Work Package 2.6

VI Control Improvement   
Prefeasibility Options Analysis

Vehicle Interaction Control Improvement Project

|  |  |
| --- | --- |
| WBS Parent | 2. VI Control Effectiveness (Phase 2) |
| Work Package | 2.6 VI Control Improvement Prefeasibility Options Analysis |
| Package Owner | Project Manager |
| Owner Organisation | Your Company |
| Participants | Project Manager, Project Team, experienced operations personnel, site and divisional HSE personnel, engineering and technology leaders, commercial personnel. |
| Capability Required | Knowledge and experience in operationally integrating complex  technology projects. |
| Description | Prefeasibility analysis for potential new processes and technology is assumed to be a core management competency i.e. it is expected that companies and sites will have established processes and personnel experienced in their application.  Specific points relevant to vehicle interaction baseline control improvement prefeasibility analysis follow.  For each category of mobile equipment establish a Use Case for potential new controls, including technology.   * Confirm the full range of applications and all relevant aspects of the operating environment, production requirements and equipment design * If required, prepare operational workflows that identify the hazards (Credible Failure Modes) by workflow steps (reference the VICE Baseline Review Findings) * Assess the effectiveness of existing vehicle interaction hazard controls while identifying control improvement opportunities, excluding collision avoidance technologies as they are assessed in Work Package 3.8 for application in WBS phase 4 * Use the operational workflows to assess the effectiveness of new technology hazard controls * Review if control enhancements, including technology, might introduce new hazards (Credible Failure Modes) – confirm required controls for new hazards * Assess the costs and benefits – quantify the impact of improved controls. |
|  | When technology control improvement options are being assessed, prepare User Requirements that require vendors to confirm what their technology products can and cannot do:   * For defined abnormal situations i.e. it meets minimum performance expectations for sensing, rules and intelligence, processing speed,  and user interfaces * To support or direct people as they execute routine operational workflows e.g. approaching an intersection (equipment operator), or road crossing (pedestrian), speed zone advice etc. * To aggregate multiple technology data streams into reports that assist operators, supervisors, and managers to maintain, monitor and improve current performance and practice (See WBS Phase 5). |
| Completion State | **A process to assess the effectiveness of existing vehicle interaction hazard controls while identifying control improvement opportunities, that is supported by and connected to the site VICE Baseline.**  **A short list of Design, Operate, and React options to improve vehicle interaction control effectiveness.** |
|  | |

**References**

ICMM ICSV – Vehicle Interaction Capable Solution definition.

“A capable solution delivers better vehicle interaction control performance by improving the quality of decision-making from task execution through to mine operations and design.

A capable solution considers relevant aspects of the operating environment, production requirements and equipment design.

Where technology is a part of a capable solution, it is operationally integrated.”

**ICSV VI working group in October 2022**

* [ICMM Principles and Success Factors](http://www.emesrt.org/wp-content/uploads/ICMM_PrinciplesSuccessFactors.pdf)
* [EMESRT Body of Knowledge](https://emesrt.org/vici-bok/)

**Notes**

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................

**Future recommendations and feedback**

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................

..............................................................................................................................................................