

E - MANAGE

E	Dimension 2	Dimension 3 e-CF levels e-1 to e-5, related to EQF level 3-8					Dimension 4	Dimension 4
	competence title and generic description	level 1	level 2	level 3	level 4	level 5	knowledge	skills
<b>E.1</b>	<b>Forecast Development</b>							
	Interprets market needs and evaluates market acceptance of products or services. Assesses the organisations potential to meet future production and quality requirements. Applies relevant metrics to enable accurate decision making in support of production, marketing, sales and distribution functions.			Exploits skills to provide short-term forecast using market inputs and assessing the organisations production and selling capabilities	Acts with wide ranging accountability for the production of a long-term forecast. Understands the global marketplace, identifying and evaluating relevant inputs from the broader business, political and social context		K1 market size and relevant fluctuations K2 accessibility of the market according to current conditions (e.g. government policies, emerging technologies, social and cultural trends, etc.) K3 the extended supply chain operation K4 large scale data analysis techniques (data mining)	S1 apply what-if techniques to produce realistic outlooks S2 generate sales forecasts in relation to current market share S3 generate production forecasts taking into account manufacturing capacity S4 compare sales and production forecasts and analyse potential mismatches S5 interpret external research data and analyse information
UPDATE e-CF v 3.0	Interprets market needs and evaluates market acceptance of products or services. Assesses the organisations potential to meet future production and quality requirements. Applies relevant metrics to enable accurate decision making in support of production, marketing, sales and distribution functions.			Exploits skills to provide short-term forecast using market inputs and assessing the organisations production and selling capabilities	Acts with wide ranging accountability for the production of a long-term forecast. Understands the global marketplace, identifying and evaluating relevant inputs from the broader business, political and social context		K1 market size and relevant fluctuations K2 accessibility of the market according to current conditions (e.g. government policies, emerging technologies, social and cultural trends, etc.) K3 the extended supply chain operation K4 large scale data analysis techniques (data mining)	S1 apply what-if techniques to produce realistic outlooks S2 generate sales forecasts in relation to current market share S3 generate production forecasts taking into account manufacturing capacity S4 compare sales and production forecasts and analyse potential mismatches S5 interpret external research data and analyse information
	no change			no change	no change		no change	no change
<b>E.2</b>	<b>Project and Portfolio Management</b>							

E - MANAGE

Implements plans for a programme of change. Plans and directs a single or portfolio of ICT projects to ensure co-ordination and management of interdependencies. Orchestrates projects to develop or implement new, internal or externally defined processes to meet identified business needs. Defines activities, responsibilities, critical milestones, resources, skills needs, interfaces and budget. Develops contingency plans to address potential implementation issues. Delivers project on time, on budget and in accordance with original requirements. Creates and maintains documents to facilitate monitoring of project progress.

Understands and applies the principles of project management and applies methodologies, tools and processes to manage simple projects.

Accounts for own and others activities, working within the project boundary, making choices and giving instructions; manages and supervises relationships within the team; plans and establishes team objectives and outputs and documents results.

Exploits wide ranging skills in project management to work beyond project boundary. Manages complex projects or programmes, including interaction with others. Influences project strategy by proposing new or alternative solutions. Takes overall responsibility for project outcomes, including finance and resource management. Is empowered to revise rules and choose standards.

Provides strategic leadership for extensive interrelated programmes of work to ensure that Information Technology is a change enabling agent and delivers benefit in line with overall business strategic aims. Applies extensive business and technological mastery to conceive and bring innovative ideas to fruition.

K1 a project methodology, including approaches to define project steps and tools to set up action plans  
K2 technologies to be implemented within the project  
K3 company business strategy and business processes  
K4 development and compliance to financial plans and budgets

S1 identify project risks and define action plans to mitigate  
S2 define a project plan by breaking it down into individual project tasks  
S3 communicate project progress to all relevant parties reporting on topics such as cost control, schedule achievements, quality control, risk avoidance and changes to project specifications  
S4 delegate tasks and manage team member contributions appropriately  
S5,manage external ,contracted resources to achieve project objectives  
S6 optimise project portfolio timelines and delivery objectives by achieving consensus on stakeholder priorities

UPDATE e-CF v 3.0	<p>Implements plans for a programme of change. Plans and directs a single or portfolio of ICT projects to ensure co-ordination and management of interdependencies. Orchestrates projects to develop or implement new, internal or externally defined processes to meet identified business needs. Defines activities, responsibilities, critical milestones, resources, skills needs, interfaces and budget, <b>optimises costs and time utilisation, minimises waste and strives for high quality</b> . Develops contingency plans to address potential implementation issues. Delivers project on time, on budget and in accordance with original requirements. Creates and maintains documents to facilitate monitoring of project progress.</p>	<p>Understands and applies the principles of project management and applies methodologies, tools and processes to manage simple projects, <b>Optimises costs and minimises waste.</b></p>	<p>Accounts for own and others activities, working within the project boundary, making choices and giving instructions, <b>optimising activities and resources.</b> Manages and supervises relationships within the team; plans and establishes team objectives and outputs and documents results.</p>	<p>Manages complex projects or programmes, including interaction with others. Influences project strategy by proposing new or alternative solutions <b>and balancing effectiveness and efficiency.</b> Is empowered to revise rules and choose standards. Takes overall responsibility for project outcomes, including finance and resource management and works beyond project boundary.</p>	<p>Provides strategic leadership for extensive interrelated programmes of work to ensure that Information Technology is a change enabling agent and delivers benefit in line with overall business strategic aims. Applies extensive business and technological mastery to conceive and bring innovative ideas to fruition.</p>	<p>K1 a project methodology, including approaches to define project steps and tools to set up action plans K2 technologies to be implemented within the project K3 company business strategy and business processes K4 development and compliance to financial plans and budgets <b>K5 IPR principles and regulation</b> <b>K6 structured project management methodologies (e.g. agile techniques)</b></p>	<p>S1 identify project risks and define action plans to mitigate S2 define a project plan by breaking it down into individual project tasks S3 communicate project progress to all relevant parties reporting on topics such as cost control, schedule achievements, quality control, risk avoidance and changes to project specifications S4 delegate tasks and manage team member contributions appropriately S5,manage external ,contracted resources to achieve project objectives S6 optimise project portfolio timelines and delivery objectives by achieving consensus on stakeholder priorities</p>
	enhanced description	enhanced description	enhanced description	enhanced description	no change	K5 and K6 added word enhancement	no change

E.3 Risk Management

E - MANAGE

Implements the management of risk across information systems through the application of the enterprise defined risk management policy and procedure. Assesses risk to the organisations business, and documents potential risk and containment plans.

Understands and applies the principles of risk management and investigates ICT solutions to mitigate identified risks

Decides on appropriate actions required to adapt security and address risk exposure. Evaluates, manages and ensures validation of exceptions; audits ICT processes and environment

Provides leadership to define and make applicable a policy for risk management by considering all the possible constraints, including technical, economic and political issues. Delegates assignments

K1 corporate values and interests to apply risk analysis to  
K2 the return on investment compared to risk avoidance  
K3 good practices (methodologies) and standards in risk analysis

S1 develop risk management plan to identify required preventative actions  
S2 communicate and promote the organisations risk analysis outcomes and risk management processes  
S3 design and document the processes for risk analysis and management  
S4 apply mitigation and contingency actions

UPDATE  
e-CF v 3.0

Implements the management of risk across information systems through the application of the enterprise defined risk management policy and procedure. Assesses risk to the organisations business, **including web, cloud and mobile resources**. Documents potential risk and containment plans.

Understands and applies the principles of risk management and investigates ICT solutions to mitigate identified risks

Decides on appropriate actions required to adapt security and address risk exposure. Evaluates, manages and ensures validation of exceptions; audits ICT processes and environment.

Provides leadership to define and make applicable a policy for risk management by considering all the possible constraints, including technical, economic and political issues. Delegates assignments.

K1 corporate values and interests to apply risk analysis to  
K2 the return on investment compared to risk avoidance  
K3 good practices (methodologies) and standards in risk analysis

S1 develop risk management plan to identify required preventative actions  
S2 communicate and promote the organisations risk analysis outcomes and risk management processes  
S3 design and document the processes for risk analysis and management  
S4 apply mitigation and contingency actions

enhanced description

no change

no change

no change

no change

no change

E.4

**Relationship Management**

Establishes and maintains positive business relationships between the client and provider (internal or external) deploying and complying with organisational processes. Maintains regular communication with client/partner/supplier, and addresses needs through empathy with their environment and managing supply chain communications. Ensures that stakeholders needs, concerns or complaints are understood and addressed in accordance with organisational policy.

Positively interacts with clients.

Accounts for own and others actions in managing a limited client base.

Provides leadership for large or many client relationships. Authorises investment in new and existing relationships. Leads the design of a workable procedure for maintaining positive business relationships.

K1 client or internal organisation processes including, decision making , budgets and management structure  
K2 client business objectives.  
K3 own organisation business objectives  
K4 how to measure and apply resources to meet customer requirements  
K5 customer business challenges and risks

S1 deploy empathy to customer needs  
S2 identify potential win win opportunities for client and own organisation  
S3 establish realistic expectations to support development of mutual trust  
S4 monitor ongoing commitments to ensure fulfilment  
S5 communicate good and bad news to avoid surprises

E - MANAGE

UPDATE e-CF v 3.0	Establishes and maintains positive business relationships between <b>stakeholders</b> (internal or external) deploying and complying with organisational processes. Maintains regular communication with <b>customer/</b> partner/ supplier, and addresses needs through empathy with their environment and managing supply chain communications. Ensures that <b>stakeholder</b> needs, concerns or complaints are understood and addressed in accordance with organisational policy.	Accounts for own and others actions in managing a limited <b>number of stakeholders</b> .	Provides leadership for large or many <b>stakeholder</b> relationships. Authorises investment in new and existing relationships. Leads the design of a workable procedure for maintaining positive business relationships.	<b>K1 organisation processes including, decision making, budgets and management structure</b> <b>K2 business objectives, own and of other stakeholders</b> <b>K3 how to measure and apply resources to meet stakeholder requirements</b> <b>K4 business challenges and risks</b>	S1 deploy empathy to customer needs S2 identify potential win win opportunities for <b>customer</b> and own organisation S3 establish realistic expectations to support development of mutual trust S4 monitor ongoing commitments to ensure fulfilment S5 communicate good and bad news to avoid surprises	
focused / enhanced wording		eliminated	enhanced wording	enhanced wording	all K enhanced, K2 and K3 merged	no changes
<b>E.5 Process Improvement</b>						
	Measures effectiveness of existing ICT processes. Researches and benchmarks ICT process design from a variety of sources. Follows a systematic methodology to evaluate, design and implement process or technology changes for measurable business benefit. Assesses potential adverse consequences of process change.	Exploits specialist knowledge to research existing ICT processes and solutions in order to define possible innovations. Makes recommendations based on reasoned arguments	Provides leadership and authorises implementation of innovations and improvements that will enhance competitiveness or efficiency. Demonstrates to senior management the business advantage of potential changes	K1 research methods, benchmarks and measurements methods K2 evaluation, design and implementation methodologies K3 existing internal processes K4 relevant developments in ICT and the potential impact on processes	S1 compose, document and catalogue essential processes and procedures S2 propose process changes to facilitate and rationalise improvements	
UPDATE e-CF v 3.0	Measures effectiveness of existing ICT processes. Researches and benchmarks ICT process design from a variety of sources. Follows a systematic methodology to evaluate, design and implement process or technology changes for measurable business benefit. Assesses potential adverse consequences of process change.	Exploits specialist knowledge to research existing ICT processes and solutions in order to define possible innovations. Makes recommendations based on reasoned arguments	Provides leadership and authorises implementation of innovations and improvements that will enhance competitiveness or efficiency. Demonstrates to senior management the business advantage of potential changes	K1 research methods, benchmarks and measurements methods K2 evaluation, design and implementation methodologies K3 existing internal processes K4 relevant developments in ICT <b>e.g. virtualisation, open data, etc.</b> , and the potential impact on processes <b>K5 web, cloud and mobile technologies</b> <b>K6 resource optimisation and waste reduction</b>	S1 compose, document and catalogue essential processes and procedures S2 propose process changes to facilitate and rationalise improvements <b>S3 implement process changes</b>	
no change		no change	no change	K4 enhanced K5 and K6 added	S3 added	
<b>E.6 ICT Quality Management</b>						

E - MANAGE

Implements ICT quality policy to maintain and enhance service and product provision. Plans and defines indicators to manage quality with respect to ICT strategy. Reviews quality performance indicators and recommends enhancements to influence continuous quality improvement.

Communicates and monitors application of the organisations quality policy

Evaluates quality management indicators and processes based on ICT quality policy and proposes remedial action

Assesses and estimates the degree to which quality requirements have been met and provides leadership for quality policy implementation. Provides cross functional leadership for setting and exceeding quality standards

K1 which methods, tools and procedure are applied within the organisation and where they should be applied  
K2 the IS internal quality audit approach  
K3 regulations and standards in energy efficiency and e-waste

S1 illustrate how methods, tools and procedures can be applied to implement the organisations quality policy  
S2 evaluate and analyse process steps to identify strengths and weaknesses  
S3 assist process owners in the choice and use of measures to evaluate effectiveness and efficiency of the overall process  
S4 monitor, understand and act upon quality indicators  
S5 perform quality audits

UPDATE e-CF v 3.0

Implements ICT quality policy to maintain and enhance service and product provision. Plans and defines indicators to manage quality with respect to ICT strategy. Reviews quality **measures** and recommends enhancements to influence continuous quality improvement .

Communicates and monitors application of the organisations quality policy

Evaluates quality management indicators and processes based on ICT quality policy and proposes remedial action

Assesses and estimates the degree to which quality requirements have been met and provides leadership for quality policy implementation. Provides cross functional leadership for setting and exceeding quality standards

K1 which methods, tools and procedure are applied within the organisation and where they should be applied  
K2 the IS internal quality audit approach  
K3 regulations and standards in energy efficiency and e-waste

S1 illustrate how methods, tools and procedures can be applied to implement the organisations quality policy  
S2 evaluate and analyse process steps to identify strengths and weaknesses  
S3 assist process owners in the choice and use of measures to evaluate effectiveness and efficiency of the overall process  
S4 monitor, understand and act upon quality indicators  
S5 perform quality audits

slightly enhanced wording

no change

no change

no change

no change

no change

E.7

**Business Change Management**

Assesses the implications of new IT solutions. Defines the requirements and quantifies the business benefits. Manages the deployment of change taking into account structural and cultural issues. Maintains business and process continuity throughout change, monitoring the impact, taking any required remedial action and refining approach

Evaluates change requirements and exploits specialist skills to identify possible methods and standards that can be deployed

Provides leadership to plan, manage and implement significant IT led business change

Applies pervasive influence to embed organisational change

K1 the implications on business of new ICT solutions  
K2 the implications on organisation and human resources issues of new ICT solutions  
K3 the impact of new ICT solutions on legal issues

S1 analyse costs and benefits of implementing new ICT solutions  
S2 select appropriate ICT solutions based upon benefit, risks and overall impact  
S3 construct and document a plan for implementation of process enhancements  
S4 apply project management standards and tools

UPDATE e-CF v 3.0

Assesses the implications of new **digital** solutions. Defines the requirements and quantifies the business benefits. Manages the deployment of change taking into account structural and cultural issues. Maintains business and process continuity throughout change, monitoring the impact, taking any required remedial action and refining approach.

Evaluates change requirements and exploits specialist skills to identify possible methods and standards that can be deployed

Provides leadership to plan, manage and implement significant **ICT** led business change

Applies pervasive influence to embed organisational change

K1 **digital strategies**  
K2 **the impact of business changes on the organisation and human resources**  
K3 **the impact of business changes on legal issues**

S1 analyse costs and benefits of **business changes**  
S2 select appropriate ICT solutions based upon benefit, risks and overall impact  
S3 construct and document a plan for implementation of process enhancements  
S4 apply project management standards and tools

E - MANAGE

	slightly enhanced wording	no change	ICT instead of IT	no change	enhanced K1, K2, K3 rewording	enhanced S1
<b>E.8 Information Security Management</b>	Implements information security policy. Monitors and takes action against intrusion, fraud and security breaches or leaks. Ensures that security risks are analysed and managed with respect to enterprise data and information. Reviews security incidents and makes recommendations for continuous security enhancement.	Systematically scans the environment to identify and define vulnerabilities and threats. Records and escalates non-compliance	Evaluates security management measures and indicators and decides if compliant to information security policy. Investigates and instigates remedial measures to address any security breaches	Provides leadership for the integrity, confidentiality and availability of data stored on information systems and complies with all legal requirements	K1 the organisations security management policy and its implications for engagement with customers, suppliers and subcontractors K2 the best practices and standards in information security management K3 the critical risks for information security management K4 the IS internal audit approach	S1 document the information security management policy, linking it to business strategy S2 analyse the company critical assets and identify weaknesses and vulnerability to intrusion or attack S3 establish a risk management plan to feed and produce preventative action plans S4 perform security audits
UPDATE e-CF v 3.0	Implements information security policy. Monitors and takes action against intrusion, fraud and security breaches or leaks. Ensures that security risks are analysed and managed with respect to enterprise data and information. Reviews security incidents and , makes recommendations for <b>security policy and strategy to ensure continuous improvement of security provision.</b>	Systematically scans the environment to identify and define vulnerabilities and threats. Records and escalates non-compliance	Evaluates security management measures and indicators and decides if compliant to information security policy. Investigates and instigates remedial measures to address any security breaches	Provides leadership for the integrity, confidentiality and availability of data stored on information systems and complies with all legal requirements	K1 the organisations security management policy and its implications for engagement with customers, suppliers and subcontractors K2 the best practices and standards in information security management K3 the critical risks for information security management K4 the <b>ICT</b> internal audit approach K5 <b>security detection techniques, including mobile and digital</b> K6 <b>cyber attack techniques and counter measures for avoidance</b> K7 <b>computer forensics</b>	S1 document the information security management policy, linking it to business strategy S2 analyse the company critical assets and identify weaknesses and vulnerability to intrusion or attack S3 establish a risk management plan to feed and produce preventative action plans S4 perform security audits <b>S5 apply monitoring and testing techniques</b> <b>S6 establish the recovery plan</b> <b>S7 implement the recovery plan in case of crisis</b>
	enhanced description, better link to D.1. rewording	no change	no change	no change	K4: ICT instead of IS; K5, K6, K7 added S5 added word enhancement	
<b>E.9 IS Governance</b>						

E - MANAGE

Defines, deploys and controls the management of information systems in line with business imperatives. Takes into account all internal and external parameters such as legislation and industry standard compliance to influence risk management and resource deployment to achieve balanced business benefit.

Provides leadership for IT governance strategy by communicating, propagating and controlling relevant processes across the entire IT infrastructure.

Defines and aligns the IT governance strategy incorporating it into the organisations corporate governance strategy. Adapts the IT governance strategy to take into account new significant events arising from legal, economic, political, business or environmental issues.

K1 the IT infrastructure and the business organization  
K2 the business strategy of the company  
K3 the business values  
K4 the legal requirements

S1 manage applicable governance models  
S2 analyse the business context of the company and its evolution  
S3 define and implement appropriate key performance indicators (KPI's)  
S4 communicate the value, risks and opportunities derived from the IS strategy

UPDATE  
e-CF v 3.0

Defines, deploys and controls the management of information systems in line with business imperatives. Takes into account all internal and external parameters such as legislation and industry standard compliance to influence risk management and resource deployment to achieve balanced business benefit.

Provides leadership for IS governance strategy by communicating, propagating and controlling relevant processes across the entire ICT infrastructure.

Defines and aligns the IS governance strategy incorporating it into the organisations corporate governance strategy. Adapts the IS governance strategy to take into account new significant events arising from legal, economic, political, business, technological or environmental issues.

K1 the ICT infrastructure and the business organization  
K2 the business strategy of the company  
K3 the business values  
K4 the legal requirements

S1 manage applicable governance models  
S2 analyse the business context of the company and its evolution  
S3 define and implement appropriate KPI's  
S4 communicate the value, risks and opportunities derived from the IS strategy

enhanced title (IS instead of IT)

IS instead of IT

slightly enhanced wording  
IS instead of IT

K1: ICT instead of IT

no change