

DE&S technical competence framework



Defence Equipment & Support



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Setting the Project/Programme Context

The ability to validate required environmental conditions, procedures and cultures to improve delivery against agreed requirements (e.g. time, cost and quality).

Level	Descriptors
Authority	 Scopes future business context and trends through engagement with wider MOD, OGDs, Academia, Industry and International partners Provides advice, guidance and consultation on project relationships and principles across the wider MOD / OGDs, Academia, Industry and International partners.
Expert	 Applies an in-depth knowledge and experience within the project context to establish requirements for delivery across multiple domains within DE&S Aligns project/programme strategies to those of DE&S and creates a clearly aligned vision statement for planned initiatives Represents a project or programme at Steering Group and/or other board meetings, sharing updates and escalating issues Advises Stakeholders and proactively guides Practitioners with advice on how to go about setting a project or programme context in complex environments as a subject matter expert e.g. encouraging and explaining how others can clarify the requirements with customer(s) Conducts business prioritisation activity and considers the wider sequencing of programmes/projects across DE&S, managing cases in which they do not align with the DE&S strategy, the outcomes of services offered or the exceed capacity of resources Enable and ensure required governance compliance throughout their team. Ensure appropriate challenge to status quo and gain approval to deviate when necessary Uses insight and knowledge of linking programmes to strategy / benefits to consider and agree any reprioritisation or difference to programmes
Practitioner	 Develops and implements governance structures to track the delivery of project scope and requirements, the timely involvement of required stakeholders, and the accountability of role holders Demonstrates expertise in using appropriate tools and techniques to define stakeholder requirements and plan for projects/programmes Develops complex business cases, taking into account resources allocated (internal, from Front Line Commands and suppliers), budgets, as well as timescales, for endorsement and approvals through the appropriate channels Recognises the need to set up support measures alongside a detailed approach to DE&S and external stakeholders to encourage a culture that promotes high performance Utilising customer relationship skills, ensures customer requirements, desired outcomes and associated initiatives are understood by team members and reflected in project/programme priorities to develop statements of requirements. Seeks guidance and direction when required, using independent reviews and reputable sources of updated contextual information (e.g. policy and compliance changes) to ensure project/programme success Puts in place effective assurance mechanisms within the project to control risks, including making use of external assurance (Non-advocate reviews, red team reviews, OGC etc.) to confirm status and adequacy of risk controls Ensures projects/programmes are set up to both deliver and measure the benefits - uses wider knowledge of maximising benefits delivery to do this. Applies a systems thinking approach to problem solving and thinks in terms of broader impact to the business Understands of the DE&S political landscape and helps the project team to effectively navigate political risks



Supervised Practitioner	 Applies recommended tools and techniques to design a robust governance structure Supports pre-emptive analysis and response to internal to and external dependencies that may impact on project delivery Drafts business cases and seeks endorsement through appropriate approval channels Incorporates understanding of customer needs to draft initial statements of
	 requirement Supports in collecting documentation and evidence to guide project reviews, procurement decisions and contract strategies across the project lifecycle Ensures appropriate governance and policy are included in the project strategy
Awareness	 Understands and can describe the difference between projects, programmes and portfolios and how they relate to each other Knows the purpose of their role and other functions' within a project or programme and how those roles and functions interact Understands the importance and value of having a robust governance structure Understands and implements the core principles of the business case process and is familiar with the appropriate internal / external customers Articulates the project requirements in line with the business case and procurement strategy Demonstrates an understanding of the importance of the statement of requirements
	 Demonstrates an understanding of the importance of the statement of requirements for effective delivery Has a good knowledge of the basic principles, tools and techniques used to manage a project and experience of using these in practice on smaller projects.



Project/Programme Initiation

Successfully managing the start of a project/programme and directing the associated phases involved to consistently achieve the desired outcomes throughout the project lifecycle.

Level	Descriptors
Expert	 Applies consistent and proportionate project/programme initiation principles across multiple domains Shapes alignment to DE&S and wider MOD strategies when initiating a project Understands, can develop and put in place effective project/programme recovery strategies based on scenario planning, updates from associated initiatives and early risk identification Considers the wider sequencing of programmes/projects across DE&S, managing cases in which they do not align with the DE&S strategy, the outcomes of services offered or the exceed capacity of resources Advises stakeholders and practitioner-led teams on the complexities that must be overcome when initiating projects and programmes, including challenging assumptions and understanding key interfaces/relationships that will need to be managed
Practitioner	 Identifies and can develop management mechanisms for factors deemed critical to success of project delivery Leads the development of project business cases in accordance with DE&S processes and required standards, coordinating cross organisational inputs as required Leads the development of a consolidated delivery plan, as well as identifying and securing an appropriate team to support overall management of the project and people Demonstrates use of appropriate planning, project performance data and project life cycle techniques to achieve successful delivery outputs or outcomes Defines the delivery plan provides an appropriate balance across (primarily) performance, time, cost and quality considerations Conducts full data driven Investment Appraisals with associated supporting documentation (BC, options analysis)
Supervised Practitioner	 Supports the development of a management plan relevant to the initiation phase of the project lifecycle Shapes the project work breakdown structure using input from cross function Subject Matter Experts, suppliers and the wider MoD Defines appropriate delivery options and methodologies to senior stakeholders to assist in defining successful project outputs Demonstrates a detailed understanding of project roles and how they can collectively contribute to the delivery of the project Understands the main project cost drivers and distinguishes between operating expenses (OPEX) and capital expenses (CAPEX) Understands and is able to draft basic business cases and seeks endorsement through appropriate approvals channels Embeds and adheres to all governance and policy and enable the required compliance throughout their team, ensure appropriate challenge and gain approval to deviate when necessary
Awareness	 Contributes to the structure and format of the Project Management Plan Understands and can describe basic principles, tools and techniques used to initiate and manage a project Demonstrates an awareness of the projects context, contract and delivery structure



•	Understands the core principles of the business case process and understands customers needs and requirements
•	Demonstrates an understanding of the importance of the statement of requirements for effective delivery
•	Articulates the project requirements in line with the business case (and procurement strategy as required)



Acquisition Project Management

Driving the acquisition project management process by implementing and managing acquisition projects to successful conclusion.

Level	Descriptors
Expert	 Establishes and agrees with the Customer the objective(s), requirements and the means of acceptance in line with the MoD's Operating Model and Defence Lines of Development Identifies the overarching acquisition strategy needed to fulfil the Customers relevant requirements Monitors cost/price activity and evidences experience in final determinations for Customer options Applies a thorough understanding of Defence acquisition, the Defence Operating Model and Defence lines of development (DLOD) construct Manages the delivery of projects/programmes throughout the CADMID cycle as a subject matter expert
Practitioner	 Conducts deliverability assessments on Customer options Establish and agree with the Customer the objective, requirements and the means of acceptance in line with the MoD's Operating Model and Defence Lines of Development Esablishes and manages agreed requirement and acceptance baselines with internal and external customers/stakeholders Identifies issues/potential issues, assesses and determines recommendations, and seeks authorisation to take the necessary actions forward Understands and can apply knowledge of Defence acquisition, the Defence Operating Model and DLOD construct to meet the Customer objectives, requirements, and the means of acceptance Proactively guides project teams and stakeholders through the CADMID cycle throughout the project/programme lifespan Defines the delivery approach and proposes routes to market to procure equipment and services
Supervised Practitioner	 Applies a basic understanding of Defence acquisition, the Defence Operating Model and DLOD construct to meet customer objectives, requirements and the means of acceptance Collects information using an assortment of methods such as market research, SMEs, DE&S policy and guidance, to meet team and Customer requirements Incorporates understanding of Customer needs to draft initial statements of requirement Aligns project/programme strategies to those of DE&S and creates a clearly aligned vision statement for planned initiatives Demonstrates an understanding of how the CADMID cycle works and applies this in a project context
Awareness	 Understands the basic principles of Defence Acquisition and the wider Defence Lines of Development (DLODS) Demonstrates an awareness of the projects context, contract and delivery structure including the Concept Assessment Development Manufacturing In-Service Disposal (CADMID) cycle



Controlling a Project

To deliver successful control a project and programme through the use of appropriate tools, techniques, data analysis, and communicating information gathered in a format that credibly informs decision making.

Level	Descriptors
Authority	 Provides advice, guidance and consultation on project control principles across the wider MOD, OGDs, Academia, Industry and International partners Advises professional bodies on the principles and application of project control strategies Informs and influences Joint Services Publications (JSP) 892 and industrial risk practices Sets standards for effectively managing contracts and delivering projects with supplier/third party involvement across DE&S and the wider MoD
Expert	 Champions project control principles to enable projects across multiple domains in DE&S by managing risks, assumptions, issues, dependencies and opportunities (RAIDO) Shapes alignment to DE&S strategies and leads in RAIDO management by detecting management gaps, selecting appropriate courses of action, maximising the benefits of opportunities identified and leading the implementation of corrective action Implements project / programme controls by leading governance reviews, auditing evidence, tracking performance against budgets and performing forensic analysis Aligns projects and programmes with other DE&S initiatives, such that service users perceive coherence and consistency in transformation initiatives Demonstrates a thorough understanding Joint Services Publications (JSP) 892 and industrial risk practices Advises Stakeholders and coaches Practitioners on implementing measures to control a project as a subject matter expert Manages contracts with supplier/partner organisations across a number of projects by effectively selecting third parties, agreeing the level of third party involvement, continually reviewing performance, negotiating on contentious issues, upskilling capabilities of contract management within project teams and ensuring project outcomes and value for money are achieved Champions a knowledge management and lessons learned culture across their portfolios/project to support the development of governance, standard practice and the realisation of benefits on projects across multiple domains in DE&S
Practitioner	 Demonstrates credibility through an in-depth understanding of tools and techniques that can be used to perform tasks to control projects, ensure successful delivery of outputs and compliance to required standards Appraises project estimates, potential opportunities and project budget requirements by applying various forms of data (e.g. earned value management and estimates at completions) Tracks project progress utilising Management Information, budget variances, return on investment, as well as schedule or resource changes to form recovery options with an auditable record of assumptions made Performs critical path, consolidated planning and schedule risk analysis to calculate factors that schedules are contingent on Integrates project and corporate management of RAIDO to ensure successful delivery (e.g. by developing RAIDO registers and working with stakeholders external to DE&S as required) Demonstrates a fundamental understanding of JSP 892 Accounts for supplier data and schedules to deliver outputs by working with stakeholders involved in the supply chain to identify the root causes of any issues, to transfer risk appropriately to the supply chain and informing recommendations accordingly Co-ordinates the construction and approval of Performance Measurement Baselines, integrating checks for scope, budget and schedule



	 Implements change processes by conducting impact assessments and making credible recommendations to approve, reject or defer change requests Manages contracts with supplier/partner organisations by effectively selecting them, continually reviewing performance, negotiating on contentious issues and ensuring project outcomes and value for money are achieved
Supervised Practitioner	 Constructs project schedules, ensuring that the scope of the project is achieved within budgets and RAIDO elements are managed Assigns resources to schedules and planned activities Monitors progress against the Performance Measurement Baseline, RAIDO and escalates issues appropriately Produces independent Estimates at Completion (EAC) and understands the Earned Value formulae Applies DE&S risk management tools, ensuring all required data entries are complete and accurate Evaluates options for controlling RAIDO (Risks, Assumptions, Issues, Dependencies and Opportunities) and develops response plans Applies a basic understanding of JSP 892 Supports contract management activities by liaising with suppliers, reviewing performance and ensuring project outcomes meet requirements
Awareness	 Understands and can describe the basic principles, tools and techniques used to control a project Demonstrates a basic use of the tools used to control projects and identifying RAIDO Applies the robust change control processes as needed by flagging issues appropriately Gathers data, validates information received and contributes to the development of management information reports Understands and can articulate the purpose JSP 892 Utilises and is familiar with contract management techniques and good practice when working with suppliers/partner organisations Understands and can demonstrate the contractual obligations and the role of suppliers to meet a project's requirements Supports the capture of Management Information to measure benefits realisation Understands and can describe the purpose of knowledge management and Lessons Learned throughout the project lifecycle



Stakeholder Management

The ability to systematically identify, analyse and engage with stakeholders through appropriate methods.

Level	Descriptors
Expert	 Aligns stakeholder management activities to DE&S strategies and key project priorities Leads negotiations on complex projects by applying skills in conflict resolution and requirements management Negotiates, influences and consults with stakeholders to develop relationships that support project delivery within in DE&S, across MOD and wider Monitors success of conflict management measures and remains vigilant to any ongoing problems Advises and guides others on techniques and mitigation plans to manage complex issues that can emerge when working with various conflicting stakeholders
Practitioner	 Develops, consults on and shares stakeholder management and communications plans Uses relevant methods and mediums to provide stakeholders with clear, timely and relevant information in accordance with the communications plan, reviewing and updating as required Seeks and actively assesses information from stakeholders to set requirements and agreed schedules of priorities Uses a range of approaches and acts promptly to resolve stakeholder issues Maintains effective communication channels, can identify early warning signs of communication breakdown and can adapt approaches to respond to change
Supervised Practitioner	 Performs stakeholder analysis using recognised techniques to better understand stakeholder interests, influences and the involvement required Supports the development of stakeholder and communication plans Refines requirements based on stakeholder needs, as well as assessing, defining and justifying those needs to evaluate agreed schedules and priorities Identifies potential sources of conflict within the project environment
Awareness	 Demonstrates an understanding of the basic principles of stakeholder management Uses recognised techniques to contribute to stakeholder identification and requirements identification Collates feedback from project stakeholders to support project delivery Acts in a morally, legally and socially appropriate manner in dealings with stakeholders, members of project teams and DE&S



Industrial Leadership

An ability to see the bigger picture and respond by demonstrating an in-depth knowledge of how functional roles support the organisational objectives, and creating clear strategies which take into account the external and political context to maximise opportunities to add value to DE&S

Level	Descriptors
Authority	 Provides advice and guidance and shares insights/experience within the sector of leading industry Understands and contributes to wider competing priorities of DE&S/industry (acknowledging own priorities and engaging with other functions/wider sector to support and ensure collaborative approach/es) Understands the operational environment of industry and aligns delivery to MOD/DE&S structures/governance/policies/strategies Delivers collaborative working across functions, applying strategic negotiations across projects at supplier level to deliver cost efficiencies across the functions/DE&S
Expert	 Translates and communicates corporate objectives in a practical way to others to enhance overall performance Challenges the status quo in own and other service areas to drive organisational improvement Demonstrates focus on delivering the longer term strategic priorities, aligning short term objectives to longer term plans Applies appropriate situational context in order to identify responses to emergent issues Understands the priorities of other areas within DE&S to identify opportunities for partnership/industry relationships Advises and proactively guides others on ways to lead the business innovatively, and how to work both operationally and strategically Leverages wider organisation (MOD/OGD) strategies to enable performance and negotiations within industry
Practitioner	 Applies wider macro-economic knowledge Asks challenging questions to bring about deeper understanding of existing ideas and approaches to find new ways of delivery Demonstrates an awareness of pan functional principles and methodologies to enable interpretation of management information Develops an understanding of the wider issues facing the industry/organisation and the impact this will have on the business Demonstrates an ability to make the complicated simple when working with industry partners; but challenges simplistic explanations Actively seeks out information to understand how industry suppliers manage their projects to fulfil DE&S requirement, and how they link to the corporate strategy Champions Continuous improvement (e.g. Lean/6 S) opportunities
Supervised Practitioner	 Uses best practice where appropriate and applies principles to match the approach to the requirements of the industry Represents the functional identity and brand to the wider business and industry Demonstrates courage to challenge the status quo and accepted assumptions to Identify continuous improvement opportunities for the function Asks challenging questions to bring about deeper project understanding of existing ideas and approaches to finding alternative ways/methods of delivery
Awareness	 Understands why strategic industrial considerations are important to the delivery of projects and other organisational initiatives Understands the functional ethos/business culture and the need for continuous improvement and innovation Uses appropriate questions to gain information to make sense of situations and seek opportunities for improvement Demonstrates an awareness that both internal and external macro economic factors influence the DE&S political landscape

Planning and Scheduling (PC Sub-Function)

The ability to define activities and events to be completed during a project and to identify the dependencies between these activities by providing a structured format for the consolidated plan. This also involves the development of duration estimates, as well as identifying and reconciling resourcing limits.

Level	Descriptors
Authority	 Provides advice, guidance and consultation on Planning and Scheduling principles across the wider MOD, OGDs, Academia, Industry and International partners. Advises professional bodies on the principles and application of Planning and Scheduling in a project environment
Expert	 Provides technical guidance, training and conducts audit activities to verify plans and schedules Prepares technical standards, guidelines and procedures for developing project plans and schedules Develops and implements planning and scheduling systems, techniques and procedures Provides advice and guidance on integrating supplier schedules Provides coaching and mentoring to develop others within the planning and scheduling discipline Advises on reports to interrogate aspects of project schedules
Practitioner	 Creates project schedules and supporting documentation with the support of project teams Maintains schedules and reviews Baseline Change Requests (BCRs) for project impacts Runs Schedule Risk Analysis, interprets the outputs and advises PMs accordingly Integrates supplier schedules into DE&S schedules Leads planning and scheduling activities, and provide non-routine scheduling guidance to projects Identifies, analyses and provides innovative solutions to planning and scheduling problems Verifies schedules are realistic in terms of timescales and resource requirements. Produces non-standard reports as requested to interrogate project schedules
Supervised Practitioner	 Creates Work Breakdown Structures capturing the scope of projects from Control Account Managers and Work Package Managers Creates schedules in P6 using information from the WBS dictionaries, capturing the basis of estimates from Work Package Managers Maintains schedules and implement approved BCRs Supports in the analysis and integration of supplier schedules
Awareness	 Describes the basic principles of Earned Value Management and the role project schedules play in the process Describes scheduling principles and best practice Produces standard reports on schedules, e.g. staffing plan, CPR. Statuses a schedule using progress updates from the delivery team Identifies critical and near critical activities in a schedule and reports on their progress



Cost Control Engineering (PC Sub-Function)

The ability to support cost management, cost estimating, cost analysis and cost control activities on Defence Supplier Contracts.

Level	Descriptors
Authority	 Takes responsibility for cost management, cost estimating, and cost analysis/control activities on Defence Suppliers for a portfolio of work including CAT A Projects and or International Contracts with significant political issues and very complex management of senior stakeholders. Provides advice and guidance on cost management and cost engineering activities across the wider MOD and industry Advises professional body on principles and application of cost management and cost engineering strategies.
Expert	 Plans, organises, performs and presents cost management and cost engineering products for a portfolio of work, including CAT A projects and / or International Contracts Advises on cost management and cost engineering tools and techniques and shares best practice Contributes to development and execution of corporate policy on cost control Performs audits across cost management functions Develops curricula for cost management training interventions
Practitioner	 Plans, organises, performs and presents cost management and cost engineering products for a portfolio of work, including CAT B projects and/or part of CAT A project or International Contracts, which are managed by Level 4 Cost Engineer Leads cost management and cost engineering activities Manages or performs individual supplier evaluations Ensures compliance for cost recording, monitoring and reporting practices against relevant standards
Supervised Practitioner	 Plans, organises, performs and presents cost management and cost engineering products on CAT B projects and delegated parts of projects which are managed by a Level 3 Cost Engineer Applies engineering knowledge to identify and recommend potential cost savings Ensures appropriate procedures, methods and systems are implemented and maintained for the management of cost Develops and delivers a variety of training interventions in cost engineering and management Generates, analyses and makes recommendations on portfolio reports Uses statistical tools to analyse metrics and takes appropriate follow up actions
Awareness	 Demonstrates ability to plan, organise, perform and present cost management and cost engineering products, taking responsibilities under supervision for small cost packages Uses appropriate techniques and processes to assist with evaluation of supplier bids, tender claims and for Prime Costs and Overheads (EPCIPC40); Applies 3PE techniques to evaluate cost risks, opportunities and uncertainties Applies appropriate adjustments to data to allow standardised comparisons to be made across different contexts (EPCIPC52) Develops work, product, cost and other coding structures (EPCIPC30); Collects, process and report technical data to predict future project status (EPCIPC1); Produces financial reports and trends as required



Project Risk (PC Sub-Function)

The ability to identify, assess, plan and manage risks and the consequences they can have on the objectives of projects or programmes.

Level	Descriptors
Authority	 Provides advice, guidance and consultation on Risk Management principles across the wider MOD, OGDs, Academia, Industry and International partners. Advises professional bodies on the principles and application of managing risk in a project environment
Expert	 Applies risk management principles across multiple Domains Advises Stakeholders and Practitioners on Risk Management complexities Creates and shapes DE&S risk management strategies Detects failures in the risk management within a project and works to support corrective action
Practitioner	 Leads programme risk identification workshops Considers risk perceptions, behaviours and biases when identifying analysing and assessing risks Prioritises risks for reporting Ensures approved mitigation action is included in WBS and PMB Leads risk review groups focussing direction to achieve required outcomes Sets and maintains risk management standards within the Project, Programme or Portfolio teams Leads compliance with Risk Management strategy, procedures and processes
Supervised Practitioner	 Drafts, maintains and communicates Risk Management Plans Categorises, evaluates and tags risks and assigns to risk owners appropriately Applies a variety of analysis techniques to appropriately assesses post mitigation impacts Prioritises risks based on severity and proximity Creates and manages the hierarchy within ARM and can clearly communicate the data fields in ARM and other data sources Facilitates project risk identification workshops Develops and demonstrates understanding of risk management terminology and basis of estimates Applies understanding of qualitative and quantitative assessment and demonstrates knowledge of how they support Schedule Risk Analysis / Cost Risk Analysis Reviews risk management activities and knows when to escalate or transfer them Prepares and produces complex risk reports using filtering techniques
Awareness	 Understands and can explain the purpose of the risk management plan, the risk management process, and common terms used within risk management activities Identifies risks using appropriate techniques, refines risk descriptions and can tailor approach to risk assessment (both qualitative and quantitative) by risk response type required Maintains Risk Management tools through using the appropriate data sources and paying close attention to mandated fields Understands the relationship between JSP 892, DE&S Risk Management Policy, Procedure and Process documents Understands and can explain the basic principles of the Performance Measurement Baseline (PMB) and Work Breakdown Structure (WBS) Prepares and produces simple standard reports regarding risk management



Estimating (PC Sub-Function)

The ability to provide accurate, qualified and actionable assessments of costs that align to allotted timeframes and applies appropriate focus on high risk items. Estimates produced should also make use of a combination of industry and historic data (with any assumptions clearly accounted for) to inform the delivery of strategy, scope, cost, schedule as well as an active participation in scope change evaluations and review discussions.

Level	Descriptors
Authority	 Provides advice, guidance and consultation as a Cost Estimating Subject Matter Expert (SME) within DE&S, across Other Government Departments (OGDs) and is recognised as an International Authority in a specific Cost Estimation field
Expert	 Demonstrates an in-depth knowledge and thorough understanding of all aspects of Cost Estimating and is actively sought out by the business to train, upskill and advise others Manages the delivery of complex Cost Estimating deliverables across a range of high value / profile projects across multiple DE&S domains Assists in the development of the Cost Estimating profession both within the DE&S and externally at events accredited by professional bodies Applies knowledge and experience to adapt to new challenges and determines a way ahead for highly complex estimating tasks
Practitioner	 Adopts, with confidence, a range of estimating tools, techniques and methodologies in accordance with project requirements Delivers complex Cost Estimates using the mandated CAT A/B Generic Cost Model Applies correlation techniques and domain specific knowledge in delivering robust Cost Estimates Shares knowledge and manages the development of the Cost Estimating profession within the DE&S Lead on engaging with and delivering estimating products for high value projects
Supervised Practitioner	 Understands and can apply different estimating techniques and methodologies in a variety of activities e.g. Parametrics, Historic Trend Analysis (HTA), Optimism Bias (OB), regressions and provide verification/validation of deliverables where appropriate Develops Basis of Estimates (BoE) for Project Delivery Costs Applies appropriate levels of considerations of risk and uncertainty in cost models e.g. in generating 3-point estimates using Monte Carlo Simulation techniques Conducts sensitivity and cost driver analysis Understands and can describes the different financial treatments expected in delivering Cost Estimates Uses appropriate generic models to provide non-complex Cost Estimating outputs Complies with DE&S policies for Cost Estimating Supports practitioner estimators in delivering estimating products on projects
Awareness	 Understands and can explain the difference between fundamental cost estimating techniques Analyses data using a range of sources, normalisation requirements and techniques Recognises and can describes the use of the Basis of Estimate, its role and its constitution Identifies the differences between risk and uncertainty and their treatment in generating a 3-Point Estimate using Monte Carlo techniques Applies data analysis techniques to successfully manipulate large amounts of data Supports the generation of non-complex CAT C/D cost estimating outputs using the JAMES cost model