eCult Skills
Role profiles

The present document shows the knowledge, skills and competences required in five currently very common Role Profiles for eCult Skills Functions. These profiles have been elaborated with special emphasis on the needs of SMEs and the cultural heritage sector at European level. They have been prepared by experts in the identification of ICT Role Profiles after carefully analysing the job market needs.

The present document contains Role Profiles for the following eCult Jobs Roles:

- Cultural ICT Consultant
- Cultural ICT Guide
- Digital Cultural Asset Manager
- Interactive Cultural Experience Developer
- Online Cultural Community Manager

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.*
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.*

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[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.

| 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.

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	Level 1	
	Level 2	

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[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.

proficiency levels	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.

Cultural ICT Consultant

Cultural ICT Consultant

1   Role Description

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') and their audiences' needs, defines and specifies solution requirements and evaluates installed solutions.		
Mission	To identify the best-suited solutions, according to the museums' and audiences' needs, requirements and financial resources and deliver advice on how new technologies can enhance collections and make them more attractive to all types of audiences on- and off-line, but also attract new audiences and ensure their return.		
Deliverables	**Accountable for**	**Responsible for**	**Contributor to**
	Evaluation of customer needs. Provision of advice on the development of an ICT strategy, which will benefit both the museum and its audiences. Development of guidelines for the implementation of this strategy in the most effective and efficient manner. Advice on selection of adequate products and services.	Solution specifications. Liaising between ICT providers and museum staff.	Market analysis. User requirements definition. Suggestion of relevant ICT products/services. Quality control. Assessment of ethical issues.

Main task/s	**Related to museums' and audiences' needs:** • To evaluate museums' and audiences' needs and formulate options. • To interface technology and museum needs. • To understand the expectations of museums and audiences. • To foresee the impact of technological solutions responding to the museum's and its audiences' needs. **Related to the provision of advice on the ICT strategy and solutions:** • To advise on the elaboration of the institution's ICT strategy. • To plan time, cost and quality of the designed and specified solution including a return on investment analysis of the deployment of ICT solutions. • To raise awareness on information technology innovations and their potential value to the museum. • To engage museums in the adoption of new technologies for improved access to cultural heritage. • To remain informed of the state-of-the art as well as new and emerging technologies and systems and to share this information with museums • 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 act as a relay between ICT providers/commercial service providers and museums.
Environment	Works as an external consultant or internally within (larger) museums. Is at the crossroad of the museum management team, permanent or temporary exhibitions curators, communication and marketing teams (incl. web services) and audience services teams.
KPI's	• 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 shown by audiences in the museum on- and off-line. • Promotion of museums as a showcase of effective use of new technologies.

2 Detailed Profile

Dimension 1 **e-Comp. area**	A. PLAN
Dimension 2 **e-Competence: Title + generic description**	**A.1. IS and Organisational Strategy Alignment** Anticipates long term requirements of the museum's ICT strategy, and influences improvement of the museum's organisational process efficiency and effectiveness. Suggests strategic IS policy decisions to the museum decision makers in alignment with the museum's conservational, educational, scientific and other goals.
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** *Knows/Aware of/Familiar with*	K1 business strategy concepts K2 trends and implications of ICT internal or external developments for museums K3 the potential and opportunities of relevant organisational models K4 the museum's aims and organisational objectives K5 the issues and implications of sourcing models K6 the new emerging technologies K7 ICT architectural frameworks K8 optimisation of organisational processes through ICT applications K9 ethical issues K10 museum and audience needs
Skills examples *Is able to*	S1 analyse future developments in organisational process improvement S2 determine requirements for processes related to ICT services S3 identify and analyse long term museum/audience 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 ICT 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 operations S9 understand the museum's organisational benefits in deploying new technologies and how this can add value and provide competitive advantage (S10 understand the museum's ICT architecture S11 understand the legal & regulatory landscape in order to factor them into the museum's ICT strategy 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. Accompanies the negotiation of service performance levels taking into account the needs and capacity of stakeholders (audiences, 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 *Knows/Aware of/Familiar with*	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 organisational performance K6 ICT security standards K7 ICT quality standards	
Skills examples *Is able to*	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 between the museum's overall strategy and its technology 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	
	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 audiences/users 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 goals of the museum.
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 business plan elements and milestones K2 the present and future audience size and needs K3 competition and SWOT analysis techniques (for product features and also the external environment) K4 value creation channels K5 profitability elements K6 the issues and implications of sourcing models K7 financial planning and dynamic K8 new emerging technologies K9 risk and opportunity assessment techniques
Skills examples *Is able to*	S1 address and identify essential elements of product or solution value propositions S2 define the appropriate value creation channels S3 build a detailed SWOT analysis S4 generate short and long term performance reports (e.g. financial, profitability, usage and value creation) S5 identify main milestones of the plan S6 explain (defend, argue, justify) S7 lead a team S8 resolve conflicts S9 demonstrate a high degree of interpersonal skills

Dimension 1 **e-Comp. area**	A. PLAN		
Dimension 2 **e-Competence: Title + generic description**	**A.4. Product / Service Planning** 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. Proposes 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.		
Dimension 3 **e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8**	**Level 1**		
	Level 2	Acts systematically to document standard and simple elements of a product.	
	Level 3	Exploits specialist knowledge to create and maintain complex documents.	
	Level 4	Provides leadership and takes responsibility for, developing and maintaining overall plans.	
	Level 5		
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 effective frameworks and methodologies for governance plans K2 typical key performance indicators K3 basic decision-making methods K4 Intellectual property rights principles and regulations K5 structured project management methodologies K6 optimisation methods K7 new emerging technologies		

Skills examples *Is able to*	S1 identify all potential targets for the product or service S2 produce quality plans S3 ensure and manage adequate information for decision makers S4 propose change requests 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

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's goals, to envision and articulate solutions for the future. Provides expert guidance and advice to the leadership team and museum staff to support decision-making.
	Level 5	Outlines options for strategic decisions envisioning and articulating future ICT solutions for audience-oriented processes in support of the museum's goals; directs the museum to build and exploit them.
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 emerging technologies and their relevant applications K2 museum goals and audience 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 *Is able to*	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's advantages and improvements of adopting emerging technologies S5 match museum and audience needs with existing products	

Dimension 1 e-Comp. area	A. PLAN
Dimension 2	**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

e-Competence: Title + generic description	on sustainable alternatives that are consistent with the museum's goals. 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** *Knows/Aware of/Familiar with*	K1 metrics and indicators related to sustainable development K2 corporate social responsibility (CSR) of stakeholders within the IS infrastructure	
Skills examples *Is able to*	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 enhance the experience of its audiences. Deploys novel and open thinking to envision exploitation of technological advances to address the needs of the museum, its audiences and society as a whole.	
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 new/revolutionary concepts.
Dimension 4 **Knowledge examples**	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 audience needs	

Knows/Aware of/Familiar with	
Skills examples *Is able to*	S1 identify advantages and improvements to be achieved through 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 audience needs with existing products S8 demonstrate a high degree of interpersonal skills

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 audience 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 ensure the integrity of the system by controlling the application of functional updates, software or hardware additions and maintenance activities, while complying with budget requirements.
	Level 4	
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	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 *Is able to*	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
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. 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 *Knows/Aware of/Familiar with*	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 *Is able to*	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 audience expectations and improve the museum's organisational 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.
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 the major information technology industry frameworks, e.g. COBIT, ITIL, CMMI, ISO – and their implications for the museum's IS governance K2 the information strategy of the museum K3 the different service models (SaaS, PaaS, IaaS) and operational translations (i.e. Cloud Computing) K4 ICT quality standards K6 the potential and opportunities of relevant standards and best practices K7 good practices (methodologies) and standards in risk analysis K4 museum and audience needs K5 how to measure and apply resources to meet museum and audience requirements K6 research methods, benchmarks and measurements methods	
Skills examples *Is able to*	S1 define an ICT quality policy to meet the museum's standards of performance and customer satisfaction objectives S2 identify quality metrics to be used S3 apply relevant standards and best practices to maintain information quality S4 match museum and audience needs with existing products S5 analyse the impact of functional/technical changes on museum and audience needs S6 be precise and aware of details	

Dimension 1 **e-Comp. area**	D. ENABLE	
Dimension 2 **e-Competence: Title + generic description**	**D.3. Education and Training Provision** Defines and implements ICT training policy to address organisational skill needs and gaps. 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.	
Dimension 3 **e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8**	Level 1	Works with an established, internal museum expert to conduct an analysis of existing learning skills, identify skills gaps and plan interventions to address these gaps.
	Level 2	Organises the identification of training needs; collates museum requirements, identifies, selects and prepares schedule of training interventions.
	Level 3	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 audiences and establishes a feedback mechanism to assess the added value of alternative training programmes.
	Level 4	Identifies those skills which should ideally be resident in-house and those which should be outsourced. Investigates and compares alternative means to address the skills gaps and commissions bespoke solutions where necessary.
	Level 5	
Dimension 4	K1 appropriate pedagogical approaches and education delivery methods e.g. classroom, online, text, dvd K2 the competitive market for educational offering	

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

Dimension 1 e-Comp. area	D. ENABLE	
Dimension 2 e-Competence: Title + generic description	**D.4. Purchasing** 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.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	
	Level 2	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.
	Level 3	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.
	Level 4	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.
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 typical purchase contract terms and conditions K2 own museum purchasing policies K3 financial models e.g. discount structures K4 the current market for relevant products or services K5 the issues and implications of outsourcing services K6 different service models (SaaS, PaaS, IaaS) and operational translations (e.g. Cloud Computing) K7 museum and audience needs K8 museum and audience needs analysis techniques	

	K9 research methods, benchmarks and measurements methods
Skills examples *Is able to*	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 audience 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** Advises 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 ~~business~~ knowledge 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** *Knows/Aware of/Familiar with*	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 *Is able to*	S1 gather internal and external knowledge and information needs S2 formalise audience 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 audiences, tourists, decision makers, educational institution representatives, Cultural Heritage professionals, museum employees, to articulates 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 audiences, 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 *Knows/Aware of/Familiar with*	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 *Is able to*	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 audiences 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's 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 audience 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 *Knows/Aware of/Familiar with*	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 organisational processes are integrated and their dependency upon ICT applications S7 new emerging technologies S8 museum and audience needs S9 museum and audience need analysis techniques
Skills examples *Is able to*	S1 apply what-if techniques to produce realistic outlooks S2 generate sales forecasts in relation to current market share S3 compare sales and production forecasts of forthcoming/newly launched ICT tools and solutions and analyse potential mismatches S4 interpret external research data and analyse information S5 identify business advantages and improvements of adopting emerging technologies for the museum S6 analyze future developments in business process and technology application S7 analyze feasibility in terms of costs and benefits S8 match museum and audience 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 a defined risk management policy and procedure. Assesses risk to the museum's operations. 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 *Knows/Aware of/Familiar with*	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 *Is able to*	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

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 **e-Competence: Title + generic description**	**E.4. Relationship Management** Establishes and maintains positive 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 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	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** *Knows/Aware of/Familiar with*	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 *Is able to*	S1 deploy empathy towards museum staff needs S2 identify potential win-win opportunities for user/audience 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	Level 1	
e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	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** *Knows/Aware of/Familiar with*	K1 research methods, benchmarks and measurements methods K2 evaluation, design and implementation methodologies K3 existing internal processes K4 relevant developments in ICT and their potential impact on processes K5 resource optimisation and waste reduction K7 how museum's organisational processes are integrated and their dependency upon ICT applications	
Skills examples *Is able to*	S1 compose, document and catalogue essential processes and procedures S2 propose process changes to facilitate and rationalise improvements S3 implement process changes S4 identify organisational 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	

Knows/Aware of/Familiar with	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 *Is able to*	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 organisational benefits for the museum. Advises management on the deployment of change taking into account structural and cultural issues. Maintains organisational 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** *Knows/Aware of/Familiar with*	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 *Is able to*	S1 analyse costs and benefits of museum's organisational 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 organisational advantages and improvements of adopting emerging technologies S6 analyse future developments in organisational process and technology application S7 review and analyse effects of implementations S8 explain (defend, argue, justify)	

Cultural ICT Guide

Cultural ICT Guide

1 Role Description

Role title	**Cultural (ICT-enabled) Guide**
Also known as	ICT-enabled interdisciplinary interpreter of Cultural Heritage
Relevant professions	- Art historian * - Curator * - Cultural Heritage Interpreter * - Tour guide * - Cultural experience developer - Multimedia content developer** - Pedagogical professions related to art, culture, history and multimedia* - Museum staff (guards) that are trained by a specialist to act as intermediary between the museum collections, the technologies used and the audience. *with additional relevant knowledge of ICT ** with additional relevant knowledge of museology
Summary statement	Has a flawless knowledge of content which s/he interprets to the audience/visitors and high-level familiarity with technology (ICT) used as new / innovative way of presenting art work, exhibitions or any other form of cultural heritage.
Mission	The Cultural ICT Guide's fundamental mission is the presentation of cultural heritage content through ICT tools to improve audience experience. A specific quality of the ICT Cultural Guide is to understand the interactivity of ICT devices or solutions favourable to attracting audiences in terms of transforming them from passive to active participants, using ICT in her/his investigative process.

	Accountable for	**Responsible for**	**Contributor to**
Deliverables	Audience satisfaction in terms of use of the technology and experience of the cultural collection.	Effective and competent interpretation with use of technology. Comprehensive use of technology.	Proposal for upgrading technology.

	Documenting user feedback. Encouraging users / audience to use ICT for a better interdisciplinary experience in understanding and learning about cultural heritage.	Understandable instructions for users /audience. Correct and safe use of technology.	

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Main task/s	- To promote knowledge and understanding of cultural heritage through ICT. - To promote improved understanding of cultural diversity and cross-cultural dialogue through ICT. - To define target groups (children, local visitors, tourists, educational institution representatives, Cultural Heritage professionals, VIPs, etc.) for different types of interaction. - To identify target visitors based on their knowledge level of ICT. - To explain / present an ICT-enabled supportive environment in museums.
Environment	The Cultural ICT Guide works in museums and other cultural heritage institutions. Usually s/he works in a team alongside ICT specialists and experts of cultural heritage, museologists, curators, art historians, education experts. The Cultural ICT Guide can be a specially trained, museum staff member who has been up-skilled to understand the technologies used and the opportunities they offer in interacting with the audience.
KPI's	- Number of new audience willing to undergo a new experience and time spent on the tools (quantitative measurement). - Level of interest/excitement (qualitative measurement). - Positive impact for cultural heritage stakeholders obtained by innovative experience and/or edutainment concepts for visitors.

2 Detailed Profile

Dimension 1 e-Comp. area	C. RUN	
Dimension 2 e-Competence: Title + generic description	**C.1. User Support** Responds to user requests and issues regarding ICT tools/applications used in making available cultural assets to audiences through physical and/or virtual exhibitions in so far as they require explanation and guidance. Records relevant audience feedback. Assures resolution or escalates incidents. Understands how to monitor solution outcome and resultant audience satisfaction.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	
	Level 2	Systematically interprets user problems and identifies solutions and possible side effects, in consultation with ICT experts and museum staff. Uses experience to address user problems and interrogates database for potential solutions. Escalates complex or unresolved incidents. Records and tracks issues from outset to conclusion.
	Level 3	Interacts with users. Solves minor incidents, following prescribed procedures.
	Level 4	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 relevant ICT user applications in museums K2 database structures and content organisation K3 sources of information for potential solutions K4 good interpersonal skills	
Skills examples *Is able to*	S1 effectively interrogate users to establish symptoms S2 analyse symptoms to identify broad area of user error or technical failure S3 deploy support tools to systematically trace source of error or technical failure S4 clearly communicate with end users and provide instructions on how to progress issues S5 record and code issues to support growth and integrity of online support tools S6 communicate (incl. in foreign languages if possible) S7 explain (defend, argue, justify)	

Dimension 1 e-Comp. area	D. ENABLE	
Dimension 2 e-Competence: Title + generic description	**D.11. Needs Identification** Actively listens to audience, articulates and clarifies their needs. Proposes different solutions customised to the identified audience needs. Advises the museum's management team on appropriate solution choices.	
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 audience and helps them clarify their needs.
	Level 4	Uses her/his knowledge on the audience needs to suggest possible solutions, customisations of tools/applications/services.

	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 technologies and their relevant applications K2 museum's goals K3 audience needs / expectations K4 museum processes and structures K5 audience needs' analysis techniques K6 communication techniques K7 "Story telling" techniques	
Skills examples *Is able to*	S1 analyse audience requirements S2 match audience needs with existing ICT applications S3 analyse the impact of functional/technical changes on audience S4 identify museum advantages and improvements of adopting new technologies based on user experience	
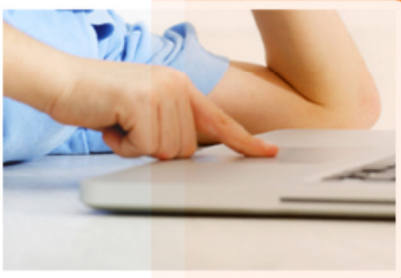
Digital Cultural Asset Manager

e-Jobs-Observatory.eu

Digital Cultural Asset Manager

1 Role Description

Role title	Digital Cultural Asset Manager
Also known as	Digital Asset Manager, Digital Curator
Relevant professions	Cultural Informatics / Cultural ICT Manager
Summary statement	Deals with the preservation, management and exploitation (incl. monetization) of the born-digital or digitized cultural content in a museum or other cultural institution (hereinafter referred to only as museums), whether in a physical or virtual space.
Mission	To undertake the design, administration, and exploitation (incl. monetization) of a digital museum collection, according to the management plan.

	Accountable for	Responsible for	Contributor to
Deliverables	Organization of the digital cultural collections, after selection and classification, to facilitate the collections' discovery, access and use. Preservation of the digital cultural asset according to international standards (format transformation, hardware/ software emulation).	Evaluation of the final format of the digital asset. Documentation of the management of the digital asset. Form of metadata selected (descriptive, administrative, structural or technical) – semantic management of the digital assets.	Usability analysis (website, application). Search engine optimization. Competitor benchmarking.

	Exploitation (incl. monetization) and provision of access to the digital content/objects in terms of functionality, technical feasibility and reliability (methods of access, authentication, compatibility) and monetization. Protection and safeguarding of the museum digital collection (copyright, watermarked content, cryptography).	Sustainability and operability of the digital assets – operational maintenance of the digital assets Advice the museum management on improvements.	
Main task/s	- To develop, administer and improve on an ongoing basis the museum's digital preservation, management and exploitation plan for all born-digital or digitized cultural content/objects (aka digital assets). - To develop, manage and optimize the museum's digital collection. - To be aware of the national/international conventions or/and legal frameworks for the protection of digital cultural property. - To collaborate with museum staff in facilitating their work with digital cultural assets. - To develop a robust grounding within the museum in theories, methods and concepts of digital cultural asset management. - To remain informed about new technologies and developments in ICT.
Environment	Collaborates with technology suppliers and, within the museum, with the: - Management - Physical curation departments - Communication department

KPI's	• Diversity and size of the digital assets' collection.
	• Number and frequency of consultation of digital assets by the audience
	• Quality of the museum's digital experience offered to audience.

2 Detailed Profile

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	**A.3. Digital Asset Management Plan Development** Addresses the design and structure of a digital asset management plan 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 plan. Ensures compliance with the museum's business and technology strategies. Communicates this plan to museum curators/management.	
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 provide analysis of market environment, etc.
	Level 4	Provides leadership for the creation of a digital asset management strategy that meets the requirements of the museum and its staff and the needs of the audience.
	Level 5	Applies strategic thinking and organisational leadership to exploit the capability of Information Technology to improve the preservation, management and exploitation of digital assets.
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 digital asset management plan elements and milestones K2 the present and future market size and needs K3 profitability elements K4 the issues and implications of sourcing models K5 new emerging technologies	
Skills examples *Is able to*	S1 address and identify essential elements of product or solution value propositions S2 generate short and long term performance reports S3 identify main milestones of the plan S4 analyse the impact of functional/technical changes on users S5 identify museum advantages and improvements of adopting emerging technologies S6 communicate (including in foreign languages if useful) S7 explain (defend, argue, justify) S8 lead a team S9 demonstrate a high degree of interpersonal skills	

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	**A.4. Product / Service Planning** Analyses and defines current and target status of the digital asset management plan. Estimates cost effectiveness, points of risk, opportunities, strengths and weaknesses, with a critical approach. Creates structured plans; establishes time scales and milestones, ensuring optimisation of activities and resources. Manages change requests. Defines delivery quantity and provides an overview of additional documentation requirements for the digital asset management plan. Specifies correct handling of products, including legal issues, in accordance with current regulations.	
Dimension 3	**Level 1**	
	Level 2	Acts systematically to document standard and simple elements of the digital asset management tools.

e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 3**	Exploits specialist knowledge to create and maintain complex documents.
	Level 4	Provides leadership and takes responsibility for, developing and maintaining overall plans.
	Level 5	

Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 typical key performance indicators K2 basic decision-making methods K3 agile techniques K4 structured project management methodologies K5 optimisation methods K6 new emerging technologies
Skills examples *Is able to*	S1 identify all potential targets for the product or service S2 define the digital asset management deployment plan; identify key users and create related documentation S3 produce quality plans for digital assets S4 ensure and manage adequate information for decision makers S5 manage the change request process S6 manage the product / service development management lifecycle (inclusive of the formal change request process) S7 be precise and aware of details

Dimension 1 **e-Comp. area**	A. PLAN	
Dimension 2 **e-Competence: Title + generic description**	**A.7. Technology Trend Monitoring** Investigates latest ICT technological developments in her/his field of competence to establish understanding of evolving technologies that could be deployed in managing digital assets in museums. Devises innovative solutions for integration of new technology into existing products, applications or services or for the creation of new solutions aiming at supporting the digital asset management plan. Is able to identify the articulations between emerging technologies and museum staff and audience requirements, in accordance with the digital asset management plan.	
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, coupled with a deep understanding of the needs of the museum, to envision and articulate solutions for the future that will facilitate the collection's discovery, access and use. Provides expert guidance and advice, to the leadership team to support strategic decision-making in her/his field of competence.
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 emerging technologies and the relevant market applications K2 museum, audience and market 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 *Is able to*	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 business advantages and improvements of adopting emerging technologies for the museum S4 be innovative, creative S5 match museum and audience needs with existing products S6 analyse the impact of functional/technical changes on users S7 identify museum advantages and improvements of adopting emerging technologies

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 support the digital asset management plan. Deploys novel and open thinking to envision exploitation of technological advances to address business / society 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	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 existing and emerging technologies and market applications K2 business, society and / or research habits, trends and needs K3 innovation processes techniques K4 museum, audience and user needs K5 best practices	
Skills examples *Is able to*	S1 identify business advantages and improvements of adopting emerging technologies for the museum S2 create a proof of concept S3 think out of the box S4 identify appropriate resources S5 be innovative, creative S6 explain (defend, argue, justify) S7 match museum and user needs with existing products S8 analyse the impact of functional/technical changes on users	

Dimension 1 e-Comp. area	B. BUILD
Dimension 2	**B.5. Documentation Production** Produces documents describing products, services, tools or applications used for digital asset management to establish compliance with relevant documentation requirements. Selects appropriate style and media for presentation materials. Creates templates for document-

e-Competence: Title + generic description	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 e-1 to e-5, related to EQF levels 3 to 8**	**Level 1**	Uses and applies standards to define document structure.
	Level 2	Determines documentation requirements taking into account the purpose and environment to which it applies.
	Level 3	Adapts the level of detail according to the objective of the documentation and the targeted population.
	Level 4	
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 tools for production, editing and distribution of professional documents K2 tools for multimedia presentation creation K3 different technical documents required for designing, developing and deploying products, applications and services K4 version control of documentation production	
Skills examples *Is able to*	S1 observe and deploy effective use of corporate standards for publications S2 prepare templates for shared publications S3 organise and control content management workflow S4 keep publications aligned to the solution during the entire lifecycle S5 be precise and aware of details	

Dimension 1 **e-Comp. area**	C. RUN	
Dimension 2 **e-Competence: Title + generic description**	**C.3. Service Delivery** Ensures service delivery in accordance with established service level agreements (SLA). Takes proactive action to ensure stable and secure digital asset management applications to avoid potential service disruptions, attending to capacity planning and to information security. Updates operational document library and logs all service incidents. Maintains monitoring and management tools (i.e. scripts, procedures). Maintains digital asset management infrastructure. Takes proactive measures.	
Dimension 3 **e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8**	**Level 1**	
	Level 2	
	Level 3	Programmes the schedule of operational tasks. Manages costs and budget according to the internal procedures and external constraints. Identifies the optimum number of people required to resource the operational management of the digital asset management infrastructure.
	Level 4	
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 how to interpret digital asset management application requirements K2 best practices and standards in digital asset management applications. K3 how to monitor digital asset management applications. K4 how to record digital asset management applications delivery actions and able to identify failures K5 the best practices and standards in digital asset management infrastructure management K6~~6~~ web, cloud and mobile technologies	

Skills examples *Is able to*	S1 implement the processes which comprise the organisation's digital asset management strategy S2 fill in and complete documentation used in digital asset management applications delivery S3 analyse digital asset management applications delivery provision and report outcomes to senior colleagues S4 plan and apply manpower workload / requirements for efficient and cost effective service provision

Dimension 1 e-Comp. area	C. RUN	
Dimension 2 e-Competence: Title + generic description	**C.4. Problem Management** Deploys a knowledge system based on recurrence of common errors. Resolves, in consultation and support by with experts if necessary, or escalates incidents linked to the use of digital asset management applications and tools.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	
	Level 2	Identifies and classifies incident types and service interruptions. Records incidents cataloguing them by symptom and resolution.
	Level 3	Exploits specialist knowledge and in-depth understanding of the digital asset management applications and tools and of problem management process to identify failures and resolve with minimum outage, in consultation with colleagues and supported by experts if necessary. Makes sound decisions in emotionally charged environments on appropriate action required to minimise impact for the museum. Rapidly identifies failing components, selects alternatives such as repair, replace or reconfigure.
	Level 4	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 the museum's overall ICT infrastructure and key components K2 the museum's reporting procedures K3 the museum's critical situation escalation procedures K4 the application and availability of diagnostic tools K5 the link between digital asset management infrastructure and impact of failure on museum processes. K6 evaluation, design and implementation methodologies K7 match proposed solution to the budget of the museum dedicated to digital asset management	
Skills examples *Is able to*	S1 monitor progress of issues throughout lifecycle and communicate effectively S2 identify potential critical component failures and take action to mitigate effects of failure S3 conduct risk management audits and act to minimise exposures S4 allocate appropriate resources to maintenance activities, balancing cost and risk S55 communicate at all levels to ensure appropriate resources are deployed internally or externally to minimise outages S6 be precise and aware of details	

Dimension 1 **e-Comp. area**	D. ENABLE

Dimension 2 e-Competence: Title + generic description	**D.4. Purchasing** Applies a consistent procurement procedure on products and services that would improve the digital asset management, including deployment of the following sub processes: specification requirements, supplier identification, proposal analysis, 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 organisation compliant to legal and regulatory requirements.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	
	Level 2	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.
	Level 3	Exploits specialist knowledge to deploy the purchasing process, ensuring positive commercial relationships with suppliers. Selects suppliers, products and services by evaluating performance, cost, timeliness and quality. Decides contract placement and complies with organisational policies.
	Level 4	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 typical purchase contract terms and conditions K2 own organisation purchasing policies K3 financial models e.g. discount structures K4 the current market for relevant products or services K5 the issues and implications of outsourcing services K6 museum and audience needs K7 audience needs analysis techniques K8 research methods, benchmarks and measurements methods K9 museum's budget dedicated to digital asset management	
Skills examples *Is able to*	S1 interpret product / service specifications S2 negotiate terms, conditions and pricing S3 analyse received proposals / offers S4 manage the purchasing budget S5 lead purchase process improvement S6 match museum and audience needs with products in the market S7 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** Identifies and manages structured and unstructured digital assets and considers policies related to the provision of access. Understands appropriate tools to be deployed to organize, preserve and provide access to digital cultural assets in order to capitalise from them and facilitate their discovery, access and use.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	
	Level 2	
	Level 3	Analyses digital asset management processes and associated asset requirements and provides the most appropriate digital asset structure.
	Level 4	Integrates the appropriate digital asset structure into the museal environment.
	Level 5	Correlates digital assets and knowledge to create value for the museum. Applies innovative solutions based on information retrieved.

Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 methods to analyse asset management processes K2 ICT devices and tools applicable for the storage and retrieval of digital data K3 challenges related to the size of data sets K4 challenges related to unstructured data K8 museum and audience needs
Skills examples *Is able to*	S1 gather internal and external knowledge and information needs S2 formalise audience requirements S3 translate / reflect museum's collections into structured information S4 make digital assets available S5 ensure that IPR and privacy issues are respected S6 capture, store and analyse, data sets, that are complex and large, not structured and in different formats S7 apply data mining methods S8 match museum and audience needs with digital assets S9 be precise and aware of details

Dimension 1 **e-Comp. area**	D. ENABLE	
Dimension 2 **e-Competence: Title + generic description**	**D.11. Needs Identification** Actively listens to internal / external users, articulates and clarifies their needs. Manages the relationship with all stakeholders to ensure that digital asset management is in line with ~~business~~ museum requirements. Proposes different solutions (e.g. make-or-buy), by performing contextual analysis in support of user centered system design. Advises the museum's management team on appropriate solution choices. Acts as an advocate engaging in the implementation or configuration process of the chosen 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	Establishes reliable relationships with users and helps them clarify their needs.
	Level 4	Exploits wide ranging specialist knowledge of the user needs to offer possible solutions to their needs. Provides expert guidance to the user by proposing solutions and supplier.
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 emerging technologies and the relevant market applications K2 museum's needs K3 user needs K4 museum processes and structures K5 user need analysis techniques K6 communication techniques K7 "Story telling" techniques	
Skills examples *Is able to*	S1 analyse and formalise digital asset management processes S2 analyse user requirements S3 present digital asset management solution cost / benefit S4 match user needs with existing products S5 analyse the impact of functional/technical changes on user	

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	**E.1. Forecast Development** Interprets museum staff and audience needs and evaluates market acceptance of digital asset management tailored products or services. Assesses the museum potential to meet future production and quality requirements. Applies relevant metrics to enable accurate decision making in support of the organization, preservation and exploitation of the museum's digital assets.	
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 audience 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 organisational, political and social context.
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	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 digital asset management processes S6 new emerging technologies S7 museum and audience needs S8 museum and audience need analysis techniques K9 museum's budget dedicated to digital asset management development	
Skills examples *Is able to*	S1 apply what-if techniques to produce realistic outlooks S2 generate sales forecasts in relation to current market share S3 interpret external research data and analyse information S4 identify organisational advantages and improvements of adopting emerging technologies for the museum S5 analyze future developments in ~~business~~ marketing process and technology application S6 analyze feasibility in terms of costs and benefits S7 match audience needs with products in the market	

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	**E.3. Risk Management** Implements the management of risk across digital asset management system 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 and applies the principles of risk management and investigates solutions to mitigate identified risks.
	Level 3	Decides on appropriate actions required to adapt security and address risk exposure. Evaluates, manages and ensures validation of exceptions; audits processes and environment.

	Level 4
	Level 5

Dimension 4	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
Knowledge examples	K3 good practices (methodologies) and standards in risk analysis
Knows/Aware of/Familiar with	
Skills examples	S1 develop risk management plan applied to digital asset management and identify required preventive actions
Is able to	S2 communicate and promote the museum's risk analysis outcomes and risk management processes in so far as they are relevant to digital asset management
	S3 design and document the processes for digital asset management risk analysis and management
	S4 apply mitigation and contingency actions
	S5 resolve conflicts

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	**E.4. Relationship Management** Establishes and maintains positive working relationships between stakeholders (internal or external) deploying and complying with organisational processes. Maintains regular communication with museum employees and technology providers and addresses needs through empathy with their environment and managing supply chain communications. Ensures that user needs, concerns or complaints are understood and addressed in accordance with the digital asset management 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	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 museum processes including, decision making, budgets and management structure K2 museum's and other stakeholders' objectives in so far as they are relevant to digital asset management K3 how to measure and apply resources to meet stakeholder requirements K4 museum's challenges and risks in so far as they are relevant to digital asset management K5 museum's and technology providers needs K6 interpersonal skills	
Skills examples *Is able to*	S1 deploy empathy to user needs S2 identify potential win-win opportunities for audience 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, user 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.6. Digital Asset Management Quality Management** Implements digital asset management quality policy to maintain and enhance museum services related to digital asset management. Plans and defines indicators to manage quality with respect to digital asset management and curation 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 digital asset management quality policy.
	Level 3	Evaluates quality management indicators and processes based on digital asset management 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 related to digital asset management. Provides cross functional leadership for setting and exceeding quality standards.
	Level 5	

Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 which methods, tools and procedure are applied within the organisation and where they should be applied K2 the digital asset management system internal quality audit approach K3 digital asset management quality standards K4 web, cloud and mobile technologies K5 technologies and standards to be used during the deployment of digital assets K6 potential and opportunities of relevant standards and best practices
Skills examples *Is able to*	S1 illustrate how methods, tools and procedures can be applied to implement the museum's digital asset management 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

Interactive Cultural Experience Developer

Interactive Cultural Experience Developer

1 Role Description

Role title	**Interactive Cultural Experience Developer**		
Also known as	Exhibit interactive designer		
Relevant professions	Cultural informatics developer, Designer in digital cultural products, Digital exhibition planner		
Summary statement	Designs, develops and implements innovative and interactive experiences involving digital content through physical and virtual interfaces and channels.		
Mission	To contribute to an exhibition, by designing, developing and implementing interactive and multimedia installations that result in a meaningful experience for all types of audiences, and serve the transmission of the message of the exhibition.		
Deliverables	**Accountable for**	**Responsible for**	**Contributor to**
	Development of interactive and multimedia experience and their ICT requirements that are relevant to the exhibition's content. Design of the scripts for the interactive	Description of the ICT requirements for each application. Assuring links between on-site installations and online tools. Development of accessibility tools for all types of visitors	Design of the exhibition together with the curators and the educational department. Audience research.

	experience in the exhibitions.	including those with special needs. Development of interactive guidelines by evaluation and impact analysis.	
Main task/s	- To develop interactive installations and tools that are relevant to the content of the museum/exhibitions and that result in a meaningful experience to all types of audiences. - To facilitate the relation between the different museum teams: curators, ICT, education, marketing, communication. - To remain informed of new technological solutions. - To guarantee that the interactive installations and tools fit well to the needs of all types of the audiences	
Environment	Works with the exhibition curators and the educational service, with the goal of detecting interactive potential in the exhibition design. Works with the ICT team, acting as intermediary between exhibition design, ICT, education, marketing and communication.	
KPI's	- Diversity of relevant means/supports/installations used to connect the audiences with the exhibition content - Size and frequency of museum audience (traffic) - Evaluation of the museum experience (qualitative and quantitative analysis)	

2 Detailed Profile

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	**A.3. Business Plan Development** Addresses the design and structure of a business plan related to the development of an interactive multimedia installation/tool/application, which is in line with 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 plan. Ensures compliance with museum and ICT strategies. Communicates this plan to different museum teams and addresses political, financial, and organisational interests.	
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 provide analysis of market environment, etc.
	Level 4	Provides leadership for the creation of a plan related to the development of an interactive multimedia installation or tool that meets the requirements of the museum and its staff and the needs of the audience.
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 elements and milestones of a plan related to the development of an interactive multimedia tool/application K2 the present and future audience size and needs K3 competition and SWOT analysis techniques (to evaluate product features and their external environment) K4 value creation channels K5 profitability elements K6 the issues and implications of sourcing models K7 new emerging technologies K8 risk and opportunity assessment techniques	
Skills examples *Is able to*	S1 address and identify essential elements of product or solution value propositions S2 define the appropriate value creation channels S3 build a detailed SWOT analysis S4 generate short and long term performance reports S5 identify main milestones of the plan S6 analyse the impact of functional/technical changes on audience S7 identify museum advantages and improvements of adopting emerging technologies S8 communicate (including in foreign languages if useful) S9 explain (defend, argue, justify) S10 lead a team S11 demonstrate a high degree of interpersonal skills	

Dimension 1 e-Comp. area	A. PLAN
Dimension 2 e-Competence: Title + generic description	**A.4. Product / Service Planning** Analyses and defines current and target status of a plan related to the development of an interactive multimedia tool/application. Estimates points of risk, opportunities, strengths and weaknesses, with a critical approach. Creates structured plans; establishes time scales and milestones, ensuring optimisation of activities and resources. Manages change requests. Defines delivery quantity and provides an overview of additional documentation requirements of the plan related to the development of an interactive multimedia tool/application. Specifies correct handling of products, including legal issues, in accordance with current regulations.

Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	
	Level 2	Acts systematically to document standard and simple elements of the interactive multimedia installation or tool.
	Level 3	
	Level 4	Provides leadership and takes responsibility for, developing and maintaining overall plans.
	Level 5	

Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 typical key performance indicators K2 basic decision-making methods K3 agile techniques K4 structured project management methodologies K5 optimisation methods K6 new emerging technologies
Skills examples *Is able to*	S1 identify all potential targets for the product or service S2 define the communication plan; identify key users and create related documentation S3 produce quality plans S4 ensure and manage adequate information for decision makers S5 manage the change request process S6 manage the product / service development management lifecycle (inclusive of the formal change request process) S7 be precise and aware of details S8 lead a team

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	**A.6. Application Design** Analyses, specifies, updates and makes available a model to implement applications in accordance with IS policy and museum and audience needs. Selects appropriate technical options for application design, optimising the balance between cost and quality. Design data structures and builds system structure models according to analysis results through modelling languages. Ensures that all aspects take account of interoperability, usability and security. Identifies a common reference framework to validate the models with representative users, based upon development models (e.g. iterative approach).	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	Contributes to the design and general functional specification and interfaces.
	Level 2	Organises the overall planning of the design of the application.
	Level 3	Accounts for own and others actions in ensuring that the application is correctly integrated within a complex environment and complies with audience needs.
	Level 4	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 requirements modelling and need analysis techniques K2 software developments methods and their rationale K3 metrics related to application development K4 user interface design principles K5 languages for formalising functional specification K6 existing applications and related architecture K7 DBMS, Data Warehouse, DSS … etc K8 mobile technologies K9 threat modelling techniques K10 museum and audience needs	
Skills examples *Is able to*	S1 identify audience S2 collect, formalise and validate functional and non-functional requirements S3 apply estimation models and data to evaluate costs of different software lifecycle phases S4 evaluate the use of prototypes to support requirements validation S5 design, organise and monitor the overall plan for the design of application S6 design functional specification starting from defined requirements S7 evaluate the suitability of different application development methods for the current scenario S8 establish systematic and frequent communication with audience and different museum teams S9 ensure that controls & functionality are built into the design S10 analyse the impact of functional/technical changes on audience S11 be precise and aware of details	

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	**A.7. Technology Trend Monitoring** Investigates latest ICT technological developments in her/his field of competence 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. Is able to identify the articulations between emerging technologies and audience and museum staff requirements, in accordance with the asset management plan.	
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, coupled with a deep understanding of the needs of the museum, to envision and articulate solutions for the future that will enhance interaction with the audience. Provides expert guidance and advice to the leadership team to support strategic decision-making in her/his field of competence.
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 emerging technologies and their relevant applications K2 audience's preparedness to interact with new technologies K3 relevant sources of information (e.g. magazines, conferences and events, newsletters, opinion leaders, on-line fora, etc.) K5 best practices K6 audience needs	
Skills examples *Is able to*	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 business advantages and improvements of adopting emerging technologies S4 be innovative, creative S5 match museum and audience needs with existing products S6 analyse the impact of functional/technical changes on audience S7 identify advantages and improvements of adopting emerging technologies for the museum	

Dimension 1 e-Comp. area	A. PLAN	

Dimension 2	A.9. Innovating	
e-Competence: Title + generic description	Devises creative solutions for the provision of new concepts, ideas, products or services that could enhance interaction with the audience. Deploys novel and open thinking to envision exploitation of technological advances to address museum / society needs.	
Dimension 3	**Level 1**	
e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**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	Challenges the status quo and provides strategic leadership for the introduction of revolutionary concepts.
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 existing and emerging technologies and market applications K2 new trends in business, museums, society K3 innovation processes and techniques K4 museum and audience needs	
Skills examples *Is able to*	S1 identify advantages and improvements of adopting emerging technologies for the museum 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 audience needs with existing products S8 analyse the impact of functional/technical changes on audience	

Dimension 1 **e-Comp. area**	B. BUILD	
Dimension 2 **e-Competence: Title + generic description**	**B.1. Application Development** Interprets the application design to develop a suitable application in accordance with audience needs. Adapts existing solutions. Codes, debugs, tests and documents and communicates product development stages. Selects appropriate technical options for development. Optimises efficiency, cost and quality. Validates results with audience representatives, integrates the overall solution.	
Dimension 3 **e-Competence proficiency levels**	**Level 1**	Acts under guidance to develop, test and document applications resulting in meaningful experiences to all types of audience.
	Level 2	Systematically develops and validates applications.

e-1 to e-5, related to EQF levels 3 to 8	Level 3	Acts creatively to develop applications and to select appropriate technical options. Optimizes application development, maintenance and performance by employing design patterns and by reusing proven solutions.
	Level 4	
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 appropriate software programs / modules K2 hardware components, tools and hardware architectures K3 functional & technical designing K4 state of the art technologies K5 programming languages K6 Power consumption models of software and / or hardware K8 operating systems and software platforms K9 Integrated development environment K10 rapid application development K11 IPR issues K12 modeling technology and languages K13 interface definition languages K14 security	
Skills examples *Is able to*	S1 explain and communicate the design / development to the museum staff, in particular to those who will further explain and present it to the audience S2 perform and evaluate test results against product specifications S3 apply appropriate software and / or hardware architectures S4 develop user interfaces, business software components and embedded software components S5 manage and guarantee high levels of cohesion and quality S6 use data models S7 perform and evaluate test in the audience target environment S8 cooperate with development team and with application designers S9 be precise and aware of details S10 work in a team	

Dimension 1 **e-Comp. area**	B. BUILD
Dimension 2 **e-Competence: Title + generic description**	**B.2. Component Integration** Integrates hardware, software or sub system components into an existing or a new system. Complies with established processes and procedures such as, configuration management and package maintenance. Takes into account the compatibility of existing and new modules to ensure system integrity, system interoperability and information security. Verifies and tests system capacity and performance and documentation of successful integration.
Dimension 3	Level 1

	Level 2	Acts systematically to identify compatibility of software and hardware specifications. Documents all activities during installation and records deviations and remedial activities.
e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 3	Accounts for own and others actions in the integration process. Complies with appropriate standards and change control procedures to maintain integrity of the overall system functionality and reliability.
	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 examples** *Knows/Aware of/Familiar with*	K1 old, existing and new hardware components / software programs / modules K2 the impact that system integration has on existing system / organisation K3 interfacing techniques between modules, systems and components K4 integration testing techniques K5 development tools (e.g. development environment, management, source code access / revision control) K6 best practice design techniques	
Skills examples *Is able to*	S1 measure system performance before, during and after system integration S2 document and record activities, problems and related repair activities S3 match audience needs with existing products S4 verify that integrated systems capabilities and efficiency match specifications S5 secure / back-up data to ensure integrity during system integration S6 be precise and aware of details S7 work in a team S8 flawlessly implement new components without disrupting day to day museum activities/business	

Dimension 1 **e-Comp. area**	B. BUILD	
Dimension 2 **e-Competence: Title + generic description**	**B.3. Testing** Constructs and executes systematic test procedures for interactive and multimedia installations/tools/applications or audience usability requirements to establish compliance with design specifications. Ensures that these perform to expectation. Ensures meeting of internal, external, national and international standards; including health and safety, usability, performance, reliability or compatibility, eco-friendly standards, i.e. low energy consumption. Produces documents and reports to evidence certification requirements.	
Dimension 3 **e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8**	Level 1	
	Level 2	Organises test programmes and builds scripts to stress test potential vulnerabilities. Records and reports outcomes providing analysis of results.
	Level 3	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 4	
	Level 5	

| Dimension 4

Knowledge examples

Knows/Aware of/Familiar with	K1 techniques, infrastructure and tools to be used in the testing process K2 the lifecycle of a testing process K3 the different sorts of tests (functional, integration, performance, usability, stress etc.) K4 national and international standards defining quality criteria for testing K5 web, cloud and mobile technologies and environmental requirements
Skills examples

Is able to | S1 create and manage a test plan
S2 manage and evaluate the test process
S3 design tests of interactive and multimedia installations/tools/applications
S4 prepare and conduct tests of interactive and multimedia installations/tools/applications
S5 report and document tests and results
S6 be precise and aware of details
S7 work in a team |

| Dimension 1

e-Comp. area	B. BUILD	
Dimension 2

e-Competence: Title + generic description | **B.4. Solution Deployment**
Following predefined general standards of practice carries out planned necessary interventions to implement a solution that will result in a meaningful interactive experience and enable the transition of the message of a specific museum exhibition/collection, 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 e-1 to e-5, related to EQF levels 3 to 8 | Level 1 | Removes or installs components under guidance and in accordance with detailed instructions. |
	Level 2	Acts systematically to build or deconstruct system elements. Identifies failing components and establishes root cause failures. Provides support to less experienced colleagues.
	Level 3	Accounts for own and others actions for solution provision and initiates comprehensive communication with stakeholders. Exploits specialist knowledge to influence solution construction providing advice and guidance.
	Level 4	
	Level 5	

Dimension 4 Knowledge examples Knows/Aware of/Familiar with	K1 performance analysis techniques K2 techniques related to problem management (operation, performance, compatibility) K3 software packaging and distribution methods and techniques K4 the impacts of deployment on the current architecture K5 the technologies and standards to be used during the deployment K6 web, cloud and mobile technologies and environmental requirements
Skills examples Is able to	S1 organise deployment workflow and product roll-out activities S2 organise and plan beta-test activities, testing solution in its final operational environment S3 configure components at any level to guarantee correct overall interoperability S4 identify and engage expertise needed to solve interoperability problems S5 organise and control initial support service provision including user training during system start-up S6 organise population of data bases and manage data migration S7 collaborate to modify 3rd party code; support and maintain modified software S8 be precise and aware of details S9 work in a team

Dimension 1 e-Comp. area	B. BUILD	
Dimension 2 e-Competence: Title + generic description	**B.5. Documentation Production** Produces documents describing interactive installations/tools/ 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 e-1 to e-5, related to EQF levels 3 to 8	Level 1	Uses and applies standards to define document structure.
	Level 2	Determines documentation requirements taking into account the purpose and environment to which it applies.
	Level 3	Adapts the level of detail according to the objective of the documentation and the targeted population.
	Level 4	
	Level 5	
Dimension 4 Knowledge examples Knows/Aware of/Familiar with	K1 tools for production, editing and distribution of professional documents K2 tools for multimedia presentation creation K3 different technical documents required for designing, developing and deploying products, applications and services K4 version control of documentation production K5 museum ICT technologies	

Skills examples *Is able to*	S1 observe and deploy effective use of corporate standards for publications S2 prepare templates for shared publications S3 organise and control content management workflow S4 keep publications aligned to the solution during the entire lifecycle S5 be precise and aware of details

Dimension 1 e-Comp. area	C. RUN	
Dimension 2 e-Competence: Title + generic description	**C.1. User Support** Responds to user requests and issues regarding installations/tools/applications, recording relevant information. Assures resolution and optimises system performance in accordance with predefined service level agreements (SLAs). Understands how to monitor solution outcome and resultant audience satisfaction.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	Interacts with users. Solves incidents, following prescribed procedures.
	Level 2	Systematically interprets user problems and identifies solutions and possible side effects, in consultation with experts if need. Uses experience to address user problems and interrogates database for potential solutions. Escalates complex or unresolved incidents. Records and tracks issues from outset to conclusion.
	Level 3	
	Level 4	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 relevant ICT user applications K2 database structures and content organisation K3 corporate escalation procedures K4 software distribution methods and procedures for fix application and file transmission methodologies applicable to software fixes K5 sources of information for potential solutions K6 good interpersonal skills	
Skills examples *Is able to*	S1 effectively interrogate users to establish symptoms S2 analyse symptoms to identify broad area of user error or technical failure S3 deploy support tools to systematically trace source of error or technical failure S4 clearly communicate with end users and provide instructions on how to progress issues S5 record and code issues to support growth and integrity of online support tools S6 be precise and aware of details S7 communicate (incl. in foreign languages if possible) S8 explain (defend, argue, justify)	

Dimension 1 e-Comp. area	C. RUN	
Dimension 2 e-Competence: Title + generic description	**C.2. Change Support** Implements and guides the evolution of an ICT solution that meets audience needs. Ensures efficient control and scheduling of 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). 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	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 examples *Knows/Aware of/Familiar with*	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 *Is able to*	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 analyse the impact of functional / technical changes on users S4 anticipate all actions required to mitigate the impact of changes (training, documentation, new processes…). S5 be precise and aware of details	

Dimension 1 e-Comp. area	C. RUN
Dimension 2 e-Competence: Title + generic description	**C.4. Problem Management** Identifies and resolves the root cause of incidents. Takes a proactive approach to avoidance or identification of root cause of problems related to interactive and multimedia installations/tools/applications. Deploys a knowledge system based on recurrence of common errors. Resolves or escalates incidents. Optimises system or component performance.

Dimension 3	Level 1	
e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 2	Identifies and classifies incident types and service interruptions. Records incidents cataloguing them by symptom and resolution.
	Level 3	Exploits specialist knowledge and in-depth understanding of the ICT infrastructure and problem management process to identify failures and resolve with minimum outage. Makes sound decisions in emotionally charged environments on appropriate action required to minimise business impact for the museum. Rapidly identifies failing component, selects alternatives such as repair, replace or reconfigure.
	Level 4	
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 the museum's overall ICT infrastructure and key components K2 the museum's reporting procedures K3 the museum's critical situation escalation procedures K4 the application and availability of diagnostic tools K5 the link between system infrastructure elements and impact of failure on related business processes. K6 evaluation, design and implementation methodologies	
Skills examples *Is able to*	S1 monitor progress of issues throughout lifecycle and communicate effectively S2 identify potential critical component failures and take action to mitigate effects of failure S3 conduct risk management audits and act to minimise exposures S4 allocate appropriate resources to maintenance activities, balancing cost and risk S5 communicate at all levels to ensure appropriate resources are deployed internally or externally to minimise outages S6 be precise and aware of details	

Dimension 1 e-Comp. area	D. ENABLE	
Dimension 2 **e-Competence: Title + generic description**	**D.11. Needs Identification** Actively listens to internal / external key stakeholders, e.g. museum staff and representatives of its audience, articulates and clarifies their needs. Manages the relationship with all stakeholders to ensure that the solution is in line with museum and user requirements. Proposes different solutions (e.g. make-or-buy), by performing contextual analysis in support of user centered system design. Advises the museum's management team 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, museum staff and representatives of the audience, and helps them clarify their needs.

	Level 4	Exploits wide ranging specialist knowledge of the key stakeholders, museum staff and representatives of the audience to offer possible solutions their needs. Provides expert guidance to all by proposing solutions and supplier.
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 emerging technologies and the relevant market applications K2 key stakeholders needs K3 museum processes and structures K4 user need analysis techniques K5 communication techniques K6 "Story telling" techniques	
Skills examples *Is able to*	S1 analyse and formalise asset management processes S2 analyse audience requirements S3 evaluate interactive and multimedia installations/tools/applications 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 audience needs and evaluates their acceptance of digital tools/applications aiming at offering an interactive experience to the audience. Assesses the museum's potential to meet future production and quality requirements. Applies relevant metrics to enable accurate decision making in support of the development of digital tools/applications that will attract new audiences.	
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 ~~audience~~ 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**	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	

Knows/Aware of/Familiar with	S6 new emerging technologies (e.g. distributed systems, virtualisation, mobility, data sets) S7 museum and user needs S8 museum and user need analysis techniques K9 museum's budget dedicated to ICT development
Skills examples *Is able to*	S1 apply what-if techniques to produce realistic outlooks S2 interpret external research data and analyse information S3 identify advantages and improvements of adopting emerging technologies for the museum S4 analyze feasibility in terms of costs and benefits S5 match museum and audience needs with interactive and multimedia installations/tools/applications developed

Dimension 1 **e-Comp. area**	E. MANAGE	
Dimension 2 **e-Competence: Title + generic description**	**E.3. Risk Management** Implements the management of risk across information systems of tools/applications to boost interaction with the audience through the application of a defined risk management policy and procedure. Assesses risk to the museum as far as interactive and multimedia installations/tools/applications are concerned. 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 and applies the principles of risk management and investigates ICT solutions to mitigate identified risks.
	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	
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	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	
Skills examples *Is able to*	S1 develop risk management plan to identify required preventative actions S2 communicate and promote the museum's risk analysis outcomes and risk management processes applicable to interactive and multimedia installations/tools/applications S3 design and document the processes for risk analysis and management applicable to interactive and multimedia installations/tools/applications S4 apply mitigation and contingency actions S5 resolve conflicts	

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	**E.4. Relationship Management** Establishes and maintains positive relationships between stakeholders (internal or external) deploying and complying with organisational processes. Maintains regular communication with museum, audience and technology providers, facilitates interaction between different museum teams and addresses needs through empathy with their environment and managing communications. Ensures that stakeholder needs, concerns or complaints are understood and addressed in accordance with organisational 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	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 museum processes including, decision making, budgets and management structure K2 museum objectives, own and of other stakeholders K3 how to measure and apply resources to meet stakeholder requirements K4 museum challenges and risks K5 museum, audience and technology providers needs K6 interpersonal skills	
Skills examples *Is able to*	S1 deploy empathy to museum and audience needs S2 identify potential win win opportunities for ~~audience~~ 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 museum, audience 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.6. ICT Quality Management** Implements ICT quality policy to maintain and enhance museum tools/applications aiming at enhancing digital interaction with the audience. 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	**Level 1**	

e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 2	Communicates and monitors application of the museum quality policy.
	Level 3	Evaluates quality management indicators and processes based on 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 related to tools/applications aiming at enhancing digital interaction with the audience. Provides cross functional leadership for setting and exceeding quality standards.
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 ICT quality standards K2 technologies and standards to be used during the deployment K3 potential and opportunities of relevant standards and best practices	
Skills examples *Is able to*	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	

Online Cultural Community Manager

Online Cultural Community Manager

1 Role Description

Role title	Online Cultural Community Manager
Also known as	New Media Manager, Digital Communication Manager
Relevant professions	
Summary statement	Being aware of the needs of the online community, the Online Cultural Community Manager creates and manages an engaging, attractive, accessible and collaborative online community for all stakeholders (audiences, colleagues, educational institution representatives, Cultural Heritage professionals, donors, decision makers, etc.). S/He designs and implements guidelines for the museum's or other cultural institution's (hereinafter referred to only as museums) online communication strategy.
Mission	To create and manage a sense of community between the museum and its online stakeholders through a strategic communication plan that meets the objectives of the first and the needs of the latter.

	Accountable for	Responsible for	Contributor to
Deliverables	Management of content of all online channels (website, newsletter, social media, forums, blogs, Pinterest...) of the museum. Online communication strategy and plan. Quick and effective resolution of issues and	Research of the online community (background, motivation, etc.). Online interaction with all stakeholders of the museum, according to the museum's protocol.	Organisation of events and other PR activities. (in order to create physical community); Loyalty/maintenance of user community. Overall communication

| | reply to inquiries (feedback mechanism for the museum). | Promotion of community engagement online activities.

Analysis of user feedback. | strategy and plan of the museum. |
|---|---|---|---|
| **Main task/s** | To design guidelines for the museum's online communication strategy. To research the characteristics of the online community. To create and add relevant curated content in all online channels of communication of the museum that meets its objectives and the needs of its stakeholders. To respond to and follow-up all online incoming inquiries. To moderate forums. To conduct web analytics and analyse them in order to assess whether objectives are met. | | |
| **Environment** | Usually works in tandem with the communication, marketing and PR team. Spends much of her/his time online, validating the effectiveness of the collaboration tools. | | |
| **KPI's** | Stakeholder satisfaction and loyalty. Community engagement. Statistics/analytics of stakeholders' online activity. Museum's webpage ranking. | | |

2 Detailed Profile

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	**A.3. Online Communication Plan Development** Uses web technology, especially social media, for the museum's benefit. Addresses the design and structure of an online communication plan (a component of the museum's overall communication plan) 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 organisational and technology strategies. Communicates and sells the online communication plan to relevant stakeholders and addresses financial and organisational interests.	
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 provide analysis of museum's environment, etc.
	Level 4	Provides leadership for the creation of an online communication strategy that meets the requirements of the museum and the needs of the audience and includes risks and opportunities. Suggests how the online communication plan should complement the overall communication plan.
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 online communication plan elements and milestones K2 the present and future market size and needs K3 competition and SWOT analysis techniques (applied to audiences) K4 profitability elements K5 the issues and implications of sourcing models K7 new emerging technologies K8 risk and opportunity assessment techniques	
Skills examples *Is able to*	S1 address and identify essential elements of product or solution value propositions S2 build a detailed SWOT analysis S3 generate short and long term performance reports S4 identify main milestones of the plan S5 analyse the impact of functional/technical changes on users S6 identify museum advantages and improvements of adopting emerging technologies S7 demonstrate high degree of interpersonal skills S8 explain (defend, argue, justify) S10 lead a team	

Dimension 1 e-Comp. area	A. PLAN
Dimension 2 e-Competence: Title + generic description	**A.4. Product / Service Planning** Analyses and defines current and target status of the online communication plan. Estimates cost effectiveness, points of risk, opportunities, strengths and weaknesses, with a critical approach. Creates structured plans; establishes time scales and milestones, ensuring optimisation of activities and resources. Manages change requests. Defines delivery quantity and provides an overview of additional documentation requirements for the online communication plan. Specifies correct handling of products, including legal issues, in accordance with current regulations.

Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 1**	
	Level 2	Acts systematically to document standard and simple elements of the online communication tools.
	Level 3	Exploits specialist knowledge to create and maintain complex documents.
	Level 4	Provides leadership and takes responsibility for, developing and maintaining overall plans.
	Level 5	

Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 typical key performance indicators K2 basic decision-making methods K3 structured project management methodologies K4 optimisation methods K5 new emerging technologies
Skills examples *Is able to*	S1 identify all potential targets for the product or service S2 define the online communication plan; identify key audience target groups and create related documentation S3 produce quality plans S4 ensure and manage adequate information for decision makers S5 manage the change request process S6 manage the product / service development management lifecycle (inclusive of the formal change request process) S7 be precise and aware of details S8 lead a team

Dimension 1 e-Comp. area	A. PLAN
Dimension 2 e-Competence: Title + generic description	**A.7. Technology Trend Monitoring** Investigates latest ICT technological developments in her/his field of competence to establish understanding of evolving technologies that could be deployed in museums and is able to integrate them into the online communication plan. Devises innovative solutions for integration of new technology into existing products, applications or services or for the creation of new

		solutions. Is able to identify the articulations between emerging technologies and the needs of the 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	
	Level 4	Exploits wide ranging specialist knowledge of new and emerging technologies, coupled with a deep understanding of the museum's to envision and articulate solutions for the future that will boost the online visibility of the museum and the development of an online community and facilitate interaction among the stakeholders (see summary statement). Provides expert guidance and advice, to the leadership team to support strategic decision-making in her/his field of competence.
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 emerging technologies and the relevant market applications K2 market needs K3 relevant sources of information (e.g. magazines, conferences and events, newsletters, opinion leaders, on-line fora, etc.) K4 the rules of discussions in web communities	
Skills examples *Is able to*	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 business advantages and improvements of adopting emerging technologies S4 be innovative, creative S5 match museum/audience needs with existing products S6 analyse feedback, target groups and range in various segments of online communication strategies S7 identify museum advantages and improvements of adopting emerging technologies S8 transfer museum's contents into online communication context and tools	

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 support the online communication strategy. Deploys novel and open thinking to envision exploitation of technological advances to address business / society needs or research direction.	
Dimension 3 **e-Competence proficiency levels**	**Level 1**	
	Level 2	

e-1 to e-5, related to EQF levels 3 to 8	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 overall communication plan of the museum to take into account the online communication plan. Challenges the status quo and provides strategic leadership for the introduction of revolutionary concepts.
Dimension 4

Knowledge examples

Knows/Aware of/Familiar with | K1 existing and emerging technologies and market applications
K2 business, society and / or research habits, trends and needs
K3 innovation processes techniques
K4 online users needs | |
| Skills examples

Is able to | S1 identify business advantages and improvements of adopting emerging technologies for the museum's online activities
S2 create a proof of concept
S3 think out of the box
S4 identify appropriate resources
S5 be innovative, creative
S6 explain (defend, argue, justify)
S7 match museum/user needs with existing products
S8 analyse feedback, target groups and range in various segments of online communication strategies
S9 find new ways to engage the public in the museum's online activities | |

| Dimension 1

e-Comp. area	B. BUILD
Dimension 2

e-Competence: Title + generic description | **B.5. Documentation Production**
Produces documents describing products, services, tools or applications used for online communication 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 e-1 to e-5, related to EQF levels 3 to 8	Level 1	Uses and applies standards to define document structure.
	Level 2	Determines documentation requirements taking into account the purpose and environment to which it applies.
	Level 3	Adapts the level of detail according to the objective of the documentation and the targeted population.
	Level 4	
	Level 5	

Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 tools for production, editing and distribution of professional documents K2 tools for multimedia presentation creation K3 different technical documents required for designing, developing and deploying products, applications and services K4 version control of documentation production
Skills examples *Is able to*	S1 observe and deploy effective use of corporate standards for publications S2 prepare templates for shared publications S3 organise and control content management workflow S4 keep publications aligned to the solution during the entire lifecycle S5 be precise and aware of details

Dimension 1 e-Comp. area	C. RUN	
Dimension 2 e-Competence: Title + generic description	**C.1. User Support** Responds to online user requests and issues, recording relevant information. Assures resolution or escalates incidents and optimises system performance in accordance with predefined service level agreements (SLAs). Understands how to monitor solution outcome and resultant online user satisfaction.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	Is informed about technical and content aspects, e.g. knows how to remove someone from a mailing list, knows what type of content are available in the museum, etc. Interacts with online users, i.e. responds to online questions and queries in a timely manner, keeps users informed with regular announcements, etc. Solves online incidents, following prescribed procedures.
	Level 2	Systematically interprets online user problems and identifies solutions and possible side effects. Uses experience to address user problems and interrogates database for potential solutions. Escalates complex or unresolved incidents. Records and tracks issues from outset to conclusion.
	Level 3	Acts creatively, and applies continuous service improvement.
	Level 4	
	Level 5	
Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 relevant ICT user applications K2 database structures and content organisation K3 corporate escalation procedures K5 sources of information for potential solutions	
Skills examples *Is able to*	S1 effectively interrogate users to establish symptoms S2 analyse symptoms to identify broad area of user error or technical failure S3 deploy support tools to systematically trace source of error or technical failure	

	S4 clearly communicate with end users and provide instructions on how to progress issues S5 record and code issues to support growth and integrity of online support tools S6 be precise and aware of details S7 communicate (incl. in foreign languages if possible) S8 explain (defend, argue, justify) S9 demonstrate a high degree of interpersonal skills

Dimension 1 **e-Comp. area**	C. RUN	
Dimension 2 **e-Competence: Title + generic description**	**C.4. Problem Management** Identifies online incidents. Takes a proactive approach to avoidance or identification of root cause of ICT problems. Deploys a knowledge system based on recurrence of common errors. Resolves, in consultation and support by with experts if necessary, or escalates incidents linked to the use of online communication applications and tools.	
Dimension 3 **e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8**	**Level 1**	
	Level 2	Identifies and classifies online incident types and service interruptions. Records incidents cataloguing them by symptom and resolution.
	Level 3	Exploits specialist knowledge and in-depth understanding of the online communication applications and tools and problem management process to identify failures and resolve with minimum outage, in consultation and support by with experts if necessary. Makes sound decisions in emotionally charged environments on appropriate action required to minimise business impact. Rapidly identifies failing component.
	Level 4	
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 the museum's overall ICT infrastructure and key components K2 the museum's reporting procedures K3 the museum's critical situation escalation procedures K4 the application and availability of diagnostic tools K5 the link between system infrastructure elements and impact of failure on related business processes. K6 evaluation, design and implementation methodologies	
Skills examples *Is able to*	S1 monitor progress of issues throughout lifecycle and communicate effectively S2 identify potential critical component failures and take action to mitigate effects of failure S3 conduct risk management audits and act to minimise exposures S4 allocate appropriate resources to maintenance activities, balancing cost and risk S5 communicate at all levels to ensure appropriate resources are deployed internally or externally to minimise outages S6 be precise and aware of details	

Dimension 1	D. ENABLE	

e-Comp. area	
Dimension 2 **e-Competence: Title + generic description**	**D.2. Quality Strategy Development** Defines, improves and refines a formal strategy to satisfy the museum and audience expectations and improve business performance (balance between cost and risks). Identifies critical processes influencing online communication applications delivery and performance. Uses defined standards to formulate objectives for service management, application and process quality. Identifies online communication applications 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	Uses specialist knowledge to detect best practices among online community applications, tools and solutions and adopts them. Envisages to embed online communication applications quality (i.e. metrics and continuous improvement) into the culture of the museum.
	Level 3
	Level 4
	Level 5
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 the information strategy of the-museum K2 museum and audience needs K3 how to measure and apply resources to meet museum and audience requirements K4 research methods, benchmarks and measurements methods K5 existing and emerging online communication applications and best practices
Skills examples *Is able to*	S1 define an ICT quality policy to meet the organisation's standards of performance and customer satisfaction objectives S2 identify quality metrics to be used S3 apply relevant standards and best practices to maintain information quality S4 match museum and audience needs with existing products S5 analyse the impact of functional/technical changes on museum and audience needs S6 be precise and aware of details

Dimension 1 **e-Comp. area**	D. ENABLE
Dimension 2 **e-Competence: Title + generic description**	**D.11. Needs Identification** Actively listens to internal / external key stakeholders, articulates and clarifies their needs. Manages the relationship with all stakeholders to ensure that the solution is in line with museum requirements. Proposes different solutions, by performing contextual analysis in support of user centered online communication plan. Advises the organisation's management team on appropriate solution choices. Acts as an advocate engaging in the implementation or configuration process of the chosen components of the plan.

Dimension 3	Level 1	
e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 2	
	Level 3	Establishes reliable relationships with key stakeholders and helps them clarify their needs.
	Level 4	Exploits wide ranging specialist knowledge of the key stakeholders (see summary statement) to offer possible solutions their-needs. Provides expert guidance to the key stakeholders by proposing solutions and supplier.
	Level 5	
Dimension 4 **Knowledge examples** ***Knows/Aware of/Familiar with***	K1 emerging technologies and the relevant market applications K2 museum's communication needs K3 key stakeholders needs K4 museum processes and structures K5 audience need analysis techniques K6 communication techniques K7 "Story telling" techniques	
Skills examples ***Is able to***	S1 analyse and formalise online communication processes S2 analyse museum and audience 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	D. ENABLE
Dimension 2 **e-Competence: Title + generic description**	**D.12. Digital Marketing** Understands the fundamental principles of digital marketing. Distinguishes between the traditional and digital approaches. Appreciates the range of channels available. Assesses the effectiveness of the various approaches and applies rigorous measurement techniques. Plans a coherent strategy that will boost interaction with the online community using the most effective means available. Understands the data protection and privacy issues involved in the implementation of the marketing strategy.

Dimension 3	Level 1	
e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 2	Understands and applies digital marketing tactics to develop an integrated and effective digital marketing plan using different digital marketing areas such as search, display, e-mail, social media and mobile marketing.
	Level 3	Exploits specialist knowledge to utilise analytical tools and assess the effectiveness of websites in terms of technical performance and download speed. Evaluates the user engagement by the application of a wide range of analytical reports. Knows the legal implications of the approaches adopted.
	Level 4	

	Level 5	

Dimension 4 Knowledge examples *Knows/Aware of/Familiar with*	K1 marketing strategy K2 web technologies K3 search engine marketing (PPC) K4 search engine optimization (SEO) K5 mobile marketing (e.g. Pay Per Click) K6 social media marketing K7 e-mail marketing K8 display marketing K9 legal issues / requirements K10 e-reputation management K11 research methods, benchmarks and measurements methods
Skills examples *Is able to*	S1 understand how web technology can be used to increase audience satisfaction S2 understand User Centric Marketing S3 use and interpret web analytics S4 understand the on-line environment S5 maintain face to face (offline) relationships with target groups, who are beneficial to e-reputation management

Dimension 1 e-Comp. area	E. MANAGE
Dimension 2 e-Competence: Title + generic description	**E.1. Forecast Development** Interprets museum and user 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 audience inputs and assessing the museum 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 *Knows/Aware of/Familiar with*	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 online communication processes K6 how ~~business~~ marketing processes are integrated and their dependency upon ICT applications

	K7 new emerging technologies (e.g. distributed systems, virtualisation, mobility, data sets)
	K8 museum and audience needs
	K9 museum and user need analysis techniques
	K10 museum's budget dedicated to ICT development
Skills examples *Is able to*	S1 apply what-if techniques to produce realistic outlooks S2 generate sales forecasts in relation to current market share S3 interpret external research data and analyse information S4 identify business advantages and improvements of adopting emerging technologies S5 analyze future developments in marketing process and technology application S6 analyze feasibility in terms of costs and benefits S7 match museum/audience needs with products in the market

Dimension 1 **e-Comp. area**	E. MANAGE	
Dimension 2 **e-Competence: Title + generic description**	**E.4. Relationship Management** Maintains regular communication with online audience, 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 organisational 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	
	Level 4	Provides advice in the authorisation of investment in new and existing relationships.
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 museum's business objectives, own and of other stakeholders (see summary statement) K2 how to measure and apply resources to meet stakeholder requirements K3 museum's business challenges and risks K4 museums, staff and technology providers needs K5 interpersonal skills K6 audience needs and their motivation	
Skills examples *Is able to*	S1 deploy empathy to audience needs S2 identify potential win-win opportunities for user 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)	

Dimension 1	E. MANAGE
e-Comp. area	
Dimension 2	**E.6. Online Communication Quality Management**
e-Competence: Title + generic description	Implements online communication quality policy to maintain and enhance museum services related to the operation of the online community. Plans and defines indicators to manage quality with respect to ICT and overall communication strategy. Reviews quality measures and recommends enhancements to influence continuous quality improvement.

Dimension 3	**Level 1**	
e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	**Level 2**	Communicates and monitors application of the museum online communication quality policy.
	Level 3	Evaluates quality management indicators and processes based on ~~ICT~~ online communication 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 related to online communication. Provides cross functional leadership for setting and exceeding quality standards.
	Level 5	

Dimension 4	K1 online communication quality standards
Knowledge examples	K2 web, cloud and mobile technologies requirements
	K3 technologies and standards to be used during the deployment
Knows/Aware of/Familiar with	K4 potential and opportunities of relevant standards and best practices

Skills examples	S1 illustrate how methods, tools and procedures can be applied to implement the –museum's online communication quality policy
Is able to	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. MANAGE
e-Comp. area	
Dimension 2	**E.7. Business Change Management**
e-Competence: Title + generic description	Assesses the implications of new digital solutions in the museum online communication. Defines the requirements and quantifies the benefits for the museum. Manages the deployment of change taking into account structural and cultural issues. Maintains process continuity throughout change, monitoring the impact, taking any required remedial action and refining approach.
Dimension 3	**Level 1**	

e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	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 online communication led business change.
	Level 5	
Dimension 4 **Knowledge examples** *Knows/Aware of/Familiar with*	K1 digital strategies K2 the impact of business changes related to online communication on the museum and human resources K3 museum's online communication processes are integrated into the online marketing mix and dependent upon ICT applications K4 museum's business strategy and processes K5 methods to analyse information and ~~business~~ online communication processes K6 evaluation, design and implementation methodologies	
Skills examples *Is able to*	S1 analyse costs and benefits of business changes S2 select appropriate ICT solutions based upon benefit, risks and overall impact S3 construct and document a plan for implementation of process enhancements S4 apply project management standards and tools S5 identify business advantages and improvements of adopting emerging technologies S6 analyse future developments in museum online communication process and technology application S7 review and analyse effects of implementations S8 explain (defend, argue, justify)	

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