European Role Profiles for

Sustainable ICT Functions

e-Jobs-Observatory.eu

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Summary Guide to the European Role Profiles for Sustainable ICT Functions

The present document displays the knowledge, skills and competences required in five currently very common Role Profiles for Sustainable ICT Functions. These profiles have been elaborated with special emphasis on the needs of SMEs at European level. They have been prepared by experts in the identification of ICT Role Profiles after carefully analysing the job market needs from the employers' perspective.

The present document contains Role Profiles for the following Sustainable ICT Functions:

- Sustainable ICT software engineer
- Sustainable ICT infrastructure and operations expert
- Sustainable ICT auditor
- Sustainable ICT consultant
- Sustainable ICT ambassador

The purpose of the Role Profiles for sectorial Functions is to present current demand-driven competences in a format which is easy to understand and to apply.

The methodology used by the e-Jobs Observatory[1] (www.e-jobs-observatory.eu) aims at providing Role Profiles for sectorial Functions that are generated and presented, according to the e-Competence Framework, a European reference framework, developed by the European Standardisation organisations' Working Group on ICT Skills (CEN Working Group on ICT Skills)[2].

Each Role Profile is divided into two sections:

1. **Role description**

   This consists of a table as follows (all entries in italics are explanations for the items listed in the left-hand column):

Role title	***Name of this Role.***
Also known as	***Alternative titles that may be found and used by the market for this Role.***
Relevant professions	***Professions for which this Role is relevant.***

[1] The present set of profiles was developed in the Green IT Node project (GRIN-CH), co-funded by the European Commission, which builds on methodologies developed in previous projects contributing to the e-Jobs Observatory, a cross-stakeholder network, pursuing the objective of improving the market-nearness of trainings for e-jobs.

[2] The CEN Working Group on ICT Skills aims to address e-Skills shortages, gaps and mismatches as well as a persistent digital divide that affects productivity growth, competitiveness, innovation, employment and social cohesion in Europe and supports the employment strategy for ICT, particularly the increase in highly qualified ICT labour and promotion of digital skills across workforce.

Summary statement	***Indicates the main purpose of this Role.***
Mission	***Describes the rationale of the Role.***
Deliverables: Accountable/Responsible/Contributor	***Outlines the activities and their related outputs for which this Role is accountable/responsible/contributor.***
Main task/s	***Lists the main tasks to be performed by this Role.***
Environment	***Brief description of the Role's working environment.***
KPI's	***Indicators that allow measurement of the deliverables of the Role.***

2. Role profile

This section consists of two sub-sections (Profile Summary, Detailed Profile), each comprising a different table. The format of the table of the first sub-section (**Profile Summary**) is as follows:

Profile title			Technical										Behavioural											Managerial							
Area	No.	Competence	importanc	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	M01	M02	M03	M04	M05	M06	M07	M08
Plan	A.1	IS and Business Strategy Alignment																															
	A.2	Service Level Management																															
	A.3	Business Plan Development																															
	A.4	Product or Project Planning																															
	A.5	Architecture Design																															
	A.6	Application Design																															
	A.7	Technology Watching																															
	A.8	Sustainable Development																															
Build	B.1	Design and Development																															
	B.2	Systems Integration																															
	B.3	Testing																															
	B.4	Solution Deployment																															
	B.5	Documentation Production																															
Run	C.1	User Support																															
	C.2	Change Support																															
	C.3	Service Delivery																															
	C.4	Problem Management																															
Enable	D.1	Information Security Strat. Development																															
	D.2	ICT Quality Strategy Development																															
	D.3	Education and Training Provision																															
	D.4	Purchasing																															
	D.5	Sales Proposal Development																															
	D.6	Channel Management																															
	D.7	Sales Management																															
	D.8	Contract Management																															
	D.9	Personnel Development																															
	D.10	Information and Knowledge Management																															
Manage	E.1	Forecast Development																															
	E.2	Project and Portfolio Management																															
	E.3	Risk Management																															
	E.4	Relationship Management																															
	E.5	Process Improvement																															
	E.6	ICT Quality Management																															
	E.7	Business Change Management																															
	E.8	Information Security Management																															
	E.9	IT Governance																															

Has knowledge of netiquette, interactive virtual environments and social networks usage rul	Has knowledge of online usability requirements	Has knowledge of e-reputation management	Can promote and sell products or services online	Can create media elements (audio, graphics, video)	Can draft texts, clearly and concisely, with due regard for orthography and grammar	Can explain how technical improvements add value	Can foresee relevant technical developments	Can assess the impact of relevant standards	Can assess state of the art and best practices	Is innovative, creative, imaginative, artistic	Is ethical	Is precise and aware of details	Is customer oriented	Is committed to corporate strategy and aware of corporate culture	Has good interpersonal skills	Has presentation / moderation skills	Can communicate (including in foreign languages if useful)	Can work in a team	Can seek, measure, organize, synthesize and report	Can analyze (assess, evaluate, critique, test)	Can explain (defend, argue, justify)	Has knowledge of project management principles	Has knowledge of budgeting / estimating issues and practices	Has knowledge of regulatory issues in particular environmental and/or healthcare regulation	Has marketing knowledge	Can lead a team	Can assess the impact of actions / activities	Can foresee latest trends and evolutions in the market	Can resolve conflicts

Structured in four dimensions, the Profile Summary reflects competence levels derived from the European e-Competence Framework (e-CF)[3] and a list of additional skills, including "soft skills":

The e-Competence Framework distinguishes 4 Dimensions:

Dimension 1: reflects five e-Competence areas, derived from ICT business processes PLAN – BUILD – RUN – ENABLE – MANAGE.

Dimension 2: defines a set of e-Competences for each area (36 competences in total).
The relative importance (***= core, **= additional, *= nice to have) of the e-Competences for the specific Role Profile is defined in the next column.

Dimension 3: lists proficiency levels for each e-Competence. The levels provide statements of typical expectations of achievements and abilities associated with qualifications. These derive from the European Qualification Framework[4]. Levels escalate from Level 1 to Level 5, which are related to EQF levels 3 to 8. This aims at offering a more concrete description of each of the e-Competences composing the Role Profile.

Dimension 4: contains additional skills, including "soft skills" which qualify the e-Competences of dimension 2. These additional skills are divided in three categories: technical, behavioural, managerial skills. Each e-Competence is coupled with one or more additional skills. Crosses are used to mark the additional skills that correspond to each e-Competence. This demonstrates that each e-Competence can be fully deployed, only if it is accompanied by additional skills.

The format of the table of the second sub-section (**Detailed Profile**) is as follows:

Dimension 2: e Competences: Title + generic description		
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		

The Detailed Profile consists of several information squares. Each information square is focused on one single e-Competence, as displayed in the specific Role Profile and is structured in three dimensions: the ones displayed on the Profile Summary, plus Dimension 3.

[3] The European e-Competence Framework (e-CF) is a reference framework of 36 ICT practitioner and management competences, classified according to their corresponding ICT business areas, that can be used and understood by ICT user and supply companies, the public sector, educational and social partners across Europe.
[4] The European Qualification Framework is a common European reference system which links different countries' national qualification systems and frameworks together.

Sustainable ICT software engineer

1.1. Role description

Role title	Sustainable ICT software engineer		
Also known as			
Relevant professions			
Summary statement	The Sustainable ICT software engineer designs and builds energy efficient software.		
Mission	To design, develop and maintain software that require less energy by optimizing the different steps of software development from users' requirements aspects to software implementation and use.		
Deliverables	Accountable	Responsible	Contributor
	• Energy-efficient software • Technical KPIs and measurement	• Contribute to the optimization of the environmental footprint of software development projects • Build software that helps users to reduce their negative environmental impact. This may comprise optimization of code, end-user functionalities or usability • Promote standardization, factoring, re-use (component-based-development) and actively contribute to make-or-buy decisions.	• Hardware architecture optimization recommendations • Sustainable ICT Development Roadmap • IT development architecture document
Main task/s	• Include environmental costs in software development projects • Checking users' requirements functionality • Using energy efficient coding techniques • Testing software on load and on requirements from the Sustainable ICT point of view • Maximizing reuse of existing software blocks • Developing code for commonly used infrastructure platforms • Promoting open source • Promoting IT as an environmental enabler in existing process analysis • Advising on make or buy decisions		
Environment	Works within the application development team and has regular contacts with Sustainable ICT and infrastructure efficiency specialists.		
KPI's	• Quantity of Open Source used • Quantity of processes environmentally enabled via Sustainable ICT • Quantity of CO2 saved by using optimized software • Quantity of CO2 saved during project development		

1.2. Role Profile

1.2.1. Profile Summary

Sustainable ICT Software Engineer			Technical										Behavioural												Managerial								
Area	No.	Competence	Importanc	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	M01	M02	M03	M04	M05	M06	M07	M08
Plan	A.1	IS and Business Strategy Alignment	**							X			X					X												X	X			
	A.2	Service Level Management	**							X						X	X												X			X		
	A.3	Business Plan Development	**							X			X	X										X				X				X		
	A.4	Product or Project Planning	***							X						X	X						X				X		X			X		
	A.5	Architecture Design																																
	A.6	Application Design	***										X			X	X						X		X	X						X		
	A.7	Technology Watching	***							X			X												X	X								
	A.8	Sustainable Development	***							X			X	X	X		X								X							X		
Build	B.1	Design and Development	***										X	X			X							X						X				
	B.2	Systems Integration	***														X				X				X									
	B.3	Testing	***												X		X	X																
	B.4	Solution Deployment	***														X	X																
	B.5	Documentation Production	**														X	X																
Run	C.1	User Support																																
	C.2	Change Support	***										X						X			X	X		X	X				X				
	C.3	Service Delivery																																
	C.4	Problem Management	**										X			X	X																	X
Enable	D.1	Information Security Strat. Development																																
	D.2	ICT Quality Strategy Development																																
	D.3	Education and Training Provision	**														X								X									
	D.4	Purchasing																																
	D.5	Sales Proposal Development																																
	D.6	Channel Management																																
	D.7	Sales Management																																
	D.8	Contract Management																																
	D.9	Personnel Development	**														X								X									
	D.10	Information and Knowledge Management	**														X		X			X								X				
Manage	E.1	Forecast Development	***														X								X	X			X					
	E.2	Project and Portfolio Management	***															X							X	X				X				
	E.3	Risk Management																																
	E.4	Relationship Management																																
	E.5	Process Improvement	**										X															X			X			
	E.6	ICT Quality Management																																
	E.7	Business Change Management	***																							X				X				X
	E.8	Information Security Management																																
	E.9	IT Governance																																

Has knowledge of netiquette, interactive virtual environments and social networks usage rul	Has knowledge of online usability requirements	Has knowledge of e-reputation management	Can promote and sell products or services online	Can create media elements (audio, graphics, video)	Can draft texts, clearly and concisely, with due regard for orthography and grammar	Can explain how technical improvements add value	Can forecast relevant technical developments	Can assess the impact of relevant standards	Can assess state of the art and best practices	Is innovative, creative, imaginative, artistic	Is ethical	Is precise and aware of details	Is customer oriented	Is committed to corporate strategy and aware of corporate culture	Has good interpersonal skills	Has presentation / moderation skills	Can communicate (including in foreign languages if useful)	Can work in a team	Can seek, measure, organize, synthesize and report	Can analyse (assess, evaluate, critique, test)	Can explain (defend, argue, justify)	Has knowledge of project management principles	Has knowledge of budgeting / estimating issues and practices	Has knowledge of regulatory issues in particular environmental and/or healthcare regulation	Has marketing knowledge	Can lead a team	Can assess the impact of actions / activities	Can forecast latest trends and evolutions in the market		Can resolve conflicts

1.2.2. Detailed Profile

A. PLAN

A. 1 IS and Business Strategy Alignment

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Software engineer is aware of long term business requirements and is able to implement Sustainable ICT requirements regarding the Information System model as communicated by the upper management. S/He acts as an important interface between the top management and the team. S/He is able to develop and implement strategic and innovative long term business solutions.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Acts as an interface between top management and team, is a driving force in view of developing and implementing strategic and innovative long term business solutions. Can participate in long term strategy development.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture M04: Has marketing knowledge M05: Can lead a team

A.2 Service Level Management

Dimension 2: e-Competences: Title + generic description	S/He takes part to definition of final service level agreements (SLA). Negotiates with the team performance levels taking in account as well needs and capacity of customers and business in order to minimise environmental impact.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership to amend the enterprise strategy with respect to SLA and to reach environmental objectives as well as efficiency objectives. Measures and reports on key Sustainable ICT metrics.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value B03: Is precise and aware of details B04: Is customer oriented M03: Has knowledge of legal, environmental, labour, standard issues M06: Can assess the impact of actions/activities

A.3. Business Plan Development

Dimension 2: e-Competences: Title + generic description	Addresses the design and structure of a business or product plan including the identification of alternative Sustainable ICT approaches as well as return on investment propositions. Considers the possible and applicable sourcing models. Presents cost benefit analysis and reasoned arguments in support of the selected strategy. Ensures compliance with business and technology strategies. Communicates and sells business plan to relevant stakeholders and addresses political, financial, and organisational interests, including SWOT analysis.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership for the creation of an information system strategy that meets the requirements of the business and optimised energy consumption.

	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B01: Is creative and imaginative B10: Can seek, organize and synthesize M02: Has knowledge of budget / estimating issues and practices M06: Can assess the impact of actions/activities

A.4. Product or Project Planning

Dimension 2: e-Competences: Title + generic description	Analyses and defines current and target status. Estimates cost effectiveness, energy efficiency, points of risk, opportunities, strengths and weaknesses, with a critical approach. Creates structured plans; establishes time scales and milestones. Manages change requests impacting the Sustainable ICT quality. Defines delivery quantity and provides an overview of additional documentation requirements. Specifies correct handling of products.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Acts with wide ranging responsibility for software engineering part of the project or product plan. Measures and reports on key Sustainable ICT metrics.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value B03: Is precise and aware of details B04: Is customer oriented B09: Can work in a team M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

A.6. Application design

Dimension 2: e-Competences: Title + generic description	Defines the most suitable ICT solutions in accordance with ICT policy in accordance with user/customer needs. Accurately estimates energy efficiency, development, installation and maintenance of application costs. Selects appropriate technical options for solution design, optimising the balance between cost and quality. Identifies a common reference framework to validate the models with representative users.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Accounts for own and others actions in ensuring that the application is correctly integrated within a complex environment and complies with user/customer needs.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B03: Is precise and aware of details B04: Is customer oriented B09: Can work in a team B11: Can analyse B12: Can explain – imparts/explain technical knowledge to others, has sense of teaching M04:Has marketing knowledge M06: Can assess the impact of actions/activities

A.7. Technology Watching

Dimension 2: e-Competences: Title + generic description	Explores latest ICT technological developments to establish understanding of evolving technologies. Devises innovative solutions for integration of new technology into existing products, applications or services or for the creation of new solutions.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits wide ranging specialist knowledge of new and emerging technologies, coupled with a deep understanding of the business to envision and articulate the solutions of the future. Provides expert guidance and advice to the leadership teams in business and in technology, about potential innovations to support strategic decision-making.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B11: Can analyse B12: Can explain – imparts/explain technical knowledge to others, has sense of teaching

A.8. Sustainable Development

Dimension 2: e-Competences: Title + generic description	Estimates the impact of ICT solutions in terms of eco responsibilities including energy consumption. Advises business and ICT stakeholders on sustainable alternatives that are consistent with the business strategy. Applies an ICT purchasing and sales policy which fulfils eco-responsibilities.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Defines objectives and contributes to the strategy of sustainable IS development in accordance with the organisation's sustainability policy.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B01: Is creative and imaginative B02: Is ethical B03: Is precise and aware of details B11: Can analyse M06: Can assess the impact of actions/activities

B. BUILD

B.1. Design and Development

Dimension 2: e-Competences: Title + generic description	Designs and engineers software and / or hardware components to meet required specifications, including energy efficiency issues. Follows a systematic methodology to analyse and build the required components and interfaces. Performs unit and system testing to ensure requirements are met, including Sustainable ICT -related requirements or constraints.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Handles complexity by developing standard procedures and designs in support of cohesive product development taking into account Sustainable ICT requirements.
	Level 5	

Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B01: Is creative and imaginative B03: Is precise and aware of details B10: Can seek, organise and synthesize M04: Has marketing knowledge

B.2. Systems Integration

Dimension 2: e-Competences: Title + generic description	Installs additional hardware, software or sub system components into an existing or proposed system. Complies with established processes and procedures (e.g. configuration management), taking into account the specification, capacity and compatibility of existing and new modules to ensure integrity and interoperability. Verifies system performance and ensures formal sign off and documentation of successful integration.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits wide ranging specialist knowledge to create a process for the entire integration cycle, including the establishment of internal standards of practice. Provides leadership to marshal and assign resources for software integration activities.
	Level 5	
Dimension 4: Knowledge and Skills		B03: Is precise and aware of details B07: Has presentation / moderation skills B11: Can analyse

B.3. Testing

Dimension 2: e-Competences: Title + generic description	Constructs and executes systematic test procedures for IT systems or customer usability requirements to establish compliance with design specifications. Ensures that new or revised components or systems perform to expectation. Ensures meeting of internal, external, national and international standards; including health and safety, usability, performance, reliability or compatibility. Produces documents and reports to evidence certification requirements.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits specialist knowledge to supervise complex testing programmes. Ensures tests and results are documented to provide input to subsequent process owners such as designers, users or maintainers. Accountable for compliance with testing procedures including a documented audit trail.
	Level 5	
Dimension 4: Knowledge and Skills		B02: Is ethical B03: Is precise and aware of details B04: Is customer oriented

B.4. Solution deployment

Dimension 2: e-Competences: Title + generic description	Following predefined general standards of practice carries out planned necessary interventions to implement solution, including installing, upgrading or decommissioning. Configures hardware, software or network to ensure interoperability of system components and debugs any resultant faults or incompatibilities. Engages additional specialist resources if required, such as third party network providers. Formally hands over fully operational solution to user and completes documentation recording all relevant information, including equipment addressees, configuration and performance data.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	

	Level 3	Accounts for own and others actions within solution provision activities including comprehensive communications with client. Exploits specialist knowledge to influence solution construction. Gives advice on aligning work processes and procedures with software upgrades
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		B03: Is precise and aware of details B04: Is customer oriented

B.5. Documentation Production

Dimension 2: e-Competences: Title + generic description	Produces documents describing products, services, components or applications to establish compliance with relevant documentation requirements. Selects appropriate style and media for presentation materials. Creates templates for document-management systems. Ensures that functions and features are documented in an appropriate way. Ensures that existing documents are valid and up to date.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Adapts the level of detail and accuracy according to the objective of the documentation and the targeted population.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		B03: Is precise and aware of details B04: Is customer oriented

C. RUN

C.2. Change Support

Dimension 2: e-Competences: Title + generic description	Implements and provides guidance for the evolution of an IT solution. Efficiently controls and schedules software or hardware modifications to prevent multiple upgrades creating unpredictable outcomes. Minimises service disruption as a consequence of changes and adheres to defined service level agreement (SLA).	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Ensures the integrity of the system by controlling the application of functional updates, software or hardware additions and maintenance activities. Complies with budget requirements.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B06: Has good interpersonal skills B08: Can communicate effectively B09: Can work in team B11: Can analyse B12: Can explain M04: Has marketing knowledge

C.4 Problem Management

Dimension 2: e-Competences: Title + generic description	Identifies and resolves the root cause of incidents. Takes a proactive approach to the root cause of ICT problems. Deploys a knowledge system based on recurrence of common errors.

Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership and is responsible for the problem management process relative to his scope of work. Schedules and ensures well trained human resources, tools, and diagnostic equipment are available to detect and resolve the root-cause of one or multiple incidents. Has depth of expertise to anticipate critical component failure and makes provision for recovery with minimum downtime. Constructs escalation processes to ensure that appropriate resources can be applied to each incident.
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B03: Is precise and aware of details B04: Is customer oriented M08: Can resolve conflicts

D. ENABLE

D. 3. Education and Training Provision

Dimension 2: e-Competences: Title + generic description	Defines and implements sustainable policy to address organisational skill needs and gaps. Structures, organises and schedules training programmes and evaluates training quality through a feedback process and implements continuous improvement. Adapts training plans to address changing demand.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Acts creatively to analyse skills gaps; elaborates specific requirements and identifies potential sources for training provision. Has specialist knowledge of the training market regarding his scope of activities, and establishes a feedback mechanism to assess the added value of alternative training programmes
	Level 5	
Dimension 4: Knowledge and Skills		B04: Is customer oriented B12: Can explain – imparts/explain technical knowledge to others, has sense of teaching

D. 9. Personnel Development

Dimension 2: e-Competences: Title + generic description	Diagnoses individual and group competence, identifying skill needs and skill gaps. Reviews training and development options and selects appropriate methodology taking into account the needs of the individual and the business. Coaches and/ or mentors individuals and teams to address learning needs.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Takes proactive action and develops organisational processes to address the development needs of individuals, teams and the entire workforce.
	Level 5	
Dimension 4: Knowledge and Skills		B04: Is customer oriented B12: Can explain – imparts/explain technical knowledge to others, has sense of teaching

D. 10. Information and Knowledge Management

Dimension 2: e-Competences: Title + generic description	Identifies and manages structured and unstructured information and considers information distribution policies. Creates information structure to enable exploitation and optimisation of information for business benefit. Understands appropriate tools to be deployed to create, extract, maintain, renew and propagate business knowledge in order to capitalise from the information asset.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Integrates the appropriate information structure into the corporate environment, in order to enable exploitation and optimisation of information for business benefit.
	Level 5	
Dimension 4: Knowledge and Skills		B04: Is customer oriented B06: Has good interpersonal skills B08: Can communicate effectively B12: Can explain – imparts/explain technical knowledge to others, has sense of teaching M05:Can lead a team

E. MANAGE

E. 1. Forecast Development

Dimension 2: e-Competences: Title + generic description	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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	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.
	Level 5	
Dimension 4: Knowledge and Skills		B04: Is customer oriented B12: Can explain – imparts/explain technical knowledge to others, has sense of teaching M01: Has knowledge of project management principles M04: Has marketing knowledge

E. 2. Project and Portfolio Management

Dimension 2: e-Competences: Title + generic description	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 with Sustainable ICT approach 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	

	Level 4	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.
	Level 5	
Dimension 4: Knowledge and Skills		B05: Is committed to corporate strategy and aware of corporate culture B11: Can analyse M01: Has knowledge of project management principles M05: Can lead a team

E.5 Process Improvement

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Engineer measures effectiveness of existing Sustainable ICT processes. Researches and benchmarks Sustainable 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Exploits specialist knowledge to research existing Sustainable ICT processes and solutions in order to define possible innovations. Makes recommendations based on reasoned arguments.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

E. 7. Business Change Management

Dimension 2: e-Competences: Title + generic description	Assesses the implications of new Sustainable ICT 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership to plan, manage and implement significant IT led business change.
	Level 5	
Dimension 4: Knowledge and Skills		M01: Has knowledge of project management principles M05: Can lead a team M08: Can resolve conflicts

2.1. Role description

Role title	Sustainable ICT infrastructure and operations expert		
Also known as			
Relevant professions			
Summary statement	The Sustainable ICT infrastructure and operations expert operates energy efficient IT environments.		
Mission	To contribute to the design, purchase, build and operation of low carbon footprint technologies while increasing the overall efficiency of the IT infrastructure.		
Deliverables	**Accountable**	**Responsible**	**Contributor**
	• Optimized infrastructure efficiency • Technical KPIs and measurement	• Minimize the impact of organization's processes on the environment by applying efficient technologies • Actively look out for new, innovative technical solutions to limit energy consumption and related costs • Align with Finance and Procurement function to assess the financial impact of recommended efficiency improvements and to advice on Sustainable ICT investments in accordance to EU and international legislation	• Sustainable ICT Roadmap • Software architecture optimization recommendations • Infrastructure architecture design document • Sustainable ICT capacity planning
Main task/s	• Assisting IT procurement in purchasing sustainable technologies • Optimizing various data centre components • Implementing virtualization and consolidation • Monitoring infrastructure energy consumption carbon footprint • Evaluating capacity management (servers, storage, network) • Implementing and optimizing energy efficiency infrastructure services • Establishing infrastructure to re-use, recycle, etc. in line with business Sustainable ICT strategy and WEEE (Waste Electrical and Electronic Equipment) compliance		
Environment	Works in the infrastructure and operations department and has regular contacts with IT procurement, IT application development and facilities teams.		
KPI's	• Dashboard measurements data centre • Dashboard measurements IT (not data centre) infrastructure • Percentage greened IT infrastructure components • Number of Green SLA		

2.2. *Role profile*

2.2.1. Profile Summary

Area	Sustainable ICT Infrastructure and Operations expert — No.	Competence	Importance	Technical										Behavioural												Managerial								
				T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	M01	M02	M03	M04	M05	M06	M07	M08	M09
Plan	A.1	IS and Business Strategy Alignment	***							x			x				x	x								x								
	A.2	Service Level Management																																
	A.3	Business Plan Development	***							x			x	x										x	x					x				
	A.4	Product or Project Planning	**							x													x			x		x		x	x			
	A.5	Architecture Design	***							x			x	x		x							x								x			
	A.6	Application Design																																
	A.7	Technology Watching	**							x			x										x							x				
	A.8	Sustainable Development	***							x			x		x	x								x				x			x			
Build	B.1	Design and Development	***												x	x							x											
	B.2	Systems Integration	**													x				x					x									
	B.3	Testing	**													x	x																	
	B.4	Solution Deployment	***													x	x					x												
	B.5	Documentation Production																																
Run	C.1	User Support																																
	C.2	Change Support	***										x					x		x					x									
	C.3	Service Delivery																																
	C.4	Problem Management																																
Enable	D.1	Information Security Strat. Development																																
	D.2	ICT Quality Strategy Development	**							x			x					x						x		x					x			
	D.3	Education and Training Provision	***							x			x		x				x					x	x					x				
	D.4	Purchasing	**							x			x						x					x			x				x			
	D.5	Sales Proposal Development																																
	D.6	Channel Management																																
	D.7	Sales Management																																
	D.8	Contract Management																																
	D.9	Personnel Development	**							x							x	x							x									
	D.10	Information and Knowledge Management																																
Manage	E.1	Forecast Development	***										x				x						x			x			x					
	E.2	Project and Portfolio Management																																
	E.3	Risk Management	**										x					x						x			x							
	E.4	Relationship Management																																
	E.5	Process Improvement	**							x			x										x	x		x				x				
	E.6	ICT Quality Management																																
	E.7	Business Change Management	**															x							x					x			x	
	E.8	Information Security Management																																
	E.9	IT Governance																																

Has knowledge of netiquette, interactive virtual environments and social networks usage rul
Has knowledge of online usability requirements
Has knowledge of e-reputation management
Can promote and sell products or services online
Can create media elements (audio, graphics, video)
Can draft texts, clearly and concisely, with due regard for orthography and grammar
Can explain how technical improvements add value
Can foresee relevant technical developments
Can assess the impact of relevant standards
Can assess state of the art and best practices
Is innovative, creative, imaginative, artistic
Is ethical
Is precise and aware of details
Is customer oriented
Is committed to corporate strategy and aware of corporate culture
Has good interpersonal skills
Has presentation / moderation skills
Can communicate (including in foreign languages if useful)
Can work in a team
Can seek, measure, organize, synthesize and report
Can analyse (assess, evaluate, critique, test)
Can explain (defend, argue, justify)
Has knowledge of project management principles
Has knowledge of budgeting / estimating issues and practices
Has knowledge of regulatory issues in particular environmental and/or healthcare regulation
Has marketing knowledge
Can lead a team
Can assess the impact of actions / activities
Can foresee latest trends and evolutions in the market
Can resolve conflicts

2.2.2. Detailed Profile

A. PLAN

A.1. IS and Business Strategy Alignment

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert anticipates long term business requirements and determines the IS model in line with organisation policy and Sustainable ICT policy. Makes strategic IS policy decisions for the enterprise, including sourcing strategies.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	
	Level 5	Provides IS strategic leadership on infrastructure and operations, to reach consensus and commitment from the management team of the enterprise.
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B04: Is customer oriented B05: Is committed to corporate strategy and aware of corporate culture M01: Has knowledge of project management principles

A.3. Business Plan Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert addresses the design and structure of a business or product plan including the identification of resources optimisation approaches as well as return on investment propositions. Considers the possible and applicable sourcing models. Presents cost benefit analysis and reasoned arguments in support of the selected strategy. Ensures compliance with business and Sustainable ICT technology strategies. Communicates and sells business plan to relevant stakeholders and addresses political, financial, and organisational interests, including SWOT analysis	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership for the creation of an information system strategy that meets the requirements of the business and optimise resources consumption.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B01: Is creative, imaginative, B11: Can analyse (assess, evaluate, critique, test) B12: Can explain (defend, argue, justify) M06: Can assess the impact of actions/activities

A.4. Product or Project Planning

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert analyses and defines current and target status. Estimates cost effectiveness, points of risk, opportunities, strengths and weaknesses, with a critical approach. Creates structure plans; establishes time scales and milestones. Manages change requests. Defines delivery quantity and provides an overview of additional documentation requirements. Specifies correct handling of products.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	

	Level 4	Acts with wide ranging accountability for the infrastructure & operations part of the project or product plan. Measures and reports on key Sustainable ICT metrics.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value B10: Can seek, organize and synthesize M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M05: Can lead a team M06: Can assess the impact of actions/activities

A.5. Architecture Design

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert specifies, refines, updates and makes available a formal approach to implement solutions, necessary to develop and operate the IS architecture in a sustainable way. Manages the relationship with the business stakeholders to ensure that the architecture is in line with business requirements. Identifies the need for change and the components involved; hardware, software, applications, processes, information and technology platform. Ensures that all aspects take account of interoperability, scalability usability and security in accordance to EU environmental legislation or in accordance to valid regulations.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Acts with wide ranging accountability to define the strategy to implement ICT technology compliant with business need. Takes account of the current technology platform, obsolescent equipment and latest technological innovations.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B01: Is creative, imaginative, B03: Is precise and aware of details B10: Can seek, organize and synthesize M06: Can assess the impact of actions/activities

A.7. Technology Watching

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert explores latest ICT and Sustainable ICT technological developments to establish understanding of evolving technologies. Devises innovative solutions for integration of new technology into existing products, applications or services or for the creation of new solutions	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	
	Level 5	Provides strategic leadership regarding infrastructure & operations. Envisions and articulates future solutions and directs the organisation to build and exploit them.
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B10: Can seek, organize and synthesize M05: Can lead a team

A.8. Sustainable Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert estimates the impact of ICT solutions in terms of eco responsibilities including energy consumption. Advises business and ICT stakeholders on sustainable alternatives that are consistent with the business strategy. Applies an ICT purchasing and sales policy which fulfils eco-responsibilities.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Defines objective and strategy of sustainable IS development in accordance with the organisation's sustainability policy.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B02: Is ethical B03: Is precise and aware of details B11: Can analyse (assess, evaluate, critique, test) M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

B. BUILD

B.1. Design and Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert designs and engineers hardware components and architecture to meet required specifications, including energy efficiency issues. Follows a systematic methodology to analyse and build the required components and interfaces. Performs unit and system testing to ensure requirements are met.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Handles complexity by developing standard procedures and architectures in support of cohesive product development.
	Level 5	
Dimension 4: Knowledge and Skills		B02: Is ethical B03: Is precise and aware of details B10: Can seek, organize and synthesize

B.2. Systems Integration

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert installs additional hardware, software or sub system components into an existing or proposed system. Complies with established processes and procedures (e.g. configuration management), taking into account the specification, capacity and compatibility of existing and new modules to ensure integrity and interoperability. Verifies system performance and ensures formal sign off and documentation of successful integration.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits wide ranging specialist knowledge to create a process for the entire integration cycle, including the establishment of internal standards of practice. Provides leadership to marshal and assign resources for programmes of integration.
	Level 5	

Dimension 4: Knowledge and Skills		B03: Is precise and aware of details B07: Has presentation / moderation skills B12: Can explain (defend, argue, justify)

B.3. Testing

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert constructs and executes systematic test procedures for IT systems or customer usability requirements to establish compliance with design specifications. Ensures that new or revised components or systems perform to expectation. Ensures meeting of internal, external, national and international standards; including health and safety, usability, performance, reliability or compatibility. Produces documents and reports to evidence certification requirements.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits wide ranging specialist knowledge to create a process for the testing process, including the establishment of internal standards of practice. Provides leadership to marshal and assign resources for testing activities.
	Level 5	
Dimension 4: Knowledge and Skills		B03: Is precise and aware of details B04: Is customer oriented

B.4. Solution Deployment

Dimension 2: e-Competences: Title + generic description	Following predefined general standards of practice carries including Sustainable ICT process out planned necessary interventions to implement solution, including installing, upgrading or decommissioning. Configures hardware or network to ensure interoperability of system components and debugs any resultant faults or incompatibilities. Engages additional specialist resources if required, such as third party network providers. Formally hands over fully operational solution to user and completes documentation recording all relevant information, including equipment addressees, configuration and performance data	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Accounts for own and others actions within solution provision activities including comprehensive communications with clients. Exploits specialist knowledge to influence solution construction. Gives advice on aligning work processes and procedures regarding infrastructure and operations activities.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		B03: Is precise and aware of details B04: Is customer oriented B09: Can work in a team

C. RUN

C.2 Change Support

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and Operation expert implements and provides guidance for the evolution of an IT solution. Efficiently controls and schedules software or hardware modifications to prevent multiple upgrades creating unpredictable outcomes. Minimises service disruption as a consequence of changes and adheres to defined service level agreement (SLA).	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Ensures the integrity of the system by controlling the application of functional updates, software or hardware additions and maintenance activities. Complies with budget requirements.

	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B06: Has good interpersonal skills B08: Can communicate (including in foreign languages if useful) B12: Can explain (defend, argue, justify)

D. ENABLE

D.2. ICT Quality Strategy Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT infrastructure and operation expert defines, improves and refines a formal strategy to satisfy customer expectations and improve business performance (balance between cost and risks). Identifies critical processes influencing service delivery and product performance for definition in the ICT quality management system (ref D.4). Uses defined standards to formulate objectives for service management, product and process quality. Identifies ICT quality management accountability.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Exploits specialist knowledge and in-depth understanding of the Sustainable ICT infrastructure and operations processes in order to enhance the strategy to optimize service delivery and product performance.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B11: Can analyse (assess, evaluate, critique, test) M01: Has knowledge of project management principles M06: Can assess the impact of actions/activities

D.3. Education and Training Provision

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and operation expert defines and implements ICT training policy to address organisational skill needs and gaps. Structures, organises and schedules training programmes and evaluates training quality through a feedback process and implements continuous improvement. Adapts training plans to address changing demand.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Acts creatively to analyse skills gaps; elaborates specific requirements and identifies potential sources for training provision. Has specialist knowledge of the training market and establishes a feedback mechanism to assess the added value of alternative training programmes.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B02: Is ethical B06: Has good interpersonal skills B12: Can explain (defend, argue, justify) M05:Can lead a team

D.4. Purchasing

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and operation expert applies a consistent procurement procedure, including deployment of the following sub processes: specification requirements, supplier identification, proposal analysis, evaluation of the energy efficiency and environmental compliance of products, suppliers and their processes, contract negotiation, supplier selection and contract placement. Ensures that the entire purchasing process is fit for purpose and adds business value to the organisation.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership for the application of the organisations procurement policies and makes recommendations for process enhancement. Applies experience and procurement practice expertise to make ultimate purchasing decisions.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B06: Has good interpersonal skills B11: Can analyse (assess, evaluate, critique, test) M03: Has knowledge of legal, environmental, labour, standards issues M06: Can assess the impact of actions/activities

D.9. Personnel Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and operation expert diagnoses individual and group competence, identifying skill needs and skill gaps. Reviews training and development options and selects appropriate methodology taking into account the needs of the individual and the business. Coaches and/ or mentors individuals and teams to address learning needs.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Takes proactive action and develops organisational processes to address the development needs of individuals, teams and the entire workforce.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value B04: Is customer oriented B05: Is committed to corporate strategy and aware of corporate culture B12: Can explain (defend, argue, justify)

E. MANAGE

E.1. Forecast Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and operation expert 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Acts with wide ranging accountability for the production of a long-term forecast, relative to infrastructure & operations activities. Understands the global marketplace, identifying and evaluating relevant inputs from the broader business, political and social context.
	Level 5	

Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B04: Is customer oriented B10: Can seek, organize and synthesize M01: Has knowledge of project management principles M04: Has marketing knowledge

E.3. Risk Management

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and operation expert 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	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. Is fully aware of compliance with EU and national rules and regulations, related to Sustainable ICT.
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B11: Can analyse (assess, evaluate, critique, test) M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations

E.5. Process Improvement

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and operation expert measures effectiveness of existing IT processes. Researches and benchmarks IT processes from a variety of sources. Follows a systematic methodology to evaluate, design and implement process or technology changes for measurable business benefit, as well in the business and in a sustainable way. Assesses potential adverse consequences of process change.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership and authorises implementation of innovations and improvements that will enhance competitiveness or efficiency. Demonstrates to senior management the business advantage of potential improvements.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B10: Can seek, organize and synthesize B11: Can analyse (assess, evaluate, critique, test) M01: Has knowledge of project management principles M06: can assess the impact of actions/activities

E.7. Business Change Management

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Infrastructure and operation expert assesses the implications of new Sustainable ICT solutions. Defines the requirements and quantifies the business and environmental 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.	
Dimension 3: e-	Level 1	

Competence proficiency levels	Level 2	
	Level 3	
	Level 4	
	Level 5	Applies pervasive influence to embed organisational change.
Dimension 4: Knowledge and Skills		B05: Is committed to corporate strategy and aware of corporate culture B12: Can explain (defend, argue, justify) M05: Can lead a team M08: Can resolve conflicts

3.1. Role description

Role title	Sustainable ICT auditor		
Also known as			
Relevant professions			
Summary statement	The Sustainable ICT auditor provides independent assurance on the effectiveness of the Sustainable ICT Strategy and/or its implementation.		
Mission	To assist the organization in evaluating and improving their Sustainable ICT strategy by identifying risks and assessing the effectiveness of the internal controls to address these risks. This allows for compliance with Sustainable ICT standards and regulatory requirements.		
Deliverables	**Accountable**	**Responsible**	**Contributor**
	• Audit report with findings and recommendations • Benchmark with peer organizations • KPIs and measurement	• Assess and mitigate the risk exposure towards Sustainable ICT standards and/or regulation • Provide assurance to management that all Sustainable ICT measures reported to the different stakeholders are timely, correct and complete	• Enterprise risk plan • CSR/GRI report • Regulatory reporting
Main task/s	• Audit Sustainable ICT strategy and/or implementation • Contribute to regulatory compliance and/or standards • Measure process effectiveness • Audit IT carbon footprint process • Control alignment between Sustainable ICT and corporate sustainability • Audit Sustainable ICT purchasing policies • Assess Sustainable ICT costs savings		
Environment	Usually works in the risk or internal audit department, in collaboration with IT and facilities management, CSR and finance departments and Sustainable ICT specialists. The Sustainable ICT auditor can work as an external consultant or internally within the company. The role can be combined with the Sustainable ICT consultant.		
KPI's	• Percentage Sustainable ICT risks under control • Degree of conformance with Sustainable ICT standards and regulations • Spread of recommendations on strategic, tactic and operational level		

3.2. *Role profile*

3.1.1. Profile Summary

Sustainable ICT Auditor				Technical										Behavioural												Managerial								
Area	No.	Competence	Importanc	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	M01	M02	M03	M04	M05	M06	M07	M08	
Plan	A.1	IS and Business Strategy Alignment																																
	A.2	Service Level Management																																
	A.3	Business Plan Development																																
	A.4	Product or Project Planning																																
	A.5	Architecture Design																																
	A.6	Application Design																																
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Run	C.1	User Support																																
	C.2	Change Support																																
	C.3	Service Delivery																																
	C.4	Problem Management																																
Enable	D.1	Information Security Strat. Development																																
	D.2	ICT Quality Strategy Development	**							X			X			X	X	X			X		X			X		X		X				
	D.3	Education and Training Provision																																
	D.4	Purchasing																																
	D.5	Sales Proposal Development																																
	D.6	Channel Management																																
	D.7	Sales Management																																
	D.8	Contract Management																																
	D.9	Personnel Development																																
	D.10	Information and Knowledge Management																																
Manage	E.1	Forecast Development																																
	E.2	Project and Portfolio Management																																
	E.3	Risk Management	**										X			X								X		X		X		X				
	E.4	Relationship Management																																
	E.5	Process Improvement	***							X			X				X	X										X		X				
	E.6	ICT Quality Management	**							X			X			X	X							X			X		X		X			X
	E.7	Business Change Management																																
	E.8	Information Security Management																																
	E.9	IT Governance																																

Has knowledge of netiquette, interactive virtual environments and social networks usage rul
Has knowledge of online usability requirements
Has knowledge of e-reputation management
Can promote and sell products or services online
Can create media elements (audio, graphics, video)
Can draft texts, clearly and concisely, with due regard for orthography and grammar
Can explain how technical improvements add value
Can foresee relevant technical developments
Can assess the impact of relevant standards
Can assess state of the art and best practices
Is innovative, creative, imaginative, artistic
Is ethical
Is precise and aware of details
Is customer oriented
Is committed to corporate strategy and aware of corporate culture
Has good interpersonal skills
Has presentation / moderation skills
Can communicate (including in foreign languages if useful)
Can work in a team
Can seek, measure, organize, synthesize and report
Can analyse (assess, evaluate, critique, test)
Can explain (defend, argue, justify)
Has knowledge of project management principles
Has knowledge of budgeting / estimating issues and practices
Has knowledge of regulatory issues in particular environmental and/or healthcare regulation
Has marketing knowledge
Can lead a team
Can assess the impact of actions / activities
Can foresee latest trends and evolutions in the market
Can resolve conflicts

3.1.2. Detailed Profile

D. ENABLE

D.2. ICT Quality Strategy Development

Dimension 2: e-Competences: Title + generic description	Defines, improves and refines a formal strategy to satisfy customer expectations and improve business performance (balance between cost and risks). Identifies critical processes influencing service delivery and product performance for definition in the ICT quality management system (ref D.4). Uses defined standards to formulate objectives for service management, product and process quality. Identifies ICT quality management accountability.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits wide ranging specialist knowledge to leverage and authorise the application of external standards and best practices, in order to contribute to the ICT Quality Strategy.
	Level 5	Provides strategic leadership to embed ICT quality (i.e. metrics and continuous improvement) into the culture of the organisation.
Dimension 4: Knowledge and Skills		T05: Has knowledge about latest Sustainable ICT developments T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B04: Is customer oriented B05: Is committed to corporate strategy and aware of corporate culture B06: Has good interpersonal skills B09: Can work in a team B11: Can analyse (assess, evaluate, critique, test) M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

E. MANAGE

E.3. Risk Management

Dimension 2: e-Competences: Title + generic description	Implements the management of risk across information systems and processes 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Decides on appropriate actions required to adapt security and address risk exposure. Evaluates, manages and ensures validation of exceptions; audits ICT processes and environment.
	Level 4	Is fully aware of compliance with EU and national rules and regulations, related to Sustainable ICT.
	Level 5	
Dimension 4: Knowledge and Skills		T05: Has knowledge about latest Sustainable ICT developments T10: Can assess state of the art and best practices B03: Is precise and aware of details B11: Can analyse (assess, evaluate, critique, test) M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

E.5. Process Improvement

Dimension 2: e-Competences: Title + generic description	Measures effectiveness of existing ICT processes. Researches and benchmarks ICT process design and operation 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Exploits specialist knowledge to research existing ICT processes and solutions in order to define possible innovations. Makes recommendations based on reasoned arguments.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T05: Has knowledge about latest Sustainable ICT developments T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B06: Has good interpersonal skills M04: Has marketing knowledge M06: Can assess the impact of actions/activities

E.6. ICT Quality Management

Dimension 2: e-Competences: Title + generic description	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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	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.
	Level 5	
Dimension 4: Knowledge and Skills		T05: Has knowledge about latest Sustainable ICT developments T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B03: Is precise and aware of details B05: Is committed to corporate strategy and aware of corporate culture B11: Can analyse (assess, evaluate, critique, test) M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities M08: Can resolve conflicts

4.1. Role description

Role title	Sustainable ICT consultant		
Also known as			
Relevant professions			
Summary statement	The Sustainable ICT consultant advices organizations on their Sustainable ICT strategy and the way this strategy can be implemented in the most effective and efficient manner.		
Mission	To deliver to organizations advice, based on a consistent, repeatable and measurable model of best practices. This should allow the organization to reach their short, mid and long term IT environmental objectives.		
Deliverables	**Accountable**	**Responsible**	**Contributor**
	• Provide advice, resulting in the following deliverables • Maturity level report • Roadmap As-Is to To-Be • Sustainable ICT project portfolio • KPIs and measurement	• Deliver environmental and financial results by providing advice on the content and implementation of a successful Sustainable ICT strategy • Address risks towards environmental compliance and standards	• CSR/GRI report • Communication plans • IT strategy • IT policies • Sustainable ICT Governance (assisting decision makers)
Main task/s	• Assessing maturity levels related to Sustainable ICT • Defining strategy, goals, measurements etc. • Defining roadmaps and providing assistance in the implementation thereof • Supporting internal and external communication plans • Supporting IT procurement team • Monitoring compliance with standards and regulations on Sustainable ICT		
Environment	Usually works independently in close collaboration with the IT, facilities, communication, HR, procurement and CSR departments. The Sustainable ICT consultant can work as an external consultant or internally within the company. The role can be combined with the Sustainable ICT auditor.		
KPI's	• Percentage recommendations accepted by management • Spread of recommendations on strategic, tactic and operational level • Percentage Sustainable ICT projects delivered in time, within budget, within scope and within according to quality requirements • Percentage of policies related to environmental regulations		

4.2. Role profile

4.2.1. Profile Summary

Sustainable ICT Consultant			Importanc	Technical										Behavioural												Managerial									
Area	No.	Competence		T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	M01	M02	M03	M04	M05	M06	M07	M08	M09	M10
Plan	A.1	IS and Business Strategy Alignment	*							x			x				x									x		x		x		x			
	A.2	Service Level Management																																	
	A.3	Business Plan Development	**							x			x	x				x								x		x				x			
	A.4	Product or Project Planning	***							x			x				x						x			x		x				x			
	A.5	Architecture Design	**										x	x		x							x												
	A.6	Application Design	*										x			x	x						x												
	A.7	Technology Watching	***							x			x										x	x			x								
	A.8	Sustainable Development	***							x			x		x									x	x			x				x			
Build	B.1	Design and Development																																	
	B.2	Systems Integration																																	
	B.3	Testing																																	
	B.4	Solution Deployment																																	
	B.5	Documentation Production																																	
Run	C.1	User Support																																	
	C.2	Change Support	***										x	x				x							x										
	C.3	Service Delivery																																	
	C.4	Problem Management																																	
Enable	D.1	Information Security Strat. Development																																	
	D.2	ICT Quality Strategy Development																																	
	D.3	Education and Training Provision	***							x			x					x	x					x		x		x				x			
	D.4	Purchasing																																	
	D.5	Sales Proposal Development																																	
	D.6	Channel Management																																	
	D.7	Sales Management																																	
	D.8	Contract Management																																	
	D.9	Personnel Development																																	
	D.10	Information and Knowledge Management	***							x			x										x	x							x				
Manage	E.1	Forecast Development	***							x			x				x								x	x		x			x				
	E.2	Project and Portfolio Management	**										x					x		x						x		x				x			
	E.3	Risk Management																																	
	E.4	Relationship Management																																	
	E.5	Process Improvement	***										x					x		x						x		x				x			
	E.6	ICT Quality Management																																	
	E.7	Business Change Management	***							x			x					x		x							x	x						x	
	E.8	Information Security Management																																	
	E.9	IT Governance																																	

	Has knowledge of netiquette, interactive virtual environments and social networks usage rul	Has knowledge of online usability requirements	Has knowledge of e-reputation management	Can promote and sell products or services online	Can create media elements (audio, graphics, video)	Can draft texts, clearly and concisely, with due regard for orthography and grammar	Can explain how technical improvements add value	Can foresee relevant technical developments	Can assess the impact of relevant standards	Can assess state of the art and best practices	Is innovative, creative, imaginative, artistic	Is ethical	Is precise and aware of details	Is customer oriented	Is committed to corporate strategy and aware of corporate culture	Has good interpersonal skills	Has presentation / moderation skills	Can communicate (including in foreign languages if useful)	Can work in a team	Can seek, measure, organize, synthesize and report	Can analyse (assess, evaluate, critique, test)	Can explain (defend, argue, justify)	Has knowledge of project management principles	Has knowledge of budgeting / estimating issues and practices	Has knowledge of regulatory issues in particular environmental and/or healthcare regulation	Has marketing knowledge	Can lead a team	Can assess the impact of actions / activities	Can foresee latest trends and evolutions in the market	Can resolve conflicts
Sustainable ICT Consultant																														

4.2.2. Detailed Profile

A.PLAN

A.1. IS and Business Strategy Alignment

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant anticipates long term business requirements and determines the IS model in line with the organisation's Sustainable ICT policy.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	
	Level 5	Provides Sustainable ICT strategic advice to reach consensus and commitment from the management team of the enterprise.
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B04: Is customer oriented M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M05: Can lead a team M06: Can assess the impact of actions/activities

A.3. Business Plan Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant addresses the design and structure of a business or product plan from a Sustainable ICT point of view including the identification of alternative approaches as well as return on investment propositions. Considers the possible and applicable sourcing models. Presents cost benefit analysis and reasoned arguments in support of the selected strategy. Ensures compliance with business and technology strategies. Communicates and sells business plan to relevant stakeholders and addresses political, financial, and organisational interests, including SWOT analysis.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides advice for the creation of an information system strategy that meets the requirements of the business and is aligned with the Sustainable ICT strategy.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B01: Is creative, imaginative, B05: Is committed to corporate strategy and aware of corporate culture M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

A.4. Product or Project Planning

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant analyses and defines current and target status. Estimates cost effectiveness, points of risk, opportunities, strengths and weaknesses, with a critical approach. Creates structure plans; establishes time scales and milestones. Manages change requests. Defines delivery quantity and provides an overview of additional documentation requirements. Specifies correct handling of products.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides independent advice on the project or product plan. Measures and reports on key Sustainable ICT metrics.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B04: Is customer oriented B10: Can seek, organize and synthesize M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

A.5. Architecture Design

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant specifies, refines, updates and makes available a formal approach to implement solutions, necessary to develop and operate the IS architecture. Manages the relationship with the business stakeholders to ensure that the architecture is in line with business requirements. Identifies the need for change and the components involved; hardware, software, applications, processes, information and technology platform. Ensures that all aspects take account of interoperability, scalability usability and security	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides advice to define the strategy to implement ICT technology compliant with business needs. Takes account of the current technology platform, obsolescent equipment and latest technological innovations.
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B01: Is creative, imaginative, B03: Is precise and aware of details B10: Can seek, organize and synthesize

A.6. Application Design

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant defines the most suitable ICT solutions in accordance with ICT policy and user/customer needs. Accurately estimates development, installation and maintenance of application costs. Selects appropriate technical options for solution design, optimising the balance between cost and quality. Identifies a common reference framework to validate the models with representative users.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides advice to define the strategy to implement ICT, compliant with business needs. Takes account of the current technology platform, obsolescent equipment and latest technological innovations.
	Level 5	

Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B03: Is precise and aware of details B04: Is customer oriented B10: Can seek, organize and synthesize

A.7. Technology Watching

Dimension 2: e-Competences: Title + generic description	Explores latest ICT technological developments to establish understanding of evolving technologies. Devises innovative solutions for integration of new technology into existing products, applications or services or for the creation of new solutions	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	
	Level 5	Provides strategic advice. Envisions and articulates future solutions and (indirectly) directs the organisation to build and exploit them.
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B10: Can seek, organize and synthesize B11: Can analyse (assess, evaluate, critique, test) M02: Has knowledge of budgeting / estimating issues and practices

A.8. Sustainable Development

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant estimates the impact of ICT solutions in terms of eco responsibilities including energy consumption. Advises business and ICT stakeholders on sustainable alternatives that are consistent with the business strategy. Provides advice on an ICT purchasing and sales policy which fulfils eco-responsibilities.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides advice on the definition of objectives and strategy of sustainable development in accordance with the organisation's sustainability policy.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B02: Is ethical B11: Can analyse (assess, evaluate, critique, test) B12: Can explain (defend, argue, justify) M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

C. RUN

C.2. Change Support

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant implements and provides guidance for the evolution of an IT solution. He/she also provides advice on controls and scheduling of software or hardware modifications to prevent multiple simultaneous upgrades, creating unpredictable outcomes. Advises on how to minimise service disruption as a consequence of changes and adheres to defined service level agreement (SLA)	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	

	Level 3	Provides advice on how to ensure the integrity of the system by controlling the application of functional updates, software or hardware additions and maintenance activities, and how to comply with budget requirements.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B01: Is creative, imaginative, B06: Has good interpersonal skills B12: Can explain (defend, argue, justify)

D. ENABLE

D.3. Education and Training Provision

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant defines and implements ICT training policy to address organisational skill needs and gaps. Structures, organises and schedules training programmes and evaluates training quality through a feedback process and implements continuous improvement. Adapts training plans to address changing demand	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	Acts creatively to analyse skills gaps; elaborates specific requirements and identifies potential sources for training provision. Has specialist knowledge of the training market and establishes a feedback mechanism to assess the added value of alternative training programmes.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B06: Has good interpersonal skills B11: Can analyse (assess, evaluate, critique, test) M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

D.10. Information and Knowledge Management

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant identifies and manages structured and unstructured information and considers information distribution policies. Creates information structure to enable exploitation and optimisation of information for business benefit. Understands appropriate tools to be deployed to create, extract, maintain, renew and propagate business knowledge in order to capitalise from the information asset.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	
	Level 5	Correlates information and knowledge to create value for the business. Applies innovative solutions based on information retrieved.
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B09: Can work in a team B10: Can seek, organize and synthesize M05: Can lead a team M06: Can assess the impact of actions/activities

E. MANAGE

E.1 Forecast Development

Dimension 2: e-Competences: Title + generic description	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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides advice 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.
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B04: Is customer oriented B11: Can analyse (assess, evaluate, critique, test) M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

E.2 Project and Portfolio Management

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant designs 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	
	Level 5	Provides strategic leadership for extensive interrelated programmes of work to ensure that Information Technology is a change, delivering benefit in line with overall business strategic aims. Applies extensive business and technological mastery to conceive and bring innovative ideas to fruition.
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B07: Has presentation / moderation skills M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

E.5 Process Improvement

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Consultant measures effectiveness of existing Sustainable ICT processes. Researches and benchmarks Sustainable 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.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	

	Level 3	Exploits specialist knowledge to research existing Sustainable ICT processes and solutions in order to define possible innovations. Makes recommendations based on reasoned arguments.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B07: Has presentation / moderation skills M01: Has knowledge of project management principles M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations M06: Can assess the impact of actions/activities

E.7. Business Change Management

Dimension 2: e-Competences: Title + generic description	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	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides advice to plan, manage and implement significant IT led business change.
	Level 5	Applies pervasive influence to imbed organisational change.
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B07: Has presentation / moderation skills B13: deleted M02: Has knowledge of budgeting / estimating issues and practices M03: Has knowledge of legal, environmental, labour, standards issues M08: Can resolve conflicts

5.1. Role description

Role title	Sustainable ICT ambassador		
Also known as	Sustainable ICT Communication Sponsor / Sustainable ICT enabler		
Relevant professions			
Summary statement	The Sustainable ICT ambassador actively promotes Sustainable ICT initiatives within the organization.		
Mission	To spread sustainable ICT best practices and policy messages amongst employees. The Sustainable ICT ambassador is there to facilitate the implementation and support the communication of Sustainable ICT. Of paramount importance is to be able to persuade her/his manager and peers to agree with the need to adopt a Sustainable ICT approach.		
Deliverables	**Accountable**	**Responsible**	**Contributor**
	• Feedback reports • Survey reports • Awareness documents	• Ensure smooth and effective communication on Sustainable ICT within the organization • Ensure the various stakeholders are actively involved in the deployment of the Sustainable ICT strategy • Provide timely feedback on the implementation and effective perception of the various Sustainable ICT initiatives • Monitor the implementation plan, as defined in the Sustainable ICT Roadmap	• Communication plans • Sustainable ICT Roadmap • CSR/GRI reports
Main task/s	• Gathering feedback, criticisms and suggestions for improvement • Organizing ad-hoc surveys • Support internal and external communication • Organize awareness sessions (online, offline) • Act as key point of contact for Sustainable ICT matters		
Environment	Usually works with an informal team of CSR, communication, Sustainable ICT and HR professionals. The Sustainable ICT ambassador role can be a part-time role and may be easily combined with another role.		
KPI's	• Percentage of employees aware of Sustainable ICT • Percentage of employees, actively involved in Sustainable ICT • Percentage of action points, actively followed up • Number of internal or public posts/articles referring to the company's support for Sustainable ICT		

5.2. *Role profile*

5.2.1. Profile Summary

Sustainable ICT Ambassador			Technical										Behavioural												Managerial							
Area	No.	Competence	Importanc	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	M01	M02	M03	M04	M05	M06	M07	M08
Plan	A.1	IS and Business Strategy Alignment																															
	A.2	Service Level Management																															
	A.3	Business Plan Development																															
	A.4	Product or Project Planning																															
	A.5	Architecture Design																															
	A.6	Application Design																															
	A.7	Technology Watching																															
	A.8	Sustainable Development																															
Build	B.1	Design and Development																															
	B.2	Systems Integration																															
	B.3	Testing																															
	B.4	Solution Deployment																															
	B.5	Documentation Production																															
Run	C.1	User Support																															
	C.2	Change Support																															
	C.3	Service Delivery																															
	C.4	Problem Management																															
Enable	D.1	Information Security Strat. Development																															
	D.2	ICT Quality Strategy Development																															
	D.3	Education and Training Provision	...							x			x	X	X					X						X			x				
	D.4	Purchasing																															
	D.5	Sales Proposal Development																															
	D.6	Channel Management																															
	D.7	Sales Management																															
	D.8	Contract Management																															
	D.9	Personnel Development	...							x			x					X					X			X			x				
	D.10	Information and Knowledge Management																															
Manage	E.1	Forecast Development																															
	E.2	Project and Portfolio Management																															
	E.3	Risk Management																															
	E.4	Relationship Management																															
	E.5	Process Improvement																															
	E.6	ICT Quality Management																															
	E.7	Business Change Management																															
	E.8	Information Security Management																															
	E.9	IT Governance																															

Has knowledge of netiquette, interactive virtual environments and social networks usage rul	Has knowledge of online usability requirements	Has knowledge of e-reputation management	Can promote and sell products or services online	Can create media elements (audio, graphics, video)	Can draft texts, clearly and concisely, with due regard for orthography and grammar	Can explain how technical improvements add value	Can foresee relevant technical developments	Can assess the impact of relevant standards	Can assess state of the art and best practices	Is innovative, creative, imaginative, artistic	Is ethical	Is precise and aware of details	Is customer oriented	Is committed to corporate strategy and aware of corporate culture	Has good interpersonal skills	Has presentation / moderation skills	Can communicate (including in foreign languages if useful)	Can work in a team	Can seek, measure, organize, synthesize and report	Can analyse (assess, evaluate, critique, test)	Can explain (defend, argue, justify)	Has knowledge of project management principles	Has knowledge of budgeting / estimating issues and practices	Has knowledge of regulatory issues in particular environmental and/or healthcare regulation	Has marketing knowledge	Can lead a team	Can assess the impact of actions / activities	Can foresee latest trends and evolutions in the market	Can resolve conflicts

5.2.2. Detailed Profile

D. ENABLE

D.3 Education and Training Provision

Dimension 2: e-Competences: Title + generic description	The Sustainable ICT Ambassador defines and implements ICT training policy to address organisational skill needs and gaps. Structures, organises and schedules training programmes and evaluates training quality through a feedback process and implements continuous improvement. Adapts training plans to address changing demand.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	Organises the identification of training needs; collates organisational requirements, identifies, selects and prepares schedule of training interventions.
	Level 3	Acts creatively to analyse skills gaps; elaborates specific requirements and identifies potential sources for training provision. Has specialist knowledge of the training market and establishes a feedback mechanism to assess the added value of alternative training programmes.
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B01: Is creative, imaginative, B02: Is ethical B07: Has presentation / moderation skills B12: Can explain (defend, argue, justify) M03: Has knowledge of regulatory issues in particular environmental and/or healthcare regulations

D.9. Personnel Development

Dimension 2: e-Competences: Title + generic description	Diagnoses individual and group competence, identifying skill needs and skill gaps. Reviews training and development options and selects appropriate methodology taking into account the needs of the individual and the business. Coaches and / or mentors individuals and teams to address learning needs.	
Dimension 3: e-Competence proficiency levels	Level 1	
	Level 2	Briefs / trains individuals and groups, holds courses of instruction.
	Level 3	
	Level 4	
	Level 5	
Dimension 4: Knowledge and Skills		T07: Can explain how technical improvements add value T10: Can assess state of the art and best practices B05: Is committed to corporate strategy and aware of corporate culture B09: Can work in a team B12: Can explain (defend, argue, justify) M03: Has knowledge of legal, environmental, labour, standards issues

The e-Jobs Observatory is the collaborative platform for the promotion of excellence in e-Jobs, e-Skills and e-Competences

http://www.e-jobs-observatory.eu
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