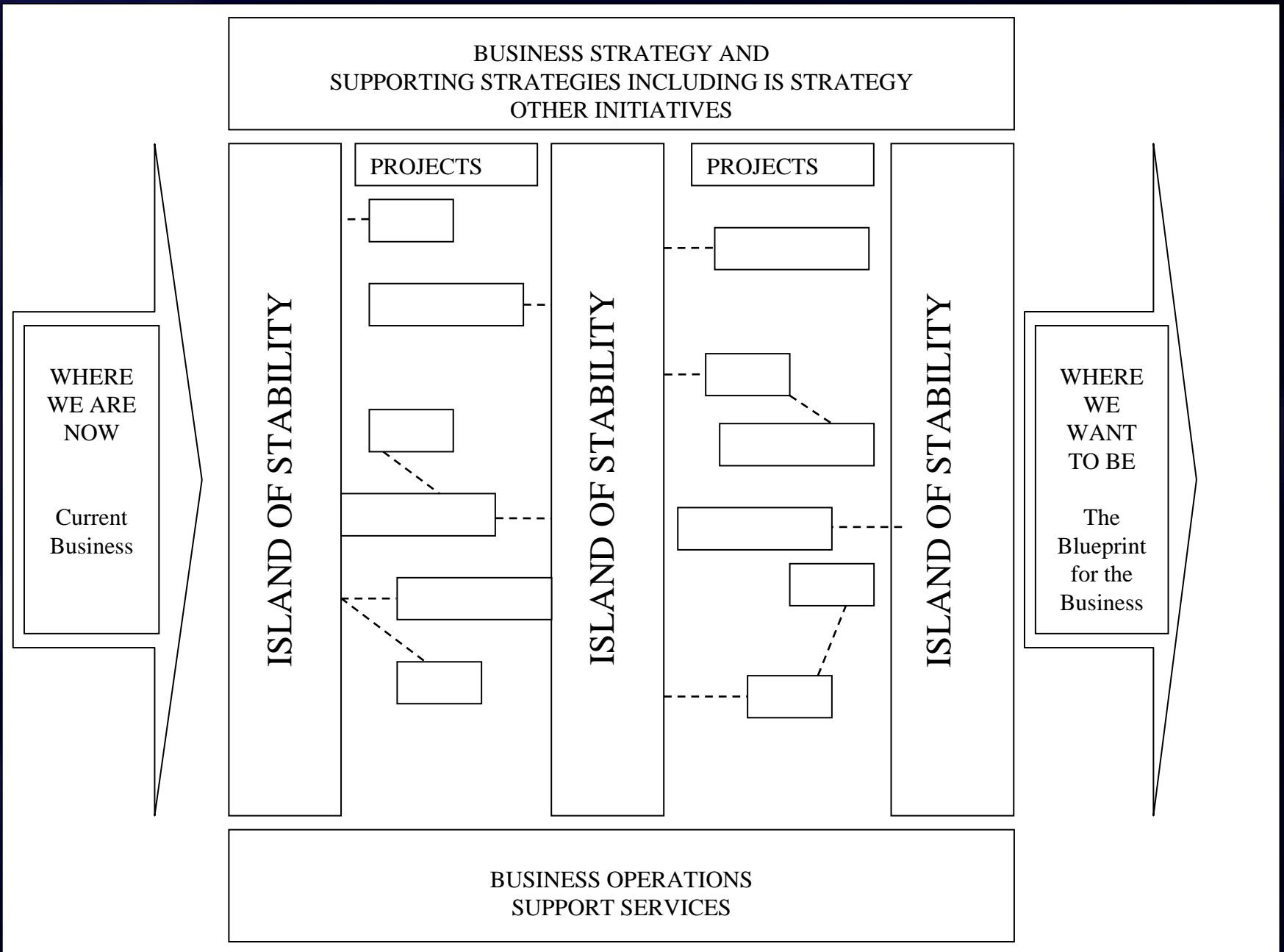
Project Value:

The Individual Project Value Chain

The decision to construct

Strategic /Tactical delineation

Customer is purchasing **BENEFITS** at each stage of the process



Business Strategy, Programmes & Projects (Source; CCTA 1994)

Programme Management

- Programme management fits between Corporate/Business Strategy Level and Individual project level
- *Programme Management is a business function and is a hybrid between strategic management and project management*
- Moves an organisational from a current capability to a future capability (the ‘blueprint’ of the future)
- Inherent within this is corporate and programme risk

Blueprint
of the
Future

Where are we going
and why = vision

Linkages

Strategies

How are we going to get there, what
resources are we going to invest, what
are the benefits sought and why

Programmes

Portfolios

Projects

Benefits
Realisation

How do we
coordinate and
deliver our
efforts and
resources for
maximum
impact

The 'Holistic Value Management Of Projects'

The Holistic Management of Projects needs to combine

***Project Programme Management
And / Or Project Portfolio Management***

**THIS
REQUIRES**



**An holistic view of projects as a network
Recognising competitive relationships between projects
Balancing project objectives with corporate objectives
Selecting projects and assigning priorities to projects
Co-ordinating those projects by managing their interfaces**

AND

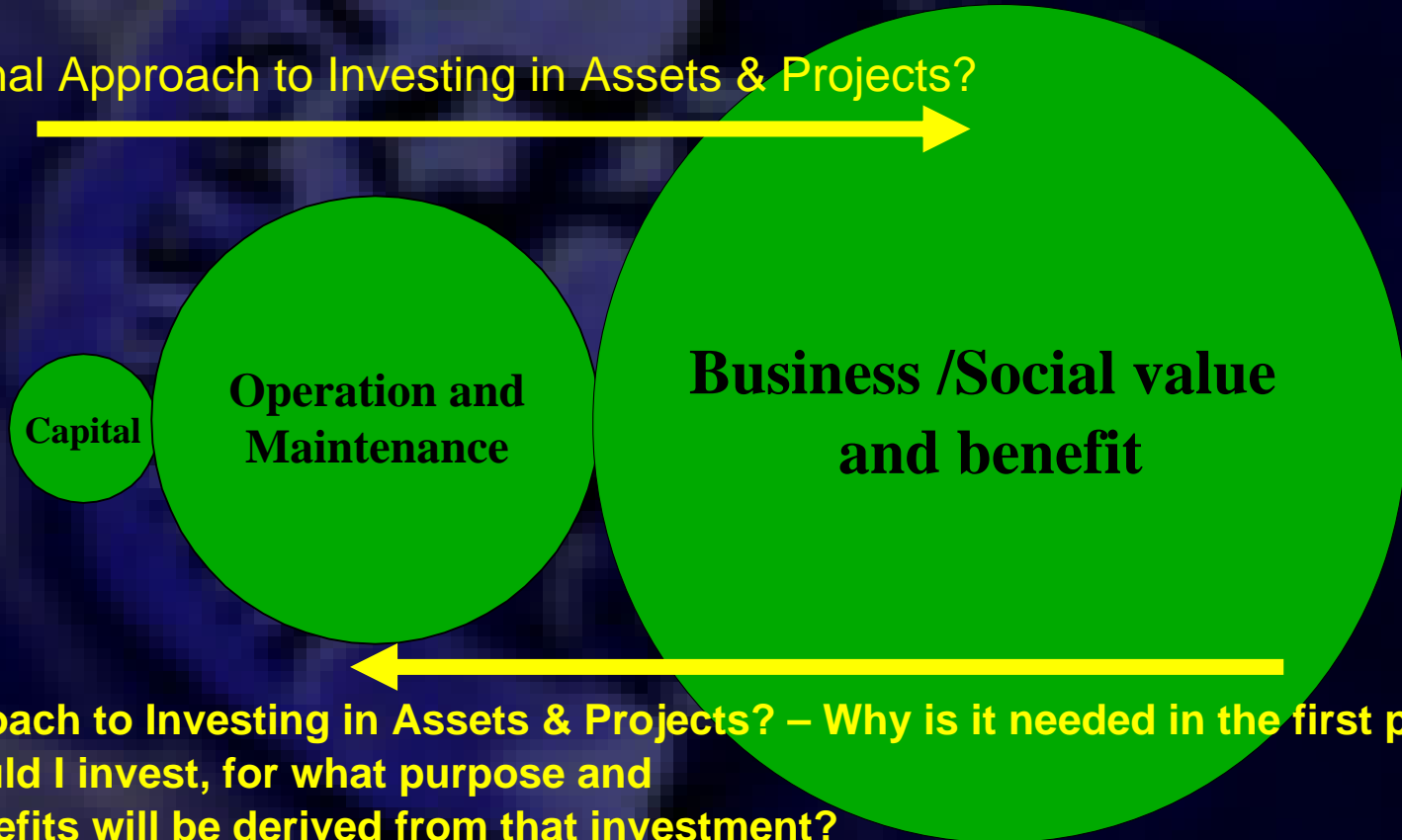


Consideration of Impacts and Delivery on Individual Project Management

Value Based Thinking: Reverse Engineering Client Assets and Projects?

Ratio: 1 to 10 to 200

Traditional Approach to Investing in Assets & Projects?



VM Approach to Investing in Assets & Projects? – Why is it needed in the first place, why should I invest, for what purpose and what benefits will be derived from that investment?

Source: Adapted from Professor Ken Treadaway (BRE)

Value & Risk

- What is clear from the foregoing is that risk is inherent within all of the foregoing
- VM addresses risk as an integral part of its process.
- VM may or may not address risk quantitatively, there have been instances where the outcomes of a VM process feed directly into a quantitative risk analysis; in this case an RM consultant may be present in the team
- The VM process by its very nature will uncover risk anyway

Value Orientation: Solutions and Outcomes

- Our experience indicates Ideas and Solutions fall into four main areas;
 - Strategic project improvements
 - Technical design and construction improvements
 - Project Management improvements - programme, method
 - Risk analysis and management



CASE STUDY

Library Project

Library Project

- Study 1: classic UK VM/VE; tender stage
 - Existing design team, two VM consultants
 - Obvious that project heading for major problems, budget of £16m likely to be minimum £18m+
 - Tried to rebuild ‘strained’ team relationships through VM/VE
 - Client pulled out of tenders when budget hit over £18m, and, heavily qualified tenders

Library Project

- Study 2: project audit on whole design and tender process
 - classic US style
- VM team
 - Two VM consultants; shadow design team plus contractor
 - Client/end users representatives
- Took whole team through VM & VE process to analyse project, designs and cost
- Conclusions
 - Brief had difficulties embedded in it, difficulties with end user control also in briefing process
 - Design problematic in certain areas
 - Claims likely with out turn costs likely as £21m+
 - ? Right site
 - Project cancelled by client

Library Project

- Study 3: Briefing study –VM team comprised:
 - Two VM consultants, same shadow design team plus contractor
 - Client/end users representatives
- Took whole team through VM process to develop brief and budget
- Used Strategic analysis to identify correct site
- Used Element analysis to identify appropriate technical solutions to meet functions, and, develop detailed budget for control purposes
- Detailed investigation of procurement options

Library Project

- Outcomes of whole three study process:
 - Detailed brief, end user control put in place and asked to sign off brief before design commenced
 - Changed site, more strategically appropriate for 20 year organisation development cycle
 - Design and build contractor appointed
 - Budget reset to £16m; Design and construction completed on time; Out turn costs £16m
 - Client has opened project; happy with outcome; subsequently used similar approaches on other projects

ISSUES

- Lack of strategic thinking at project formulation stage – value and risk issue (V&R)
- Limited (insufficient) up front planning of whole project and the reason for the investment (V&R)
- Lack of end user control and poor cost control (V&R)
- Inappropriate procurement options – not treating procurement as a strategic decision early on (V&R)
- Inadequate tender documentation (V&R)
- Difficult team relationships because of the above
- Essentially “project rescue” (V&R)
- Use of VM/VE to rescue the project; re-align it with corporate objectives, then reconfigure it appropriately – addressed value and risk simultaneously

Issues

- The case study demonstrates clearly that value and risk were being addressed simultaneously in all three studies
- Value and risk were being addressed as part of the VM process from the outset; however, the major focus was on delivering value first and then as part of that process addressing risk
- The VM activity addressed and controlled risks



CONCLUSIONS AND OBSERVATIONS

BASIS OF VM

- It is a function based, management methodology that fits into a wider organisational context and orientation
 - Corporate
 - Programme and/or Project
 - Service, product, physical asset
- Structured, challenging, analytical and mediated process involving key stakeholders
- Using right team, right time: VM focuses on ‘value system’ evolution and resolution, and, could involve revolution
- Permits ‘value systems’ to coalesce to the benefit of the client
- It is a change oriented methodology and risk is inherently addressed

Value Based Approaches

- Value Management Critical Success Factors defined as structuring the 'value process' as a change methodology
 - Orientation & Diagnostic Phase; Workshop Phase; Implementation Phase
 - Deciding on the approach and team
 - Identifying value challenges/problems; structuring and restructuring information, the skill of the value manager as facilitator during the workshop process
 - Team structure, skills & working relationships
 - Attitude of the stakeholders to the project, service and/or the value process



Thank You

Questions



COMPLEX PROJECTS

VM Approaches: Study Style 2 – Classic UK VM/VE

- Rail project (Thames Link 2000), project programme level:
 - Investment programme, 9 projects
 - Agreed project mission
 - Project priorities, TWA programme, budgets
 - Reviewed each project for alignment with overall project mission
 - Implementation workshop: full review of all project studies
 - 9 studies, 10 weeks, 2 VM consultant teams working in parallel
- Issues:
 - Used VM/VE to validated costs plans
 - Multiple VM teams working in parallel
 - Simultaneous consideration of CAPEX and OPEX, design, construction and operation
 - Validation of project concept then sub-projects against it
 - Programme and project level VM/VE

VM Approaches: Study Style 1
Helping a Team think through a programme / project

- 120 School PFI
 - Developed Management Plan using 10 schools as a surrogate for whole programme
 - Understood client value system
 - Thought through whole process, including design, construction & use
- Issues:
 - Getting to know the project: issues analysis, priorities, what the customer wants, tender documents
 - Detailed development of a management plan

Restructuring Leeds FM Division:
US + Hybrid Method (SS2, SS3, SS4)

- Context: an organisation wide audit had revealed major difficulties with procedures
- Used VM process; VM team appointed by Vice Chancellor (CEO)
 - Led by internal VM team leader (me)
 - External FM consultants part of team
- Process designed as a change methodology underpinned by VM process, tools and techniques

Restructuring Leeds FM Division

- Five stage study
 - Briefing of University senior managers
 - Orientation and Diagnosis
 - Interviews and documentation analysis
 - Internal FM audit by external FM consultants
 - Report produced
 - Used as input into VM workshop to start process of change
 - Workshop with FM personnel to introduce change, design new structures, systems and procedures, re branding and re launching Division
 - Implementation workshop
 - FM consultants continued on to embed change

ISSUES

- Organisational change study
- Use of VM to develop strategic options
- Analysis of CAPEX and OPEX programmes
- Reconfigured the structure of the Division
- Re-launched the Division under an ew title and way of operating