

# Institute of Value Management

## Value Management: Benefits in Action

*Real World Case Studies Featuring Best Practice Professional Value Management (BP-VM) from Across the Private, Public and Not-for-Profit Sectors*

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# Value Management – An Overview

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The 8 major construction /infrastructure projects indicated with an asterix on previous slide resulted in:

**£546m (19%) savings on £2.9bn approved CAPEX**

Please note that these savings (plus many non-financial benefits) were achieved without compromising the Client's requirements or the quality of the projects.

See the overview on the next slide...

# Value Management – An Overview

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- ▶ This document demonstrates the value of adopting Best Practice - Value Management (BP-VM) in line with the Value for Europe Training and Certification System (V4E-TCS) and BS EN 12973:2020. This ensures delivery on all dimensions of value. These include the satisfaction of the need, cost, efficient use of resources, quality and performance for all stakeholders.
- ▶ Too often projects are launched without a clear idea of the value they will deliver. There is also a need to demonstrate 'value for money', especially when there is a political dimension to a project.
- ▶ For many investments at completion those auditing the scheme can pose difficult questions, such as querying whether the outcome truly represents 'value for money'. Value is typically much more than a pure monetary measure.
- ▶ The Institute of Value Management (IVM) is the only professional body in the UK whose sole focus is the investigation, optimisation and delivery of Value. The IVM contributes to the development and application of International Standards for Value Management and these can be used for all investment decisions.

**Value Management delivers a Return on Investment (RoI) of typically Between 10:1 and 100:1+ => See the following real world examples...**

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### Client: Sellafield Ltd

#### Scope :

An organisational review to deal with major challenges of construction logistics for major project delivery over next 20 years:

- Very Congested site with limited “free space”
- C. £8bn investment in major projects over 20 years
- Logistics including the movement of people, materials, spoil,
- Project accommodation
- Social Impact / Community Engagement drivers

#### Approach :

We facilitated several value studies looking at key logistics functions. These featured multidisciplinary team working with supply chain personnel and Sellafield

#### Benefits realised :

- Wider perspective considered – alignment with wider Cumbrian policy i.e. to support other investments in local council areas
- Investment need over lifecycle
- Stakeholder assumptions, alignment and consensus reached
- Subsequent paper delivered first time through governance
- Bounce and working approach continues 12 months on.
- Allowed sustainable options to be developed to support Net zero 2050 commitment
- Solutions developed identified over £300m of benefit opportunities over the 20yr programme if implemented

#### Outcomes:

- Unanimous decision on the benefits of adopting a ‘One Vision’ approach to delivering the programme of Major Projects
- Ensured alignment with Strategic vision and Business objectives
- Ideas generated in the workshop are being extended beyond the scope to provide Value across the Site rather than just the projects/programmes.
- Secured funding to continue dialogue and proposal development
- Development of PPP Construction Logistics Improvement Plan with 6 recommendations to take forward for further dialogue on funding to make Major Project Improvements such as: movement of materials, movement of workforce, Haulage Road Implementation, spoil remediation, rail strategy and project accommodation



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# Major Rail Project

## Case Study

**Client: Multi-disciplinary Consultant on Major Rail Project (Confidential)**

### The Challenge:

To identify value improvements in order to demonstrate even more 'added value'.

### Services:

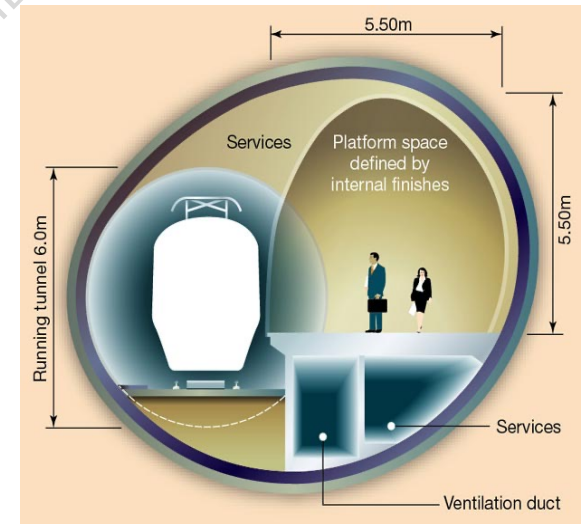
One of our Value Management qualified professionals was commissioned by a Multi-disciplinary Consultancy (MDC), to facilitate a programme of Value Improvement workshops on their section of the route.

### Solution:

We established the programme of workshops with the MDC's senior management, planned the agendas, identified the attendees and then facilitated the workshops using our Value Management qualified professionals with all, focused on the identification of real value improvement opportunities.

### Results:

Through the expertise and focus of our highly skilled and experienced facilitators the workshop teams identified potential savings of £180 million, and delivered an 18% saving.



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# Railway Project Example

## Case Study

### The Challenge:

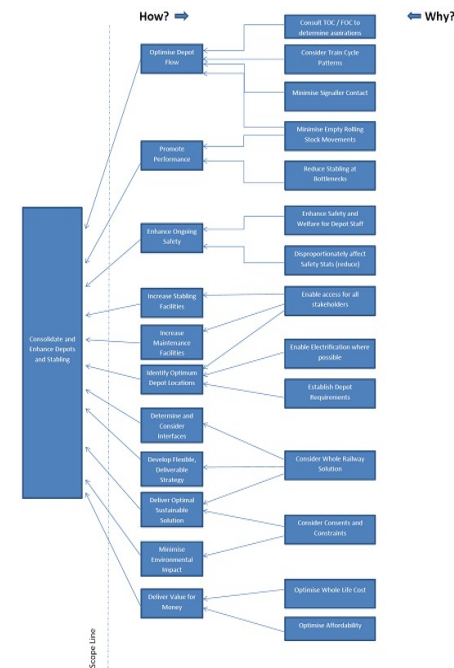
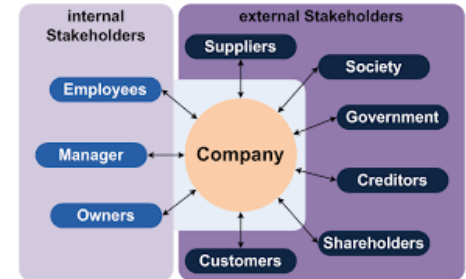
- Congested railway with growing demand
- Conflicts between passenger and freight services
- Programme and budget constraints to achieve with an overall budget of approx. £270m
- Large group of stakeholders with misaligned needs / wants.

### Solution:

- Full Value Management life cycle approach adopted, working collaboratively with key stakeholders to drive up value including:
  - Output Definition (Critical Success Factors, Stakeholder Needs, Function Analysis, early Risk identification)
  - Optioneering – filtering and selection of optimum options
  - Value Engineering – driving efficiencies realisation
  - Lessons Learned – exploring successes and issues to enhance future projects.

### Results:

- Successful delivery of capacity and journey time improvements
- Hand back and commissioning was achieved to milestone
- The project was delivered sustainably with CEEQUAL achieved
- New technology introduced – more digitisation
- Whole life Operating Expenditure benefits achieved.
- Value Engineering capital investment benefits of approx. £27m, i.e. delivery of savings on the budget of 10%



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# Housing Trust Organisational Review Case Study

## Client: Victory Housing Trust

### The Challenge:

An organisational review to deal with major challenges:

- 12% cut in Victory's rental revenues
- Under Occupancy Charge (aka 'Bedroom Tax').
- Introduction of Universal Credit and its complexities
- Modern IT but poor connectivity + mobile data
- Adoption of best outsourcing practices

### Services & Solution:

Eight value studies were facilitated looking at key business functions. These featured multidisciplinary team working with personnel from Victory, contractors and tenants. This was organised with top team support including the CEO, Deputy CEO and all Executive Directors.

### Results (from the National Star Survey):

- Tenant satisfaction of 89% vs sector median 86%
- 91% satisfied with rent VFM vs median 80%
- Overall costs per Unit reduced by 5.5%
- Management costs per unit reduced by 19%
- Maintenance costs reduced by 10.6%
- Investment level 21% above the sector median



*"There's been a bit of an earthquake in the sector which has required us to approach things in a totally different way. Value Management has definitely helped us respond in a much more resilient fashion and has played a key role in shaping our cultural journey."*

**John Archibald, Chief Executive`**

*"We've implemented most of the VM recommendations which have now become business as usual. The VM study also helped us introduce our new IT systems."*

**Ian Candlish, Assistant Director, Assets**

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### Client: Light Rail Organisation (Confidential)

#### The Challenge:

To produce a Value Management (VM) procedure for the Client to use across their capital works program and 'pilot' on a major two directional light rail project to prove it works.

#### Services:

Planning and production of a User Friendly VM Procedure using the expertise of our VM professionally qualified team in collaboration with the Client's departments. Planning and Facilitation of workshops.

#### Solution:

Delivery of the 'Project Value Management Procedure' including a process map of the project lifecycle and templates for each project stage of the Client's capital works programme and using the procedure to facilitate a series of workshops.

#### Results:

On the first 'Pilot' Project, savings of a 100 million Euros were realised through driving out unnecessary items and wastage.

Project Value Management



# Headquarters Fit-out

## Case Study

### Client: Major Pharmaceuticals Headquarters Fit-out (Confidential)

#### The Challenge:

The costs, on this new headquarters fit-out had spiralled to £16.7m from the original £13.15m, an increase of £3.55m some 27%! This major Value Management workshop was needed to drive out unnecessary cost to get the project at least back on track and within the business plan budget while ensuring the client's needs were delivered.

#### Services:

An IVM Value Management qualified professional's organisation, was commissioned by a major Pharmaceuticals company to facilitate a two-day Value Management workshop.

#### Solution:

Our IVM colleague, established the workshop attendees with the Client's senior management and then facilitated the two-day workshop focused on the identification of real value improvement opportunities and drove the realisation of these collaboratively with the project team through the use of our skilled Value Managers post workshop.

#### Results:

Through the expertise and focus of our highly skilled Value Management professionally qualified and experienced facilitators the workshop team led by our Value Managers identified savings of £4.3 million, to bring the project back within its original budget down to £12.4m, some £750k below the original budget.



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# Supermarket Construction

## Case Study

**Client: Leading UK Supermarket Chain (Confidential)**

### **The Challenge:**

To deliver the target of identifying £600k i.e. 5% of potential savings due to the project having a major affordability issue at the start of its Construction Stage.

### **Services:**

Organisation, management and facilitation of value engineering pre-workshop and workshop. Production of report and close out activities (post workshop).

### **Solution:**

Facilitation of a one-day Value Engineering workshop on this scheme with the participants broken down into value improvement groups with the Client Project Manager present all day.

### **Results:**

20 ideas selected and developed then, post-workshop realised, to reduce project CAPEX costs by the £770k representing in excess of 6% of the project budget at Construction Stage resulting in the scheme being built.



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# Port Operations Project

## Case Study

**Client: Port Operator, Operational Building (Confidential)**

### **The Challenge:**

The costs, on this new operational building had increased to £3.6m from the original £3.2m at Design Stage an increase of £400k some 12.5%.

### **Services:**

Provide a qualified Value Management professional to plan and facilitate a Value Improvement workshop.

### **Solution:**

Plan the workshop including agenda and attendees and then facilitated the workshop with all, focused on the identification of real value improvement opportunities. The Managing Director and Finance Director attended the workshop and the MD cleared their diary to attend the full day as they saw how beneficial the workshop was.

### **Results:**

Through the expertise and focus of our highly skilled and experienced facilitator the workshop team identified potential savings of £800k, and delivered this post-workshop, a 22% saving!



# Three Hydroelectric Schemes in Malaysia Case Study

## **Baleh Hydroelectric Projects in Sarawak, East Malaysia:**

Stage of VM Study: Procurement of the following:

- Main Dam Civil Works
- E&M works and Powerhouse
- Jetty, Roads and Bridges
- Diversion Tunnel
- Bio Mass Clearance
- Operators Village
- Explosive Magazine
- Transmission Lines
- Value enhancement: ~8% of the Scheme Cost

## **Nenggiri Hydroelectric Project:**

- Stage of VM Study: Development Phase
- Number of options identified: 155
- Recommendations accepted: 10
- Value enhancement: ~14% of Scheme Cost

## **Tekai Hydroelectric Project:**

- Stage of VM Study: Final Design Stage
- Number of options identified: 165
- Recommendations accepted: 14
- Value enhancement: ~12% of Scheme Cost



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# Offshore Oil Field Project Value Engineering Services

## Case Study

**Client:** Middle East Oil Company (Confidential)

### The Challenge:

To review a \$170M offshore oil production project to see if its value to the client could be enhanced through value engineering.

### Services:

- Organisation, management and facilitation of value engineering pre-workshop and workshop
- Production of report and close out activities (post workshop)

### Solution:

Facilitated a 2 day workshop with a multidisciplinary team of 25 people to develop 57 options for value improvement to the project.

### Result:

12 ideas selected with potential savings of \$67 - \$137M, representing savings of 39% - 80% of the project budget.



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# Onshore Oil Field Project Value Engineering Services

Case Study

**Client:** Middle East (Confidential)

## **The Challenge:**

To review a \$2Bn+ oil production project to see if its value to the client could be enhanced through value engineering.

## **Services:**

Organisation, management and facilitation of value engineering pre-workshop and workshop

Production of report and close out activities (post workshop)

## **Solution:**

Facilitated a 4 day workshop for a multidisciplinary team of 45 people to develop 265 ideas for value improvement to the project.

## **Results:**

21 ideas selected and developed to reduce project CAPEX and OPEX costs by \$380m+ representing in excess of 18% of the project budget.



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# Three Major VM Programmes in North America

## Case Studies

### US Department of State (Construction of US Embassies Internationally):

- Annual VM Savings: \$165m on \$2Bn construction budget, i.e. 8.25% cost savings:
- Design-Build Projects:
  - Planning VM Studies: ROI of 145:1 via 38 VM studies
  - Design Development VM Studies: ROI of 22:1 via 62 VM studies
- Design-Bid-Build Projects:
  - Planning VM Studies: ROI achieved of 85:1 via 9 VM studies
  - Design Development VM Studies: ROI of 58:1 via 23 VM studies

### US Federal Highway Administration:

- Number of VM studies: 198
- Estimated construction cost of projects studied: \$13.9bn
- Number of approved VM recommendations: 579
- Value of approved VM recommendations \$0.87bn
- Cost to conduct VM studies: \$7.3m
- Percent of project cost saved: 6.2%
- Return on Investment (ROI): 119:1

### City of Calgary, Alberta, Canada:

- Total project cost: \$1.34bn
- Total VM savings: \$156m
- Cost savings: 12.6% (covers both capex and opex)
- Total cost of VME studies: \$1.2m
- Average ROI: 130:1



# VM Case Study Videos

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- ▶ **VM Study at Rijkswaterstaat:**  
**[https://youtu.be/V\\_h9P83L1Ok](https://youtu.be/V_h9P83L1Ok)**
- ▶ **VM Study at a German Kindergarten**  
**<https://youtu.be/dvdfxr0fMzs>**

# For Further Information

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- ▶ Institute of Value Management: [www.ivm.org.uk](http://www.ivm.org.uk)
- ▶ Flyers available at: [www.ivm.org.uk](http://www.ivm.org.uk)
  - 1. IVM General Information Flyer
  - 2. IVM Qualifications and Membership Flyer
- ▶ Standards:
  - BS EN 12973:2020 Value Management – Standard
  - BS EN 1325:2014 Value Management – Vocabulary
  - BS EN 16271:2012 Value Management – Functional Performance Specification
- ▶ Value for Europe: [www.valueforeurope.com](http://www.valueforeurope.com)

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