

Role title	Cultural ICT Consultant		
Also known as	Cultural ICT Ambassador / Cultural ICT Advisor/ Cultural ICT Specialist		
Relevant professions			
Summary statement	Analyses museums' or other cultural institutions', such as galleries, archives, libraries, etc. (hereinafter referred to only as museums), and visitors' needs, defines and specifies solution requirements and evaluates installed solutions.		
Mission	To identify the best-suited solutions, according to the museums' and visitors' needs, requirements and financial resources and deliver advice on how new technologies can enhance collections and make them more attractive to all types of visitors on- and off-line, but also attract new audiences and ensure their return.		
Deliverables	Accountable for	Responsible for	Contributor to
	<p>Provision of advice on the development of an ICT strategy, which will benefit both the museum and the visitors.</p> <p>Development of guidelines for the implementation of this strategy in the most effective and efficient manner.</p> <p>Evaluation of customer needs.</p> <p>Advice on selection of adequate products and services.</p>	<p>Solution specifications.</p> <p>Liaising between ICT providers and museum staff.</p>	<p>Market analysis.</p> <p>User requirements.</p> <p>Suggestion of relevant ICT products/services.</p> <p>Quality control.</p> <p>Assessment of ethical issues.</p>
Main task/s	<p>Related to museums' and visitors' needs:</p> <ul style="list-style-type: none"> To analyse the market, identify market needs and user requirements. To evaluate museums' and visitors' needs and formulate 		

	<p>options.</p> <ul style="list-style-type: none"> • To interface technology and museum needs. • To understand the expectations of museums and visitors. • To foresee the impact of technological solutions that will meet the needs of the internal teams s/he works with, as well as of the visitors. <p>Related to the provision of advices on the ICT strategy and solutions:</p> <ul style="list-style-type: none"> • To advise on the elaboration of the institution’s ICT strategy. • To plan time, cost and quality of the designed and specified solution including ROI of any technologies. • To raise awareness on information technology innovations and potential value to a business. • To engage museums in the adoption of new technologies for improved access to cultural heritage. • To remain informed of new and emerging technologies and systems. • To provide advice on the selection of products and solutions. • To advise on the preparation and negotiation of contracts with suppliers. • To advise on compliance with standards and regulations on ICT. • To provide advice on how to optimize the use of existing tools and systems. • To communicate with museums, staff and technology providers. • To act as a relay between ICT providers/commercial service providers and museums.
<p>Environment</p>	<p>Works as an external consultant or internally within the museum. Is at the crossroad of the museum management team, permanent or temporary exhibitions curators, communication and marketing team (incl. web services) and visitor services team.</p>
<p>KPI’s</p>	<ul style="list-style-type: none"> • Percentage of recommendations accepted by management. • Spread of recommendations on strategic, tactical and operational level. • Percentage of projects delivered on time, within budget, within scope and according to quality requirements. • Increased interest on the museum on- and off-line. • Promotion of museums as a showcase of effective use of new technologies.

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	A.1. IS and Business Strategy Alignment Anticipates long term business requirements, linked to the museum's ICT strategy, and influences improvement of organisational process efficiency and effectiveness. Suggests strategic IS policy decisions to the museum decision makers. <i>Formulating IS strategy is one of the crucial functions of ICT Consultant, since museum general managers often don't have the necessary knowledge to make informed decisions.</i>	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership for the construction and implementation of long term innovative IS solutions.
	Level 5	Provides IS strategic leadership to reach consensus and commitment from the management team of the museum.
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 business strategy concepts K2 trends and implications of ICT internal or external developments for museums K3 the potential and opportunities of relevant business models K4 the business aims and organisational objectives K5 the issues and implications of sourcing models K6 the new emerging technologies (e.g. distributed systems, virtualisation, mobility, data sets) K7 architectural frameworks K8 how business processes are integrated and their dependency upon ICT applications K9 ethical issues K10 museum and visitor needs	
Skills examples <i>Is able to</i>	S1 analyse future developments in business process and technology application S2 determine requirements for processes related to ICT services S3 identify and analyse long term museum/visitor needs S4 contribute to the development of ICT strategy and policy, including ICT security and quality S5 contribute to the development of the museum's strategy S6 analyse feasibility in terms of costs and benefits S7 review and analyse effects of implementations S8 understand the impact of new technologies on museum's business (e.g. open / big data, dematerialization opportunities and strategies) S9 understand the museum's business benefits of new technologies and how this can add value and provide competitive advantage (e.g. open / big data, dematerialisation opportunities and strategies) S10 understand the museum architecture S11 understand the legal & regulatory landscape in order to factor into business requirements S12 demonstrate a high degree of interpersonal skills S13 explain (defend, argue, justify) S14 lead a team S15 resolve conflicts	
Dimension 1 e-Comp. area	A. PLAN	

Dimension 2 e-Competence: Title + generic description	A.2. Service Level Management Advises on the definition, validation and applicability of service level agreements (SLAs) and underpinning contracts for services offered upon implementation of the museum's ICT strategy. Negotiates service performance levels taking into account the needs and capacity of stakeholders (visitors, colleagues, educational institution representatives, Cultural Heritage professionals, donors, decision makers, etc.) and museum.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	Ensures the content of the SLA.
	Level 4	Negotiates revision of SLAs, in accordance with the overall objectives. Ensures the achievement of planned results.
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 SLA documentation K2 how to compare and interpret management data K3 the elements forming the metrics of service level agreements K4 how service delivery infrastructures work K5 impact of service level non-compliance on museum's business performance K6 ICT security standards K7 ICT quality standards	
Skills examples <i>Is able to</i>	S1 analyse service provision records S2 evaluate service provision against SLA S3 negotiate realistic service level targets S4 use relevant quality management techniques S5 anticipate and mitigate against potential service disruptions S6 be precise and aware of details	

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	A.3. Business Plan Development Provides advice on the design and structure of solutions supporting the museum's ICT strategy, 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 museum and technology strategies. Uses a marketing plan to negotiate with ICT providers.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	
	Level 4	Provides leadership for the creation of an information system strategy that meets the requirements of the museum and its staff and the needs of the visitor/user (e.g. distributed, mobility-based) and includes risks and opportunities. Suggests modifications to the IS strategy to include appropriate preventative and contingent action.
	Level 5	Applies strategic thinking and organisational leadership to exploit the capability of Information Technology to meet the business goals of the museum.

<p>Dimension 4</p> <p>Knowledge examples</p> <p><i>Knows/Aware of/Familiar with</i></p>	<p>K1 business plan elements and milestones</p> <p>K2 the present and future market size and needs</p> <p>K3 competition and SWOT analysis techniques (for product features and also the external environment)</p> <p>K4 value creation channels</p> <p>K5 profitability elements</p> <p>K6 the issues and implications of sourcing models</p> <p>K7 financial planning and dynamic</p> <p>K8 new emerging technologies</p> <p>K9 risk and opportunity assessment techniques</p>
<p>Skills examples</p> <p><i>Is able to</i></p>	<p>S1 address and identify essential elements of product or solution value propositions</p> <p>S2 define the appropriate value creation channels</p> <p>S3 build a detailed SWOT analysis</p> <p>S4 generate short and long term performance reports (e.g. financial, profitability, usage and value creation)</p> <p>S5 identify main milestones of the plan</p> <p>S6 explain (defend, argue, justify)</p> <p>S7 lead a team</p> <p>S8 resolve conflicts</p> <p>S9 demonstrate a high degree of interpersonal skills</p>

<p>Dimension 1</p> <p>e-Comp. area</p>	A. PLAN	
<p>Dimension 2</p> <p>e-Competence: Title + generic description</p>	<p>A.4. Product / Service Planning</p> <p>Analyses and defines target status. Estimates cost effectiveness, points of risk, opportunities, strengths and weaknesses, with a critical approach, based on the museum's own interpretation of readiness for deploying ICT. Creates structured plans; establishes time scales and milestones, ensuring optimisation of activities and resources. Propose change requests. Defines delivery quantity and provides an overview of additional documentation requirements. Specifies correct handling of products, including legal issues, in accordance with current regulations.</p>	
<p>Dimension 3</p> <p>e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8</p>	Level 1	
	Level 2	Acts systematically to document standard and simple elements of a product.
	Level 3	
	Level 4	Provides leadership and takes responsibility for, developing and maintaining overall plans.
	Level 5	
<p>Dimension 4</p> <p>Knowledge examples</p> <p><i>Knows/Aware of/Familiar with</i></p>	<p>K1 effective frameworks and methodologies for governance plans</p> <p>K2 typical KPI (key performance indicators)</p> <p>K3 basic decision-making methods</p> <p>K4 IPR principles and regulation</p> <p>K5 structured Project Management Methodologies (e.g. agile techniques)</p> <p>K6 optimisation methods (e.g. lean management)</p> <p>K7 new emerging technologies</p>	

Skills examples <i>Is able to</i>	S1 identify all potential targets for the product or service S2 produce quality plans S3 ensure and manage adequate information for decision makers S4 provide the change request process S5 manage the product / service development management lifecycle (inclusive of the formal change request process) S6 be precise and aware of details S7 lead a team S8 demonstrate a high degree of interpersonal skills
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Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	A.7. Technology Trend Monitoring Investigates latest ICT technological developments to establish understanding of evolving technologies that could be deployed in museums. 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 e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits wide ranging specialist knowledge of new and emerging technologies that could be deployed in museums, coupled with a deep understanding of the museum business, to envision and articulate solutions for the future. Provides expert guidance and advice, to the leadership team to support strategic decision-making.
	Level 5	Makes strategic decisions envisioning and articulating future ICT solutions for museum/visitor needs oriented processes, new business products and services; directs the museum to build and exploit them.
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 emerging technologies and the relevant market applications K2 museum and visitor needs K3 relevant sources of information (e.g. magazines, conferences and events, newsletters, opinion leaders, on-line forum, etc.) K4 applied research programme approaches	
Skills examples <i>Is able to</i>	S1 monitor sources of information and continuously follow the most promising S2 identify vendors and providers of the most promising solutions; evaluate, justify and propose the most appropriate. S3 identify museum business advantages and improvements of adopting emerging technologies S5 match museum and visitor needs with existing products S6 identify museum advantages and improvements of adopting emerging technologies	

Dimension 1 e-Comp. area	A. PLAN
Dimension 2 e-Competence: Title	A.8. Sustainable Development Estimates the impact of ICT solutions used for the implementation of the museum's ICT strategy in terms of eco responsibilities including energy consumption. Advises different museum teams,

+ generic description	e.g. content, education and ICT, marketing, communication, etc. on sustainable alternatives that are consistent with the museum's business strategy. Provides advice on an ICT purchasing and sales policy which fulfils eco-responsibilities.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	Promotes awareness, training and commitment for the deployment of sustainable development and applies the necessary tools for piloting this approach.
	Level 4	Defines objective and strategy of sustainable IS development in accordance with the museum's sustainability policy.
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 metrics and indicators related to sustainable development K2 corporate social responsibility (CSR) of stakeholders within the IS infrastructure	
Skills examples <i>Is able to</i>	S1 monitor and measure the ICT energy consumption S2 apply recommendations in projects to support latest sustainable development strategies S3 master regulatory constraints and international standards related to ICT sustainability S4 demonstrate a high degree of interpersonal skills S5 explain (defend, argue, justify)	

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	A.9. Innovating Devises creative solutions for the provision of new concepts, ideas, products or services that could add value to the museum and entertain the visitor. Deploys novel and open thinking to envision exploitation of technological advances to address business / society / market / visitors needs or research direction.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	
	Level 4	Applies independent thinking and technology awareness to lead the integration of disparate concepts for the provision of unique solutions.
	Level 5	Makes recommendations for changes to the ICT strategy of the museum, as a result of information acquired through evaluation and benchmarking studies. Challenges the status quo and provides strategic leadership for the introduction of revolutionary concepts.
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 existing and emerging technologies and market applications K2 business, society and / or research habits, trends and needs K3 innovation processes techniques K4 museum and visitor needs	

Skills examples <i>Is able to</i>	S1 identify business advantages and improvements of adopting emerging technologies S2 create a proof of concept S3 think out of the box S4 identify appropriate resources S5 apply/transfer innovative technological solutions to museums S6 explain (defend, argue, justify) S7 match museum and visitor needs with existing products S8 demonstrate a high degree of interpersonal skills
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Dimension 1 e-Comp. area	C. RUN	
Dimension 2 e-Competence: Title + generic description	C.2. Change Support Implements and provides guidance on the evolution of an ICT solution that meets the museum and visitor needs. Provides advice on control and scheduling of software or hardware modifications to prevent multiple upgrades creating unpredictable outcomes. Advises on how to minimise service disruption as a consequence of changes and adheres to defined service level agreement (SLA). Ensures consideration and compliance with information security procedures.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	During change, acts systematically to respond to day by day operational needs and react to them, avoiding service disruptions and maintaining coherence to (SLA) and information security requirements.
	Level 3	Provides advice on how to ensures the integrity of the system by controlling the application of functional updates, software or hardware additions and maintenance activities-, while at the same time complying with budget requirements.
	Level 4	
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 functional specifications of the information system K2 the existing ICT application technical architecture K3 how business processes are integrated and their dependency upon ICT applications K4 change management tools and technique K5 the best practices and standards in information security management K6 evaluation, design and implementation methodologies	
Skills examples <i>Is able to</i>	S1 share functional and technical specifications with ICT teams in charge of the maintenance and evolution of ICT solutions S2 manage communications with ICT teams in charge of the maintenance and the evolution of information systems solutions S3 anticipate all actions required to mitigate the impact of changes (training, documentation, new processes...) S4 be precise and aware of details S5 demonstrate a high degree of interpersonal skills	

Dimension 1 e-Comp. area	D. ENABLE
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Dimension 2 e-Competence: Title + generic description	D.1. Information Security Strategy Development Advises on the development of a formal organisational strategy, scope and culture to maintain safety and security of information from external and internal threats, i.e. digital forensic for corporate investigations or intrusion investigation. Provides the foundation for Information Security Management, including role identification and accountability. Uses defined standards to create objectives for information integrity, availability, and data privacy.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	
	Level 4	Exploits depth of expertise and leverages external standards and best practices.
	Level 5	Provides strategic leadership to embed information security into the culture of the museum.
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 the potential and opportunities of relevant standards and best practices K2 the impact of legal requirements on information security K3 the information strategy of the museum K4 possible security threats K5 the mobility strategy K6 the different service models (SaaS, PaaS, IaaS) and operational translations (i.e. Cloud Computing)	
Skills examples <i>Is able to</i>	S1 develop and critically analyse the museum strategy for information security S2 define, present and promote an information security policy for approval by the senior management of the museum S3 apply relevant standards, best practices and legal requirements for information security S4 anticipate required changes to the museum's information security strategy and formulate new plans S5 propose effective contingency measures S6 explain (defend, argue, justify)	

Dimension 1 e-Comp. area	D. ENABLE	
Dimension 2 e-Competence: Title + generic description	D.2. ICT Quality Strategy Development Defines, improves and refines a formal strategy to satisfy the visitor expectations and improve the museum's business performance (balance between cost and risks). Identifies critical processes influencing service delivery and product performance for definition in the ICT quality management system. Uses defined standards to formulate objectives for service management, product and process quality. Identifies ICT quality management accountability.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	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.
	Level 5	Provides strategic leadership to embed ICT quality (i.e. metrics and continuous improvement) into the culture of the museum.

<p>Dimension 4</p> <p>Knowledge examples</p> <p><i>Knows/Aware of/Familiar with</i></p>	<p>K1 the major information technology industry frameworks, e.g. COBIT, ITIL, CMMI, ISO – and their implications for corporate IS governance</p> <p>K2 the information strategy of the museum</p> <p>K3 the different service models (SaaS, PaaS, IaaS) and operational translations (i.e. Cloud Computing)</p> <p>K4 ICT quality standards</p> <p>K6 the potential and opportunities of relevant standards and best practices</p> <p>K7 good practices (methodologies) and standards in risk analysis</p> <p>K4 museum and visitor needs</p> <p>K5 how to measure and apply resources to meet museum and visitor requirements</p> <p>K6 research methods, benchmarks and measurements methods</p>
<p>Skills examples</p> <p><i>Is able to</i></p>	<p>S1 define an ICT quality policy to meet the museum’s standards of performance and customer satisfaction objectives</p> <p>S2 identify quality metrics to be used</p> <p>S3 apply relevant standards and best practices to maintain information quality</p> <p>S4 match museum and visitor needs with existing products</p> <p>S5 analyse the impact of functional/technical changes on museum and visitor needs</p> <p>S6 be precise and aware of details</p>

<p>Dimension 1</p> <p>e-Comp. area</p>	D. ENABLE	
<p>Dimension 2</p> <p>e-Competence: Title + generic description</p>	<p>D.3. Education and Training Provision</p> <p>Defines and implements ICT training policy to address organisational skill needs and gaps. An ICT strategy tailored to the museum and visitor needs will make demands in terms of new skills. The aim here is to identify what skills are required in what positions, which skills need to be located in-house and which bought in on demand, and the actions needed to upgrade skills of existing employees. Structures, organises and schedules training programmes to meet the aforementioned skills needs and evaluates training quality through a feedback process and implements continuous improvement. Adapts training plans to address changing demand.</p>	
<p>Dimension 3</p> <p>e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8</p>	<p>Level 1</p>	Works with an established, internal museum expert to conduct an analysis of existing e-learning skills, identify skills gaps and plan interventions to address these gaps.
	<p>Level 2</p>	Organises the identification of training needs; collates museum requirements, identifies, selects and prepares schedule of training interventions.
	<p>Level 3</p>	Acts creatively to analyse skills gaps;. Conducts a systematic position-by-position analysis of the skills that will be required to support the museum’s ICT strategy. Uses a systematic process to identify current skill levels for all current or prospective holders of these positions. Elaborates specific requirements and identifies potential sources for training provision. Has specialist knowledge of museum visitors and establishes a feedback mechanism to assess the added value of alternative training programmes.
	<p>Level 4</p>	Identifies those skills which should ideally be resident in-house and those which should be bought-in as needed. Investigates and compares alternative means to address the skills gaps and commissions bespoke solutions where necessary.
	<p>Level 5</p>	
<p>Dimension 4</p> <p>Knowledge</p>	<p>K1 appropriate pedagogical approaches and education delivery methods e.g. classroom, online, text, dvd</p> <p>K2 the competitive market for educational offering</p>	

<p>examples</p> <p><i>Knows/Aware of/Familiar with</i></p>	<p>K3 training needs analysis methodologies</p> <p>K4 competence and skill needs analysis methodologies</p> <p>K5 empowerment techniques</p> <p>K6 museum staff and visitor needs</p> <p>K7 how to measure and apply resources to meet museum staff and visitor requirements</p> <p>K8 research methods, benchmarks and measurements methods</p>
<p>Skills examples</p> <p><i>Is able to</i></p>	<p>S1 organise training and education schedules to meet museum staff and visitor needs</p> <p>S2 identify and maximise use of resources required to deliver a cost effective schedule</p> <p>S3 promote and market education and training provision</p> <p>S4 analyse feedback data and use it to drive continuous improvement of education and training delivery</p> <p>S5 design curricula and training programmes to meet museum staff and visitor ICT education needs</p> <p>S6 address CPD needs of staff to meet organisational requirements</p> <p>S7 match museum staff and visitor needs with existing products</p>

<p>Dimension 1</p> <p>e-Comp. area</p>	D. ENABLE	
<p>Dimension 2</p> <p>e-Competence: Title + generic description</p>	<p>D.4. Purchasing</p> <p>Advises on a consistent procurement procedure, according to the museum's ICT strategy, 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, adds business value to the museum compliant to legal and regulatory requirements.</p>	
<p>Dimension 3</p> <p>e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8</p>	<p>Level 1</p>	
	<p>Level 2</p>	Understands and applies the principles of the procurement process. Places orders based on existing supplier contracts. Ensures the correct execution of orders, including validation of deliverables and correlation with subsequent payments.
	<p>Level 3</p>	Exploits specialist knowledge to deploy the purchasing process, ensuring positive commercial relationships with suppliers. Advises on the selection of suppliers, products and services by evaluating performance, cost, timeliness and quality. Conducts extensive benchmarking to determine what systems, tools and equipment have proved successful in comparable museums. Advises on contract placement and complies with organisational policies.
	<p>Level 4</p>	Provides leadership for the application of the museum's procurement policies and makes recommendations for process enhancement. Applies experience and procurement practice expertise to advise on ultimate purchasing decisions.
	<p>Level 5</p>	
<p>Dimension 4</p> <p>Knowledge examples</p> <p><i>Knows/Aware of/Familiar with</i></p>	<p>K1 typical purchase contract terms and conditions</p> <p>K2 own museum purchasing policies</p> <p>K3 financial models e.g. discount structures</p> <p>K4 the current market for relevant products or services</p> <p>K5 the issues and implications of outsourcing services</p> <p>K6 different service models (SaaS, PaaS, IaaS) and operational translations (e.g. Cloud Computing)</p> <p>K7 museum and visitor needs</p>	

	K8 museum and visitor needs analysis techniques K9 research methods, benchmarks and measurements methods
Skills examples <i>Is able to</i>	S1 interpret product / service specifications S2 negotiate terms, conditions and pricing S3 analyse received proposals / offers S4 advise on the purchasing budget S5 lead purchase process improvement S6 analyse the energy efficiency and environmental-related aspects of a proposal S7 verify that purchasing processes respect legal issues including IPR S8 match museum and visitor needs with products in the market S9 be precise and aware of details

Dimension 1 e-Comp. area	D. ENABLE	
Dimension 2 e-Competence: Title + generic description	D.10. Information and Knowledge Management Advise on the management of structured and unstructured information stemming from the museum's ICT strategy and considers information distribution policies. Creates information structure to enable exploitation and optimisation of information. Understands appropriate tools to be deployed to create, extract, maintain, renew and propagate knowledge related to culture technologies in order to capitalise from the information asset.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	
	Level 4	Integrates the appropriate information structure into the museum's virtual environment.
	Level 5	Correlates information and knowledge to create value for the museum's business. Applies innovative solutions based on information retrieved.
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 methods to analyse information and business processes K2 ICT devices and tools applicable for the storage and retrieval of data K3 challenges related to the size of data sets (e.g. big data) K4 challenges related to unstructured data (e.g. data analytics)	
Skills examples <i>Is able to</i>	S1 gather internal and external knowledge and information needs S2 formalise visitor requirements S3 translate / reflect museum business behaviour into structured information S4 make information available S5 ensure that IPR and privacy issues are respected S6 capture, storage, analyse, data sets, that are complex and large, not structured and in different formats S7 apply data mining methods S8 explain (defend, argue, justify) S9 be precise and aware of details S10 be innovative, creative	

Dimension 1 e-Comp. area	D. ENABLE	
Dimension 2 e-Competence: Title + generic description	D.11. Needs Identification Actively listens to key stakeholders. e.g. children, local visitors, tourists, decision makers, educational institution representatives, Cultural Heritage professionals, museum employees, to articulate and clarify their needs. Manages the relationship with all stakeholders to ensure that the solution is in line with business requirements. Proposes different solutions (e.g. make-or-buy), by performing contextual analysis in support of user centered system design. Advises the museum on appropriate solution choices. Acts as an advocate engaging in the implementation or configuration process of the chosen solution.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	Establishes reliable relationships with key stakeholders. e.g. children, local visitors, tourists, decision makers, educational institution representatives, Cultural Heritage professionals, museum employees, and helps them clarify their needs.
	Level 4	Exploits wide ranging specialist knowledge of the key stakeholders to offer possible solutions to their needs.
	Level 5	Provides leadership in support of the management team's strategic decisions. Helps key stakeholders to envisage new ICT solutions, fosters partnerships and creates value propositions.
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 emerging technologies and the relevant market applications K2 museum needs K3 key stakeholders needs K4 organisation processes and structures K5 customer need analysis techniques K6 communication techniques K7 "Story telling" techniques	
Skills examples <i>Is able to</i>	S1 analyse and formalise business processes S2 analyse customer requirements S3 present ICT solution cost / benefit S4 match key stakeholders needs with existing products S5 analyse the impact of functional/technical changes on key stakeholders	

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	E.1. Forecast Development Interprets museum and visitors needs and evaluates market acceptance of culture tailored ICT products or services. Applies relevant metrics to enable accurate decision making in support of the development, implementation and marketing of the museum ICT strategy.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	Exploits skills to provide short-term forecast using visitor inputs and assessing the museum's ICT capabilities.
	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 examples <i>Knows/Aware of/Familiar with</i>	K1 market size and relevant fluctuations K2 accessibility of the market according to current conditions (e.g. government policies, emerging technologies, social and cultural trends, etc.) K3 the extended supply chain operation K4 large scale data analysis techniques (data mining) K5 methods to analyze information and business processes K6 how business processes are integrated and their dependency upon ICT applications S7 new emerging technologies (e.g. distributed systems, virtualisation, mobility, data sets) S8 museum and visitor needs S9 museum and visitor need analysis techniques	
Skills examples <i>Is able to</i>	S1 apply what-if techniques to produce realistic outlooks S2 generate sales forecasts in relation to current market share S4 compare sales and production forecasts of forthcoming/newly launched ICT tools and solutions and analyse potential mismatches S5 interpret external research data and analyse information S6 identify business advantages and improvements of adopting emerging technologies for the museum S7 analyze future developments in business process and technology application S8 analyze feasibility in terms of costs and benefits S9 match museum and visitor needs with products in the market	

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	E.3. Risk Management Advises on the implementation of the management of risk across information systems through the application of the museum defined risk management policy and procedure. Assesses risk to the museum's business, including web, cloud and mobile resources. Documents potential risk and containment plans.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	Understands the principles of risk management and investigates ICT solutions to mitigate identified risks.
	Level 3	Advises on appropriate actions required to adapt security and address risk exposure. Evaluates, manages and ensures validation of exceptions.
	Level 4	Provides leadership to define guidelines for developing a policy for risk management by considering all the possible constraints, including technical, economic and political issues. Delegates assignments.
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 corporate values and interests to apply risk analysis taking into account corporate values and interests K2 the return on investment compared to risk avoidance K3 good practices (methodologies) and standards in risk analysis K4 risk and opportunity assessment techniques K5 evaluation, design and implementation methodologies	

Skills examples <i>Is able to</i>	S1 develop risk management plan to identify required preventative actions S2 communicate and promote the museum's risk analysis outcomes and risk management processes S3 design and document the processes for risk analysis and management S4 apply mitigation and contingency actions
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Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	E.4. Relationship Management Establishes and maintains positive business relationships between stakeholders (internal or external) deploying and complying with organisational processes. Maintains regular communication with museum, staff and technology providers, and addresses needs through empathy with their environment and managing supply chain communications. Ensures that stakeholder needs, concerns or complaints are understood and addressed in accordance with the museum's ICT policy.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	Accounts for own and others actions in managing a limited number of stakeholders.
	Level 4	Authorises investment in new and existing relationships. Leads the design of a workable procedure for maintaining positive business relationships.
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 museum processes including, decision making, budgets and management structure K2 museum's and other stakeholders' objectives K3 how to measure and apply resources to meet stakeholder requirements K4 museum's challenges and risks K5 museums, staff and technology providers needs K6 interpersonal skills	
Skills examples <i>Is able to</i>	S1 deploy empathy to towards museum staff needs S2 identify potential win win opportunities for user/visitor and museum S3 establish realistic expectations to support development of mutual trust S4 monitor ongoing commitments to ensure fulfilment S5 communicate good and bad news to avoid surprises S6 meet museums, staff and technology providers needs S7 communicate (incl. in foreign languages if useful) S8 explain (defend, argue, justify)	

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	E.5. Process Improvement Measures effectiveness of existing ICT processes (if any). Researches and benchmarks ICT process design from a variety of sources. Follows a systematic methodology to evaluate, design and implement process or technology changes for measurable business benefit. Assesses potential adverse consequences of process change.	

Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	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	Provides leadership and advises on the implementation of innovations and improvements that will enhance competitiveness or efficiency. Demonstrates to senior management the business advantage of potential changes.
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 research methods, benchmarks and measurements methods K2 evaluation, design and implementation methodologies K3 existing internal processes K4 relevant developments in ICT (e.g. virtualisation, open data, etc.), and the potential impact on processes K5 web, cloud and mobile technologies K6 resource optimisation and waste reduction K7 how museum's business processes are integrated and their dependency upon ICT applications	
Skills examples <i>Is able to</i>	S1 compose, document and catalogue essential processes and procedures S2 propose process changes to facilitate and rationalise improvements S3 implement process changes S4 identify business advantages and improvements of adopting emerging technologies for the museum S5 be innovative, creative S6 explain (defend, argue, justify)	

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	E.6. ICT Quality Management Advises on the implementation of ICT quality policy to maintain and enhance museum services. Plans and defines indicators to manage quality with respect to ICT strategy. Reviews quality measures and recommends enhancements to influence continuous quality improvement.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	Communicates and monitors application of the museum's ICT quality policy.
	Level 3	Evaluates quality management indicators and processes based on the museum's ICT quality policy and proposes remedial action.
	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 examples	K1 which methods, tools and procedure are applied within the museum and where they should be applied K2 the IS internal quality audit approach K3 regulations and standards in energy efficiency and e-waste	

<i>Knows/Aware of/Familiar with</i>	K4 ICT quality standards K5 the museum's enterprise architecture and internal standards K6 web, cloud and mobile technologies and environmental requirements K7 technologies and standards to be used during the deployment K8 potential and opportunities of relevant standards and best practices
Skills examples <i>Is able to</i>	S1 illustrate how methods, tools and procedures can be applied to implement the museum's quality policy S2 evaluate and analyse process steps to identify strengths and weaknesses S3 assist process owners in the choice and use of measures to evaluate effectiveness and efficiency of the overall process S4 monitor, understand and act upon quality indicators S5 perform quality audits S6 be ethical

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	E.7. Business Change Management Assesses the implications of new digital solutions in museums. Defines the requirements and quantifies the business benefits for the museum. Advises management on 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 e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	Evaluates change requirements and exploits specialist skills to identify possible methods and standards that can be deployed.
	Level 4	Provides leadership to plan, manage and implement significant ICT led change.
	Level 5	Applies pervasive influence to embed organisational change.
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 digital strategies K2 the impact of business changes on the museum and human resources K3 the impact of business changes on legal issues K4 business processes are integrated and their dependency upon ICT applications S5 museum business strategy and processes S6 methods to analyse information and business processes S7 evaluation, design and implementation methodologies	
Skills examples <i>Is able to</i>	S1 analyse costs and benefits of museum's business changes S2 select appropriate ICT solutions based upon benefit, risks and overall impact S3 construct and document a plan for implementation of process enhancements S4 apply project management standards and tools S5 identify business advantages and improvements of adopting emerging technologies S6 analyse future developments in business process and technology application S7 review and analyse effects of implementations S8 explain (defend, argue, justify)	