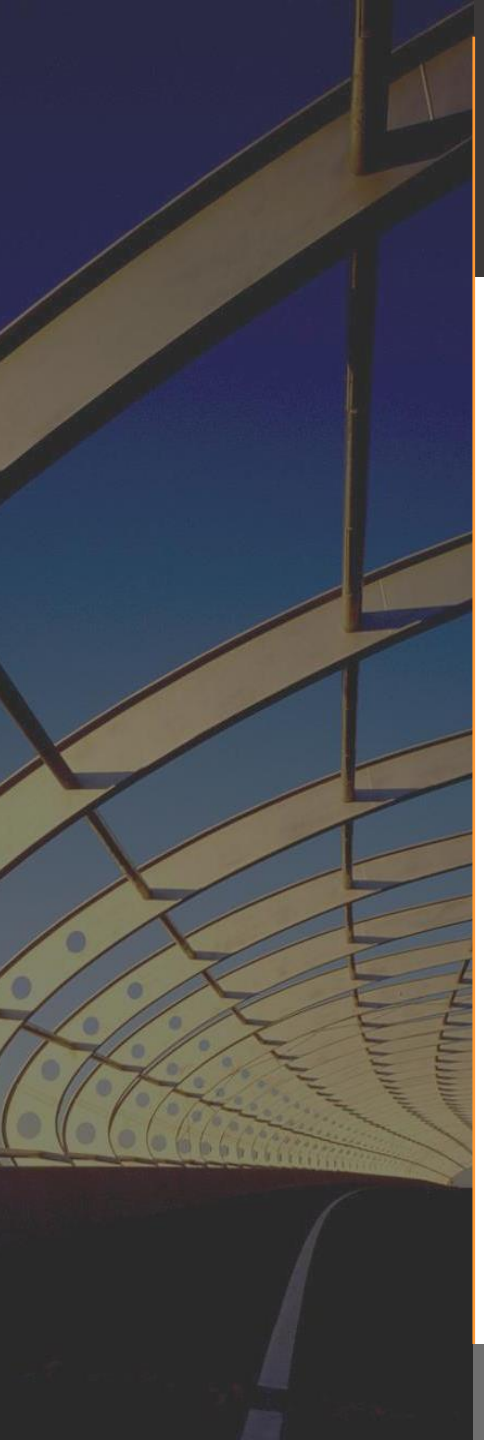
VALUE ENGINEERING IN PUBLIC PROCUREMENT OF INNOVATIVE SOLUTIONS:
Best Practices & Lessons Learnt

WEBINAR - 17 September 2024

Watch the replay video of the webinar via:

https://youtu.be/e_GqZKz1uQI



Welcome

Stephan Corvers
CEO & Founder
Corvers Procurement Services BV

Introduction & Agenda

House rules

It is possible to ask questions in the private chat

The recording of the webinar will be made available on the EAFIP website

The list of participants will not be disseminated

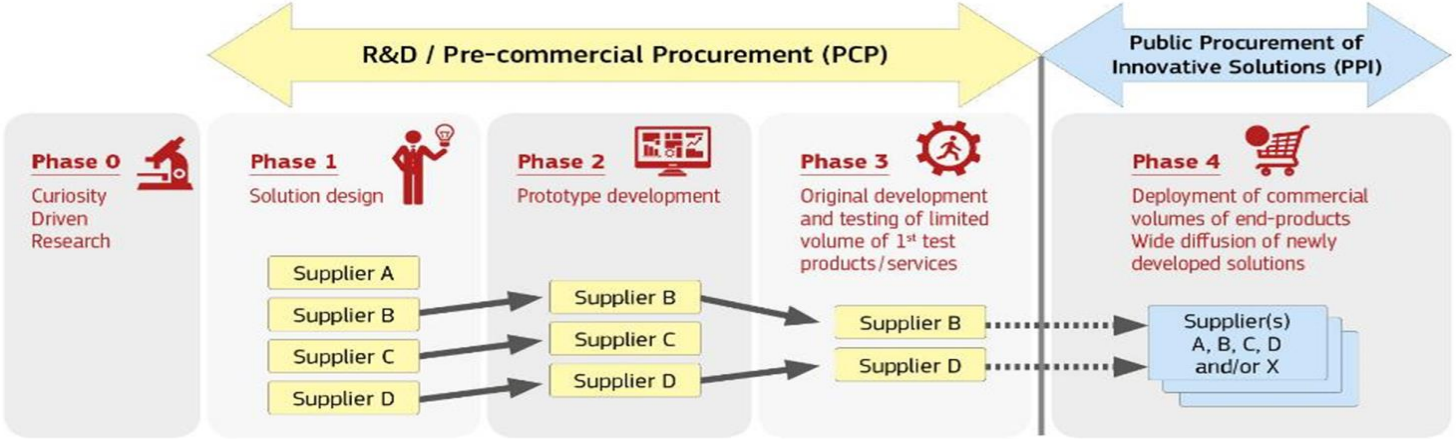
In case there are technical problems, the session will be recorded and published

Innovation Procurement

The necessity and importance of innovation procurement is underlined in the recently published Draghi-report:

> *"…it is recommended that Member States plan upcoming auctions and public procurement procedures to act as a "launch customer" for new technologies."* (Page 48)

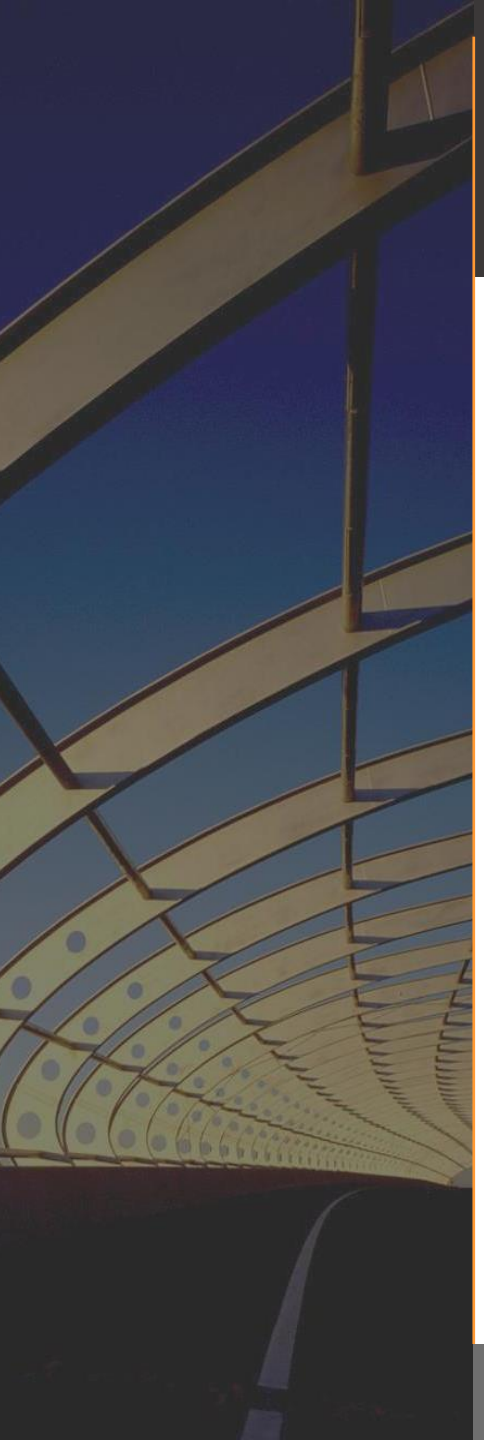
*Innovation Procurement happens when **public buyers** acquire the **development or deployment of pioneering innovative solutions** to **address specific mid-to-long-term public-sector needs**.*



Source: European Commission

AGENDA

TIME (CET)	TOPIC	SPEAKER/PARTICIPANTS
14:00 – 14:05	*Registration to the platform*	*Participants can ensure that the platform's functionalities are working fine*
14:05 – 14:10	**Welcome & Introduction** Agenda	**Stephan Corvers** CEO – Corvers Procurement Services B.V.
14:10 – 14:25	**Understanding Value Engineering as a procurement tool in the EU legal framework:** *definition, modification of contracts and examples*	**Ana Lucia Jaramillo** Corvers Procurement Services B.V.
14:25 – 14:55	**Origins and benefits of Value Engineering:** *experience and examples from different sectors*	**Jeffery Hooghouse and Corey White** US Army Corps of Engineers, USACE VM
14:55 – 15:20	**Value Engineering as a learning tool for decision making:** *how to manage the value cycle in the business case, examples from ProRail*	**Erik van Berkel** ProRail, The Netherlands
15:20 – 15:45	**How to apply Value Engineering in cross-border projects:** *examples of international projects*	**Hein de Jong** Value FM
15:45 – 15:55	**Coffee break**	
15:55 – 16:20	**Value Engineering in Public Procurement of Innovative solutions:** *the experience of Drug Detect PPI*	**Ramona Apostol** Drug Detect PPI, Greece, The Netherlands, Belgium, Spain
16:20 – 16:45	**Best practices of Value Engineering:** *experience and examples from the US Department of Defence and USACE*	**Jeffery Hooghouse and Corey White** US Army Corps of Engineers, USACE VM
16:45 – 17:10	**Public Value in the UK:** *examples of social value, continuous improvement and lessons learnt*	**Julian Blake** Stone King LLP, UK
17:10 - 17:25	**Discussions and Q&A**	
17:25 – 17:30	**Conclusions & closure**	Stephan Corvers



Value Engineering as a procurement tool in the EU legal framework:

definition, modification of contracts and examples

Ana Lucia Jaramillo
Corvers Procurement Services

Agenda

1. Definition: *What is Value Engineering?*
2. Value Engineering Clauses (VEC) in the EU legal framework
3. VE Change Proposals (VECP) and the modification of contracts
4. Examples and take-aways

1. What is Value engineering?

Value engineering (VE) is a systematic process of reviewing and analyzing the requirements, functions and elements of systems, project, equipment, facilities, services, and supplies for the purpose of **achieving the essential functions at the lowest life-cycle cost** consistent with required levels of performance, reliability, quality, or safety.

Lawrence Miles, General Electric

52.248-1 Value Engineering. | Acquisition.GOV

OMB Circular No. A-131: a131-122013.pdf (whitehouse.gov)

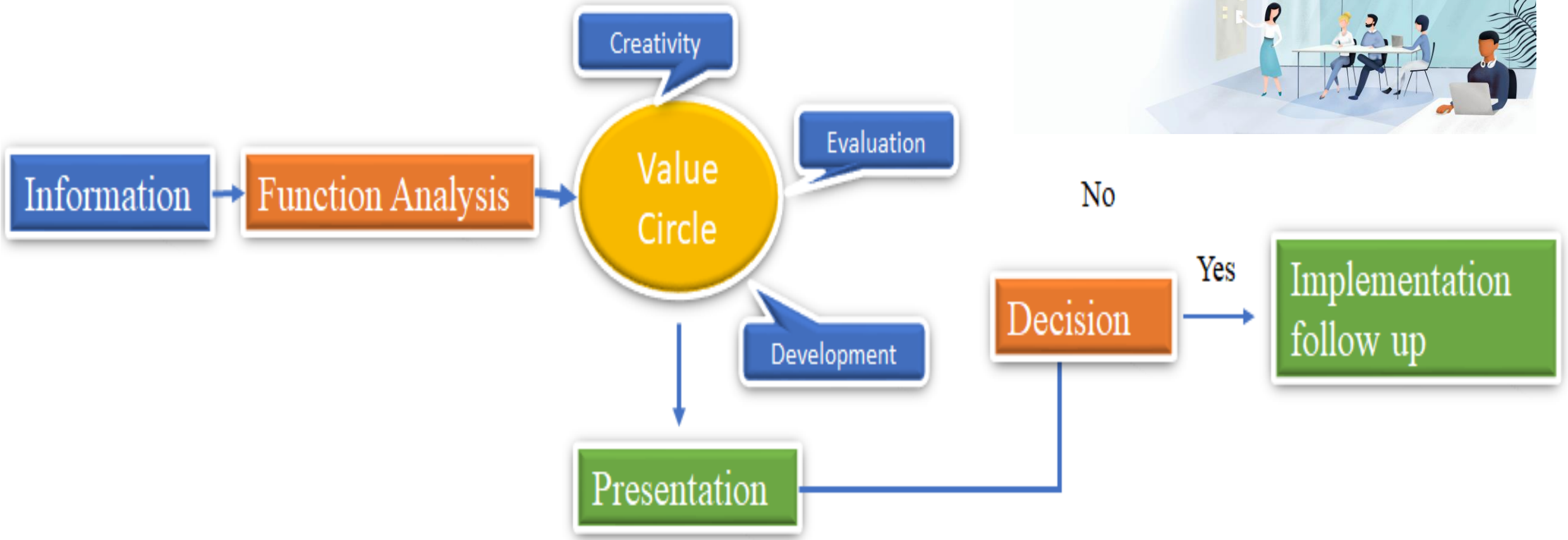
VE process in a workshop environment

The process is generally performed in a workshop environment by a multidisciplinary team of contractor and/or in-house agency personnel, which is facilitated by agency or contractor staff that is experienced, trained and/or certified in leading VE teams through the following phases:

1. **Information phase** where the team gathers information to understand the project and constraints that may be impeding performance;
2. **Functional analysis phase** where the team identifies basic project functions and goals and identifies any performance shortcomings or mismatches between identified functions and customer needs for further study;
3. **Creative phase** where the team conducts brainstorming to generate new ideas and alternatives for improvement in a project, product, or process, with particular focus on high-cost variables, speed of execution, quality and performance;
4. **Evaluation phase** where the team ranks ideas to find the best to meet the project value objectives;
5. **Development and presentation phase** where the team develops best ideas into viable alternatives with net life-cycle cost savings and implementation details and presents them to stakeholders; and
6. **Implementation phase** where the agency incorporates selected alternatives into the project.

OMB Circular No. A-131: a131-122013.pdf (whitehouse.gov)

VE process


Information
Function Analysis
Creativity
Value Circle
Evaluation
Development
Presentation
Decision
No
Yes
Implementation follow up

VE stages

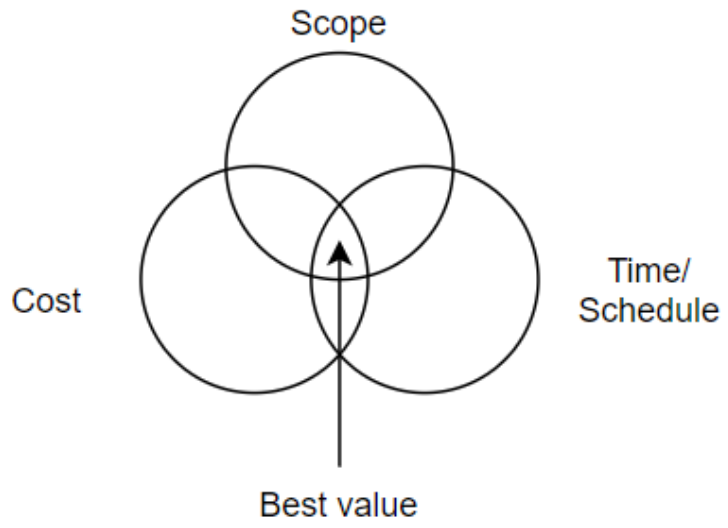
1. Pre-Study	2. VE Workshop	3. Post-Study
• Coordination • Data preparation • Team selection • Modeling (business case)	• Information • FAST • Idea generation • Evaluation • Development • Presentation	• VE Study Report • Implementation plan • Follow up

Value Engineering proposal & study

- **Value Engineering Proposal (VEP):**
  An in-house agency-developed proposal, or a proposal developed by a contractor under contract to provide VE services, to provide VE studies for a Government project/program.
- **Value engineering (VE) study:**
  The formal process of applying VE on an individual project or program. VE studies may be tailored to meet the individual needs of the project or program. For example, the level of effort for each phase of VE may be scaled (eliminated, etc.), as appropriate, based on factors such as the cost or complexity of the project, the stage of project planning or development, and project schedule. **VE studies may often attain a 20:1 ROI.**

Best Value

- VE (value analysis, value management, value planning, or value control) is a methodology for **analyzing functions of an item or process to determine "best value,"** or the best relationship between worth and cost.
- "Best value" means obtaining the required **basic function at the lowest life-cycle cost** while maintaining acceptable levels of performance and quality.
- VE contributes to the overall management objectives of streamlining operations, **improving quality,** and reducing or avoiding costs.
- VE challenges organizations to **continually consider if they have properly identified the right need** and provides a disciplined and tested process for making changes to plans, contracts, and other documents.
- The results of **VE may indicate that best value requires an initial expenditure of funds** in order to meet basic functions at a lower cost over the life of the project, program, or system.



Best Value based on R. Steward (2005) Fundamentals of Value Engineering

OMB Circular No. A-131: a131-122013.pdf (whitehouse.gov)

2. Value Engineering in the EU context

VE is the sum of activities and actions, aiming to ensure that the Contractor fulfils its obligations such as to **create added value** for the Contracting Authority; these activities and actions target innovative development, effective and/or efficient organization of the project or similar.

Value Management standard NEN-EN 12973:2020 en

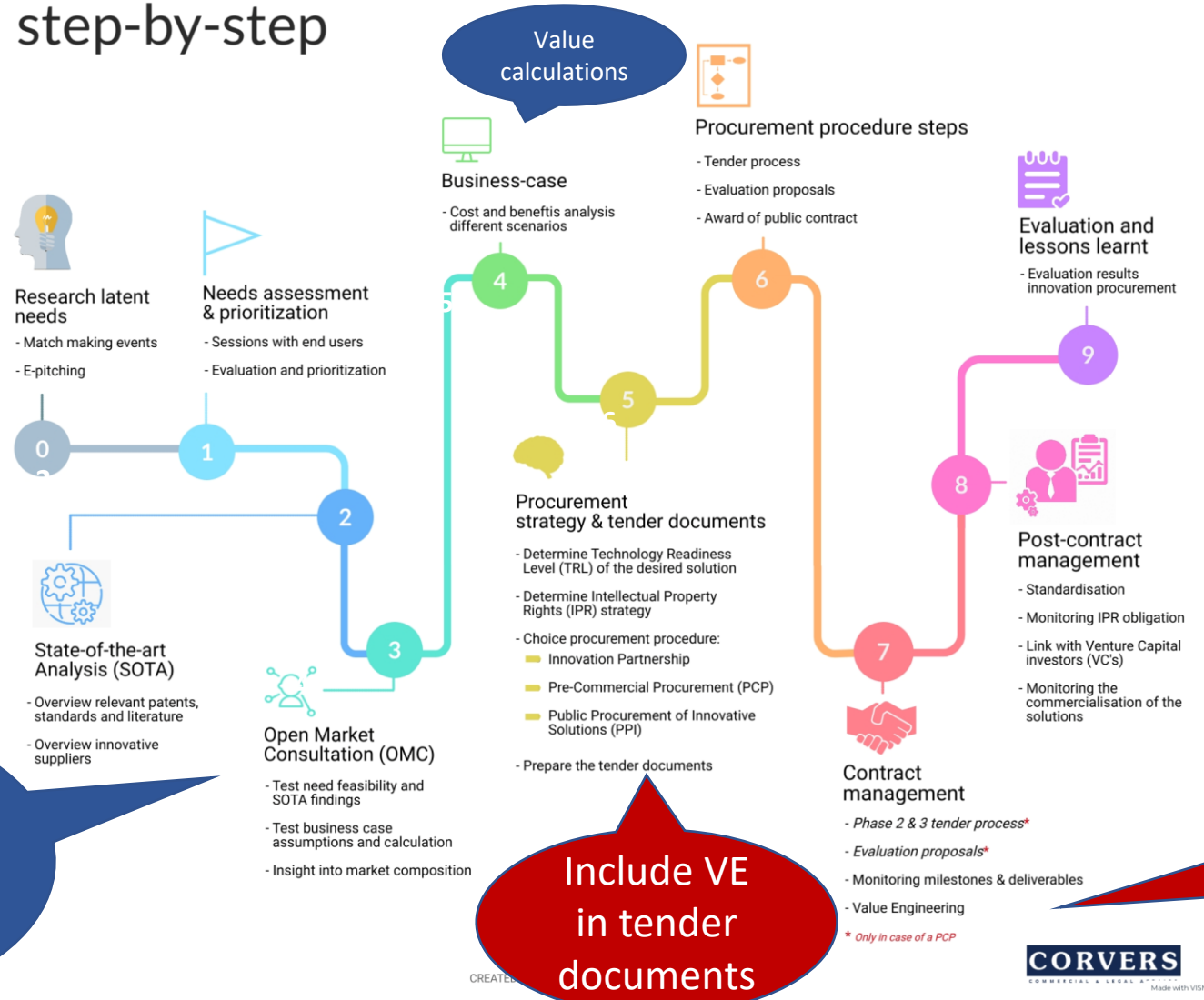
'Innovation' means the implementation of a new or significantly improved product, service or process, *including but not limited to production, building or construction processes, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations inter alia with the purpose of helping to solve societal challenges …*

Directive 2014/24/EU Art. 2 (22) Definition

No specific reference to VE in the Directives

EAFIP methodology step-by-step

VE method use for needs analysis



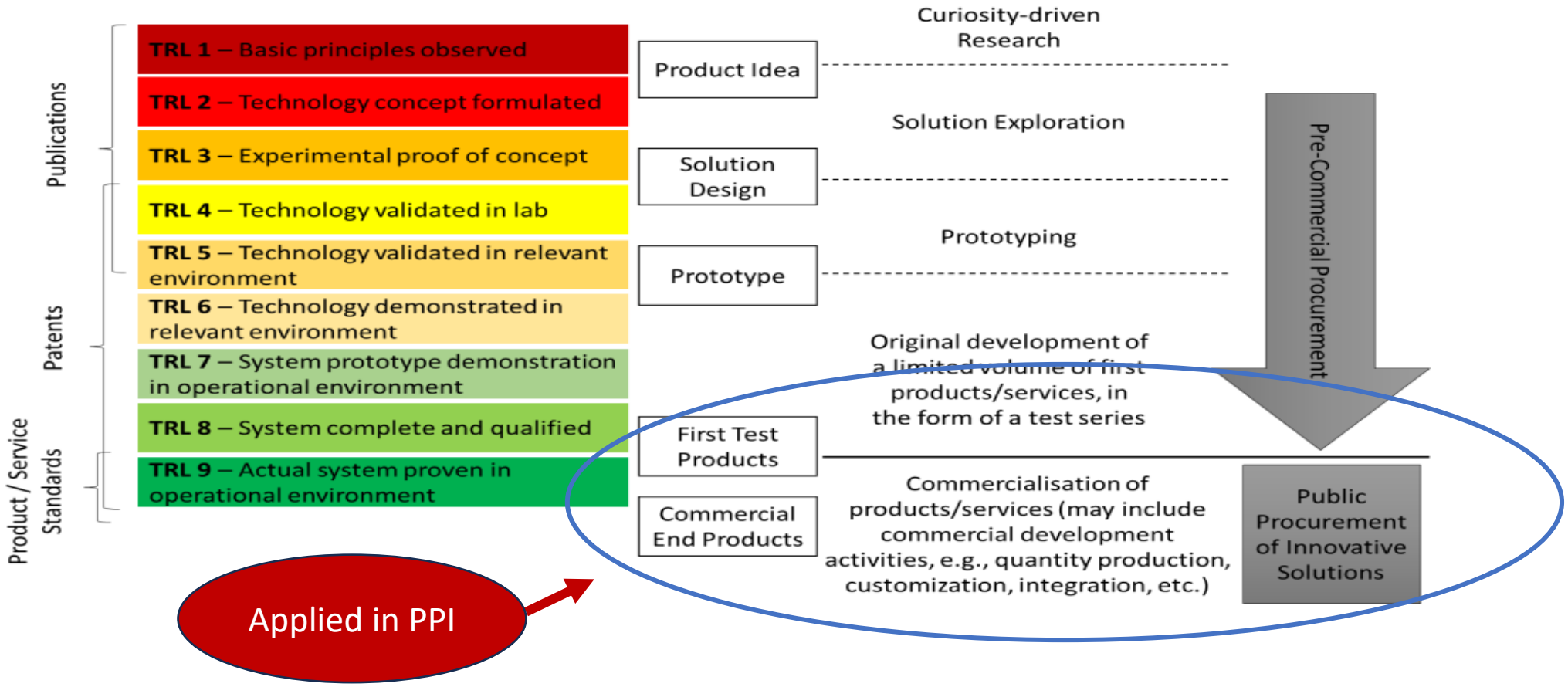
VE used to evaluate results for improvements

Ask suppliers about the use of VE in the contract

Include VE in tender documents

VE as a condition to present VECP in a contract clause

VE Clauses in the EU legal framework



Conditions for performance of contracts

Contracting authorities may lay down **special conditions relating to the performance of a contract, provided that they are linked to the subject-matter of the contract within the meaning of Article 67(3) and indicated in the call for competition or in the procurement documents.** Those conditions may include economic**, innovation-related,** environmental, social or employment-related considerations.

Article 70 of Directive 2014/24/EU and Article 87 of Directive 2014/25/EU

Conditions for performance of contracts

Contracting authorities/entities may lay down **special conditions relating to the performance of a contract, provided that these are compatible with Community law and are indicated in the contract documentation (contract notices, contract documents, descriptive documents or supporting documents)**. These conditions may, in particular, concern subcontracting or seek to ensure the security of classified information and the security of supply required by the contracting authority/entity, in accordance with Articles 21, 22 and 23, or take environmental or social considerations into account.

Article 20 of Directive 2009/81/EC

VE clause example

1. Value engineering definition The sum of activities and actions, aiming to ensure that the [Contractor] fulfils its obligations such as to create added value for the [Public Procurer]; these activities and actions target innovative development, effective and/or efficient organization of the project or similar.

2. Value Engineering Change Proposals

2.1. The Contractor shall submit twice a year a written proposal based on Value Engineering.

The proposal shall contain the following information:

i. a description of activities that will increase the quality of the project;
ii. the change in the parameters of the Total Cost of Ownership (TCO) calculation, as a direct consequence of the value engineering, as well as an analysis of the estimated savings for the remaining time of the contract;
iii. a risk analysis related to the implementation of Value Engineering and the description of the planned prevention or mitigation measures;
iv. an overview of those Contract clauses that need to be amended as a consequence of Value Engineering, and an overview of the reasons why these changes are needed;

2.2. The proposal mentioned above, will be orally presented and explained by the Contractor to the [Public procurer] within 20 Business Days from the initial submission date. The [Public Procurer] may accept or reject the (amended) proposal, following its presentation. The rejection of the proposal by the [Public Procurer] shall not bear any consequence on the fulfilment of the contractual obligations by the Contractor.

2.3. Savings that are realized through Value Engineering, based on a proposal priory accepted by the [Public Procurer], will be equally shared between the [Public procurer] and the Contractor.

3.Contract cancellation and termination

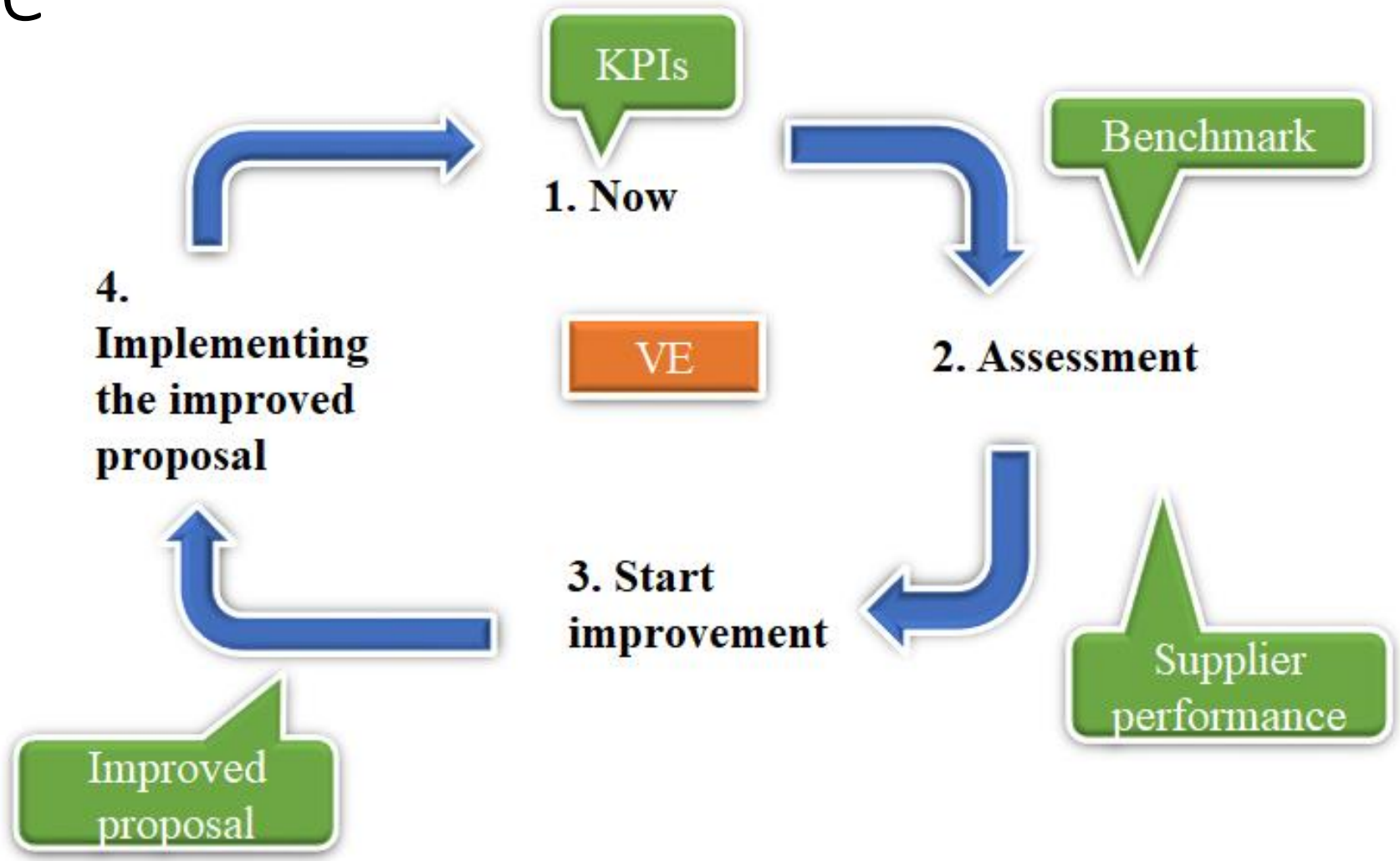
3.1. Notwithstanding its right to cancel the Contract based on applicable legislation, the [Public Procurer] has the right to partially or entirely cancel the Contract, out-of-court, by registered letter, containing a notice of default with a remedy period of ten Business Days, provided that the Contractor does not comply with its obligation to submit a Value Engineering proposal, as described above.

3.2. The Party who cancelled the Contract has a right to compensation for the damage that may be caused by the cancellation, except in cases of force majeure.

3. Value Engineering Change Proposals (VECP)

- **A VECP is a proposal submitted by a contractor consistent with the VE clause**(s) in the contract that, through a change in the contract, would lower the project's life-cycle cost to the Government without impairing essential functions, characteristics, or performance.
- The **contract change requirement can be the addition of the VECP** to the contract with attendant savings.
- VECPs are **applicable to all contract types**, including contracts with performance-based specifications.

Value cycle


KPIs
1. Now
Benchmark
2. Assessment
VE
3. Start improvement
Supplier performance
4. Implementing the improved proposal
Improved proposal

Modification of contracts

Modification of contracts during their term

1. Contracts and framework agreements may be modified without a new procurement procedure in accordance with this Directive in any of the following cases:
   - (a) where the modifications, **irrespective of their monetary value, have been provided for in the initial procurement documents in clear, precise and unequivocal review clauses, which may include price revision clauses, or options.** Such clauses shall state the **scope and nature of possible modifications** or options as well as the conditions under which they may be used. They **shall not provide for modifications or options that would alter** the overall nature of the contract or the framework agreement;

Article 72 Directive 2014/24/EU and Article 89 Directive 2014/25/EU

Substantial modifications

- A modification of a contract or a framework agreement during its term is considered **substantial where it renders the contract or the framework agreement materially different in character** from the one initially concluded.
- A modification is substantial where one or more of the following conditions is met:
    - the modification **introduces conditions** which, had they been part of the initial procurement procedure, would have allowed for the admission of other candidates than those initially selected or for the acceptance of a tender other than that originally accepted or would have attracted additional participants in the procurement procedure;
    - the modification **changes the economic balance** of the contract or the framework agreement in favour of the contractor in a manner which was not provided for in the initial contract or framework agreement;
    - the modification **extends the scope of the contract or framework agreement** considerably;
    - where **a new contractor** replaces the one to which the contracting authority had initially awarded the contract in other cases than those provided in specific circumstances.
- A new procurement procedure is required.

[Join us for the third Procurement@Library™ webinar of 2024 - Corvers]

EU case law on the modification of contracts

- In **Case C-496/99 P Commission v. CAS Succhi di Fruti**, the Court ruled on the principles of transparency and equal treatment establishing that **all the conditions and detailed rules of the award procedure must be drawn up in a clear, precise and unequivocal manner in the notice or contract documents** so that, first, all reasonably informed tenderers exercising ordinary care can understand their exact significance and interpret them in the same way and, secondly, the contracting authority is able to ascertain whether the tenders submitted satisfy the criteria applying to the relevant contract.

- In **Case C-337/98 Commission v. France** the Court stated that **amendments to the provisions of a public contract during the currency of the contract constitute a new award of a contract "when they are materially different in character from the original contract** and, therefore, such as to demonstrate the intention of the parties to **renegotiate the essential terms of that contract**".

- In **Case C-454/06 Pressetext Nachrichtenagentur GmbH v. Republik Österreich** the Court ruled that an amendment to a public contract during its currency may be regarded as material when: **(i) it introduces conditions** which, had they been part of the initial award procedure, would have allowed for the admission of tenderers other than those initially admitted or would have allowed for the acceptance of a tenderer other than the one initially accepted; **(ii) when it extends the scope of the contract considerably** to encompass services not initially covered, and **(iii) when it changes the economic balance of the contract in favor of the contractor** in a manner which was not provided for in the terms of the initial contract.

EU case law on the modification of contracts

- **Case C-216/17 ASST (Judgment of 19 December 2018)** While framework agreements allow some flexibility to carry out specific contracts, even for periods beyond the maximum duration of four years in specific circumstances, they constitute a closed system in which both contracting entities and suppliers must be determined from the beginning. In the same way, a **framework agreement must establish the value and volume of the contract, without substantial changes to the contract being possible. The conditions of the framework agreement, including those that expressly allow modifications should be established in the announcement of the tender**, in accordance with the principles of transparency and fair treatment.

- **Joined cases C 496/18 and C 497/18 (Judgment of 26 March 2020)** The Court concluded that the general principle of legal certainty is opposed to a new national regulation that (for reasons of protection of financial interests of the Union) establishes the possibility to initiate a procedure for the control of the legality of modifications of public contracts after the expiration of the regulations applicable on the date of said modifications. Therefore, **it is not possible to control the legality of modifications of public contracts after the expiration of the applicable legislation.**
- **Case C-263/19 T-Systems Magyarország** As provided by the 2014 Public Procurement Directives, which implemented the case law of the CJEU, the contracting authority will have to initiate a new award procedure if modifications **not defined upfront in the contract are introduced on a later stage**.

4. Examples & Take-aways

- WBL Wauter II: Automation, Security, Big Data & AI Models
- RAV Brabant MWN: Ambulance Navigation and Information System
- RAV, GGD, Witte Kruis: AI Tools for the emergency control rooms
- Main considerations to apply VE in the EU context

WBL – Wauter II examples of VE clause

- Value Engineering is the set of activities and measures of the Contractor, aimed at fulfilling the obligations of the Contractor under the present Framework Agreement and/or an Additional Agreement, **whereby added value is created for the Client.**
- **These activities and measures relate to innovative developments**, the more effective and efficient organization of the project and/or management organization, **sharpening of the KPIs, embedding recommendations from the third-party suppliers** mentioned in the considerations, **analyzing and advising on the results of the R&D services** mentioned in the considerations, or otherwise.

Wauter II – AI models for water management

- The contractor shall cooperate with the parties designated by Client regarding security, cybersecurity and any R&D during the term of the Framework Agreement at the request of Client.
- The aim is drawing up a cooperation plan in the field of big data, security and innovation, so that both Contractor and the designated parties are enabled to **provide recommendations regarding technological innovation, process innovation and business innovation, whereby the most recent developments in the field of big data are safeguarded.** Innovation concerns a proposal at a TRL level, from TRL=2 up to and including TRL=8.
- **Value engineering will be a mandatory part of the cooperation; whereby in the case of the outcomes of the R&D services that will be integrated where possible - in the case of added value - into the Service and/or into (any part of the) Information System**.
- In that case, the Contractor is obliged to enter into cooperation agreements on reasonable terms with the third parties that performed the R&D services.

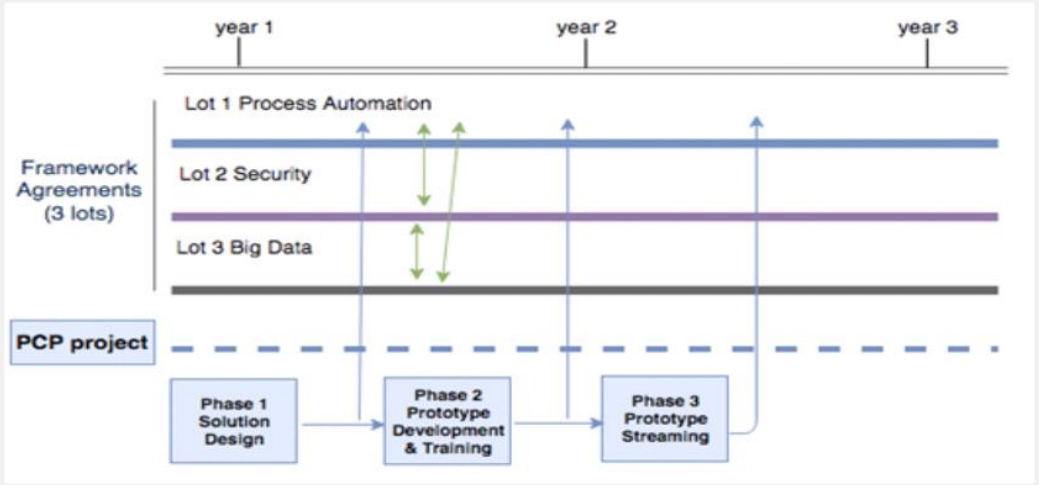


Figure 1. The PCP project in relation to the contracts for process automation, security and Big Data.

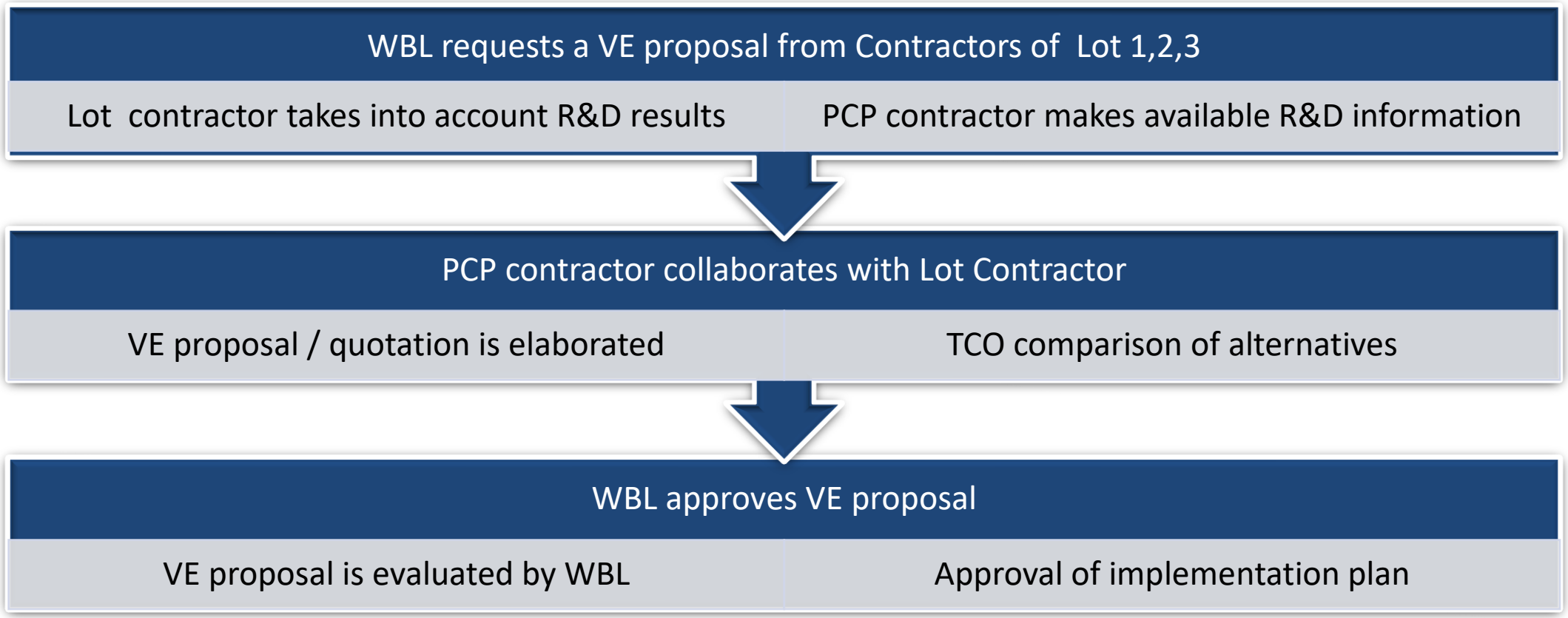
a) Cooperation of suppliers to implement results adding value for WBL using value engineering methodologies.

b) Value Engineering proposals by suppliers of Lot 1, 2 and 3 can integrate their own innovative solution(s) and/or the solution(s) developed during the Big Data PCP throughout the implementation of the framework agreements.

waterschapsbedrijf limburg

[EAFIP Toolkit]

Wauter II: VE implementation



RAV Ambulance Navigation Information Systems

Assignment

- The Contractor shall ensure on behalf of the Client:
  - i. compliance with the obligations under the Framework Agreement;
  - **ii. compliance with the obligations under Value Engineering;**
  - iii. compliance with the obligations under the Processor Agreement pertaining to a Subsequent Agreement;
  - iv. compliance with the obligations under the Subsequent Agreement regarding the test phase;
  - v. submitting a Quotation;
  - vi. compliance with the obligations under any Subsequent Agreement other than as referred to in sub v);
- all in accordance with the provisions of the Program of Requirements.

RAV Brabant Midden-West-Noord

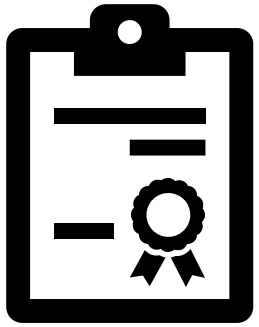
[Ambulance Navigation and Information System - RAV Brabant Midden-West-Noord | Research and Innovation (europa.eu)]

RAV NIS - VE clause

Brabant Midden-West-Noord

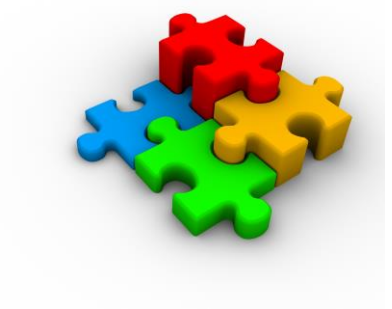
Value Engineering:

The set of activities and measures of the Contractor, aimed at fulfilling the obligations of the Contractor under the present Framework Agreement and/or an Additional Agreement, **whereby added value is created for the Client**, all in accordance with the provisions of Appendix #4. These activities and measures relate to **innovative developments**, the more effective and efficient organization of the project and/or management organization, **sharpening of the KPIs**, realizing cost savings, or otherwise.

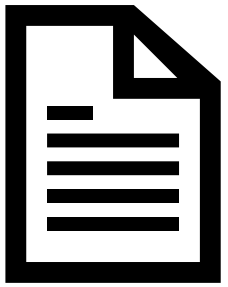


RAV NIS - VE proposal

Brabant Midden-West-Noord

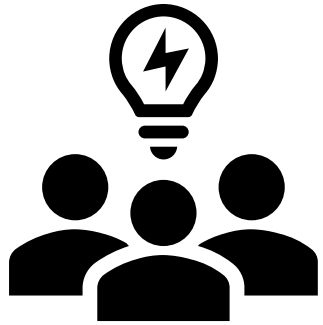


- The contractor is **obliged to submit a written proposal** to Client annually, namely no later than October - and for the first time on 1 October 2024 -, based on Value Engineering. Such a proposal contains the following components:
  - **a description of the components of the Additional Agreement** and the assignment described thereir to which the Value Engineering relates and a description and substantiation of the proposed changes therein, as well as the date of implementation thereof;
  - **a substantiated description of the possible savings** for the remaining term of the relevant Additional Agreement as well as for the term of any extension options of the relevant Additional Agreement, which result from the proposed changes;
  - **a risk analysis of the consequences** of the implementation of the proposed changes, as well as a description of the measures to exclude or limit the identified risks.
- **Savings** that are achieved exclusively through a proposal approved by the Client, based on Value Engineering, will be credited half to the Contractor and half to the Client, unless the Value Engineering proposal originates entirely from the Client, in which case the savings will be credited entirely to the Client.



RAV, GGD, Witte Kruis – AI Tool

- During the implementation of the Framework Agreement, use will be made of, among other things, **Value Engineering and adaptive maintenance will take place.** This is not considered a material change.
- In the future, a **change in the size of the control rooms** may take place at the request of the ministry. This will not be considered a material change.
- Changing the participating legal entities (splitting or merging into another legal entity of the RAVs and/or the Witte Kruis) is also **not considered a material change**.



[AI Tool for the regional urgency control rooms - Witte Kruis | RAV Brabant Midden-West-Noord | GGD Brabant-Zuidoost | Research and Innovation (europa.eu)]

RAV, GGD, Witte Kruis – AI Tool

witte kruis
driven by care

RAV Brabant Midden-West-Noord

GGD Brabant-Zuidoost

The tool to be purchased must be **frequently updated with innovative developments and improvements**. For this purpose, Value Engineering will be used during the implementation of the Framework Agreement.

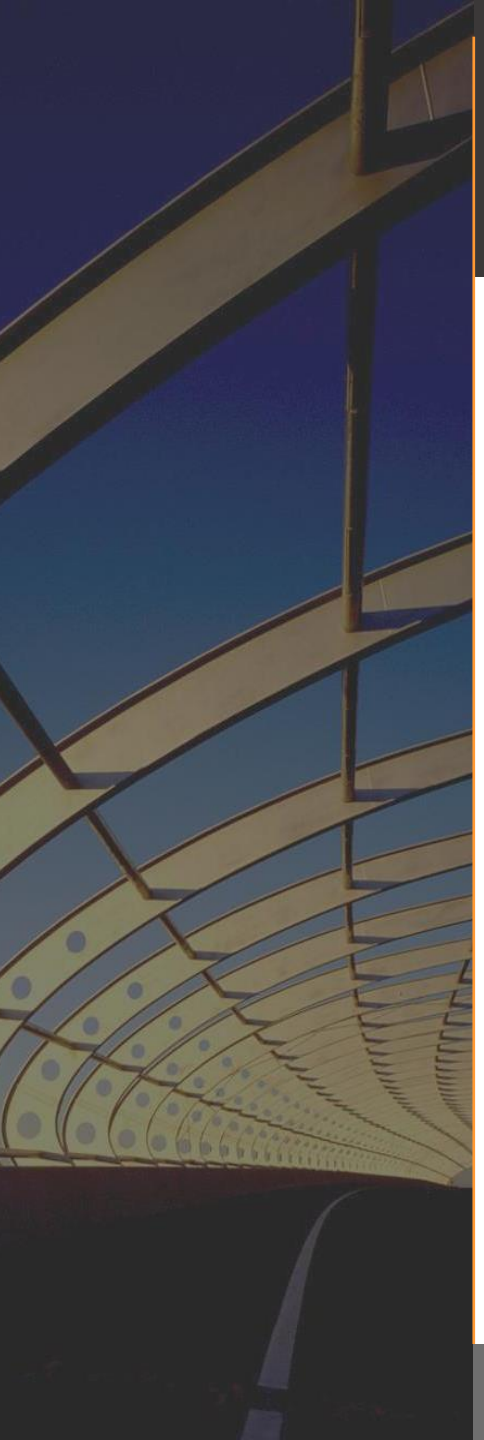
The underlying **algorithms** should not be static but should be frequently improved and/or supplemented. The AI tool will be used to support the centers by making a deployment proposal and for the implementation of VWS functionality.

Take-aways

- **The EU legal framework does not have a specific reference to VE,** but allows flexibility to implement VE (functional) studies and to apply Value Engineering clauses.
- **The application of VE clauses requires compliance with the principles of transparency, equal treatment, non-discrimination** (information and feedback during market consultations, publication upfront of VE clause in tender documents).
- **The boundaries to apply VE clauses in PPI** are drawn up by the rules on the conditions for performance and modification of contracts. Substantial modifications require a new tender**.**
- **The VE clause should be clear, precise an unequivocal**. However, a VE clause –by itself- does not ensure the VE approach. A strong project and contract management is needed.

Thank you!

Questions?



Origins and benefits of Value Engineering in different sectors:

experience and examples from the USA

Corey White and Jeffery Hooghouse
US Army Corps of Engineers, USACE VM

Origins and Benefits of Value Engineering (VE)

17 September 2024

Jeffery T. Hooghouse, RA, DBIA, CVS, PMP, F.SAVE
Chief Value Officer
USACE Headquarters

Corey White, PE, CVS, PMP
Deputy Chief Value Officer
USACE Office of Value Expertise

USACE Website: www.usace.army.mil/ValueEngineering.aspx

OUTLINE

Defining value and value engineering (VE)

Origins of VE

U.S. Federal VE Requirements

Principles of VE

Benefits of VE

Examples of VE Use

Implementing VE

Parting Thoughts

INTRODUCTION

- Value: a fair return or the equivalent in goods, services, or money for something exchanged
- Industry definition: $\textbf{Value} \approx \frac{\textbf{Function Performance}}{\textbf{Resources}}$

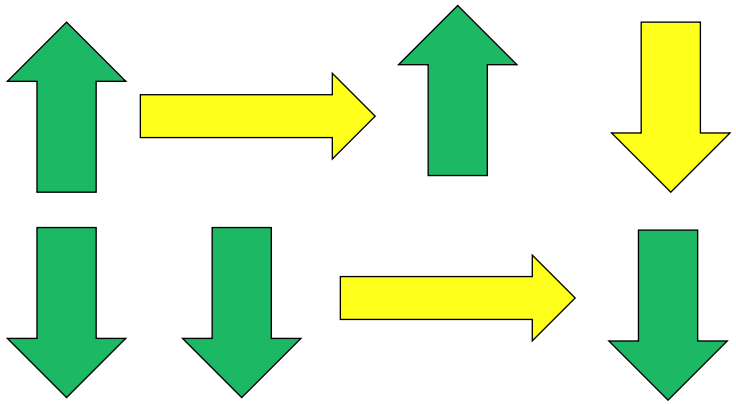
  (Resources may be money, square footage, time, etc.)
- Value Engineering: (***VE*** or ***value studies***) A systematic process of reviewing and analyzing the requirements, **functions**, and elements of systems, project, equipment, facilities, services, and supplies to achieve the essential **functions** at the lowest life-cycle cost consistent with required levels of performance, reliability, quality, or safety.
- Function Analysis is the "heart" of VE

× Value is synonymous with price or cost
× VE is cost-cutting / cheapening

✓ Value *considers* price/cost
✓ VE is a problem-solving system

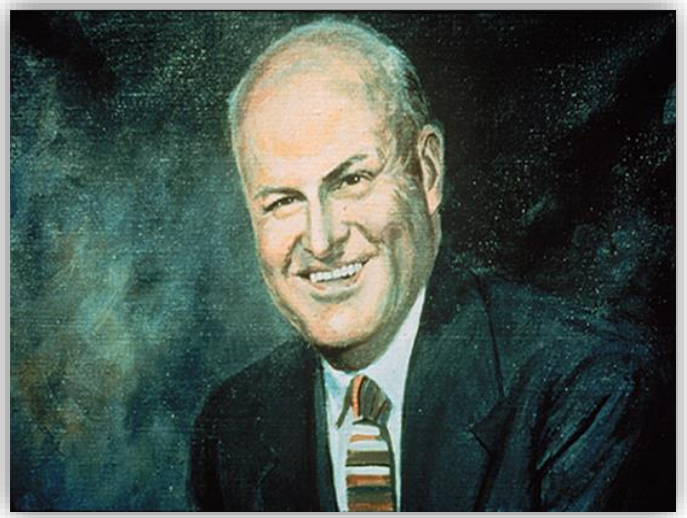
How can Value be improved?

$$\uparrow \text{Value} \approx \frac{\text{Functions}}{\text{Resources}}$$



ORIGINS OF VALUE ENGINEERING

- Origins of VE date back to the 1940s, World War II
  - Faced with shortages in manufacturing – looking for substitute ways to provide the function required, rather than the specific piece, part, or material requested
  - "The customer wants a *function*" (rather than a specific item)
- General Electric established a department for this sort of "value analysis"
- Evolution and growth of value engineering
  - 1957 – Navy Bureau of Ships
  - 1959 – Society of American Value Engineers (S.A.V.E.) established
  - 1996 – federal law
  - 1996 – S.A.V.E. → SAVE International
- Today – approx. 40 countries have VM societies



U.S. FEDERAL VALUE ENGINEERING REQUIREMENTS

U.S. CONGRESS
PUBLIC LAW 111-350

OFFICE OF MANAGEMENT AND BUDGET
CIRCULAR A-131

BEFORE AWARD

FEDERAL ACQUISITION REGULATION
PARTS 48 AND 52.248

AFTER AWARD

FEDERAL PROCUREMENT POLICY ACT

§ 1711. Value engineering

Each executive agency shall establish and maintain cost-effective procedures and processes for analyzing the functions of a program, project, system, product, item of equipment, building, facility, service, or supply of the agency. The analysis shall be—

(1) performed by qualified agency or contractor personnel; and

(2) directed at improving performance, reliability, quality, safety, and life cycle costs.

(Pub. L. 111–350, §3, Jan. 4, 2011, 124 Stat. 3718.)

HISTORICAL AND REVISION NOTES

Revised Section	*Source (U.S. Code)*	*Source (Statutes at Large)*
1711	41:432.	Pub. L. 93–400, §36, as added Pub. L. 104–106, title XLIII, §4306(a), Feb. 10, 1996, 110 Stat. 665.

- **FEDERAL PROCUREMENT POLICY**
  - Pub. L. 111–350, §3, Jan. 4, 2011, 124 Stat. 3718 (41 USC 1711. Value Engineering)
  - Requires each executive agency to establish and maintain cost-effective Value Engineering procedures and processes.

PROGRAM MANAGEMENT (80%)

&

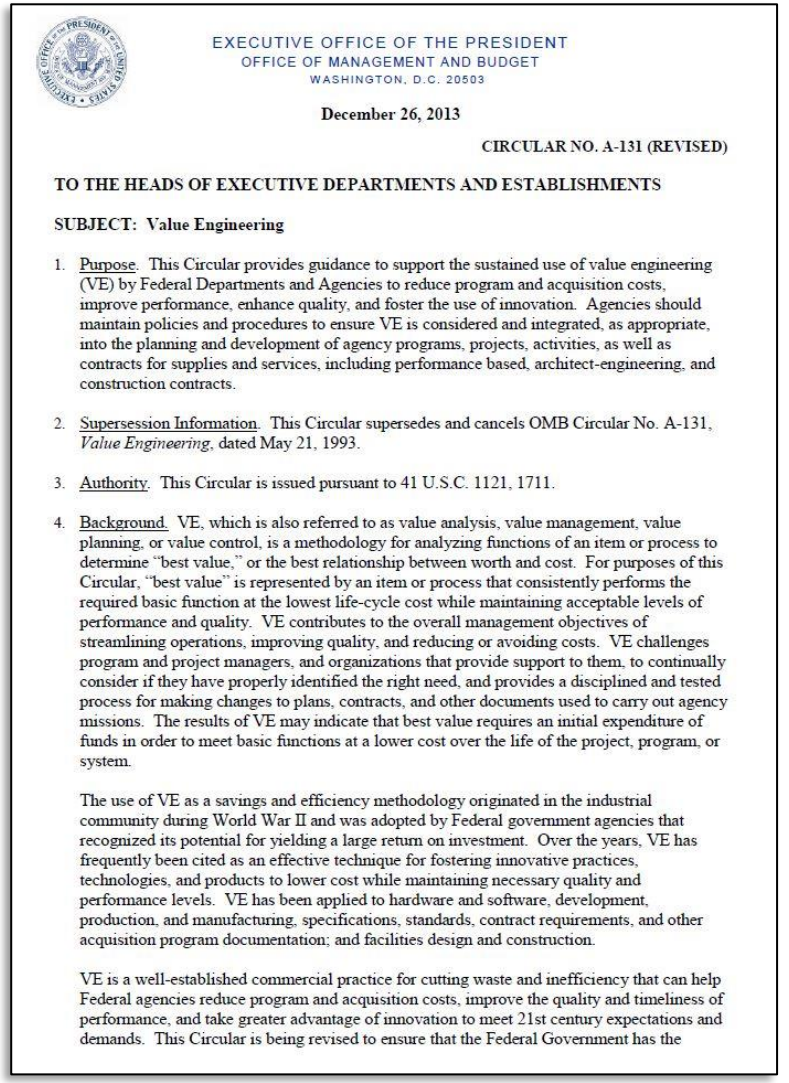
EXECUTE VALUE STUDIES (20%)

OMB CIRCULAR A-131

Value Engineering

PROGRAM MANAGMENT

- **APPLY VE TO ALL CONTRACT TYPES**
- **SENIOR ACCOUNTABLE OFFICIALS**
  - Interpretation
  - Threshold & Application / Delegation
  - Qualified
- **POLICY/PROCEDURES**
  - Screening and Scaling
  - Standard for VE
  - Waivers
- **TRAINING PROGRAM**
  - Internal → Executive to PM to VE Staff
  - External → Contractors & Customers
- **ANNUAL PLANNING**
  - Workload Analysis & Application
- **RESOURCING VE**
  - Funding VE Management & Practice
- **DOCUMENTATION & RECORDS**
- **ANNUAL REPORTING & CONTROLS**
- **AWARDS AND RECOMMENDATION**



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

December 26, 2013

CIRCULAR NO. A-131 (REVISED)

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Value Engineering

1. Purpose. This Circular provides guidance to support the sustained use of value engineering (VE) by Federal Departments and Agencies to reduce program and acquisition costs, improve performance, enhance quality, and foster the use of innovation. Agencies should maintain policies and procedures to ensure VE is considered and integrated, as appropriate, into the planning and development of agency programs, projects, activities, as well as contracts for supplies and services, including performance based, architect-engineering, and construction contracts.

2. Supersession Information. This Circular supersedes and cancels OMB Circular No. A-131, *Value Engineering*, dated May 21, 1993.

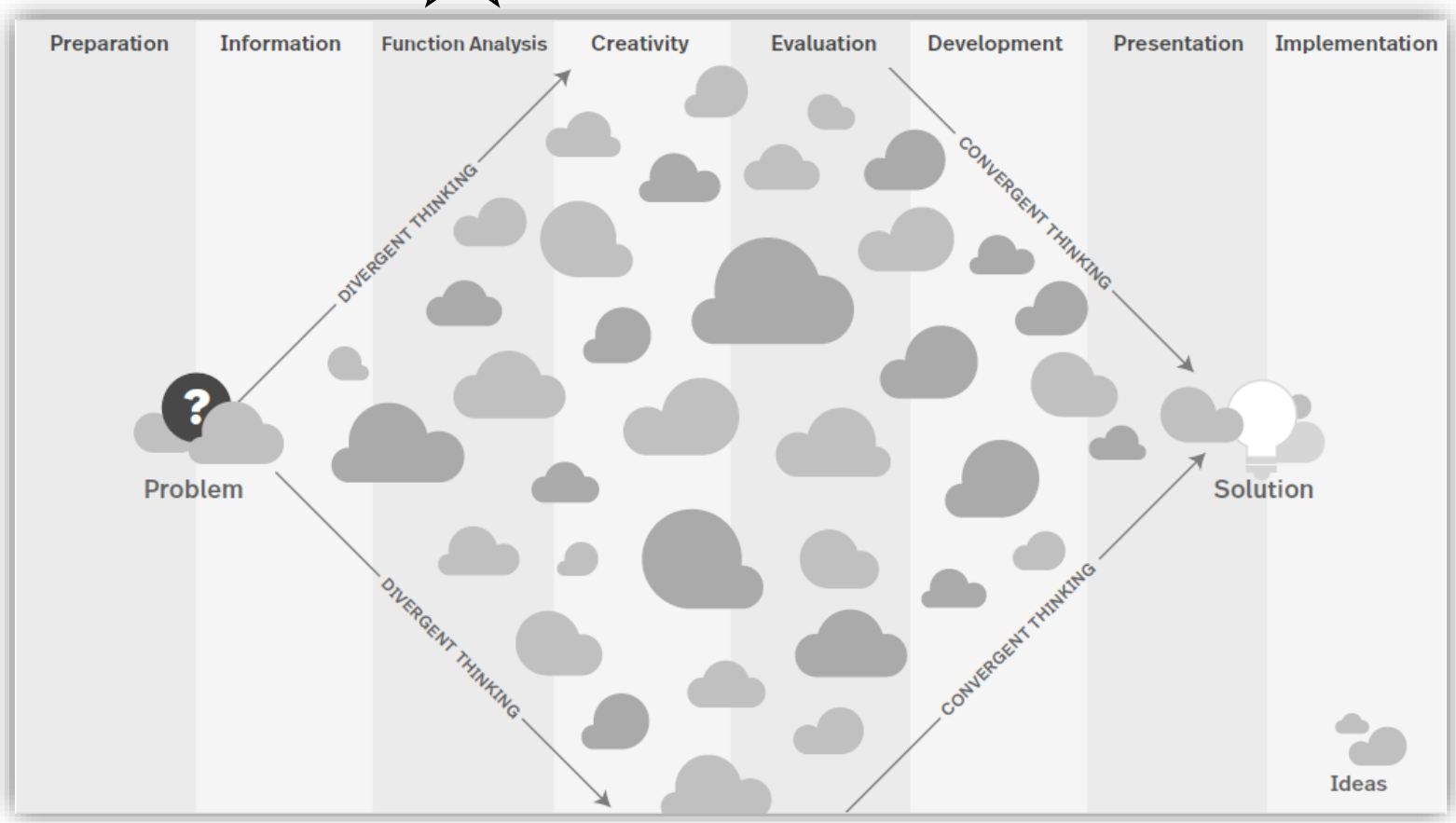
3. Authority. This Circular is issued pursuant to 41 U.S.C. 1121, 1711.

4. Background. VE, which is also referred to as value analysis, value management, value planning, or value control, is a methodology for analyzing functions of an item or process to determine "best value," or the best relationship between worth and cost. For purposes of this Circular, "best value" is represented by an item or process that consistently performs the required basic function at the lowest life-cycle cost while maintaining acceptable levels of performance and quality. VE contributes to the overall management objectives of streamlining operations, improving quality, and reducing or avoiding costs. VE challenges program and project managers, and organizations that provide support to them, to continually consider if they have properly identified the right need, and provides a disciplined and tested process for making changes to plans, contracts, and other documents used to carry out agency missions. The results of VE may indicate that best value requires an initial expenditure of funds in order to meet basic functions at a lower cost over the life of the project, program, or system.

The use of VE as a savings and efficiency methodology originated in the industrial community during World War II and was adopted by Federal government agencies that recognized its potential for yielding a large return on investment. Over the years, VE has frequently been cited as an effective technique for fostering innovative practices, technologies, and products to lower cost while maintaining necessary quality and performance levels. VE has been applied to hardware and software, development, production, and manufacturing, specifications, standards, contract requirements, and other acquisition program documentation; and facilities design and construction.

VE is a well-established commercial practice for cutting waste and inefficiency that can help Federal agencies reduce program and acquisition costs, improve the quality and timeliness of performance, and take greater advantage of innovation to meet 21st century expectations and demands. This Circular is being revised to ensure that the Federal Government has the

THE VE METHODOLOGY



- VE is a process – see phases above
- Multidisciplinary team
- Workshop environment
- Led by a qualified facilitator*

Source: SAVE International VM Guide®

TYPES OF PROPOSALS

Value Engineering Proposal (VEP)

A VEP is a developed idea resulting from the VE methodology

(Before contract award, generally)

A proposal resulting from a VE study. VEPs can come as an in-house agency-developed proposal, or a proposal developed by a contractor under contract to provide VE services.

Value Engineering Change Proposal (VECP)

A VECP is a contract modification request submitted by a Contractor

FAR Part 48 & 52

(After contract award)

A proposal to adjust the requirements of the contract (e.g., specifications) to perform the intended function at a lower cost. The Government and contractor share in the proposed savings (incentive).

BENEFITS OF VALUE ENGINEERING

Functionality and performance
- Increasing efficiency
- Enhancing reliability

Risk management
- Identifying and mitigating risks
- Leveraging opportunities

Sustainability and environmental impact
- Waste reduction
- Resource conservation

Communication
- Removing barriers
- Stakeholder input
- Facilitated discussion

AND

Cost avoidance & cost savings
- Reducing initial costs
- Lowering maintenance and operation costs
- For government: *build it back in* (quality, added capability, etc.)

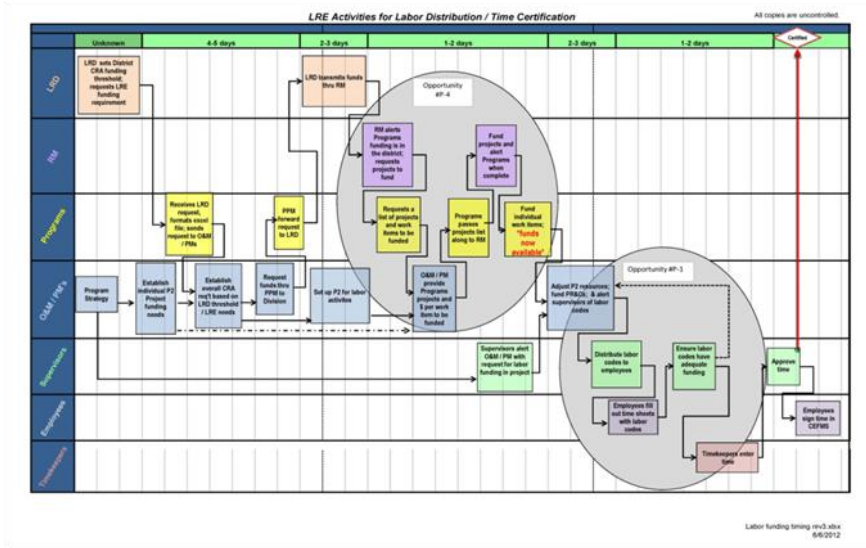
CASE STUDIES

EXAMPLES

Process Study: USACE Detroit District (LRE)

The Problem:

A multidisciplinary team was assembled to perform value analysis to improve LRE Labor processes and ultimately optimize costs & efficiency while maintaining or improving performance & quality. The focus is on key process functions to present new ideas that ultimately result in value/process improvement(s).



The Solution:

Identify Problematic Areas:

1) CRA Fund Processing
2) Nonstandard Labor Distribution, Tracking & Reporting
3) Cost of Doing Business
4) Complex Budget Structures
5) Regulation Constraints
6) Inefficiency of Early Labor Certification
7) Roles/ Responsibilities/Accountability

Results:

Recommendations to District Corporate Board:

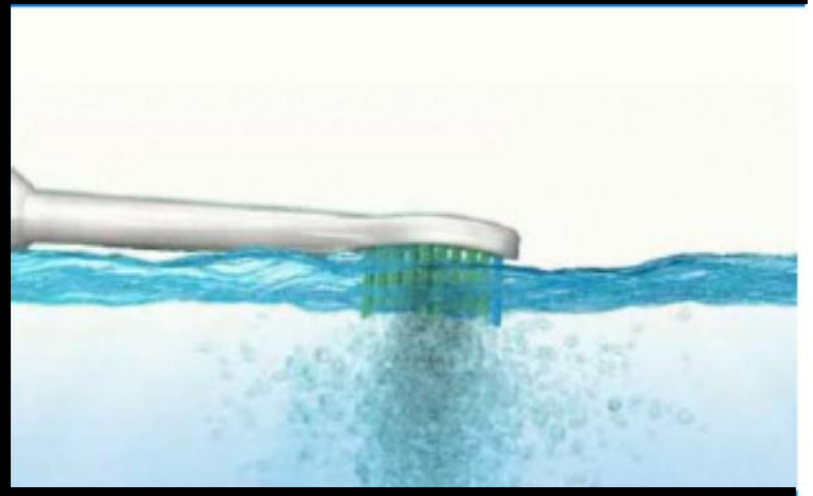
- Labor and Timekeeping Workflow Timing
- Enterprise Time and Attendance
- Potential Savings to taxpayer: $18M per year.

EXAMPLES

Product study: Sonicare Toothbrush

Purpose:

The Sonicare Toothbrush (manufactured by the Optiva Corporation) is a rechargeable electronic toothbrush. The 5-day VA seminar was conducted to serve as both a training process of VA Methodology as well as to search for cost-effective design and manufacturing alternatives for the product, while maintaining the basic functions.



Process:

The team and representatives defined the following criteria as most important: cost, effective plaque removal, perceived value, assembly speed, ease of use, reliability, ergonomics, safety, simplicity, regulatory compliance, and mouth-friendly. The study generated over 500 initial ideas falling under these categories, which were subsequently narrowed down to 240 that warranted further discussion.

Result:

- **31 significant proposals** were identified, including the development of an in-line charger, redesigned cover, elimination of the welding process, revised testing specifications, and revised packaging to reduce the amount of printed materials.

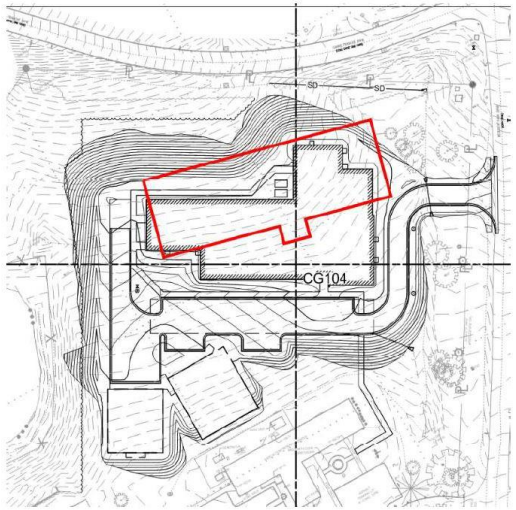
- Total potential annual savings of proposals was in excess of **$13,000,000.**

EXAMPLES

Project study: Construction project

Problem:

The proposed new construction project was over budget and un-awardable.



Solution:

The Value Study team developed an alternative to construct the building parallel to sloped site contours which simplifies the building footprint and reduces the excavation required on site. This along with other VE proposals resulted in $2.8M in cost avoidance.

Results:

Project was awarded within budget while continuing to meet all of the customer's requirements.

IMPLEMENTING VALUE ENGINEERING

Considerations for Value Programs:

- Assess your business and workload – identify opportunity areas
- Work into your business processes – assess early and include strategy in your acquisition planning early
- VE in planning stages of procurement (scoping, design, etc.)
- VECPs for post-award stages
- Limit focus on financial savings. Instead, focus on value delivered, quality, capabilities, and innovation
- Dedicated VE resources → strong value culture
- VE (usually) has the most benefit when performed in early stages

Considerations for VE practitioners:

- Listen! Focus on unique needs of the customer and situation

PARTING THOUGHTS

$$\text{Value} \approx \frac{\text{Function Performance}}{\text{Resources}}$$

- The customer ultimately decides if something has value
- Origins of VE in the manufacturing industry during WWII
- VE is not cost-cutting; it is a **problem-solving tool**
- The heart of VE is Function Analysis
- Basis of VE in the US: Acquisition Law + Executive Branch directive
- VE can be applied to projects, programs, products, and processes
- Don’t focus too much on cost reduction, but it will be there!

REFERENCES

Public Law 111-350: https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title41-section1711&num=0&edition=prelim

OMB Circular A-131: https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A131/a131-122013.pdf

Federal Acquisition Regulation (FAR), Part 48 (overall requirements): https://www.acquisition.gov/far/part-48#FAR_Part_48

FAR Part 52 (clauses): https://www.acquisition.gov/far/part-52#FAR_52_248_1

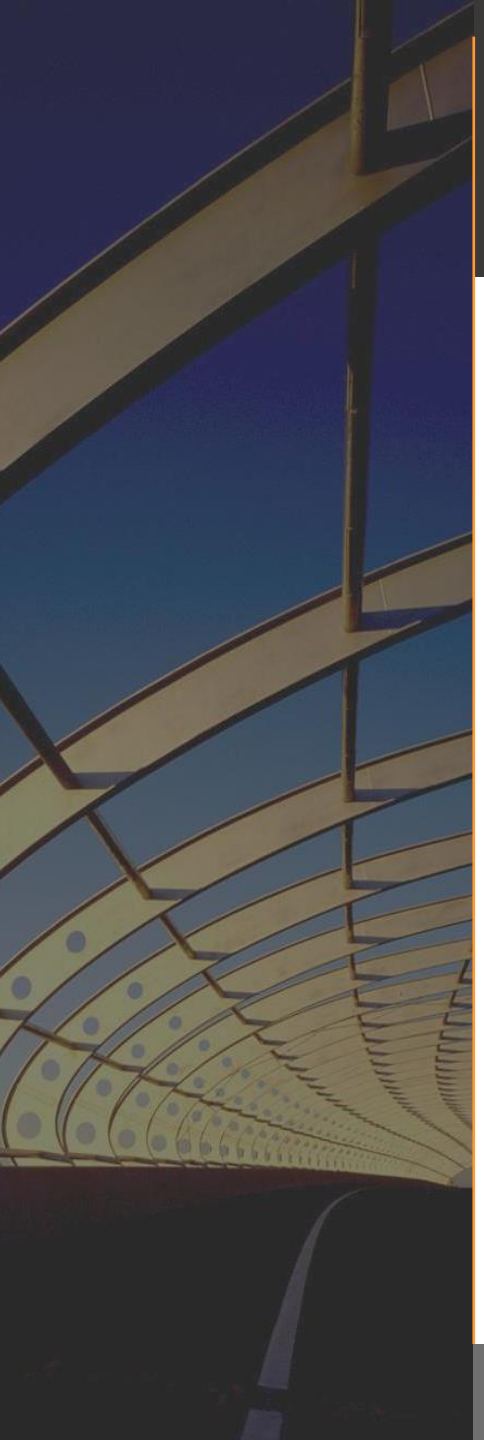
U.S. Army Corps of Engineers Value Engineering (VE) website: https://www.usace.army.mil/Value-Engineering/

SAVE International website: http://www.value-eng.org

QUESTIONS?

Jeffery Hooghouse, RA, DBIA, CVS, PMP, F.SAVE
Chief Value Officer
United States Army Corps of Engineers

USACE Website: www.usace.army.mil/ValueEngineering.aspx



Value Engineering as a learning tool for decision making:

how to manage the value cycle in the business case, examples from ProRail

Erik van Berkel
ProRail
The Netherlands

VALUE ENGINEERING IN PUBLIC PROCUREMENT OF INNOVATIVE SOLUTIONS

ASAP ERTMS,

Value engineering as a leaning tool for decision making

how to manage the value cycle in the business case

Erik van Berkel, Value Manager, ProRail, 17 september 2024

Content

- Personal Introduction
- Value Engineering at ProRail
- ERTMS in the Netherlands
- Innovation Partnership ASAP ERTMS
- Examples Value Engineering as learning tool for decision making
- Lessons learned
- Some questions?

Erik van Berkel - ProRail
linkedin.com

Erik van Berkel, ProRail

“By getting lost in a structured way you will find what you are looking for”

CV Summary

- ProRail, Coordinator Value Engineering & Value Management, since 2016
  - Increasing the value of programs & projects
  - Acceleration programs & projects
  - Development and promotion of value engineering and value management
  - Training, workshops and coaching
- Royal HaskoningDHV, Sr. Projectmanager, 9 years
- Movares, Consultant & Projectmanager, 8 years
- University of applied sciences: Master Town Planning / Civil Engineering

Value Engineering at ProRail

- Since 2000
- More than 300 studies performed
- 70 Trained Value Engineers, of which circa 15 are active
- Mandatory in projects from 15 million
- Used in various project phases

ERTMS in the Netherlands

- ERTMS The European Rail Traffic Management System is the international standard for **railway safety**. It is a single European signalling and speed control system that ensures interoperability of national railway networks.
  ERTMS is installed into trains and infrastructure.
- A change from an analogue to a digital railway .
- ERTMS makes railways safer, more reliable, and more interoperable.
- ERTMS increases capacity and simplify cross-border rail traffic
- Planning: rollout ready in 2050

Innovation Partnership ASAP ERTMS

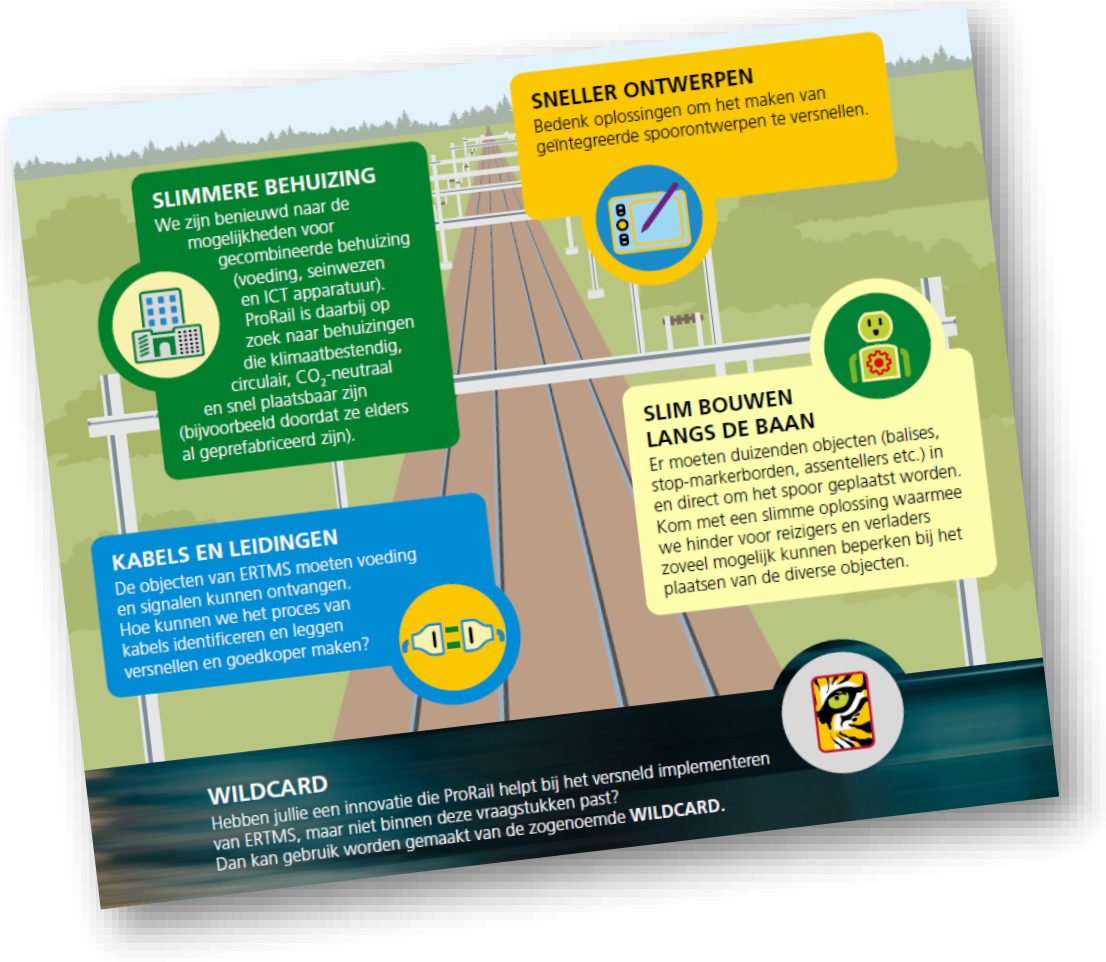
The ProRail objectives

- Acceleration rollout & implementation ERTMS 2050 -> 2040 (2035)
- National implementation ERTMS ‘as soon as possible’ needs innovative partners
- One ASAP contract: Our goal is to boost innovations through so-called 'innovation partnerships' and to apply them directly to the implementation of ERTMS.

TOPICS ASAP ERTMS

WHICH TOPICS?

- Less or no cables and pipes
- Smart housing for technical installations
- Faster placement of objects in the track
- Smarter design
- WILDCARD

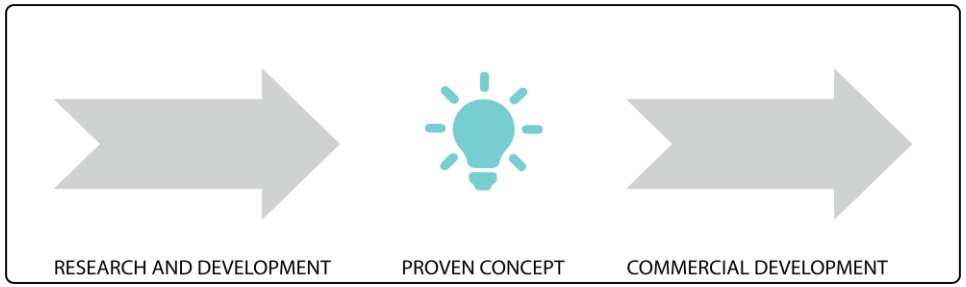


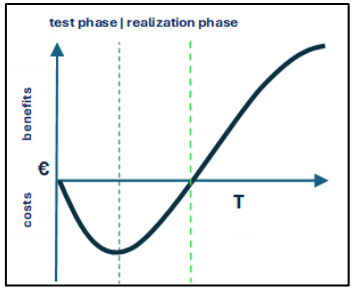
Starting points ASAP ERTMS

- First innovation partnership for ProRail
- Space for new parties and partnerships
- Continuous learning path: development, testing and purchasing
- Jointly build a business case that is positive for both
  - Ambitions and functional requirements as a starting point
  - No prescribed business case format
  - Value Engineering was **not** part of the contract
- Discover and learn together about and from each other

One tender procedure ASAP ERTMS

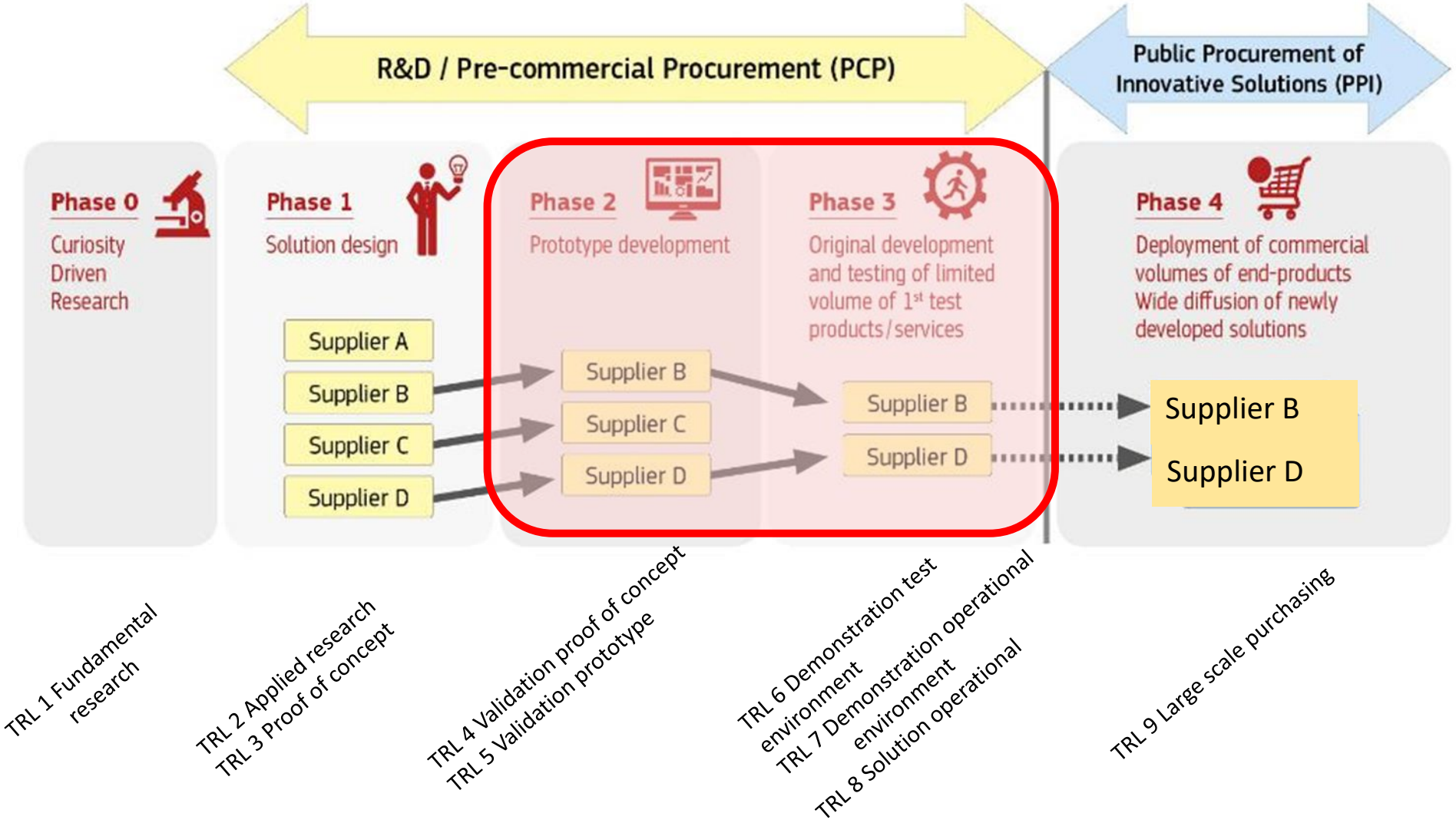
- Contract ‘research and development’-activities and ‘commercial development’-activities in one tender procedure (SEC (2007) 1668; EU 2020-strategie).



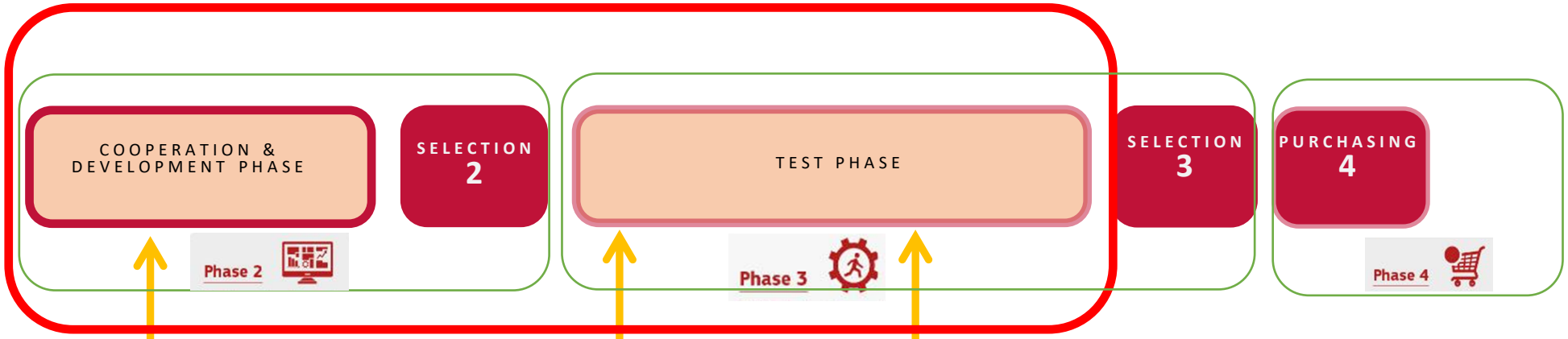


- Offers the opportunity to actually purchase the service, delivery or work after research, development and testing phase
- If the innovation turns out to be unsatisfactory, the contracting authority is not obliged to purchase

Introduction Value Engineering



Implementation Value Engineering



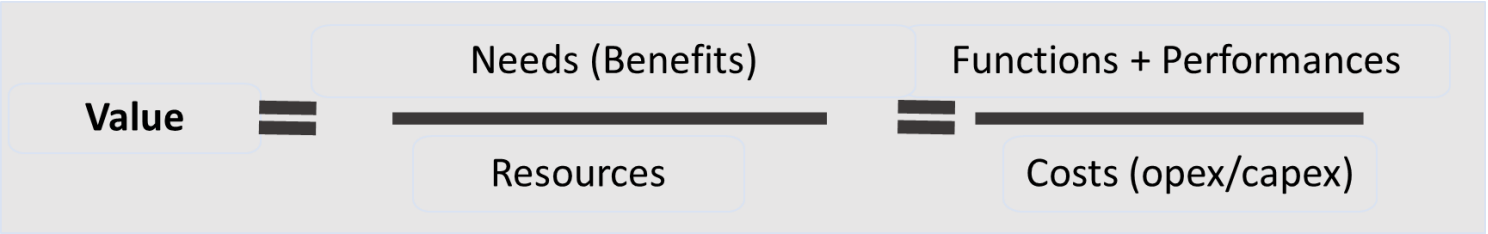
1) Introduction Value Thinking: Total Value of Ownership

2) “FAST scheme” as validation of the BuCa model

3) Sparring/ supporting partners & colleagues with VE tools

Objectives Business Case

- Determines the usefulness and necessity (benefits) of the innovation.
- Legitimates investments in time, money, knowledge, material and equipment, for ProRail and the Innovation Partner.
- ProRail is better off with the innovation (during construction and lifespan) than with existing solutions and/or combination of existing solutions



Business case benefits ASAP ERTMS

ProRail

Acceleration implementation ERTMS 2050 -> 2040 (2035)

IMPROVE RELIABILITY, AVAILABILITY MAINTAIBILITY

- **Less planned disruption train traffic**
- **Less unplanned disruption train traffic**

INCREASE SUSTAINABILITY

- **zero emission in 2030**
- **50% reduction raw materials**
- **100% circulair 2030**

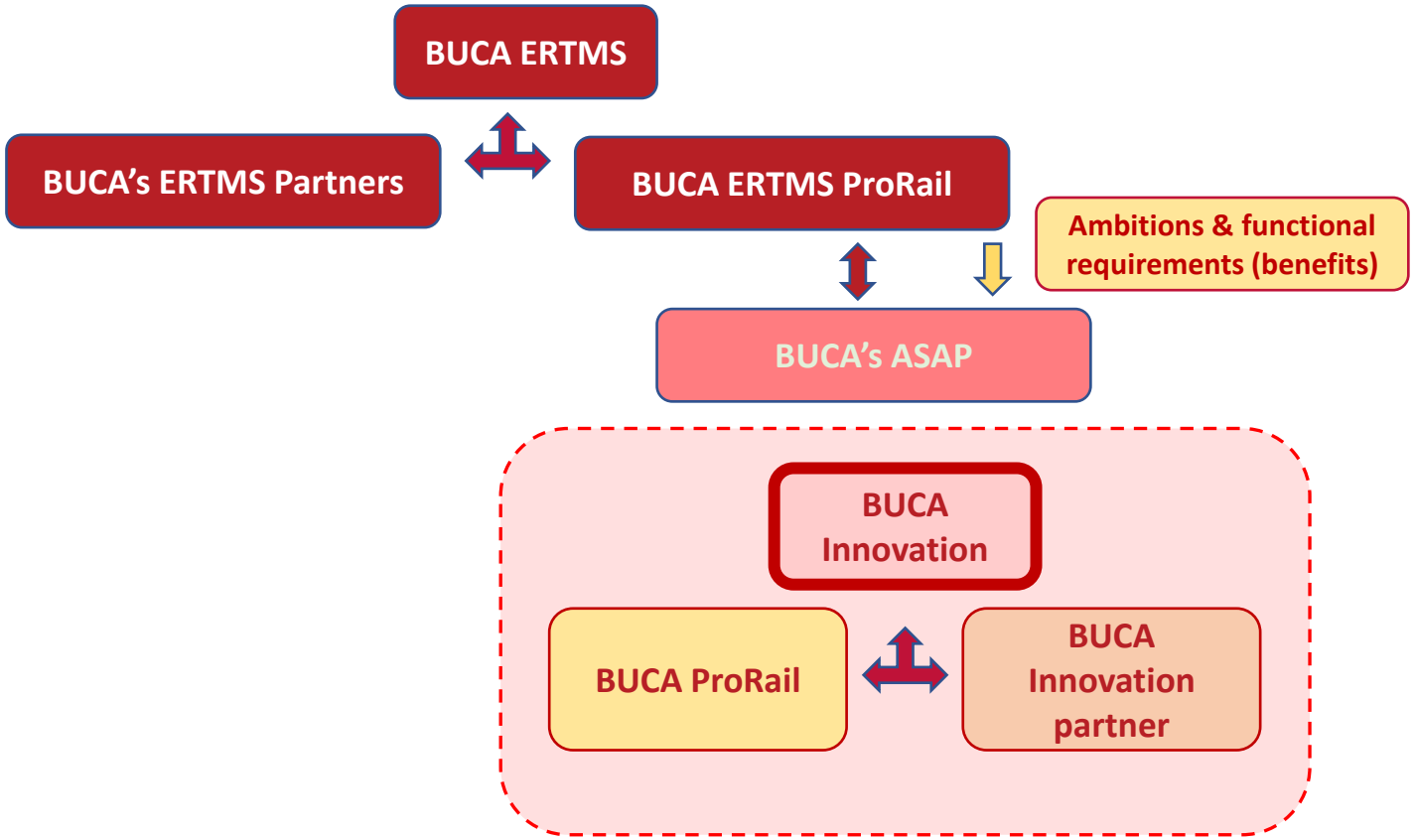
AFFORDABLE

- **Lower costs per unit product**

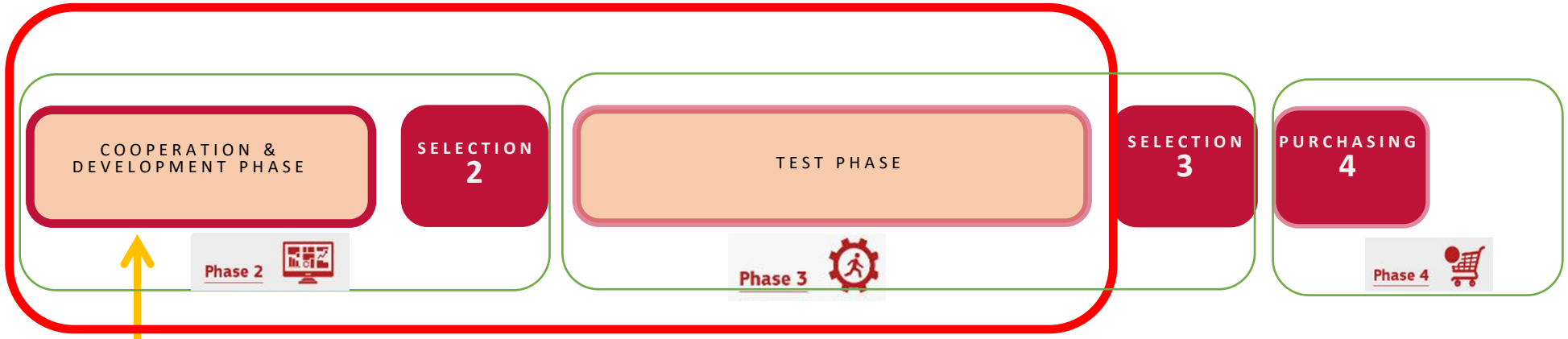
Partner

- **Profit & turnover**
- **Others , such as contributing to a more sustainable world**

Business cases in broader perspective

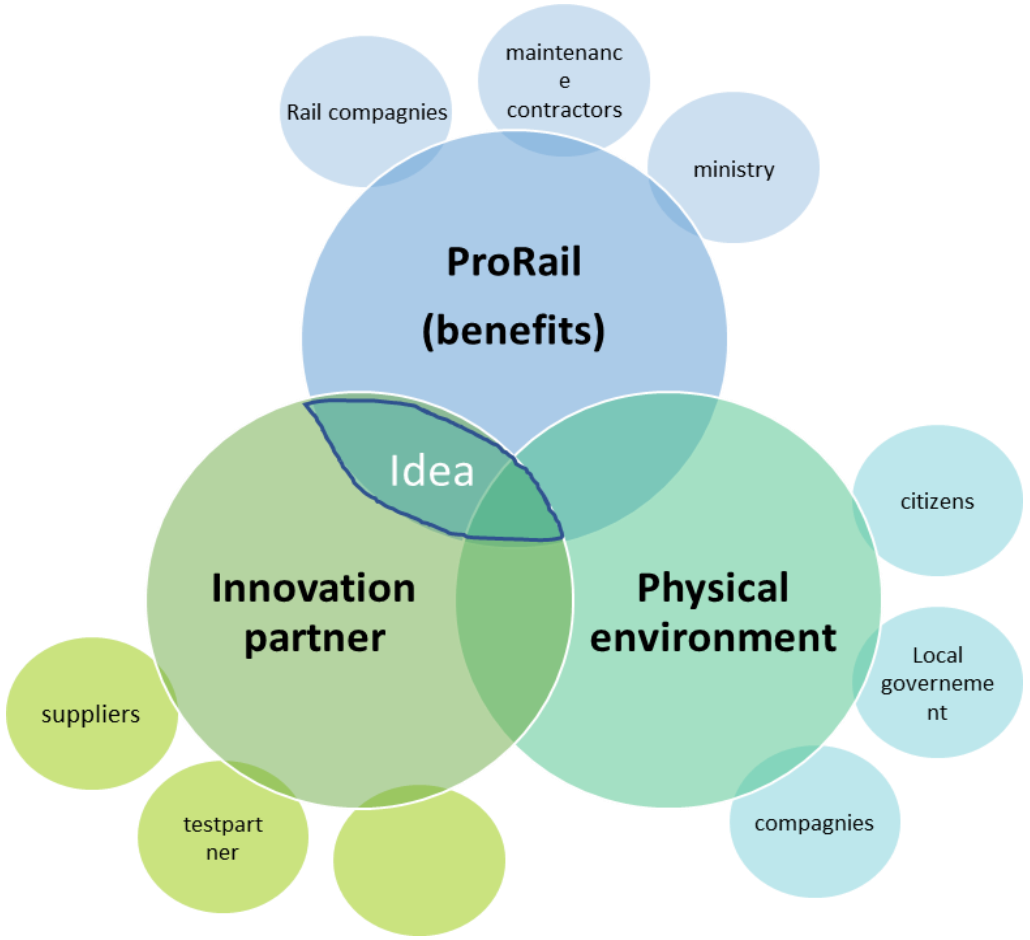


Introduction Value Thinking



1) Introduction Value Thinking: Total Value of Ownership

Total Value of Ownership (TVO)

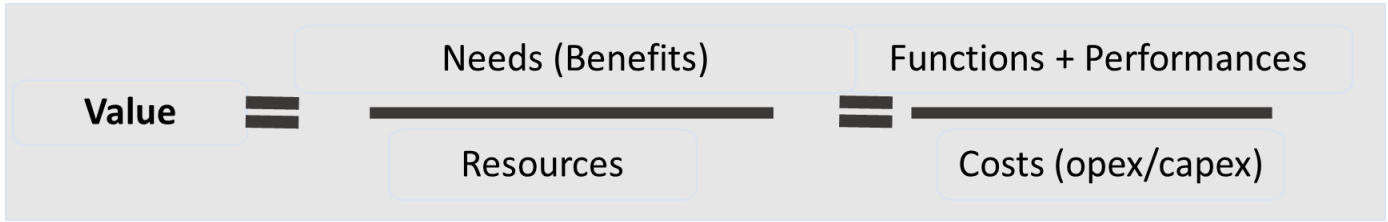


Total Value of Ownership =

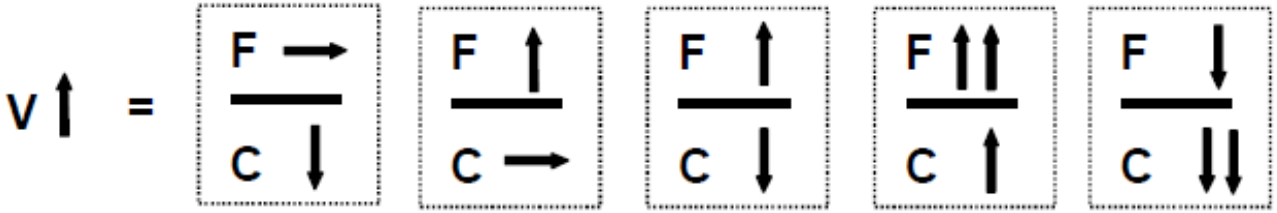
- Total value for all (directly) involved parties;
- Revenues and resources to be contributed over the entire life cycle;
- Sum of all business cases
- In qualitative and quantitative units.

Introducing Value management principles

Validate the solution



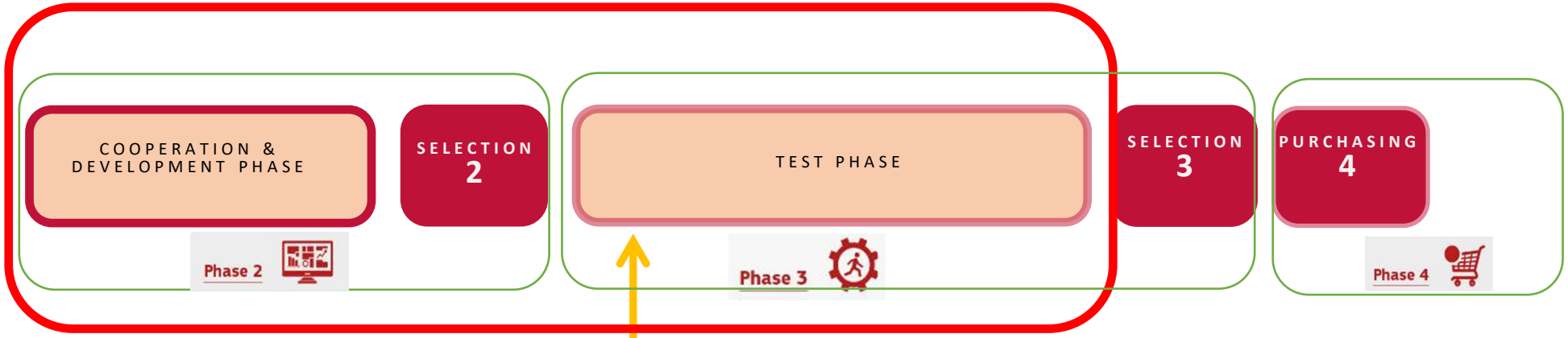
Optimize the solution



Value increase from five perspectives

- **Product (form)**: can the product become cheaper while retaining its functions?
- **Users:** can the idea be adapted to make it work even better for the users?
- **Production chain:** optimizing the value/production chain (e.g. is it possible to make it in fewer steps?)
- **Location:** what does the idea do to the environment, local situation?; how can the idea improve the situation, contribute to other problems?
- **Other market or other situations:** can the idea be applied more often and/or in other situations?

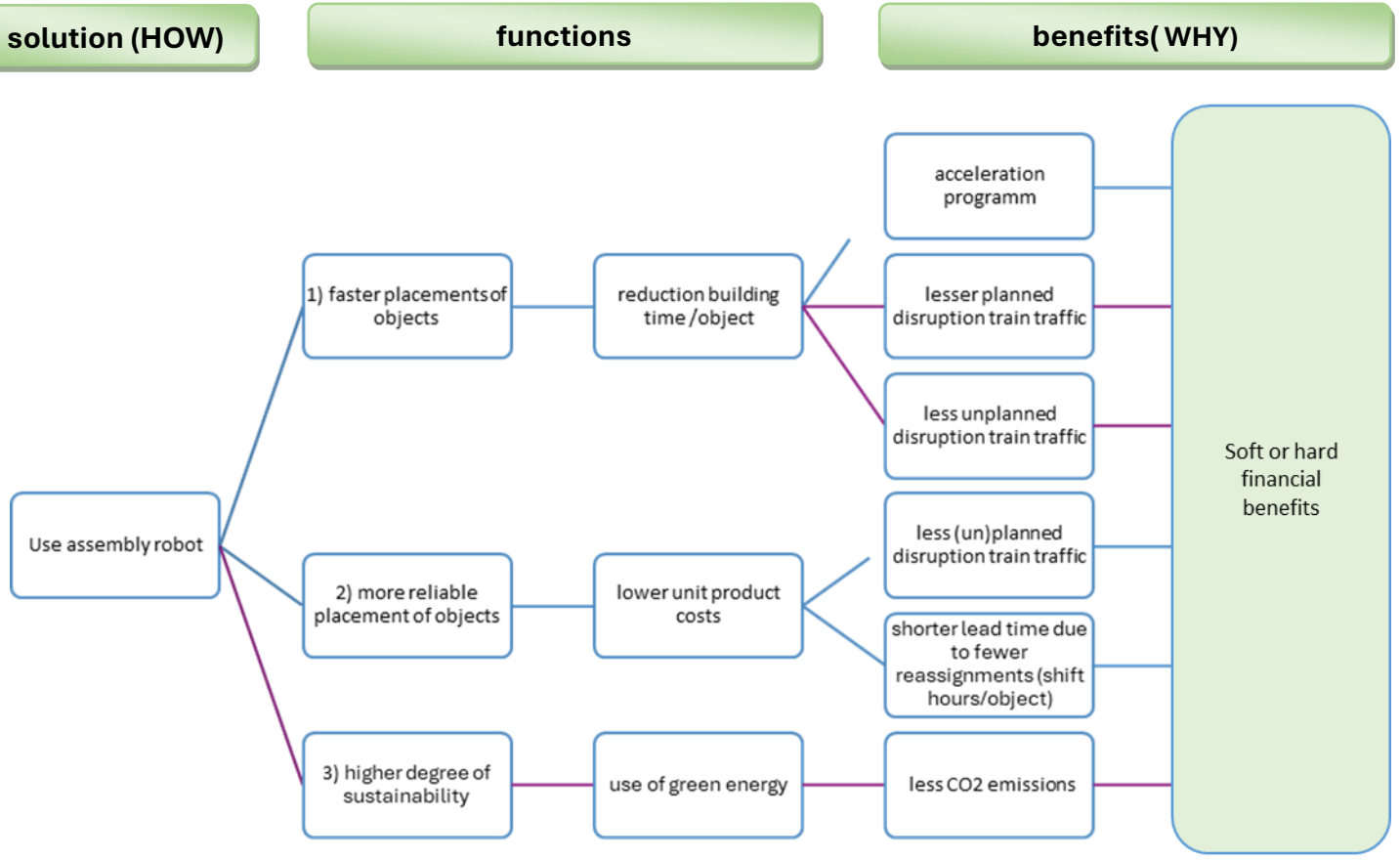
“FAST diagram” as validation BuCa model



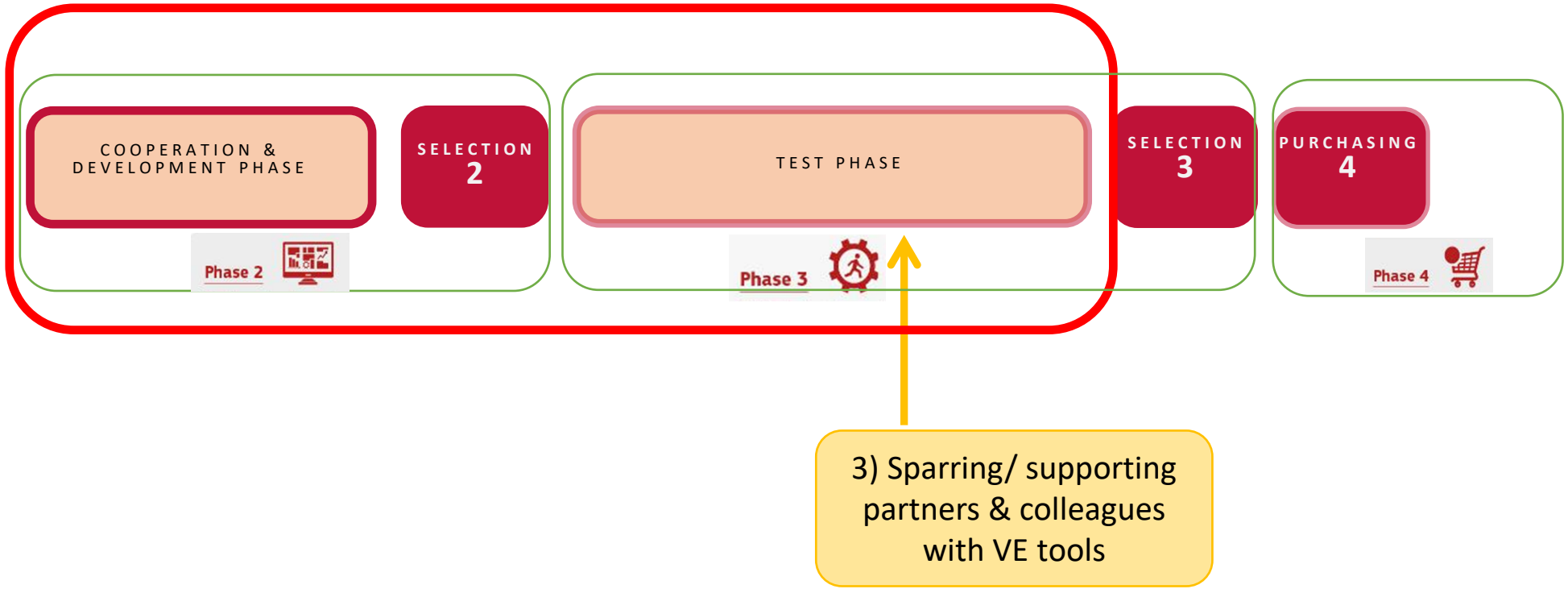
2) “FAST scheme” as validation of the BuCa model

Using “reversed” FAST diagram

- Partners developed the Business Case
- ProRail supported and reviewed the business model & Business Case

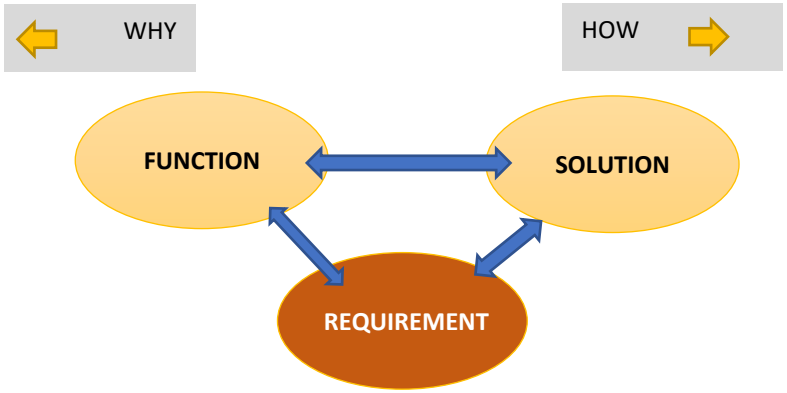


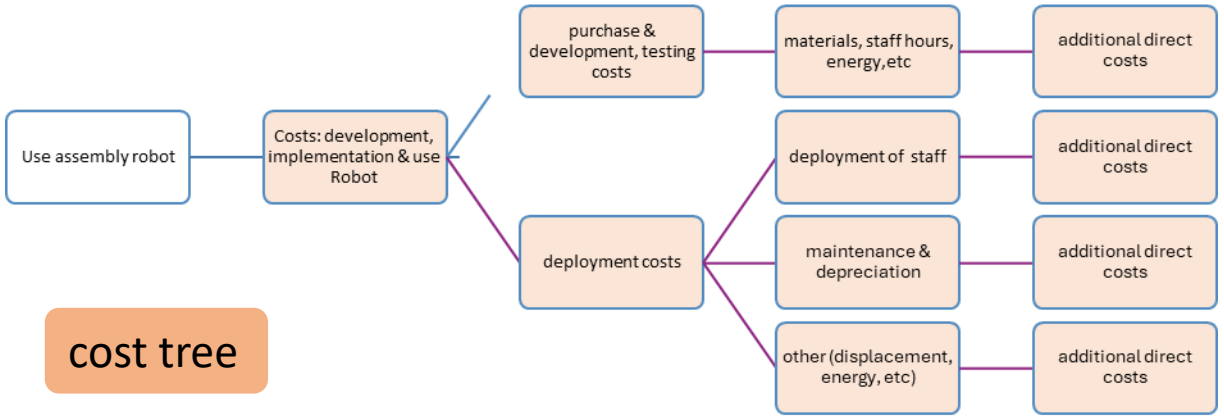
Sparring & supporting with VE tools



Supporting with VE tools

- Regulations are in line with the available solutions
- New solutions mostly don't fit
- The How-Why technique & function diagram helps to align objectives, requirements and (the value of) the solution



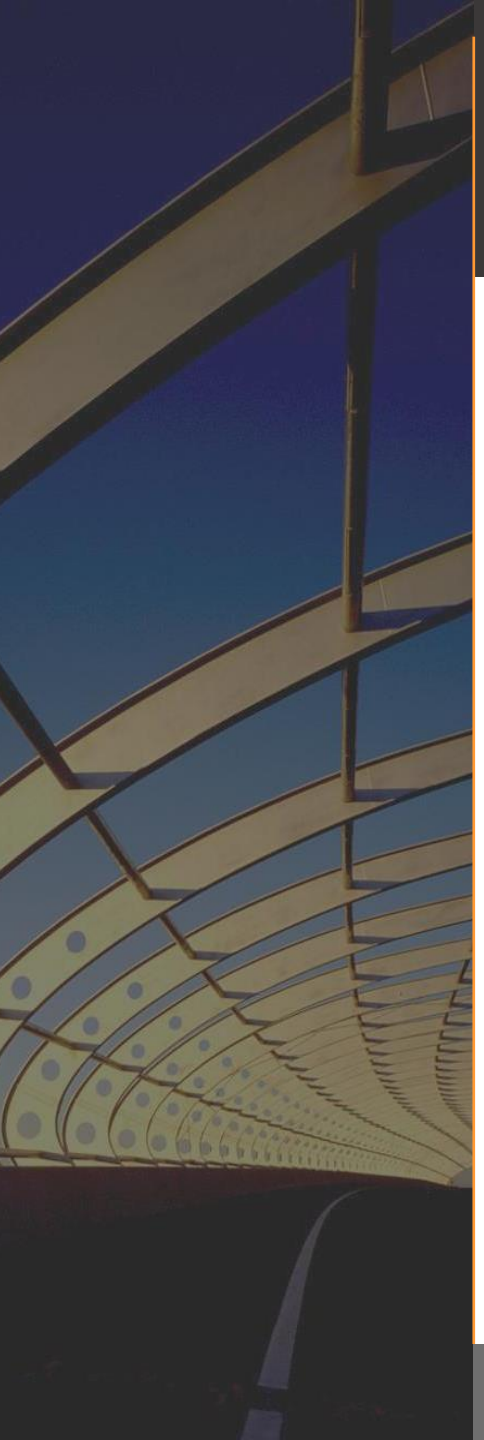


cost tree

LESSONS LEARNED

- The principles of value engineering help to better understand the BuCa issues
- VE (thinking) can increase the BuCa for both partners
- VE (thinking) can help to change rules and regulations, but it is NOT easy (system requirements)
- VE helps to get commitment of the organization, alignment business goals (less time, to the point, clear requirements)
- Value Engineering is unknown to most innovation partners & colleagues, invest & support or train them to get familiar with it
- If you want to manage Value & use VE as managing, decision making tool, you must anchor it in fixed moments in the innovation process/ contract

Any Questions?



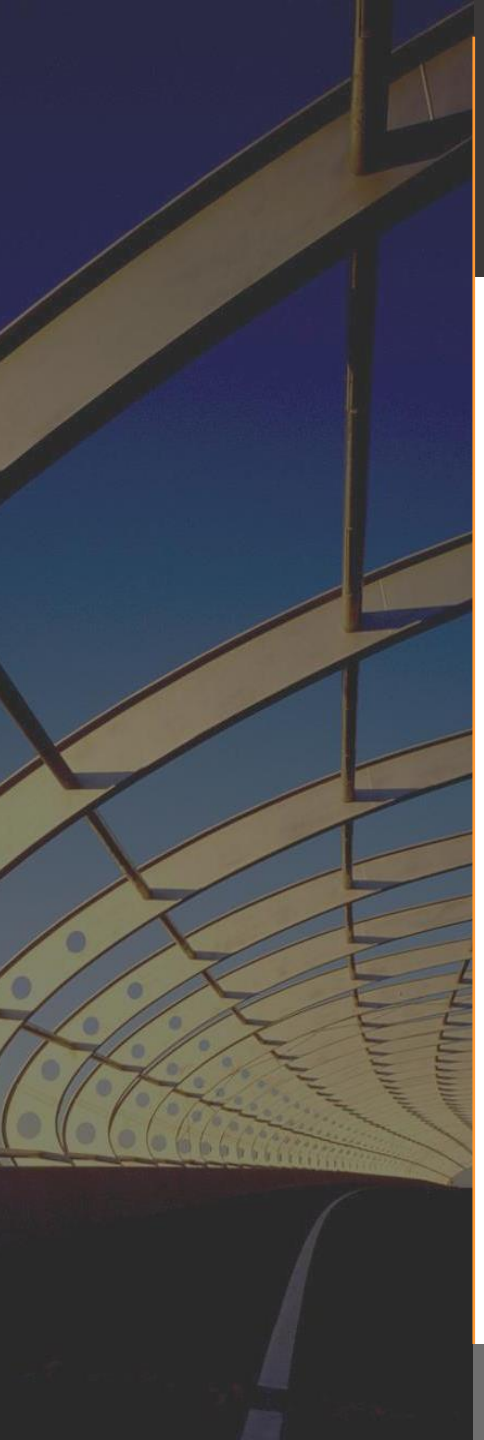
How to apply Value Engineering in cross-border projects:

examples of international projects

Hein de Jong
Value FM


START
VALUE ENGINEERING


COFFEE BREAK



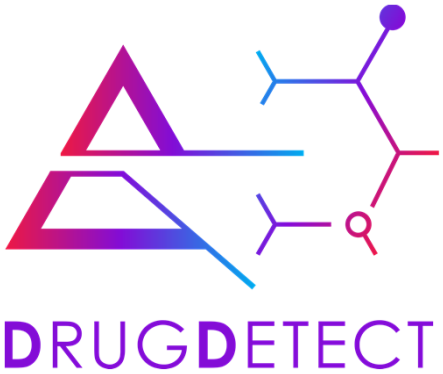
Value Engineering in Public Procurement of Innovative solutions:

the experience of Drug Detect PPI

Ramona Apostol

Drug Detect PPI

Greece, The Netherlands, Belgium, Spain



Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

Value engineering in Drug Detect PPI

Dr. Ramona Apostol (DJI)

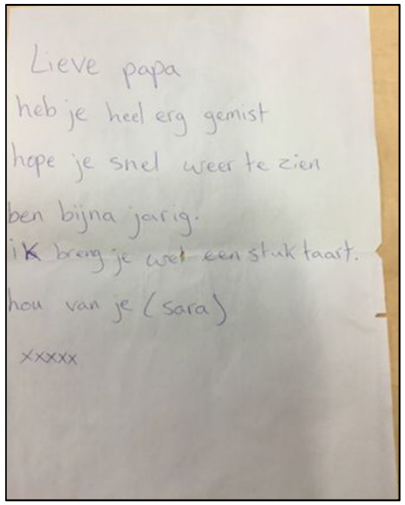
- EAFIP workshop 17th of September 2024 -

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Drugs in 1 prison (2022)

- 8643 urine checks – 0 positive results spice
- 90 samples substances
  - ✓ 65% positive
  - ✓ 24 different types of spice

• 4F-MDMB-BUTINACA	11x
• 4-fluoro-MDMB-Pinaca	4x
• 5F-MDMB-PICA	4x
• ADB-Butinaca	5x
• ADB-Hexinaca	1x
• Benzyl-4-cyano BUTINACA	1x
• Carbamazepine	1x
• MDMB-4-en-PINACA	16x



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

DRUGDETECT

Overview Project

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

- innovative solution
- that detects a large number of drugs
- that is available 24/7
- that does not cause delays in internal processes
- that requires minimal or no human intervention
- that is compliant with privacy legislation (GDPR)
- budget of approx. 3.880.000€

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Overview Project

- 34 prisons
- 23 locations
- +12 500 inmates
- +6 000 staff

- 24 prisons
- 28 locations
- +8 500 inmates
- +15 000 staff

- 35 prisons
- +10.000 inmates
- +9000 staff

- 81 prisons
- 55 110 inmates
- +23 000 staff

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Overview project - challenges

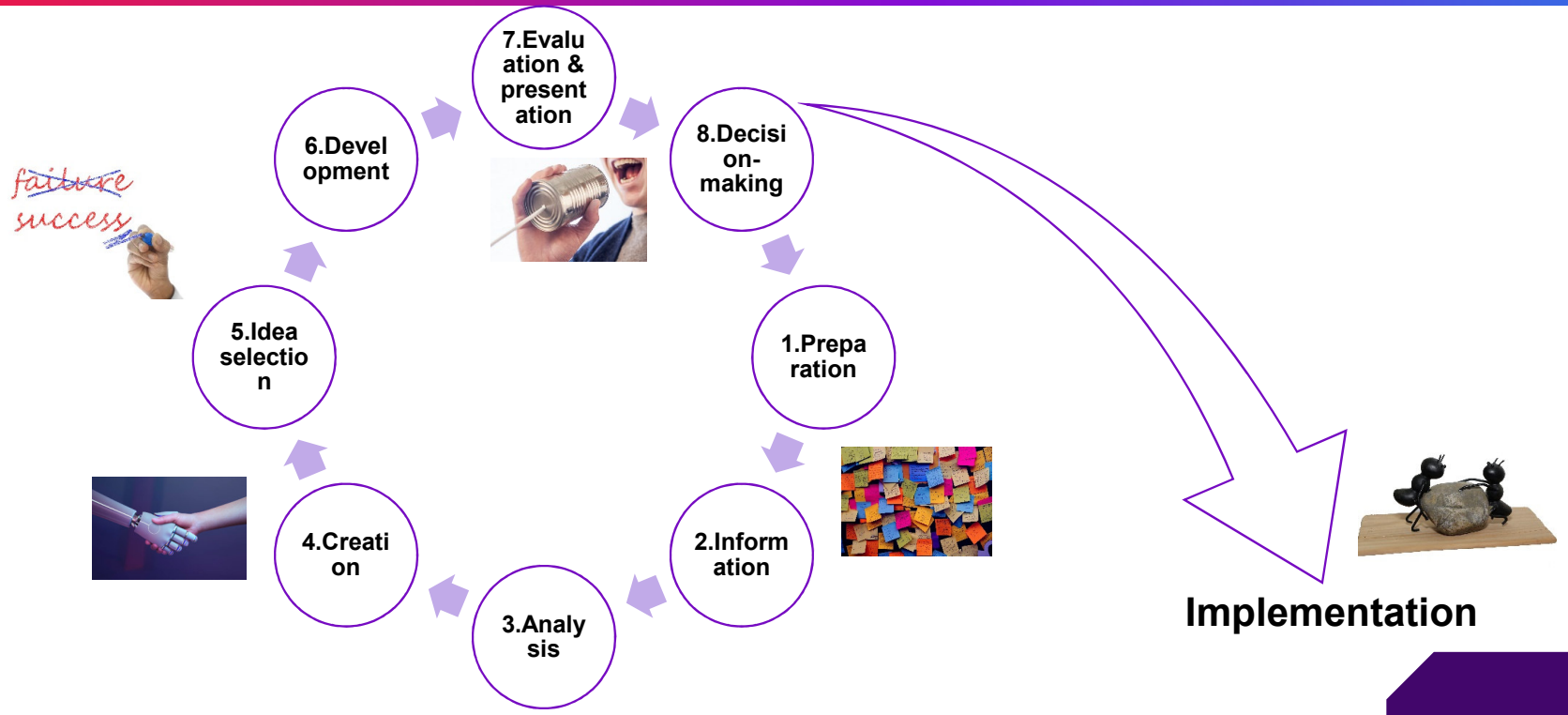
Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

- How do we find out and define what we need?
- How do we define what we consider innovative?
- How do we decide which innovative solution is the most suitable for us?
- How do we check whether the innovation works?
- How do we ensure that innovative features are further improved?

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Value engineering

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

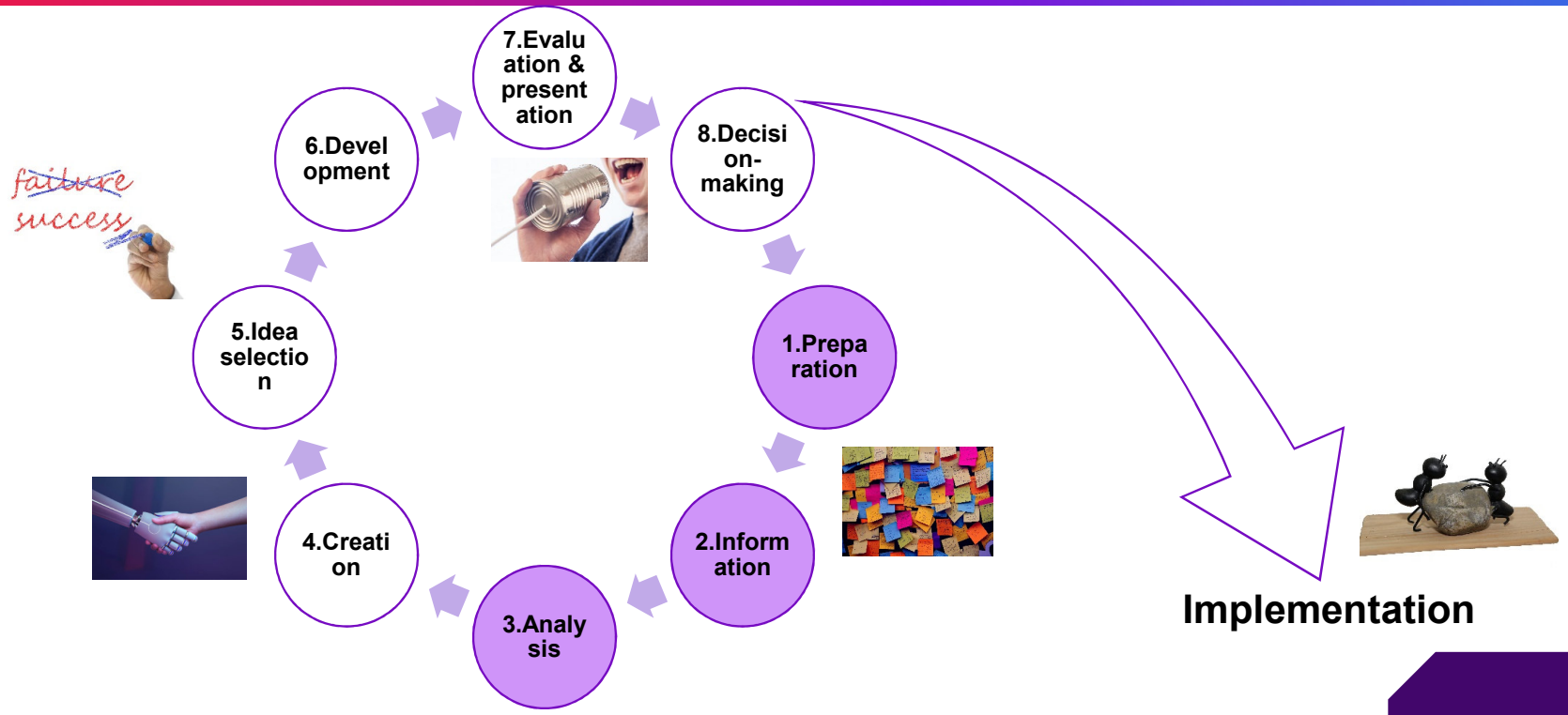


VE Steps according to EN12973

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Value Engineering

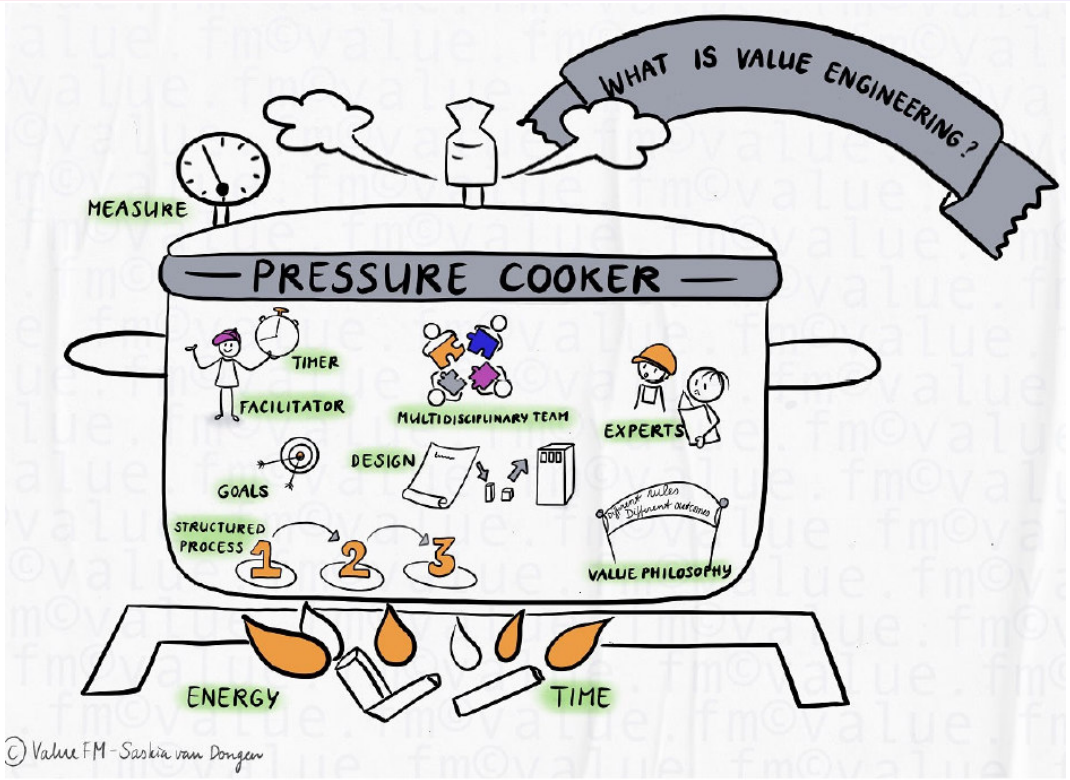
Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid



VE Steps according to EN12973

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Defining the needs



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

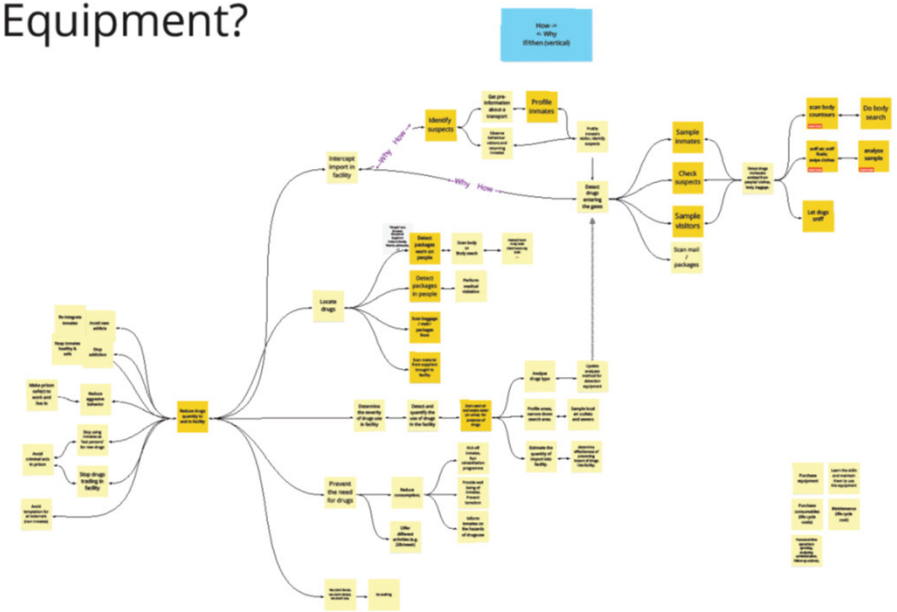
Defining the needs

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Defining the needs

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

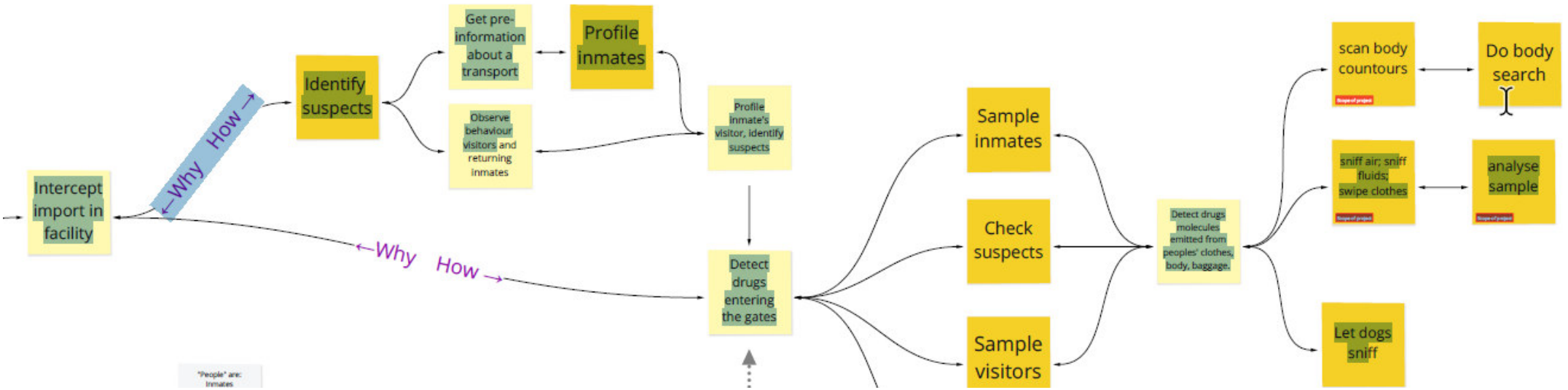
Why do we invest in new Drugs Detection Equipment?



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Defining the needs

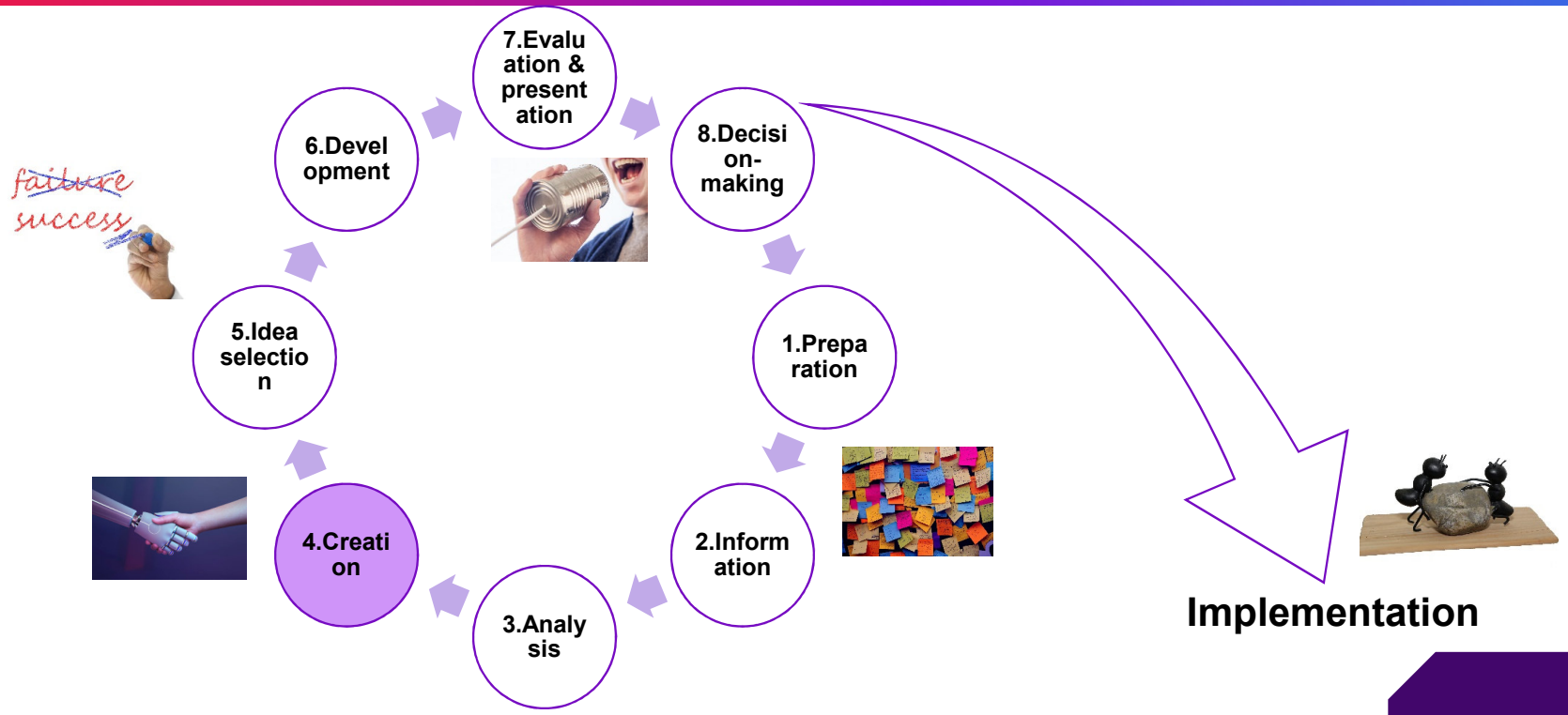
Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Defining the needs

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid



VE Steps according to EN12973

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

DRUGDETECT

Standardised & collaborative approach

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

Where to search for drugs?	**Inside the body of inmates**	**Letters/ packges of inmates/suppliers**	**Luggage of personnel and visitors**	**On the body (personnel, visitors, inmates)**	**Spaces inside a prison**
Which drugs to look for?	analyse sewage water, analyse air, urine control, found drugs, exit interviews with inmates				
How to narrow down the search?	Camera's Info personnel	Deviations Info inmates/personnel	Camera's Info inmates/personnel	Camera's Info inmates/personnel	Camera's Info inmates/personnel
Innovation	Automation Smart algorithms				
How to localize drugs? (anomalies)	Body scanners	Backscatter X-ray scanner (3D) X-ray CT scanner	Backscatter X-ray scanner (3D) X-Ray CT scanner	Millimeter wave scan	Backscatter X-ray scanner (3D) X-Ray CT scanner
Innovation	Smart algorithms	Smart algorithms	Smart algorithms Embedded trace detection		
How to detect traces?		Ion Mobility Spectrometry Massa spectrometry	Ion Mobility Spectrometry Massa spectrometry	Ion Mobility Spectrometry Massa spectrometry	Ion Mobility Spectrometry Massa spectrometry
Innovation	Breath analysis	Large library Improved accuracy			

Standardised & collaborative approach

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

UC-1 On the inmate's body	**UC-2 On the visitor's body**	**UC-3 On the personnel /staff body**	**UC-4 Letter/post for inmate**	**UC-5 Package for inmate**
UC-6 Packages from suppliers	**UC-7 Visitor's luggage**	**UC-8 Personnel / Staff luggage**	**UC-9 Inside the inmate's body**	**UC-10 Inside a prison room/cell**

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

UC-1 On the inmate's body

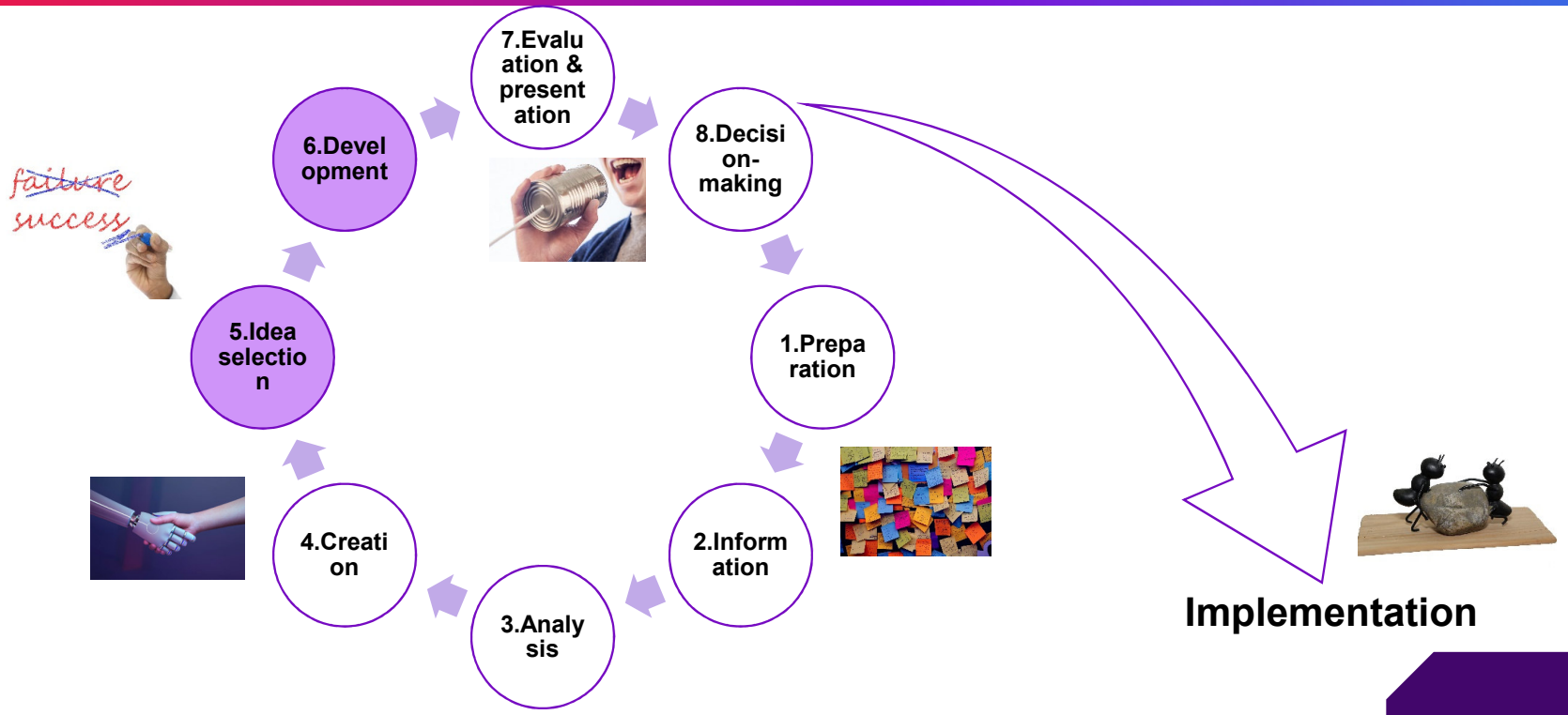
Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

1. Inmate enters the building
2. Security officer (trained as profiler) notices suspicious behaviour (e.g. inmate is very nervous etc.).
3. Security officer asks the inmate to hand over luggage and other objects.
4. Inmate is asked to walk through the detection gate.
5. Gate signals the presence of a small package (5cmx5cm) hidden in the armpit of the inmate.
6. Security officer searches (rub-down) the inmate and asks him/her to hand over the suspicious package.
8. A sample from the package is collected and checked with trace detection device.
9. Trace detection device provides result. Inmate is allowed to pass or gets a report/sanction.

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Defining the needs

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid



VE Steps according to EN12973

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Market analysis

Patent search

- Overview of innovators
- Analysis of patented innovative features

Market consultation

- Plenary presentations
- 1:1 meetings

Business-case and cost analysis

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Market analysis

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

Active Terraherts for detection in envelops

How does it work

- screening postal envelopes

Advantages

- suitable for screening confidential that may not be opened (e.g. mail from lawyers)

Limitations

- does not penetrate deep into object, thus only applicable to thin letter and thin and light parcels

Potential for innovation

- new product
- extend library

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

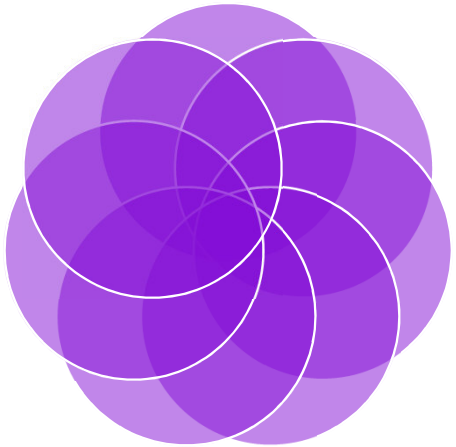
Business-case

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid

Cost of solution

Costs reduction/increase

Performance and functionalities of solution



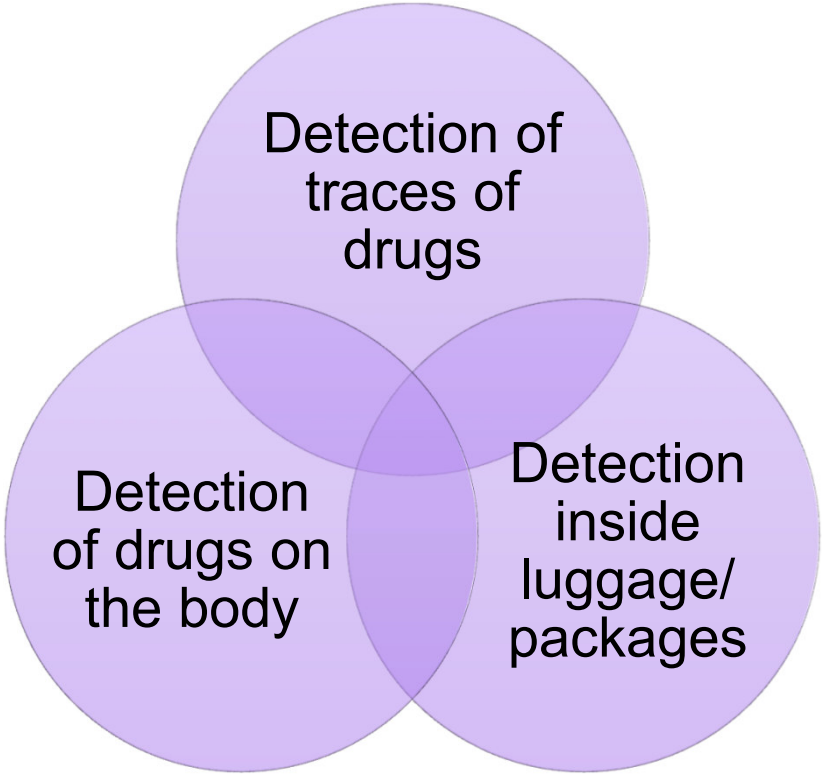
Positive impact

Innovative features

Acceptability by the end-users

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

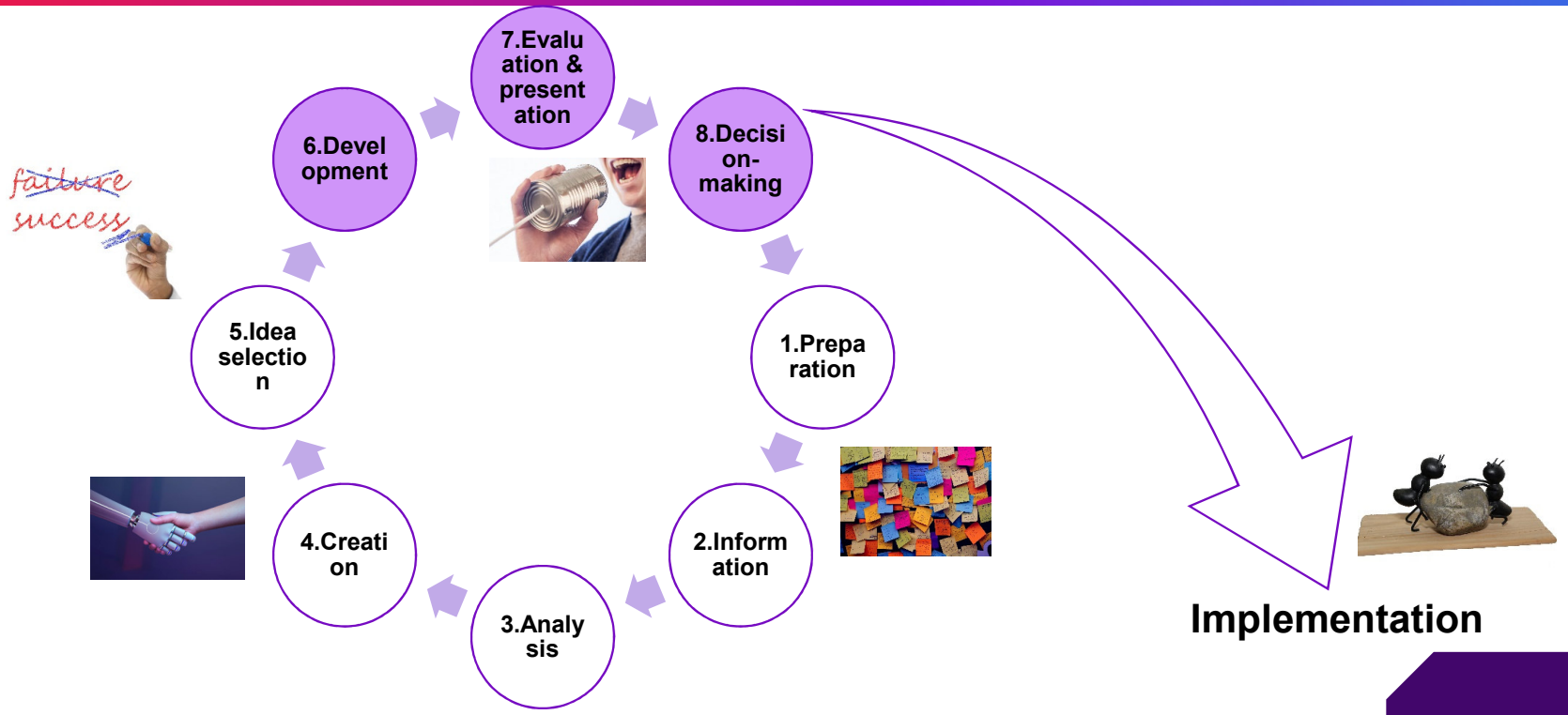
Defining the needs



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Defining the needs

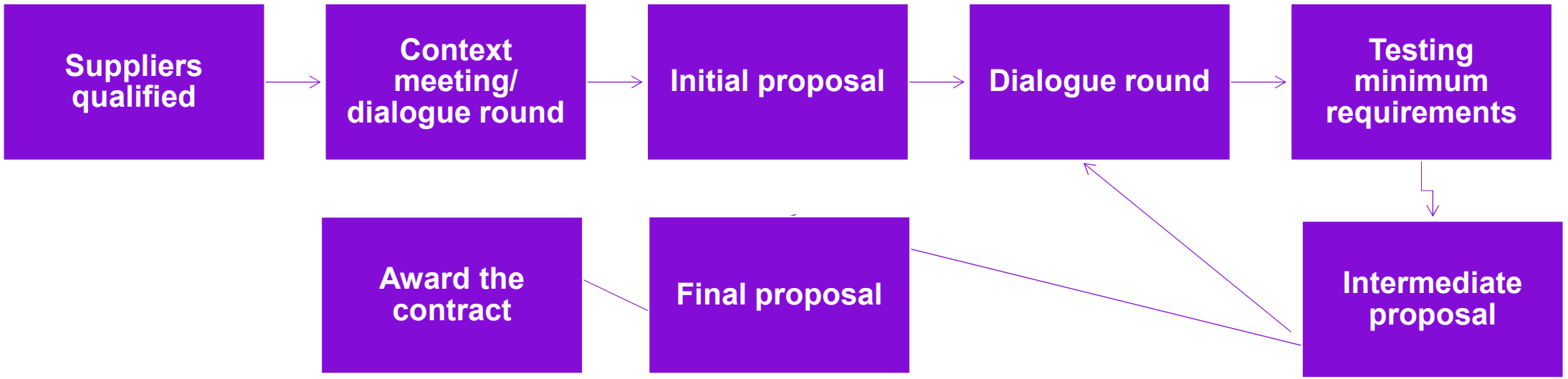
Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid



VE Steps according to EN12973

DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

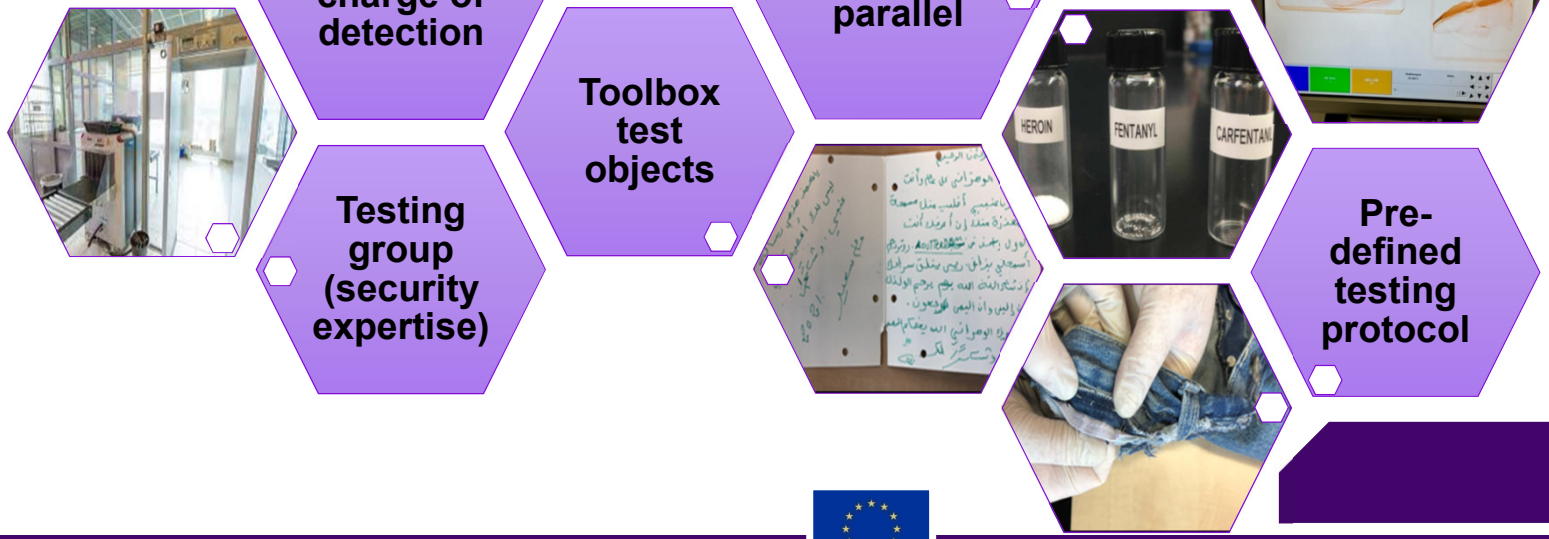
Testing and validation



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

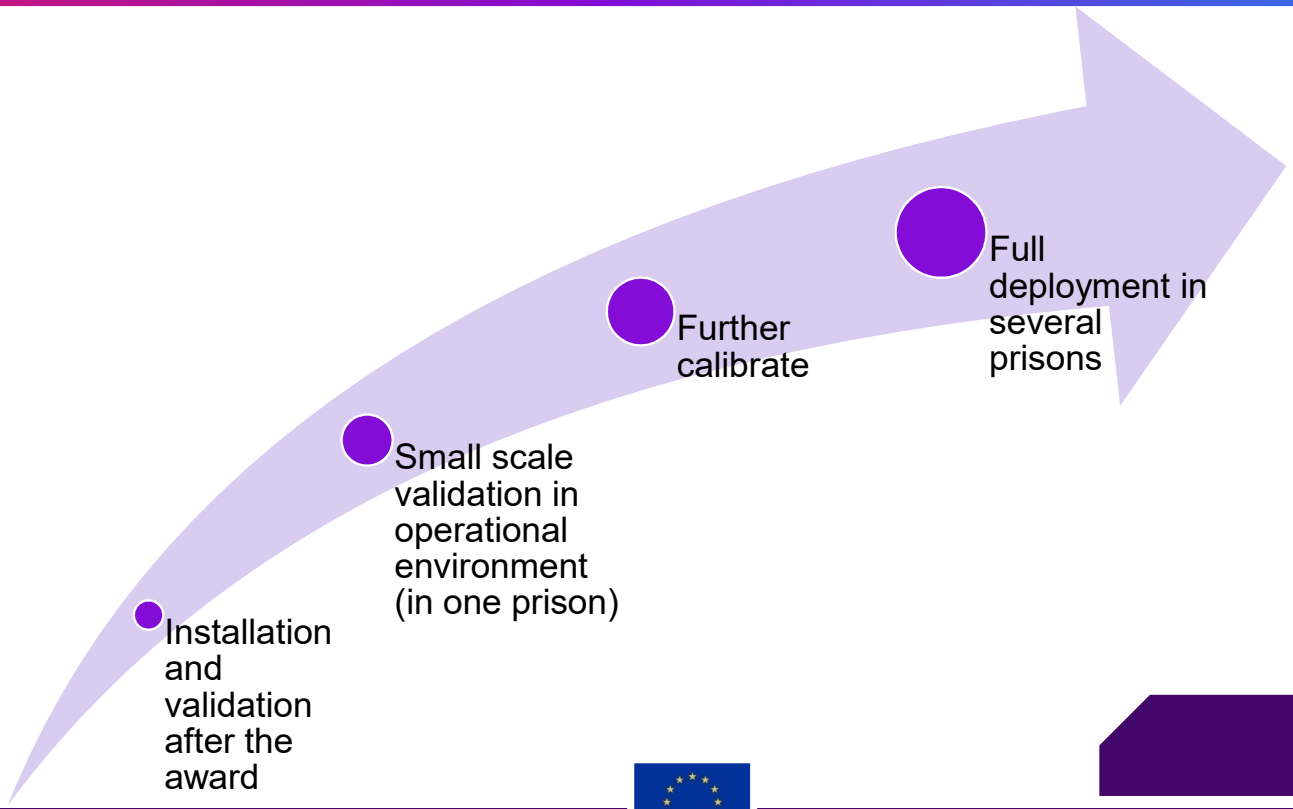
Testing and validation

Dienst Justitiële Inrichtingen
Ministerie van Justitie en Veiligheid



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Testing and validation



DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Conclusions

- VE set the needeed frame for the approach in the project
- VE support in ideintifying the shared needs was crucial

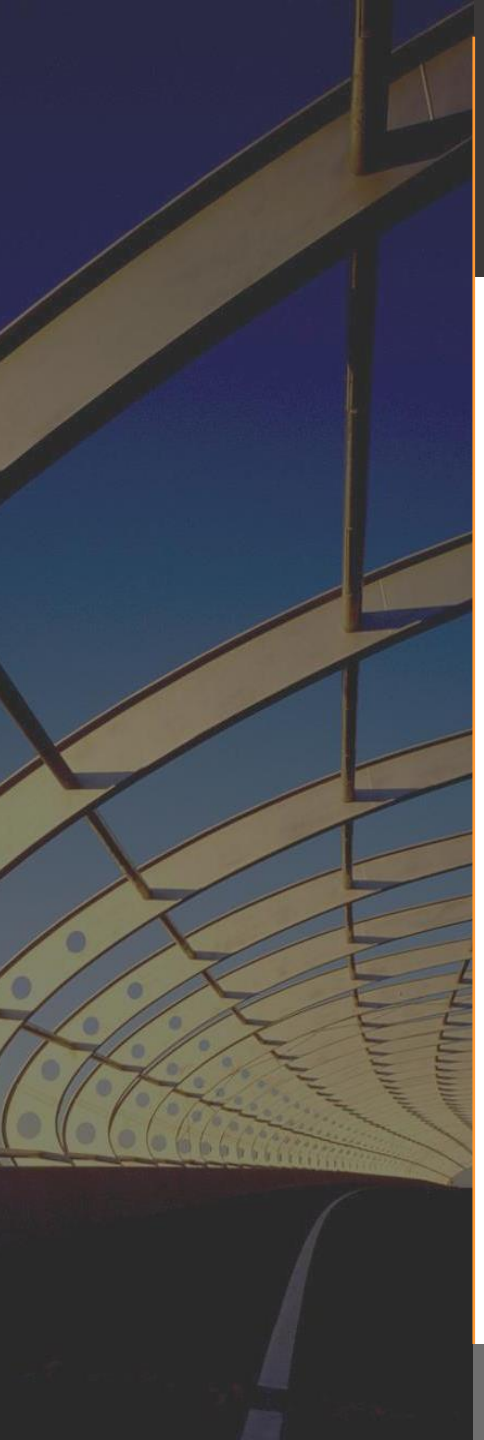
DrugDetect has been co-funded by the COSME programme of the European Union under grant agreement No 101036225

Thank you for your attention!

Dr. Ramona Apostol

Coordinator innovation program

Email: r.apostol@dji.minjus.nl



Best practices of Value Engineering:

Experience and examples from the US Department of Defence and USACE

Corey White and Jeffery Hooghouse

US Army Corps of Engineers, USACE VM

Best Practices of Value Engineering (VE)

U.S. Department of Defense and USACE

17 September 2024

Jeffery T. Hooghouse, RA, DBIA, CVS, PMP, F.SAVE
Chief Value Officer
USACE Headquarters

Corey White, PE, CVS, PMP
Deputy Chief Value Officer
USACE Office of Value Expertise

USACE Website: www.usace.army.mil/ValueEngineering.aspx

U.S. ARMY CORPS OF ENGINEERS, HQ
Enterprise Value Program

JEFFERY T HOOGHOUSE
RA . DBIA . CVS . FSAVE . PMP . MVM

US Army Corps of Engineers, HQ
Office of the Value Engineer
Chief Value Officer (CVO) &
Army Senior Accountable Official
Office: 202.761.5533
jeffery.t.hooghouse@usace.army.mil

www.usace.army.mil/ValueEngineering.aspx
KMP: https://usace.dps.mil/sites/KMP-VE/

"The EVP has been the federal leader in applying the Value Methodology to projects since 1964, solidly demonstrating Corps efficiency and effectiveness…delivering maximum value to our stakeholders with results well over $12.8 billion in quality improvements and innovation."

"USACE is the world class federal resource in Value Management and Value Engineering…expertise with establishing, assessing, evaluating, mentoring, and executing value programs for all federal executive agencies, including training, qualifying, and certifying those value programs…"

"VE is an Army assigned mission responsibility of the CG/COE to manage and execute the Army's VE Program to deliver maximum value to stakeholders through world class engineering and construction, real property, and technical policy on all assigned mission and business areas of USACE."

USACE "WORLD CLASS" FEDERAL & INDUSTRY RESOURCE

- As USACE performs work for all Executive Agencies, the Value Program helps our federal partners achieve their goals and objectives while maximizing the value delivered
- The Enterprise Value Program supports improved value by way of:
  - Enhanced quality, constructability, performance, and maintainability
  - Reduced schedule and uncertainty
  - Improved risk awareness and mitigation
  - Creative and innovative solutions to challenges
  - Access to industry expertise not readily available within the Government
  - Ensure stakeholder expectations met with max Value delivered
- Goal is to focus on the value for the individual project & stakeholders – not "check-the-box" exercises

OUTLINE

Review of U.S. Federal VE Requirements

Deeper look: OMB Circular's threshold for VE

DoD VE Requirements

Best Practices

Examples of VE Use (Case Studies)

Results of VE in DoD

Parting Thoughts

FEDERAL PROCUREMENT POLICY ACT

§ 1711. Value engineering

Each executive agency shall establish and maintain cost-effective procedures and processes for analyzing the functions of a program, project, system, product, item of equipment, building, facility, service, or supply of the agency. The analysis shall be—

(1) performed by qualified agency or contractor personnel; and

(2) directed at improving performance, reliability, quality, safety, and life cycle costs.

(Pub. L. 111–350, §3, Jan. 4, 2011, 124 Stat. 3718.)

HISTORICAL AND REVISION NOTES

Revised Section	*Source (U.S. Code)*	*Source (Statutes at Large)*
1711	41:432.	Pub. L. 93–400, §36, as added Pub. L. 104–106, title XLIII, §4306(a), Feb. 10, 1996, 110 Stat. 665.

- **FEDERAL PROCUREMENT POLICY**
  - Pub. L. 111–350, §3, Jan. 4, 2011, 124 Stat. 3718 (41 USC 1711. Value Engineering)
  - Requires each executive agency to establish and maintain cost-effective Value Engineering procedures and processes.

PROGRAM MANAGEMENT (80%)

&

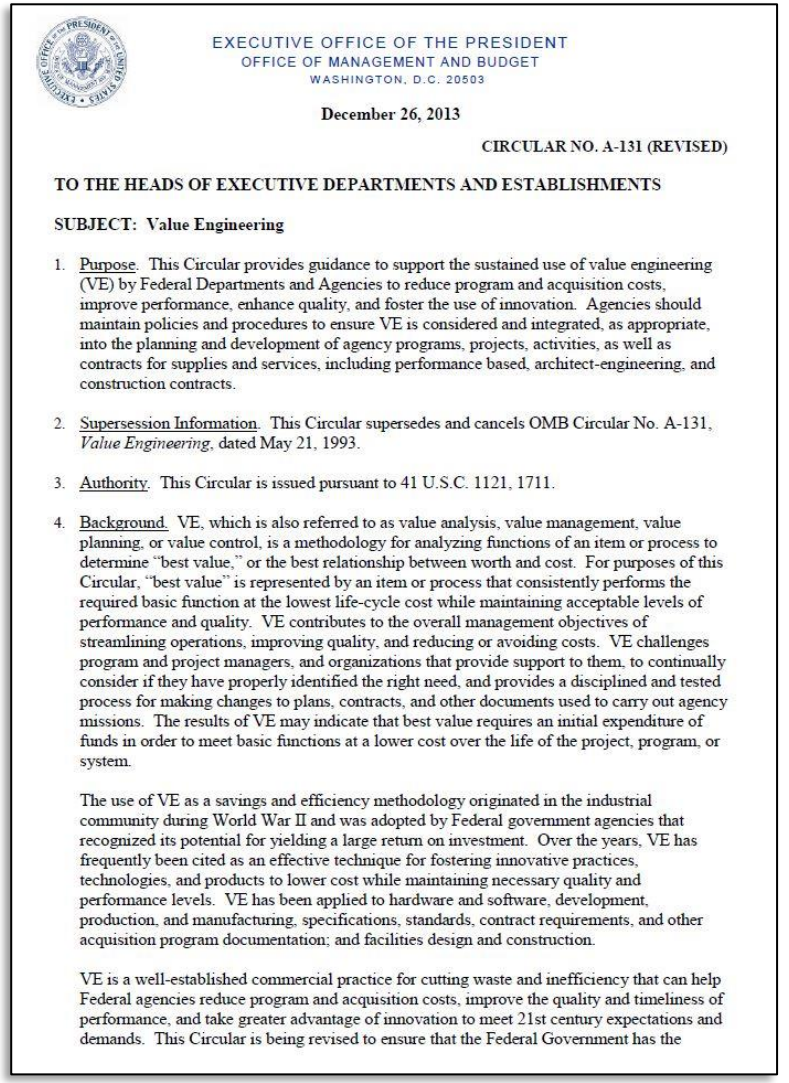
EXECUTE VALUE STUDIES (20%)

OMB CIRCULAR A-131

Value Engineering

PROGRAM MANAGEMENT

- **APPLY VE TO ALL CONTRACT TYPES**
- **SENIOR ACCOUNTABLE OFFICIALS**
  - Interpretation
  - Threshold & Application / Delegation
  - Qualified
- **POLICY/PROCEDURES**
  - Screening and Scaling
  - Standard for VE
  - Waivers
- **TRAINING PROGRAM**
  - Internal → Executive to PM to VE Staff
  - External → Contractors & Customers
- **ANNUAL PLANNING**
  - Workload Analysis & Application
- **RESOURCING VE**
  - Funding VE Management & Practice
- **DOCUMENTATION & RECORDS**
- **ANNUAL REPORTING & CONTROLS**
- **AWARDS AND RECOMMENDATION**



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

December 26, 2013

CIRCULAR NO. A-131 (REVISED)

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Value Engineering

1. Purpose. This Circular provides guidance to support the sustained use of value engineering (VE) by Federal Departments and Agencies to reduce program and acquisition costs, improve performance, enhance quality, and foster the use of innovation. Agencies should maintain policies and procedures to ensure VE is considered and integrated, as appropriate, into the planning and development of agency programs, projects, activities, as well as contracts for supplies and services, including performance based, architect-engineering, and construction contracts.

2. Supersession Information. This Circular supersedes and cancels OMB Circular No. A-131, *Value Engineering*, dated May 21, 1993.

3. Authority. This Circular is issued pursuant to 41 U.S.C. 1121, 1711.

4. Background. VE, which is also referred to as value analysis, value management, value planning, or value control, is a methodology for analyzing functions of an item or process to determine "best value," or the best relationship between worth and cost. For purposes of this Circular, "best value" is represented by an item or process that consistently performs the required basic function at the lowest life-cycle cost while maintaining acceptable levels of performance and quality. VE contributes to the overall management objectives of streamlining operations, improving quality, and reducing or avoiding costs. VE challenges program and project managers, and organizations that provide support to them, to continually consider if they have properly identified the right need, and provides a disciplined and tested process for making changes to plans, contracts, and other documents used to carry out agency missions. The results of VE may indicate that best value requires an initial expenditure of funds in order to meet basic functions at a lower cost over the life of the project, program, or system.

The use of VE as a savings and efficiency methodology originated in the industrial community during World War II and was adopted by Federal government agencies that recognized its potential for yielding a large return on investment. Over the years, VE has frequently been cited as an effective technique for fostering innovative practices, technologies, and products to lower cost while maintaining necessary quality and performance levels. VE has been applied to hardware and software, development, production, and manufacturing, specifications, standards, contract requirements, and other acquisition program documentation; and facilities design and construction.

VE is a well-established commercial practice for cutting waste and inefficiency that can help Federal agencies reduce program and acquisition costs, improve the quality and timeliness of performance, and take greater advantage of innovation to meet 21st century expectations and demands. This Circular is being revised to ensure that the Federal Government has the

DEFENSE VE REQUIREMENTS

DoDI 4245.14, DoD Value Engineering (VE) Program and Standardized Guidance (SD-24)

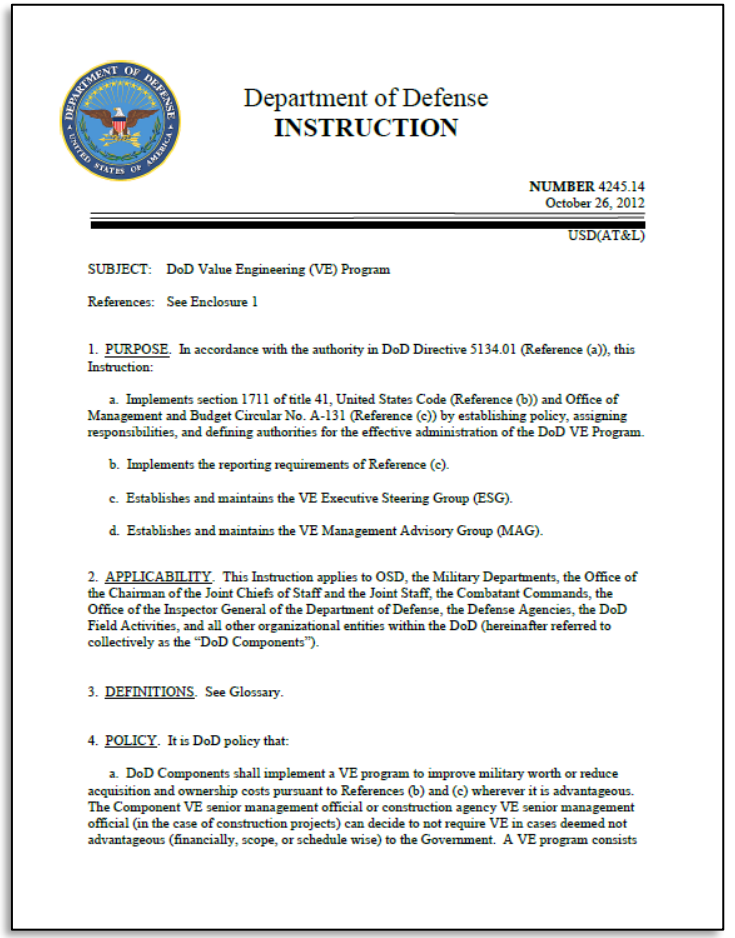
VE Program: The organizational structure, funding, training, and annual planning to actively employ VE concepts and processes, to include results measurement and reporting, established by the Component SAO. The Component VE program is designed to encourage innovation, improve value, and reduce costs over the acquisition and operation lifecycle.

Policy: DoD Instruction 4245.14

- Delegates most OMB A-131 agency responsibilities to Components
- Provides a mechanism for Component reporting of results
- VE Executive Steering and Management Advisory Groups
- VE awards program

Standardized Guidance: *Value Engineering: A Guidebook of Best Practices and Tools*

- Focus on establishing VE programs across Business, Construction, and Defense Acquisition
- More best practices and examples to guide successful implementation



Department of Defense
INSTRUCTION

NUMBER 4245.14
October 26, 2012

USD(AT&L)

SUBJECT: DoD Value Engineering (VE) Program

References: See Enclosure 1

1. PURPOSE. In accordance with the authority in DoD Directive 5134.01 (Reference (a)), this Instruction:

a. Implements section 1711 of title 41, United States Code (Reference (b)) and Office of Management and Budget Circular No. A-131 (Reference (c)) by establishing policy, assigning responsibilities, and defining authorities for the effective administration of the DoD VE Program.

b. Implements the reporting requirements of Reference (c).

c. Establishes and maintains the VE Executive Steering Group (ESG).

d. Establishes and maintains the VE Management Advisory Group (MAG).

2. APPLICABILITY. This Instruction applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (hereinafter referred to collectively as the "DoD Components").

3. DEFINITIONS. See Glossary.

4. POLICY. It is DoD policy that:

a. DoD Components shall implement a VE program to improve military worth or reduce acquisition and ownership costs pursuant to References (b) and (c) wherever it is advantageous. The Component VE senior management official or construction agency VE senior management official (in the case of construction projects) can decide to not require VE in cases deemed not advantageous (financially, scope, or schedule wise) to the Government. A VE program consists

OMB DEFAULT -vs- FLEXIBLE

OMB Circular A-131:

Mandatory Application (Default)

Fixed **STUDY** application or **WAIVE**

- Requires a VE study on **all** contracts ≥ $5M
- Waivers reported to OMB *(via DoD)*

USACE: Would mean ~700 VE Studies/year

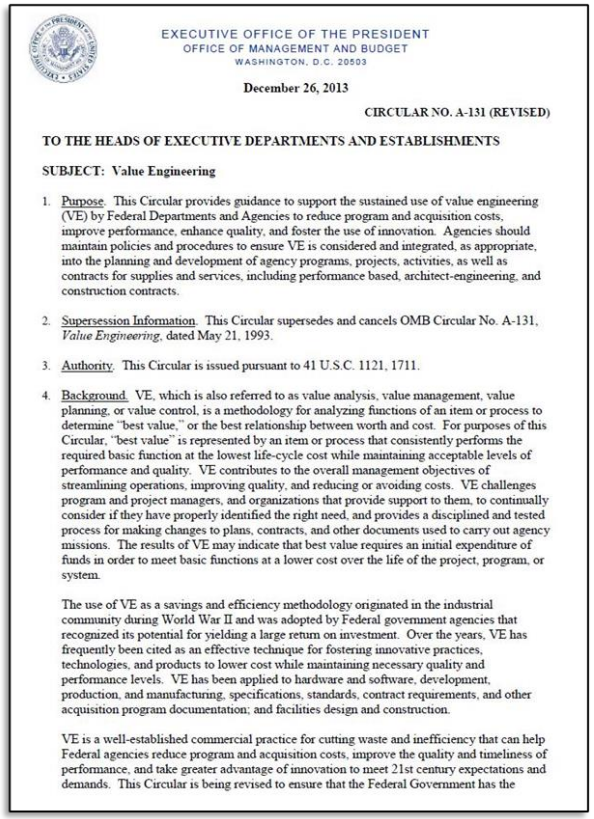
or

Adjusted Application (Flexible)

*Qualified SAO sets a lower threshold to **EVALUATE** ("screen") for opportunity*

- SAO Screens agency historical workload to determine best opportunity for value improvement
- Once screened, remaining workload is evaluated to determine **IF** a scaled Level of Effort is to be applied or documented as *Low Opportunity.*

USACE: ~250 Total VE Studies in FY23



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

December 26, 2013

CIRCULAR NO. A-131 (REVISED)

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Value Engineering

1. Purpose. This Circular provides guidance to support the sustained use of value engineering (VE) by Federal Departments and Agencies to reduce program and acquisition costs, improve performance, enhance quality, and foster the use of innovation. Agencies should maintain policies and procedures to ensure VE is considered and integrated, as appropriate, into the planning and development of agency programs, projects, activities, as well as contracts for supplies and services, including performance based, architect-engineering, and construction contracts.

2. Supersession Information. This Circular supersedes and cancels OMB Circular No. A-131, *Value Engineering*, dated May 21, 1993.

3. Authority. This Circular is issued pursuant to 41 U.S.C. 1121, 1711.

4. Background. VE, which is also referred to as value analysis, value management, value planning, or value control, is a methodology for analyzing functions of an item or process to determine "best value," or the best relationship between worth and cost. For purposes of this Circular, "best value" is represented by an item or process that consistently performs the required basic function at the lowest life-cycle cost while maintaining acceptable levels of performance and quality. VE contributes to the overall management objectives of streamlining operations, improving quality, and reducing or avoiding costs. VE challenges program and project managers, and organizations that provide support to them, to continually consider if they have properly identified the right need, and provides a disciplined and tested process for making changes to plans, contracts, and other documents used to carry out agency missions. The results of VE may indicate that best value requires an initial expenditure of funds in order to meet basic functions at a lower cost over the life of the project, program, or system.

The use of VE as a savings and efficiency methodology originated in the industrial community during World War II and was adopted by Federal government agencies that recognized its potential for yielding a large return on investment. Over the years, VE has frequently been cited as an effective technique for fostering innovative practices, technologies, and products to lower cost while maintaining necessary quality and performance levels. VE has been applied to hardware and software, development, production, and manufacturing, specifications, standards, contract requirements, and other acquisition program documentation; and facilities design and construction.

VE is a well-established commercial practice for cutting waste and inefficiency that can help Federal agencies reduce program and acquisition costs, improve the quality and timeliness of performance, and take greater advantage of innovation to meet 21st century expectations and demands. This Circular is being revised to ensure that the Federal Government has the

VE APPLICATION IN USACE

- USACE has a threshold of $2M to consider whether to conduct a VE study or similar activity
- Procurements at or above the threshold require determination led by Value Program Manager (in partnership with the project team) and inclusion in the Project Management Plan
- Focus: the right projects at the right time for the best opportunities for value
- Result: of the ~12,000 contracts per year across USACE, **90%** are below the threshold; we consider VE on the remaining 10% but only execute VE studies on **2%** of work

DoD BEST PRACTICES FOR VE

The following list is a recommended set of initial priorities to establish and implement a successful value program:

1. **Designate a Senior Accountable Official (SAO) and a Champion**. Designate SAOs at the appropriate level of the organization and with sufficient ability to exercise authority over the value program.
2. **Set policy to meet VE requirements**. Align business practices and policies with local and/or higher-level VE requirements. To do so, the SAO must assess the workload; identify where and how to integrate requirements; and ensure compliance.
3. **Organize the value program structure and resource dedicated VE positions adequately**. Identify roles, responsibilities, and necessary resourcing (personnel, time, and funding) to carry out the value program.
4. **Emphasize qualifications**. Consider the need for both technical VE competency as well as the program management skillsets needed to oversee and execute a value program.
    a. VE facilitators ("do" VE) vs. Value Program Managers (plan, manage, implement, report, ensure consistency, etc.)

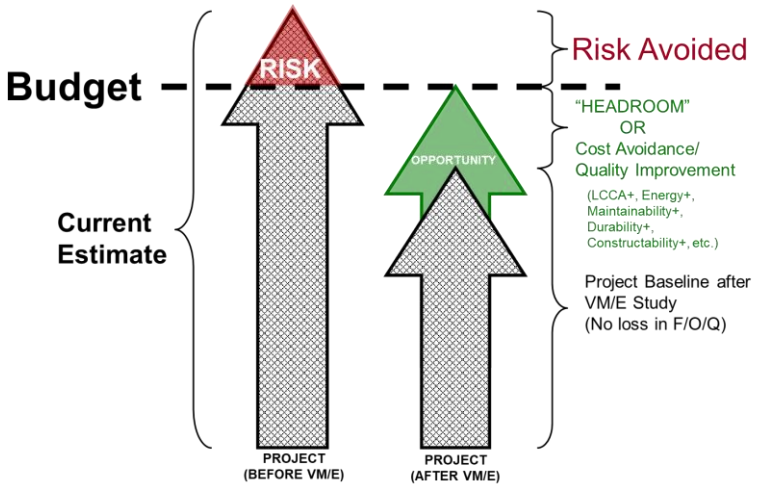
Value Program Maturity Model

Character.	Initial	Developing	Established	Optimized
Org Structure	No component SAO designated for VE	Incomplete component coverage by SAO(s) for VE program	Complete component coverage by SAO(s) for VE program	Highly effective component coverage by SAO(s) for VE program
	No component value program manager (VPgM) and/or assigned VE program support personnel	Designated VPgM(s) insufficient VE program support personnel and/or resources	Adequate VE program support personnel and/or resources	Optimal VE program support personnel and resources
Policy	No component VE policy	Existence of some form of VE policy in the component	Formal component VE policy	VE policy across all lower commands
	No implementation of VE policy	Inconsistent implementation of some form of VE policy in the component	Inconsistent implementation and enforcement of formal component VE policy	Universal implementation and enforcement of VE policy
Business Processes	No documented value program processes	Partial documentation and implementation of value program processes	Full documentation and implementation of value program processes	Full documentation and implementation of value program processes and integration with component business processes
Training	Little to no formal VE trained personnel (internal or industry)	Value program personnel have some formal VE training	Fully qualified and trained value program personnel	Value program personnel are actively providing VE training for other personnel within the component
Culture	Lack of awareness of VE	Lack of acceptance of VE	Value friendly environment	Universal focus on value improvement

DoD VALUE PROGRAM OUTCOMES

Benefits of the DoD Value Program, quantified (as of last reporting):

- $5B in added capabilities
- >>>10:1 ROI



Program outcomes result in:

- Improved quality
- Enhanced maintainability
- Mitigated execution risk

Quantifiable benefits (cost avoid/cost savings) result in either:

- Additional work that can be awarded on the project, or quality enhancements
- Funds returned for additional projects to be executed

CASE STUDIES / EXAMPLES

Software Acquisitions

- Opportunity areas: user requirements assessment; hardware/software mix; validation of test procedures; efficiency of development; alternative products/existing products vs. brand new; etc.
- Example: VE study allowed elimination of specialized servers by deploying a modified COTS product already in use in the organization, saving $12M over 5 years

Services Acquisitions

- Opportunity areas: eliminating excessive or restrictive requirements; improving competition; opportunities to apply new technology
- Example: transportation of specialized parts included one-time use packaging. VE study initiated an effort to reuse packaging, saving $7.5M

PARTING THOUGHTS

- VE Program: The organizational structure, funding, training, and annual planning to actively employ VE concepts and processes, to include results measurement and reporting

- Best practices focus on setting up a good structure for your program, emphasizing qualified personnel, and using VE early in the acquisition life cycle

- VE benefits can be found in the pre-award stage (scoping, requirements validation, integration points, etc.) or post-award stage (technology adaption, alternative methods). Big benefits can come from small changes!

- We have only scratched the surface of VE opportunity in the Department of Defense!

REFERENCES

Public Law 111-350: https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title41-section1711&num=0&edition=prelim

OMB Circular A-131: https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A131/a131-122013.pdf

DoD Instruction 4245.14, DoD Value Engineering (VE) Program: https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/424514p.pdf?ver=2019-02-26-144435-137

U.S. Army Corps of Engineers Value Engineering (VE) website: https://www.usace.army.mil/Value-Engineering/

QUESTIONS?

Jeffery Hooghouse, RA, DBIA, CVS, PMP, F.SAVE
Chief Value Officer
United States Army Corps of Engineers

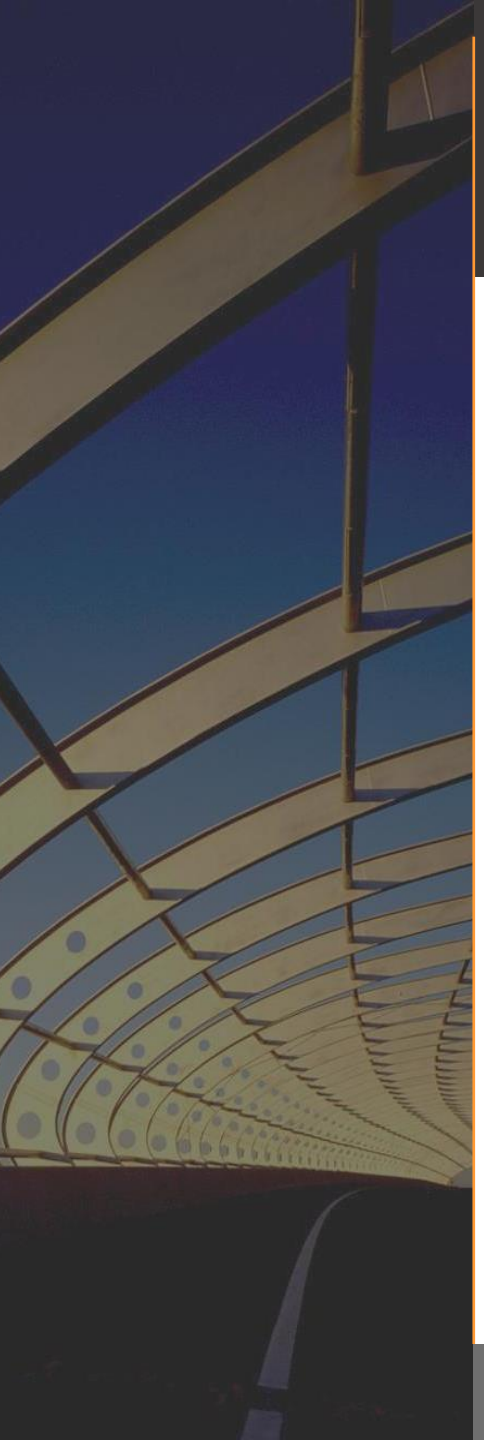
USACE Website: www.usace.army.mil/ValueEngineering.aspx

HOW WE OPERATE

US Army Corps of Engineers, Enterprise Value Program

- HQ USACE: National-level command & control; executive management & direction; policy, programming, coordination, and oversight. Focus is compliance with laws, regulations, and enterprise-level performance.
- Office of Value Expertise (OVx): Enterprise PMO; strategic enabler, promoting a common business picture. Focus is on knowledge management, analysis, reporting, training, and consistency.
- Division: Regional-level command & control; executive management & direction; quality assurance. Focus is on implementation, working across District & Division boundaries and upwards with HQ
- Districts/Centers: Execute work; deliver services to stakeholders. Focus is on technical capabilities and project quality

Each level of the organization has a Value Program Manager focused on delivering value!



Public Value in the UK:

examples of social value, continuous improvement and lessons learnt

Julian Blake
Stone King LLP
UK

Public Value in the UK

1. Traditional Public Value

- **Charity** – by legal definition non-profit distributing public benefit
- **Co-operative** – international principles; collective or community benefit; distinct from limited company owner benefit
- Public sector **grants**

2. Neoliberal departure from Public Value

- 1980s - market competition, profit maximisation, & trickle-down economics
- New Public Management in public services
- Contract culture; professionalisation/corporatisation of charities
- Local Government Act 1988 – **Best Value** - economy, efficiency, effectiveness, equity

Public Value in the UK

3. Return of the Social Economy

- 1990s - **Social Enterprise**, Social Finance, Social Value;
- 2000s Community Interest Company
- 2010s Mutuals Support Programme; Impact Investment; Social Impact Bonds & Outcomes contracts
- Commercial/Social balance –Commission on Social Investment Report (2022)

4. Legislation for Social/Public Value

- Public Services (Social Value) Act 2012 – **duty to consider** (in England)
- Public Contracts Regulations 2015 (EU Directive); Social Business Initiative; **optimum balance** - price/quality/social value
- **Well-being** of Future Generations (Wales) Act 2015
- **Community Empowerment** (Scotland) Act 2015
- **Devolution** to Regional Authorities – Greater Manchester; West Midlands

"*The Art of the Possible in Public Procurement*" (Julian Blake 2016)

Public Value in the UK

5. Social Value to Public Value

- Social Value Taskforce; Social Value Portal - **additional v inherent Social Value**
- Government Social Value Model Award Criteria
- "*Human Learning System for Public purpose Social Value*" (Sandra Hamilton 2024)

- Commissioning v Procurement; stewardship v purchasing; **Public Value Purpose**; commissioner/provider alignment; provider innovation & initiation; cf. Procurement Act 2023

- Public Value Imperatives; **Collaboration Models** - Innovation Partnership; Alliance Contract; Community Project; prevention, integration, long-term planning; Localism; Community Wealth Building; Human Learning System

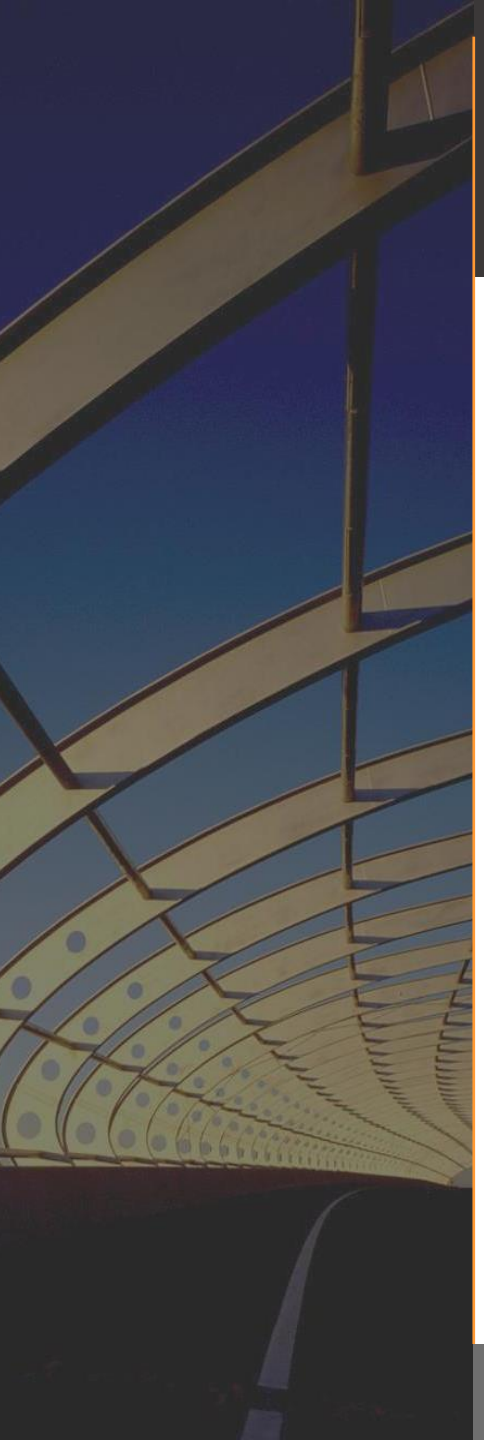
- **Public Value in macro-economics** – Professor Mariana Mazzucato - "*The Value of Everything*"; Professor Kate Raworth - "*Doughnut Economics*"

Thank you!

Julian Blake - JulianBlake@stoneking.co.uk

Stone King LLP - https://www.stoneking.co.uk/


Discussions and Q&A



Conclusions

Stephan Corvers
CEO & Founder
Corvers Procurement Services BV

Conclusions (1)

- Value Engineering is a **methodology for analyzing functions** of an item or process to determine “best value,” or the best relationship between worth and cost.
- “Best value” means to consistently perform the **required basic function at the lowest life-cycle cost** while maintaining acceptable levels of performance and quality.
- The use of VE as a savings and efficiency methodology **originated in the industrial community during World War II and was adopted by Federal government agencies in the USA** recognizing its potential for yielding a large return on investment.
- VE challenges program and project managers, and organizations that provide support to them, to **continually consider if they have properly identified the right need** and provides a **disciplined and tested process for making changes** to plans and contracts.

Conclusions (2)

- VE is an effective technique for **fostering innovative practices**, technologies, and products to lower cost while maintaining necessary quality and performance levels.
- VE can be applied to **hardware and software**, development, production, and manufacturing, specifications, standards, contract requirements, and facilities design and construction.
- In the EU legal context, a **VE clause can be applied as a condition for performance of a contract to incentivize contractors for innovations and improvement.**
- A VE clause should be **clear, precise and unequivocal**. It should be published upfront in the tender documents. However, a VE clause does not ensure the fulfillment of VE requirements. Expert **project management and contract monitoring** is required to uphold standards and ensure the procurement objectives.

Follow up - Procurement@Library™ webinar

“The legal intricacies of the modification of contracts.”

19th September 2024 - 11.30-13.00 CEST

Three expert speakers will present diverse perspectives:

- **Dr. Prof. Piotr Bogdanowicz** (*University of Warsaw, PL & Counsel at Clifford Chance)*
- **Dr. Prof. Carlos Sebastian Barreto Cifuentes** (*Universidad Externado de Colombia & Assistant Magistrate at the Council of State of Colombia)*
- **Dr. Prof. Aris Georgopoulos** *(University of Nottingham, UK – Head of Defence and Strategic Procurement Research Unit & Member of the Public Procurement Research Group (PPRG)*

Registration: **Join us for the third Procurement@Library™ webinar of 2024 - Corvers**

Apply for free assistance

For more information – see: www.eafip.eu

Or apply directly via:

https://ec.europa.eu/eusurvey/runner/EAFIP2024

Thank you for your attention

Corvers Procurement Services BV

The Netherlands

Tel: +31 73-612 6566

info@corvers.com

www.corvers.com

For any questions regarding EAFIP-Assistance and/or applying for free assistance, please contact:

Analucia Jaramillo

Tel: +31 6-20552773

a.jaramillo@corvers.com

www.eafip.eu

EAFIP WORKSHOP-WEBINAR #2 2024

VALUE ENGINEERING IN PUBLIC PROCUREMENT OF INNOVATIVE SOLUTIONS:

Best Practices & Lessons Learned

17th September 2024

Q&A

Value Engineering as a procurement tool in the EU legal framework: *definition, modification of contracts and examples*

Speaker: Ana Lucia Jaramillo, *CORVERS, The Netherlands*

	Question	Answer
1.	How does the EAFIP-Corvers team view the relationship between the application of public innovation procurement and Value Engineering in public procurement? Is there a definition in this regard? In the future, will VE become mandatory in public procurement?	Value Engineering is an effective tool -as shown by vast evidence- for public procurement of innovative solutions, which can be used before and after the award of contracts. Before the award of contracts, VE studies can help with the future design of a tender. Investments in VE studies show a significative return on investment (e.g. in some cases 1:10, 1:20; ProRail maintains approximately 1:250, in Indonesia some projects obtained 1:1800, in machine construction the payback period is often shorter than a year.). After the award of the contracts, a VE clause established as a contract performance condition can incentivise contractors to propose innovations and the adaptation of contracts (e.g. in response to new circumstances or regulatory changes) to deliver best value. It also helps procurer to improve the initial design together with the contractor, using knowledge of all involved stakeholders, and redo the design iteration when needed (in contracts with longer duration, an annual VE-workshop can be very beneficial). At present, the VE approach and guidance to apply it is explained in the EAFIP Toolkit. In addition, the EAFIP initiative offers tailored assistance to public procurers who wish to implement the VE technique. In the future, more guidance, insights and lessons learnt through showcases will be shared, aiming for policy efforts to foster the application of the VE tool by public procurers across Europe.

2.	How could innovative technologies be more effectively and appropriately understood and implemented through the application of "Value Engineering"?	The Value Engineering methodology can be applied to explore different alternatives, including new technologies and innovative solutions, that can achieve the functional requirements at the lowest Life Cycle Cost or Total Cost of Ownership. By applying Value Engineering clauses in public contracts, suppliers are incentivised to come up with innovative proposals during the term of the contract. This gives the contract a dynamic nature enabling adaptation to new developments and technologies.

Origins and benefits of Value Engineering: *experience and examples from different sectors*

Speaker: Jeffery Hooghouse and Corey White, *US Army Corps of Engineers, USACE VM*

	Question	**Answer**
1.	What is the relation between the VE and optimisation?	The relationship comes down to the customer's perspective of value. The goal of VE is to improve value in terms of the customer's needs, which may not necessarily come down to money. We use VE to optimize performance (functions, based on customer need and constraints - safety, maintainability, operability, etc.) and the resources (money, time, people, square meters, etc.) we expend for that level of performance. VE - using subject matter experts - can help us identify creative and innovative solutions to achieve optimal value in this way.
2.	What is one main takeaway from your multi-year experience in the field?	One takeaway for me is that these principles really work on any topic! Function analysis, unrestricted creativity, and the other steps of the process can be very powerful and applied to literally anything. I recommend everyone participate in a VE workshop with an open mind, and give it the full resources it needs. Don't cut corners!

Value Engineering as a learning tool for decision-making: *how to manage the value cycle in the business case, examples from ProRail*

Speaker: Erik van Berkel, *ProRail, The Netherlands*

	Question	Answer
1.	Is the "one-tender procedure" you present the same as an "innovation partnership"?	Yes, the project used as an example covers both R&D activities and the deployment of solutions, as an Innovation Partnership. The example shows how Value Engineering can be applied to the different phases of a project in ProRail.
2.	Can you indicate the amount paid to suppliers for developing, prototyping, or testing the new solutions?	The objective of the partnership is increasing the change of success for both parties. The budget for each of the phases is determined on a case-by-case basis upon a Business Case, depending on the complexity of the project. We cannot give any further financial details.
3.	Do you also use VE as in change proposals?	In this contract are no clauses for VE change proposals. In the context of ProRail, VE is mainly applied in the different phases of a project with the purpose of improving the Business Case in an iterative manner along the innovation cycle. Thus, VE helps to finetune the needs and demands finding the right balance in the relation of function and resources.

How to apply Value Engineering in cross-border projects: *examples of international projects*

Speaker: Hein de Jong, *Value FM*

	Question	Answer
1.	Could it be beneficial to have a Contract Manager who is also a Value Engineer? Would it be a good idea to train those in purchasing in VE?	A Contract Manager can enhance his/her capabilities with practical knowledge about Value Engineering. Training the purchasing staff on VE can boost the systematic use of the VE tool within the organisation. Facilitating Value Engineering workshops should be performed by well-trained value engineers.

2.	While this webinar on Value Engineering is very constructive and enlightening, it will not have a quicker impact unless public procurement officers are REQUIRED to incorporate innovative techniques. This unfortunate situation, where there is no obligation for public procurement officers to incorporate quality, efficiency, and performance improvement through Value Engineering, may deprive public procurement of these advantages. What is your opinion in this regard?	Managing public funds comes with the due diligence and responsibility to use the purchasing power efficiently to achieve the best value. More guidance on how to apply VE and build capabilities within the organisation could trigger the interest of public procurers. Applying VE to concrete projects can show its benefits. The ROI around the globe is too significant to overlook it's beneficial impact. VE helps to combat institutional inertia.
3.	Do you pay suppliers and experts for "cooking in the kitchen"?	Allocating a budget for a small Value Engineering (VE) team for some days by the supplier is a common practice. This implies that Value Engineering is integrated into the design process for both the client and the supplier

Value Engineering in Public Procurement of Innovative solutions: *the experience of Drug Detect PPI*

Speaker: Ramona Apostol, Drug Detect PPI, *Greece, The Netherlands, Belgium, Spain*

	Question	**Answer**
1.	In the DrugDetect project, you have applied VE during the needs assessment and market consultation. Did you also include a VE clause in the contract providing for Value Engineering Change Proposals (VECP)?	No, we did not include VE in the contract.
2.	In the final award of contracts of DrugDetect, were there only European companies?	Both an American company and a European company were awarded different lots of the contract.
3.	Where can we find the tender documentation of Drug-Detect?	All the information about the project is on the website of DrugDetect PPI: Home - DrugDetect (drug-detect.eu)

		The tender documentation can be found here: Call for Tenders - Lot 3 - DrugDetect (drug-detect.eu)
4.	Did you receive specialised support in the preparation of the test phase?	Yes, we have received valuable support from the Dutch Border Lab during the need articulation and market consultation phase. The colleagues supported us with their extensive knowledge of the advantages and limitations of the various devices that can detect drugs. Moreover, in preparation of the test phase we used the formats of the Border Lab as a basis, and we applied the lessons learnt by them during their previous procurements of drug detection devices. The Dutch Forensic Institute supported also extensively during the testing phase, with the preparation of the approach and of the test samples.

Best practices of Value Engineering: *experience and examples from the US Department of Defence and USACE*

Speaker: Jeffery Hooghouse and Corey White, *US Army Corps of Engineers, USACE VM*

	Question	**Answer**
1.	Have you noticed in the past years if the relationship with the supply side and technology vendors improved thanks to a VE provision as a result of a competitive advantage?	Great question! Supply and technology vendors aren't my particular area of expertise, but in other industries I have seen VE provisions help relationships between procurer and contractor. It takes effort, though - everyone needs to be on the same page and communicate throughout the process of any VE-related activities to ensure all parties are mutually benefiting!
2.	What motivates a supplier to propose and implement changes in product- or service production that lower the costs for the client? Does it also mean that the supplier gets paid less? What is the benefit for technology vendors to contribute to VECP?	The VECP is an incentive clause, first and foremost. The idea is that by getting a VECP submitted and approved, both parties benefit - both the procurer by getting the necessary performance at a lower cost, and the contractor by earning a higher profit margin. There are other potential benefits to the contractor, such as development of new practices/technology that they can market elsewhere, being more

	In other words, would the contractor benefit more from submitting a VECP than if there is no VECP?	competitive for future work, and obtaining stronger references/performance ratings for future contracts.
3.	How do the client and supplier distribute the actual savings/profit resulting from a Value Engineering Change Proposal (VECP)?	VECP savings generally come down to a basic formula: $Supplier\ savings = (Total\ savings) - (Processing\ costs) - (Client\ savings$ For U.S. government clients, the government (client) savings – as a percentage – are predetermined by the type of contract in the Federal Acquisition Regulation (FAR), Part 48. Many cases, the sharing comes out to a roughly 50/50 split, but the FAR has more detail on this.

Public Value in the UK: *examples of social value, continuous improvement and lessons learnt*

Speaker: Julian Blake, *Stone King LLP, UK*

	Question	**Answer**
1.	Is there any obligation in the UK legislation to introduce social value in public procurement?	There is a legal obligation in the UK to consider the social value. This is under the Public Services(Social Value) Act 2012, as follows:. *"The authority must consider—* *(a) how what is proposed to be procured might improve the economic, social and environmental well-being of the relevant area, and* *(b) how, in conducting the process of procurement, it might act with a view to securing that improvement".* Compliance has developed into a standard approach of seeking additional social value commitments, of a standardised type,, with monetized values, worth 10-20% of the procurement assessment. There is a view, which I share strongly, that the additionality approach is limited and not representative of true public value, which needs integrated, strategic approaches, based on

		interrogating real local community need, promoting the supplier as a corporate citizen. In the new UK Procurement Act 2023 due, in February 2025, to replace the EU-based Public Contracts Regulations 2015, there is an express objective of "maximising public benefit" together with "delivering value for money" and provision for a National Procurement Policy Statement" containing public policy priorities to which contracting authorities must "have regard".