2018
EUROPEAN YEAR OF CULTURAL HERITAGE
#EuropeForCulture

EUROPEAN QUALITY PRINCIPLES FOR EU-FUNDED INTERVENTIONS WITH POTENTIAL IMPACT UPON CULTURAL HERITAGE

ICOMOS

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> "...if you cannot afford marble,
> use Caen stone, but from the best bed;
> and if not stone, brick, but the best brick;
> preferring always what is good
> of a lower order of work or material,
> to what is bad of a higher;
> for this is not only the way to improve every
> kind of work, and to put every kind
> of material to better use;
> but is more honest and unpretending
> and is in harmony with other just,
> upright, and manly principles ..."

(John Ruskin, The Seven Lamps of Architecture - The Lamp of sacrifice, London: Smith, Elder, and Co., 1849, p. 20)

Executive Summary

This document stems from the work of an expert group[1] assembled by the International Council on Monuments and Sites (ICOMOS), under the mandate of the European Commission and in the framework of the flagship EU Initiative of the European Year of Cultural Heritage 2018, *"Cherishing heritage: developing quality standards for EU-funded projects that have the potential to impact on cultural heritage"*.

The main objective of the document is to provide guidance on quality principles for all stakeholders directly or indirectly engaged in EU-funded heritage conservation and management (i.e. European institutions, managing authorities[2], international organisations, civil society and local communities, private sector, and experts).

The document focuses on the core issue of quality in EU-funded interventions that could impact on cultural heritage (mainly built heritage and cultural landscapes), providing a summary of key concepts, international charters, European and international conventions, and standards and changes in understanding and practice of heritage conservation. Environmental, cultural, social and economic benefits resulting from the application of appropriate conservation measures are outlined.

Given that the recognition of cultural heritage as a common good is a precondition of quality, the adoption of quality measures is proposed by raising awareness and strengthening the implementation of conservation principles and standards at every stage of a project, from conception to completion.

The document recognises the need to develop capacity throughout the wide range of stakeholders involved. Principal areas are noted, related to programming, design, implementation, governance, risk assessment, research, education and training. Key research outcomes and specific recommendations are presented with each topic. A set of selection criteria is proposed at the end of the document, as a tool for decision makers to assess the quality of projects with potential impact on cultural heritage.

The main recommendations can be summarised as shown on the following table.

MAIN RECOMMENDATIONS

Principles and Standards

1 All stakeholders involved in cultural heritage conservation should respect international cultural heritage documents and charters.

2 Standard-setting texts and guidance documents related to cultural heritage, produced by UNESCO, the Council of Europe, ICOMOS, CEN, and other competent organizations, should be made widely accessible through the internet and e-publications or digital tools.

Advancing Quality Principles

3 Using cultural assets in respectful ways safeguards their meanings, values and inspiration for local communities and future generations.

4 Recognition of cultural heritage as a common good shall be a precondition of quality.

5 Cultural values shall be safeguarded when assessing the overall costs and benefits of an intervention, and considered at least on an equal footing with financial value.

Programming at EU and national levels

6 Cultural heritage preservation should be mainstreamed into programming at EU and national levels on an equal footing with other objectives.

7 The EU's programming activity and funding for cultural heritage should be based on sound research and analysis.

8 Member States should involve their national cultural heritage institutions from the outset of the programming/negotiating phase and at all stages thereafter.

9 Successful programmes and projects at national and regional levels should be made available so that the EU can encourage the sharing of good practices amongst Member States.

10 Priorities for the selection of projects to be funded must be consistent with national and regional strategic cultural heritage protection policies and must already have been approved by the national heritage institutions/administrations.

11 Consideration should be given to the funding of small-scale projects as well as to a two-stage decision process for larger projects.

Briefs and Tenders

12 Briefs and tenders shall reinforce a conservation approach in which proposals are based on prior detailed research in order to uphold cultural and associated values.

13 Briefs and tenders shall require that proposals respect the material authenticity and preservation of the cultural asset.

14 Briefs and tenders shall require that proposals set out direct and indirect intervention impacts on cultural heritage as part of a risk analysis with mitigation measures. They shall also require that proposals include a business plan as well as a conservation-maintenance and long-term monitoring plan, and that they explain the potential benefits for the public.

Design

15 Project proposals shall set out how the existing cultural heritage status, values, and conditions have been integrated into the design, providing the reasons for all proposed interventions.

16 When new parts/elements are necessary, a project shall use contemporary design adding new value and/or use while respecting the existing ones.

17 When new functions are considered, these shall be compatible with the heritage site, respond to community needs, and be sustainable.

18 Projects and planning shall acknowledge the need for ongoing maintenance and strengthen the capacity of local communities to care for their heritage.

19 EU-funded projects should respect EU values and treaties. Reconstructions might only be funded in exceptional circumstances, and never for tourism purposes only.

Procurement

20 During the procurement of the work by project beneficiaries, a two-envelope system should be deployed for ranking the technical offer separately from the financial one.

Implementation

21 The implementation plan and management structure shall be clearly defined and agreed, allowing for correction of actions and efficient use of resources. A contingency provision for any additional research, testing of materials, or other actions shall be included and monitoring shall be undertaken at regular intervals.

22 Specific communication channels shall be established among all parties involved in the project. A dedicated representative of the conservation works could be designated for this purpose.

23 The implementation process shall be fully documented and archived and made accessible for future reference.

24 The structures and competences of public sector institutions and of regional and local government should be reviewed and strengthened.

Project evaluation

25 Independent end-of-project evaluation should be undertaken to include examination of cultural, technical, social, economic and environmental outcomes, and the impacts on local communities. An identification of emerging risks, issues and opportunities concerning the project and its setting should also be provided. A less onerous evaluation approach should be considered for small, low-budget projects.

26 A long term evaluation of the project with regard to management and maintenance should be undertaken after a reasonable interval of time.

27 Adequate resources for independent evaluation by specifically competent heritage experts should be provided at the relevant stage of the process.

Governance

28 EU-funded heritage initiatives should facilitate civil society and community participation.

29 Fund regulations should encourage the financing of heritage projects, and accept their specificities.

Risk Assessment and Mitigation

30 The European Commission should investigate and propose a tailored policy on risk management for cultural heritage projects and for projects impacting cultural heritage because comprehensive risk assessments are fundamental for the success of cultural heritage projects.

Research

31 Technical, administrative and financial support for an integrated research policy and joint programming on cultural heritage in Europe should be increased as it would help to conceptualise the European dimension of cultural heritage. Building synergies with other EU funding programmes could bring considerable social and economic benefits.

32 Funding should be provided to conduct research at macro level (trends, impacts) and micro level (case-studies and comparison of practices in similar heritage places) on the financing of cultural heritage interventions by the EU.

33 Interdisciplinary research programmes should be developed and knowledge transfer from the social sciences and humanities field should be improved to include research on participatory planning, integrated management of cultural heritage and the development of smart technology measures.

34 European research on cultural heritage needs should provide appropriate funding instruments for small-scale projects.

35 The forthcoming Horizon 2020 Social platform on the impact assessment and the quality of interventions in European historical environment and cultural heritage sites should build on the results of this document.

Education and Training

36 A provision in EU-funded cultural heritage projects should be established for conservation training or upskilling schemes within the project brief and tendering process, insofar as practicable.

37 Educational and training courses and programmes in the cultural heritage sector should conform to the relevant international standard setting texts and guidance in the field, and regularly update their curricula so that they are abreast of technical developments and innovation.

38 An information system about the most relevant European training programmes and institutions in the cultural heritage sector could be helpful if regularly updated.

39 Architecture schools should include conservation in their main curricula.

Rewarding Quality

40 The European Commission should evaluate the possibilities of developing a special European Award to reward quality in EU-funded cultural heritage interventions, in synergy with existing schemes and prizes.

1. INTRODUCTION

Cultural heritage is a resource for society, retaining and transmitting the many and diverse values of Europe's culture to the future generations of the world.

3 CHCfE Consortium, Cultural Heritage Counts for Europe, 2015. Available at: http://blogs.encatc.org/culturalheritagecountsforeurope/outcomes/

A recent analysis[3] at the European level provides evidence of the many benefits of investments in cultural heritage in a wide range of policy areas, positively influencing employment, sustainable development, identity, regional attractiveness, creativity and innovation, tourism, quality of life, education and lifelong learning, and social cohesion. The EU Policy framework on cultural heritage[4] also underlines the need to adopt a holistic and integrated approach to policy making with regard to cultural heritage, integrating the care, protection, interpretation and proper use of heritage in all policies, programmes and actions, and in so doing, bringing benefits across the four areas of sustainable development: economy, culture, society and the environment.

4 For further information, see the European Framework for Action on Cultural Heritage. Available at: https://ec.europa.eu/culture/content/european-framework-action-cultural-heritage_en

Cultural heritage "has value in its own right": an inheritance, or legacy, that is not only material, since it embeds ideals, meanings, memories, traditions, abilities and values that constitute a shared source of remembrance, understanding, specificities, dialogue, cohesion and creativity for Europe and for the entire world.

5 European Commission, Special Eurobarometer 466 on Europeans and cultural heritage, 2017. Available at:https://europa.eu/cultural-heritage/toolkits/special-eurobarometer-europeans-and-cultural-heritage_en

6 National authorities (46%); the EU (40%); local and regional authorities (39%).

Cultural heritage matters for Europeans: more than 80 percent feel that it is important to them personally, to their local community, to their region and to their country. Almost three quarters of Europeans think public authorities should allocate more resources to Europe's cultural heritage[5], and a large number think that national authorities, the EU, and local and regional authorities[6] should do more to protect Europe's cultural heritage.

The European Union supports cultural heritage conservation[7]. Its programmes and actions aim at ensuring balanced development while respecting the variety and uniqueness of national, regional and local cultures. The contribution of cultural heritage to sustainable development is widely recognized. For this reason, the cultural heritage sector receives assistance from many EU policies and actions beyond those directly associated with culture, such as those related to regional and urban development, social cohesion, agriculture, maritime affairs, environment, tourism, transport, education, disaster risk management, the digital agenda, research and innovation[8].

The European Year of Cultural Heritage 2018 has offered the opportunity to showcase many examples of successful EU-funded interventions on cultural heritage. Within the current European Regional Development Fund (ERDF) programmes, around 6 billion € are allocated to investments in the development and promotion of culture, cultural heritage and creative industries. Interventions range from the recovery of abandoned villages[9], to the rehabilitation of historic towns, to improved accessibility to heritage sites. The EU INTERREG programme supports cross-border, interregional and cooperation projects that focus on cultural heritage. Investment in cultural heritage is one of the most popular topics within the European Territorial Cooperation Projects[10].

Investments in infrastructure, rural and urban development, and the mining and energy sector, among others, can nevertheless endanger cultural heritage if adequate impact assessment and mitigation measures are not undertaken. In attempting to give heritage a new lease of life, issues of authenticity and reconstruction may not be adequately addressed, thereby wiping away centuries of history and cultural values. Excessive tourism pressure, poorly-managed tourism, and tourism-related

development can threaten the physical nature, integrity and significant characteristics of a heritage asset and site. Finding an equilibrium between safeguarding and conservation on the one hand, and dynamic approaches to respectful and compatible (re)use and management on the other, is fundamental to ensuring the viability of this non-renewable resource for Europe's economy, culture, society and environment. A long-term objective is thus to have all EU-funded projects that directly or indirectly involve cultural heritage evaluated with an impact assessment in order to ensure the quality of interventions. To support this ambition, the EU should prepare methodological guidance toolkits and engage the involved authorities to promote the use of impact assessment.

This was recognised by the European Parliament, which, in its Resolution of September 2015, urged the Commission "to include in the guidelines governing the next generation of structural funds for cultural heritage a compulsory quality control system, to apply throughout a project's life-cycle"[11]. The EU Council also invited the Commission, "when planning, implementing and evaluating EU policies, to continue to take into consideration their direct and indirect impact on the enhancement, conservation and safeguarding of Europe's cultural heritage and in particular the need for quality guidelines to ensure that EU investment does not damage or diminish the values of cultural heritage"[12].

7 Article 3(3) of the Treaty on the European Union (TEU, 1992) states that the Union is to respect its rich cultural and linguistic diversity, and ensure that Europe's cultural heritage is safeguarded and enhanced. Article 167 of the Treaty on the Functioning of the European Union (TFEU, 2007) gives the Union the task of contributing to the flowering of the cultures of the Member States, while respecting their national and regional diversity and at the same time bringing the common cultural heritage to the fore. Union action is to be aimed at encouraging cooperation between Member States and, if necessary, supporting and supplementing their action in the areas of, inter alia, the improvement of the knowledge and dissemination of the culture and history of the European peoples, and the conservation and safeguarding of cultural heritage of European significance.

8 European Commission, Mapping of Cultural Heritage Actions in European Union policies, Programmes and Activities, August 2017. Available at: https://ec.europa.eu/culture/news/20170705-updated-heritage-mapping-published_en

9 For further information, see the European Commission's REGIOSTARS Awards. Available at http://ec.europa.eu/regional_policy/en/regio-stars-awards/#4

10 Interact Programme, Connecting Cultures, Connected Citizens, 2018. Available at http://www.interact-eu.net/library/e-book-connecting-cultures-connected-citizens/pageflip

11 European Parliament resolution of 8 September 2015 "Towards an integrated approach to cultural heritage for Europe" ((2014/2149)INI) P8-TA(2015)0293.

12 Council conclusions on the need to bring CH to the fore across policies in EU (2018/C 196/05).

About this document

This document stems from the work of an expert group set up by ICOMOS[13], under the mandate of the European Commission (EC) and in the framework of the European Flagship Initiative 'Cherishing Heritage', which was launched on the occasion of the European Year of Cultural Heritage 2018. It also takes into account discussions from the workshop held with experts and decision-makers in Paris in May 2018, during which examples were presented to point out success factors and bottlenecks in interventions on cultural heritage. It additionally considers comments and suggestions received after the conference "Cherishing Heritage" convened in Venice in November 2018[14] to launch the public debate on this issue.

This introduction is followed, in Section 2, by an overview of key concepts, principles, and approaches and a summary of existing standards related to quality in conservation, restoration, (re)use and enhancement of cultural heritage. Section 3 looks at how quality principles for interventions on cultural heritage can be implemented in EU-funded projects from entry to completion (also referred to as "the project life-cycle"). Section 4 identifies external factors that can have an impact on quality, namely governance, risk assessment, research, education and training. The attached operational criteria, issued after the Venice conference, provide guidance on quality principles for stakeholders directly or indirectly engaged in EU-funded heritage conservation and management (i.e., European institutions, managing authorities[15], civil society and local communities, private sector, and experts).

In line with UNESCO and ICOMOS usage related to tangible heritage, conservation is considered as the umbrella term to cover a range of preservation, conservation, restoration, (re)use, interpretation and management activities.
Cultural heritage should be understood in its broader meaning, from a single building to cultural landscapes.

13 For the list of members of the ICOMOS Executive Group, see footnote No. 1.

14 Cherishing heritage - Quality principles for intervention on cultural heritage, Thursday 22 November – Friday 23 November 2018, Auditorium Santa Margherita, Dorsoduro 3689 - 30123 Venice (IT).

15 According to the European Commission, "A managing authority may be a national ministry, a regional authority, a local council, or another public or private body that has been nominated and approved by a Member State"(European Commission glossary entry available at: http://ec.europa.eu/regional_policy/en/policy/what/glossary/m/managing-authority

2. QUALITY CONCERNS IN CULTURAL HERITAGE INTERVENTIONS

This section provides a summary of key concepts, and European and international conventions and charters, as well as changes in the understanding and practice of heritage conservation.

2.1 Overview: definitions and observations

Defining 'quality'[16] in interventions on cultural heritage is a crucial and challenging issue.

Commitment to quality of cultural heritage interventions has a long history. Especially since the late 19th century, great attention has been paid to quality issues in the conservation of historic monuments and archaeological sites. More than a century later, defining quality in the context of interventions on cultural heritage has progressed beyond architectural and technical matters at the level of single buildings to broader environmental, cultural, social and economic considerations about sites and their settings.

As regards material heritage, quality does not only rely on the intervention itself, but also on the prerequisites set, on the transparency of the procedures, on the design phases and on the documentation of a project. It also depends on the completeness, depth, detail, and accuracy of the information and the technical specifications and economic figures of any proposal of intervention, as well as on the constant monitoring of the decision-making processes.

16 The Cambridge Dictionary provides the following definitions of "Quality": "the degree of excellence of something, often a high degree of it"; "Quality often refers to how good or how bad something is"; Quality refers to "of a high standard". (Cambridge Dictionary, Cambridge: Cambridge University Press, 2019. Available at: https://dictionary.cambridge.org/dictionary/english/quality).

The processes underpinning quality interventions are equally critical. Typically, these include the preparation of a preliminary – and then comprehensive - analysis and diagnosis of the heritage asset and its context. This feasibility study would define: clear and realistic project objectives; potential values for different stakeholders and local community groups and, where appropriate, for European cohesion; threats to its condition and processes of decay; its sensitivity to change without loss of cultural values; a plan for community consultation; interpretation and presentation of its significance; formulation of the business case for the intervention; financial and economic sustainability; principles for sustainability and accessibility; and legal and regulatory guidance. The feasibility study would be followed by detailed design of the intervention, selection of the skills required, risk assessment, the elaboration of a management plan, and a monitoring and evaluation framework. The transparency of the selection of the projects to be funded and the development of the monitoring and evaluation procedures are also crucial quality factors.

Among the important documents aimed at setting international principles is the Venice Charter for the Conservation and Restoration of Monuments and Sites (1964), which was aimed at experts and mainly established key concepts and approaches for the conservation and restoration of cultural heritage (for example, the definition of monuments' authenticity, originality, cultural significance and use).

Other charters and documents have added detailed and differentiated aspects of quality principles. Some concepts that lead to quality principles are related to human rights; for example, cultural diversity, or the right to access, participate in, enjoy and contribute to cultural heritage[17]. Others, such as the rights of future

17 Report of the independent expert in the field of cultural rights, Farida Shaheed (2011), United Nations, General Assembly, A/HRC/17/38.

18 Treaty on the Functioning of the European Union (Article 191(2) TFEU). Available at http://ec.europa.eu/environment/legal/liability/index.htm

19 Council of Europe Framework Convention on the Value of Cultural Heritage for Society - Council of Europe Treaty Series - No. 199. Available at https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680083746

generations, the right of access to information, the principles[18] of prevention and precaution, and the polluter pays principle, are shared with the environment sector.

Contemporary thinking about quality in cultural heritage interventions recognises that:
• Stakeholders (citizens, the public, the voluntary and the private sectors, politicians, and heritage professionals) have their own points of view on quality;
• Quality is a concept of relative and subjective nature that may depend on the perspective of individuals, the community, the local or wider context, historical and geographic location, the cultural asset, and the aims of the planned intervention;
• Dialogue among stakeholders about proposed interventions on cultural heritage, their meanings for different stakeholders and community groups, and the meaning of the term itself are crucial to achieve high levels of quality. This would require all information on EU-funded projects to be accessible to the public in the planning stage of the projects and before they are approved by any competent authority.

Putting communities at the heart of heritage policies, as advocated by the Faro Convention on the Value of Cultural Heritage for Society (2005)[19] and by the UNESCO Recommendation on the Historic Urban Landscape (2011), requires integrated and participatory approaches to safeguarding, interpreting and managing cultural heritage. Doing so raises the threshold of desired quality in planning and implementing interventions on cultural heritage.

Quality in relation to cultural heritage can in any case be seen as multi-dimensional, bearing environmental, cultural, social, and economic values. Notions of cultural diversity, inclusivity, and an understanding of intangible heritage contribute important perspectives to defining future actions and interventions.

2.2. Principles and standards

A set of basic principles related to quality are generally accepted at the international level within the heritage sector. They are briefly recalled in the following section (and in the References) so as to establish a common ground for discussion.

Common values underpin common principles

As early as 1931, the Athens Conclusions[20] laid out common principles for cultural heritage conservation. Early discussions concerning the basic principles for cultural heritage conservation and treatment were rooted in an awareness that mankind shares common values that are considered as "common heritage," that our historic environment mirrors the history and traditions of peoples, and that transmitting cultural heritage to future generations is a shared responsibility. After World War II, these common values and concepts were enshrined in the conventions and founding treaties of the United Nations, UNESCO, the Council of Europe, and the institutional precursors of today's European Union.

EU Treaties

The EU aims at a high level of protection and improvement of the quality of the environment. It respects cultural diversity and ensures that the cultural heritage of Europe is safeguarded and enhanced[21]. The EU embraces the concepts of sustainable development[22], the heritage of mankind, the rights of future generations, and shared responsibility[23]. These concepts provide the framework for this paper.

20 The Athens Charter for the Restoration of Historic Monuments, adopted at the First International Congress of Architects and Technicians of Historic Monuments, Athens 1931. Available at https://www.icomos.org/en/resources/charters-and-texts/179-articles-en-francais/ressources/charters-and-standards/167-the-athens-charter-for-the-restoration-of-historic-monuments

21 Article 3 of the Treaty on the European Union.

22 Article 3 of the Treaty on the European Union.

23 Article 5 of the Treaty on the European Union; Protocol No 2 to the Treaty on the European Union.

Because cultural heritage is an area of primary competence of the Member States, the EU can only encourage their cooperation and, if necessary, support and supplement their actions in the conservation and safeguarding of cultural heritage of European significance. Therefore, there is a need to reflect on the principles that should underlay interventions worthy of European funding. The Treaties offer some guidance: within the objectives of respect for cultural diversity and the safeguarding and enhancement of Europe's cultural heritage, the principles of subsidiarity, proportionality[24], and mainstreaming[25] apply. The concept of sustainable development envisages the historic environment as a major resource and inspiration for development. The principles that action should be based on a precautionary approach, that preventive action should be taken, and that environmental damage should, as a priority, be mitigated at the source[26], are equally relevant for the environment and for cultural heritage.

24 Article 5 of the Treaty on the European Union; Protocol No 2 to the Treaty on the European Union.

25 Article 167 of the Treaty on the functioning of the European Union.

26 Article 191 of the Treaty on the functioning of the European Union.

UNESCO

As the only specialized agency of the United Nations with a specific mandate that includes culture, UNESCO is the main standard-setter at the international level on the protection of heritage. The 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (also known as the World Heritage Convention) and the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO, 2017) define the kind of natural or cultural sites that can be considered for inscription on the World Heritage List. By ratifying the Convention, each country pledges not only to safeguard the World Heritage properties situated on its territory, but also to protect its national heritage. The World Heritage Convention is part of a broader set of complementary standard-setting instruments approved within the

framework of UNESCO, which include other Conventions, Recommendations and Declarations directly or indirectly relevant to cultural heritage as intended by the present document, such as, in particular, the Recommendation on the Historic Urban Landscape (2011).

The Council of Europe

The Council of Europe has contributed to reflection on the historic environment and the practice of cultural heritage conservation in Europe and beyond, with four cultural heritage conventions[27] and more than thirty resolutions and recommendations. The European Charter of the Architectural Heritage[28], adopted in 1975, calls for integrated territorial planning and respect for the social dimension of cultural heritage interventions in towns and villages, and thus remains a basic reference document.

Another text related to the work of the Council of Europe is the Davos Declaration 2018 "Towards a high-quality Baukultur for Europe", which was adopted within the framework of the European Cultural Convention. The declaration underscores the continuity between cultural heritage and contemporary creation and calls for new integrated and high-quality approaches to shaping our built environment.

ICOMOS Principles for cultural heritage conservation

ICOMOS doctrinal texts, resolutions, declarations and Ethical Principles have been developed by teams of cultural heritage experts from all regions of the world. They seek to take into account regional and local cultures, traditions and changing contexts. Addressed at cultural heritage professionals, they are non-binding for countries but have influenced international treaties and national legislation.

[27] The Convention for the Protection of the Architectural Heritage of Europe (Granada, 1985). The European Convention on the Protection of the Archaeological Heritage (revised) (Valletta, 1992); The European Landscape Convention (Florence, 2000); The Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro, 2005).

[28] The European Charter of Architectural Heritage was adopted on 29 September 1975 by the Committee of Ministers of the Council of Europe and proclaimed at the Congress of the European Architectural Heritage (Amsterdam, 21-25 October 1975). The Amsterdam Declaration was adopted by the participants at the Congress.

Summary of ICOMOS ethical and technical guidance on the subject of quality:

- Understanding of and respect for cultural heritage and its significance: uses of - and interventions on - cultural heritage must respect and keep the character of a place and its values.
- Adequacy of feasibility studies and detailed conservation plans: analysis and diagnosis of the cultural asset are a prerequisite for any intervention.
- Use of the cultural asset and regular programmed maintenance: necessary to extend life of the cultural asset.
- Preventive care: always better than subsequent traumatic interventions.
- Maintaining authenticity and integrity is essential, also in cases of compatible and respectful re-use, so that future generations will continue to have access to the full richness of any intervention on cultural heritage.
- Collective and transparent decision-making: important decisions are not solely taken by the author of the project but are the result of a collective and interdisciplinary reflection.
- Exploring options: viable options must be carefully explored and the chosen options are adequately justified.
- Minimum intervention: "do as much as necessary and as little as possible".
- Precaution in designing: a requirement, especially if knowledge/information is insufficient or unaffordable.
- Compatibility of design solutions: "use adequate materials, techniques and detailing" in regard to material and physical-chemical-mechanical interactions between the new and the existing.
- Reversibility of the interventions: recommended and to consider in any event.
- Multi-disciplinary: "call upon skill and experience" from a range of relevant disciplines
- Efficacy: the desired results must be formulated and agreed upon in advance.
- Community involvement and public interest: must be taken into account at all stages.
- Accessibility and inclusiveness: interpretation should be the result of meaningful collaboration between heritage professionals, the host and associated communities, and other stakeholders. Every effort should be made to communicate the site's values and significance to its varied audiences (cognitive accessibility)

Under the auspices of the European Committee for Standardisation (CEN), cultural heritage experts from many European countries are developing standards for the conservation of moveable and immovable cultural heritage. The objective is to acquire a common unified scientific approach to problems related to the preservation/conservation of cultural heritage itself.

CEN standards are not well known in the heritage sector, in part because they are accessible only on a paid basis (see relevant CEN standards in Main References).

Main recommendations

1. All stakeholders involved in cultural heritage conservation should respect international cultural heritage documents and charters.
2. Standard-setting texts and guidance documents related to cultural heritage, produced by UNESCO, the Council of Europe, ICOMOS, CEN, and other competent organisations should be made widely accessible in all EU languages through the internet and e-publications.

Additional recommendations

- CEN standards should be taken into consideration and, where relevant, included in the Terms of Reference of all contractual documents for cultural heritage interventions.
- For CEN standards to be widely accepted and used, new business models should be sought so that they are available without cost to professionals - at least for online versions (see Main References).
- The ISO-9001 standard for quality management should also be noted.

2.3. Advancing quality principles in a fast changing world

More than half a century after the Venice Charter articulated core principles for heritage conservation and restoration, it is time to revise and modernize approaches in view of new developments.

Cultural heritage is understood as a common good. Its composition has evolved from individual monuments to entire cultural landscapes, settlements, routes and associated intangible heritage. Thus, in addition to major monuments of great national or regional importance that are usually publicly-owned, smaller and often private buildings that constitute the main part of built heritage have gained recognition as an important asset of urban and rural settlements. Similarly, the range of actors and stakeholders involved in processes with direct or indirect impacts on cultural heritage has widened. A wide array of disciplines now contribute to heritage conservation: archaeology, museology, geography, art history, history and archives, architecture and landscape architecture, engineering, planning, economics, anthropology and sociology, law, and public policy. Efforts to optimize the potential of cultural heritage assets for economic, social and cultural benefit are widespread. Heritage-led regeneration that would increase the attractiveness and competitiveness of different historic areas is a cornerstone of regional economic policy. All this points to the need to balance heritage conservation and socio-economic development through integrated and innovative management strategies, taking into account the fact that cultural heritage is not renewable nor replaceable.

Numerous factors have an influence on the quality of interventions on cultural heritage.

Cultural heritage is acknowledged as far more than a resource for economic growth, and the diversity of cultural backgrounds and resources in the EU Member States represent a source of wealth. Identifying what kind of heritage should be passed on to future generations requires the consultation of communities and stakeholders as well as experts.

An understanding of the cultural dimensions of development and the role of heritage for healthy communities thus forms a cornerstone for excellence in conservation.

The countries and regions eligible for EU funding share common characteristics while having specific needs and capacities and therefore a capability to respond to the various programmes. While in many EU countries national legislation and regulations for cultural heritage are well-established and enforced, programme implementation in different countries is uneven. In all EU countries, specialized public agencies have the responsibility to formulate and implement cultural heritage policies and programmes. Considering that these agencies need to look at heritage from a national perspective, EU interventions can provide a complementary focus on the European dimension.

However, insufficient capacity in the public and private sectors sometimes negatively affects the quality of interventions. The heritage focus is sometimes narrowly directed towards the authenticity and integrity of heritage assets – which are, in any case, crucial – rather than promoting their contribution to community life. In other cases, cultural heritage is used as a pretext to build new extensions that may be out of scale or out of context. This can result in a mismatch between local community needs and the objectives of EU-funded projects.

Main recommendations

3. Using cultural assets in respectful ways safeguards their meanings, values and inspiration for local communities and future generations.
4. Recognition of cultural heritage as a common good shall be a precondition of quality.
5. Cultural values shall be safeguarded when assessing the overall costs and benefits of an intervention, and considered at least on an equal footing with financial value.

Additional recommendation

• Cultural heritage conservation should be understood as a long-term investment for society, rather than a mere cost.

3. ENSURING QUALITY OF INTERVENTIONS ON CULTURAL HERITAGE

This section examines the critical determinants of quality at entry and during implementation of cultural heritage interventions as well as during the post-project functioning of cultural monuments. Among these key elements are: 1) the consistency of interventions with the cultural policies, priorities and development goals at EU, national, regional and local levels; 2) clarity of the project's objectives; 3) the evaluation of possible technical alternatives; 4) the strengthening of the heritage institutions at the national level; 5) the evaluation of environmental, cultural, social and economic opportunities, benefits and impacts; 6) the risk assessment; 7) a detailed implementation plan; 8) the monitoring and post-project quality assessment; 9) post-intervention maintenance and improvement of the sites/assets, with sufficient resources provided.

3.1. Programming at EU, national and regional levels

An understanding of the determinants of quality at the stage of programming at EU and national levels is perhaps the most important of all prerequisites.

Lessons learned

During previous EU funding periods, cultural heritage has received direct investment as well as indirect funding. Results have been mostly estimated as positive. There is, however, scope for improvement during the next EU

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programming phase. The responsible national heritage institutions, as well as European civil society organisations for cultural heritage, should be at the table from the very outset. They are frequently consulted too late or not at all, leading to adverse effects on heritage. Heritage agencies can be more proactive if they understand who takes the decisions about the EU funding programmes, and which institutions and positions are involved, with their respective roles and responsibilities. The negotiation/consultation phase at EU and national levels needs a solid evidence base in order to analyse alternatives and potential impacts. Effective notification and communication depend on access to information by communities, stakeholders, and experts. This promotes community engagement. The minimum project funding threshold is also a crucial issue because smaller projects may have a great impact. Multiple examples have demonstrated that heritage values can be preserved and new compatible and respectful uses introduced with modest investment. In some cases, a large influx of funding in a relatively short period of time can create perverse incentives, leading to wasteful spending and significant increases in costs (for example, in the construction phase), and loss in heritage values. Transparency in reporting and record keeping is essential.

Main recommendations

6. Cultural heritage preservation should be mainstreamed into programming at EU and national levels on an equal footing with other objectives.
7. The EU's programming activity and funding for cultural heritage should be based on sound research and analysis.
8. Member States should involve their institutions responsible for heritage from the outset of the programming/negotiating phase and all stages thereafter.
9. Successful programmes and projects at national and regional levels should be made available so that the

EU can encourage the sharing of good practices amongst Member States.
10. Priorities for the selection of projects to be funded must be consistent with national and regional strategic cultural heritage protection policies and must already have been approved by the national heritage institutions/administrations.
11. Consideration should be given to the funding of small-scale projects as well as to a two-stage decision process for larger projects.

Additional recommendations

- Programmes that provide funding for projects affecting heritage assets should undertake Heritage Impact Assessments (HIA), taking into consideration the difference between impact and risk assessment. In the case of programmes with objectives other than heritage preservation, but which have a potential impact on it, there should be a thorough Heritage Impact Assessment.
- Information systems already provide reliable and systematically organised information on national heritage policies and their compatibility with European legal standards. The system could be upgraded to contain information on national programming documents, as well.
- The role of national heritage institutions in promoting quality interventions should be recognised at national and EU levels with accompanying financial support. In some instances, coordinated multi–level and multidisciplinary advisory boards can help to avoid fragmented and wasteful funding plans. A long-term collaboration with international expert organisations in the sector is a potential avenue of expert input.
- Access to finance should be open to different types of beneficiaries, including the private and voluntary sectors, while respecting the limits of any kind of intervention on built cultural heritage.
- Providing an EU funding facility for initial feasibility studies would be a way to develop good projects.

This would be followed, in some cases, with funding for different stages of project development (detailed design, implementation, evaluation).

3.2. Project briefs and tenders

Carrying out adequate research and surveys prior to preparing proposals of interventions, and project briefs, terms of reference and tenders, is essential to improve the quality of the results. It is thus crucial that the competent authorities, at different levels of the processes, prepare well-informed calls for proposals and guidance documents for applicants.

Lessons learned

Good practice examples of successful interventions in cultural heritage in Europe suggest that sufficient research, adherence to conservation guidelines, business planning, the involvement of qualified specialists, community consultation, investment in presentation and educational programming, proper documentation, and monitoring and management of the entire process ensure the best outcomes for heritage conservation. The authorities in charge of the programming phases should thus request that project beneficiaries follow these good examples and deploy these tools. For that, programming authorities should ensure good quality briefs, clear and detailed calls for proposals, and technical specifications for tenders, which are fundamental technical and administrative elements that define the design of interventions. It is essential that these documents are written in a clear language. Their form and content thus depend on many factors: the specific character of the cultural heritage assets; the nature of the project and its objectives; the funding envelope, the activities and

services to be provided; the national legislation and regulations including those on regional and urban development and land use planning.

Research by project beneficiaries to assess the significance of the heritage asset should include: examination of documentary and visual evidence; detailed heritage recording and condition assessment; historical enquiries based upon direct and indirect sources; evaluation of decay mechanisms; and community consultation and possible oral history.

Another issue is that cultural heritage is often indirectly addressed by calls for proposals in other sectors, and thus heritage experts with the requested skills and experience may not be involved. It is the responsibility of the programming authorities to ensure their involvement in such cases.

Main recommendations

12. Briefs and tenders shall reinforce a conservation approach in which proposals are based on prior detailed research in order to uphold cultural and associated values.
13. Briefs and tenders shall require that proposals respect the material authenticity and preservation of the cultural asset.
14. Briefs and tenders shall require that proposals set out direct and indirect intervention impacts on cultural heritage as part of a risk analysis with mitigation measures. They shall also require that proposals include a business plan, as well as a conservation-maintenance and long-term monitoring plan, and that they explain the potential benefits for the public.

Additional recommendation

• The calls for EU-funded projects should ensure that the quality principles stipulated by international charters and conventions on safeguarding, using and interpreting cultural heritage (see chapter 2.2) are met.

3.3. Design

Project design must be an expression of an understanding of cultural heritage, its context and values. This understanding also affects quality. In any case, ex-ante evaluation should always be included in the project design phase. When objectives are defined and the appropriate intervention logic formulated, together with performance indicators, it is the ex-ante evaluation that assesses whether the intervention rationale corresponds to the quality principles and guarantees a reliable impact chain between defined needs, accordance with strategic objectives and targeted results.

Lessons learned

Proposals need to be based on feasibility and detailed studies to determine the characteristics and values of the cultural heritage, its state of conservation, needs and opportunities, risks, and the objectives of the project. It is useful to conceptualize a project and ensure coherence between its objectives, activities, outputs, and outcomes by using adequate technical tools. This is a crucial step in project design and will lay the groundwork for monitoring and evaluation.

Insufficient time and financing for project preparation (i.e. preliminary studies, analysis, diagnosis, surveys, community consultation and other essential investigations) usually has a negative impact on projects. The opinions and evaluations of cultural heritage experts should be incorporated into the design at the earliest stages to avoid or mitigate impacts. The need for expert conservation advice also continues through to the detailed design stage and in the supervision of onsite works using skilled builders and craft-workers.

Environmental and Heritage Impact Assessment should always include preventive archaeological surveys, especially when a history of previous habitation or use is likely. Unplanned archaeological investigations and other diagnostic interventions during the design and implementation phases may result in delays. This can create difficulties that are hard to manage in the tight programming and financing framework of the EU Structural Funds. Additional challenges can arise when the scope of analysis changes during the project's development or implementation for different reasons.

Tourism development is a powerful argument often invoked in favour of new investments in cultural heritage. Too often, the impact of these interventions is unfortunately measured only by the number of visitors attracted to a site without consideration of carrying capacity. It is well known that mass tourism can have a very adverse impact on cultural heritage sites, and indeed on many aspects of local people's lives. Care needs to be taken so that these interventions bring real benefits to local communities and the local economy.

New, extended or temporary uses may allow built heritage to continue its active contribution to society in a meaningful way. As highlighted in the 2018 Leeuwarden Declaration on Adaptive Re-use of the Built Heritage[29], quality adaptive re-use interventions aim to have a positive impact on the sustainable development and circularity of our societies, while at the same time maintaining/enhancing the original cultural values and material consistency of the heritage asset. The presentation and interpretation of the cultural heritage building/site should be an integral element of any intervention.

Main recommendations

15. Project proposals shall set out how the existing cultural heritage status, values, and conditions have

29 Leeuwarden Declaration Adaptive Re-Use of the Built Heritage: Preserving and Enhancing the Values of Our Built Heritage for Future Generations. Available at: https://www.ace-cae.eu/uploads/tx_jidocumentsview/LEEUWARDEN_STATEMENT_FINAL_EN-NEW.pdf

been integrated into the design, and provide the reasons for all proposed interventions.

16. When new parts/elements are necessary, a project shall use contemporary design adding new value and/or use while respecting the existing ones.

17. When new functions are considered, these shall be compatible with the heritage site, respond to community needs, and be sustainable.

18. Projects and planning shall acknowledge the need for ongoing maintenance and strengthen the capacity of local communities to care for their heritage.

19. EU-funded projects should respect EU values and treaties. Reconstructions might only be funded in exceptional circumstances, and never for tourism purposes only.

Additional recommendations

• Ex-ante evaluation of projects is essential for delivering quality heritage interventions, as already recommended.

• Design proposals should demonstrate an appreciation of the entire conservation-restoration, (re)use, enhancement, and management process.

• EU-funded projects should promote the EU's fundamental values and the European dimension of cultural heritage, where appropriate, through thoughtful, prudent and collectively-shared heritage interpretation.

• To ensure that projects have been completed correctly, certification from the heritage experts involved, declaring that the works were carried out in accordance with best practice, should be provided.

• Preventive archaeological surveys shall be part of Environmental and Heritage Impact Assessment.

3.4. Procurement

Projects with cultural heritage components require a form of contract that acknowledges the specific knowledge and skills required and possible heritage sensitivities. Flexibility, in regard to timing or budget, may be required as need arises.

Lessons learned

Awarding EU tenders for projects with cultural heritage elements on the basis of lowest price has been problematic. There is a need to revisit the relevant national procurement methods so that they support quality cultural interventions. 55%[30] of procurement procedures use lowest price as the only award criterion for public contracts. This indicates that public buyers are likely not paying enough attention to quality, sustainability and innovation. The European Commission's public procurement strategy aims to improve EU public procurement practices in a collaborative manner by working with public authorities and other stakeholders. It is necessary to further promote the uptake of strategic procurement by national, regional and local authorities so that procurements better support quality cultural interventions.

Several issues have arisen that create procurement distortions. The conservative application of the EU Directive on Procurement to interventions on cultural heritage assets often leads to the selection of large enterprises that are seen as financially robust, yet may not provide the best quality for specialist works. Moreover, heritage conservation often represents part of a much larger project. Preparing the tender documentation can be complex, so large companies that have the resources to apply, in practice, edge out small local companies. Project managers often spend more time on meeting financial requirements than on technical supervision,

with adverse consequences. Because intervention on cultural heritage may involve unknown elements that are not foreseeable in the initial diagnostic phase – e.g. the discovery of hidden architectural elements, archaeological finds, structural issues – allowance for change (adaptation of the work plan, the actions, or the budget) may be needed during the implementation process. Rules for procurement and contracts without such an ability to adapt can compromise the quality of the process and its outcomes.

Some of the following recommendations for better implementation rules are mainly addressed at programme bodies (EU in case of direct management, EU and MS/regions in case of shared management), whereas suggestions in relation to procurement are more directly addressed at beneficiaries (cities, urban authorities, etc.).

Main recommendation
20. During the procurement of the work by project beneficiaries, a two-envelope system should be deployed for ranking the technical offer separately from the financial one.

Additional recommendations
- In addition, a minimum pass mark should be placed on technical offers. Only those that reach this pass mark should be eligible for their financial offer to be considered.
- There is a need for strong coordination during the procurement process. A designated support team with cultural heritage expertise is desirable.
- Improved capacity at national, regional and local levels should go hand-in-hand with the introduction of quality principles. Multi-disciplinary teams, including cultural heritage specialists, should examine the impacts on cultural heritage of the proposed interventions to be funded by the EU, reviewing environmental assessments or cultural Heritage Impact Assessments.

3.5. Implementation

Successful implementation requires a comprehensive understanding of the heritage asset, professional planning and management, and good cooperation of stakeholders.

The implementation of a project is the culmination of feasibility studies, tendering and procurement processes. During project implementation on site, full attention needs to be given to safeguarding consistency, authenticity and the use of appropriate materials, methods and technologies, which should be always compatible with those already existing and respect the principles initially recalled[31]. Engaging skilled craftspeople is equally important in the phase of procurement. Premature and unreasoned activities pose the greatest quality risk during project implementation. Cost cutting measures that water down quality requirements – whether in relation to choice of materials, experience of staff, time allocations, etc. – may also be problematic. Ensuring that contractors understand the sensitivities of the heritage asset is paramount. The 'design and build' public procurement practice has produced suboptimal results in several heritage interventions, and, therefore, public design competitions should be encouraged rather than procurement at lowest price.

Some procedures, generally set by national legislation, require a halt in construction works when unexpected discoveries or events occur that require additional research and/or new design solutions. Because this is often at variance with strict timelines and costs, there may be a tendency to underreport such discoveries.

31 See ICOMOS Ethical and Technical Guidance on the Subject of Quality, p. 21

In some cases, technical restrictions or the compulsory use of CEN standards may prevent the use of traditional materials and techniques, most often provided by local craftspeople. For example, use and technical characters/requirements of building natural stone is regulated by CEN. If there is no certified provider of local stone, then this cannot be used for EU-funded projects, resulting in incompatibility of materials. This may lessen the positive local economic and social impact of projects, and compromise the authenticity of conservation works.

21. The implementation plan and management structure shall be clearly defined and agreed, allowing for correction of actions and efficient use of resources. A contingency provision for any additional research, testing of materials, or other actions shall be included and monitoring shall be undertaken at regular intervals.
22. Specific communication channels shall be established among all parties involved in the project. A dedicated representative of the conservation works could be designated for this purpose.
23. The implementation process shall be fully documented and archived and made accessible for future reference.
24. The structures and competences of public sector institutions and of regional and local government should be reviewed and strengthened.

Additional recommendations
• Conservation and restoration works shall always be carried out by competent professionals.
• The presentation and interpretation of the heritage asset enhance understanding and appreciation. Engagement of stakeholders and end-users, with a view to education and enjoyment, should be encouraged during the implementation process.

3.6. Project monitoring and evaluation

The monitoring and evaluation of project outputs and results is always essential to achieve and to improve quality.

In projects with potential impact on cultural heritage, monitoring and evaluation processes need to examine these impacts from cultural as well as economic, social, technical, and environmental perspectives to help assess the quality of the interventions.

Cultural heritage projects should also be evaluated in relation to their contribution to the circular economy and to the circular territorial development model. New respectful and compatible uses of cultural heritage should always be clearly and explicitly connected to its "intrinsic value".

Experience demonstrates that monitoring and evaluation design must be aligned with the objectives and rules of the specific EU-funded programme, and should be coordinated at EU, national and regional levels so that the results can be comparable. Evaluations should assess if the project implementation has met strategic goals and project objectives, carried out all planned activities, mitigated risks, and benefited communities. Regarding EU-funded activities, monitoring and evaluation of cultural heritage interventions need to combine financial aspects and implementation rates with the quality of the intervention. During EU-level programming, design and tendering phases, monitoring and evaluation must be integrated into the total project package. Monitoring of interventions with respect to quality is yet to be standard practice. Capacity building for monitoring and

evaluation is necessary at all levels of management. Independent heritage evaluators can guarantee the quality, consistency and continuity of the overall process. Mid-term reviews are a way to redirect projects as needed. In cases where monitoring and evaluation identify serious quality deficits, project managers should be held accountable by Member States. Equally, timely expert advice and assessment throughout the whole lifecycle of a project will help to improve quality. The development of user-friendly checklists for guiding the monitoring and evaluation process would also be helpful.

Main recommendations

25. Independent end-of-project evaluation should be undertaken to include examination of cultural, technical, social, economic and environmental outcomes and the impacts on local communities. An identification of emerging risks, issues and opportunities concerning the project and its setting should also be provided. A less onerous evaluation approach should be considered for small, low-budget projects.
26. A long term evaluation of the project with regard to management and maintenance should be undertaken after a reasonable interval of time.
27. Adequate resources for independent evaluation by specifically competent heritage experts should be provided at the relevant stage of the process.

4. STRENGTHENING DRIVERS OF QUALITY

The previous sections of this document have highlighted areas where change at different stages of the life-cycle of the investment is needed. This section explores "horizontal factors" that can have an impact on quality: governance, risk assessment, research, education and training. The concept of a heritage award is also presented.

4.1. Governance

Governance is the process of due diligence. Good governance helps to ensure good management, good performance, good stakeholder engagement, and good outcomes. Governance concerns the development of the appropriate structures, policies, strategies and processes to ensure successful outcomes. Good governance goes beyond fair and transparent processes that clearly set out responsibilities. It is also an attitude of mind, behaving with integrity and being mindful of conflicts of interest.

Stakeholder involvement, and an effective framework for collaboration and cooperation, will ground the project. Sustainability and the duty to transmit cultural heritage to future generations are overarching goals. It is essential to ensure that standards are met; that sufficient competence and capacity are in place to deliver quality; and that the project management structure is suitable to deliver the project. Ongoing monitoring for compliance will help to ensure successful outcomes. Accountability is the cornerstone of good governance, as is sound financial management.

Non-Governmental Organisations (NGOs) have an important role in fostering and performing conservation works, but increasingly encounter difficulties in undertaking effective action in this field. Thus, it is important to devise special support mechanisms for NGOs within EU funding schemes, in order to improve quality in conservation.

Issues of governance have come to the forefront in the last decade. Governments – and civil society – are more aware that the way in which public institutions conduct public affairs and manage public resources matters. Therefore, the decision-making process and the implementation of such decisions is an issue not only for the EU and governments, but also for European citizens.

Tolerance for misuse or waste of resources in the cultural heritage sector is not acceptable, and it is necessary to halt or revise cultural heritage projects that are seen to be damaging the involved assets.

Main recommendations

28. EU-funded heritage initiatives should facilitate civil society and community participation.

29. Fund regulations should encourage the financing of heritage projects, and accept their specificities.

Additional recommendation

• EU and Member States should help to ensure clear and foreseeable regulatory frameworks within which cultural heritage interventions will take place.

4.2. Risk assessment and mitigation

Risk assessment is a critical ingredient in achieving project quality. Integrating an understanding of risks with mitigation strategies is central to quality assurance. Common areas of risk include matters such as climate change, governance, lack of operational capacity or lack of staff, project overruns or cash flow issues, and even fraud. Achieving a shared understanding of the application of risk management among diverse stakeholders is nevertheless difficult because each stakeholder might perceive different potential harms, place a different probability on each harm occurrence, and attribute different severities to each harm.

Lessons learned

A key finding from current literature on risk management is the need to draw on specialised knowledge and expertise from a variety of disciplines. Calling upon cultural heritage professionals, in addition to economic, financial, and environmental experts, is a main enabling factor for quality management through risk assessment and mitigation. In some cases in past EU programmes, the role of national heritage institutions seems to have been marginalized (for example, in the selection of projects at the national level). Related to the issue of human resources is the importance of putting enabling tools (e.g. IT systems, databases, tools and guidance) in place at EU and national levels.

The risk linked to the quality or the impact of an intervention itself is one component of the overall risk. It is important to understand that quality is dependent on the conditions met in each step of the life-cycle of a project. For example, when the focus is on encouraging a high level of expenditure, or simply on the need to

"correctly follow the administrative procedures", the cultural heritage itself may be at risk. Another enabling factor is ensuring that risk assessment from a cultural heritage point of view, and the corresponding mitigation processes, cover all stages of the life-cycle of the projects and of the funding programmes themselves. Risk management strategies should not only refer to the risk encountered when achieving intended outcomes but also to the risk of unintended impacts of an operation. The risk management process should therefore include a quality assessment of interventions that can indirectly impact cultural heritage. The ultimate test for quality objectives and risk management strategies is in the long-term.

Main recommendation

30. The European Commission should investigate and propose a tailored policy on risk management for cultural heritage projects and for projects impacting cultural heritage.

Additional recommendations

• Such a risk management policy for cultural heritage should be applied throughout all EU programmes, while always considering their specificities.

• It is critical to build upon the responsibilities and expertise of the Member States regarding the question of risk in the conservation of their cultural heritage, taking into account the real situation in which interventions take place.

4.3. Research

Research on cultural heritage aims to extend knowledge and practical solutions to conservation experts as well as enhance the understanding and support of politicians, administrators and citizens. Much multidisciplinary research in the field of cultural heritage, conservation

32 The JPI "Joint Programming" is an EU framework allowing concerted action between Member States and Associated Countries on public research programmes, in order to tackle challenges that cannot be solved solely on the national level. Available at: http://www.jpi-culturalheritage.eu/

33 Available at: https://www.innovatorsinculturalheritage.eu/login

34 The selected project (in the form of a Horizon 2020 coordination and support action funded up to EUR 1.5 million for a period between 2 and 4 years) will start from around December 2019.

and management in Europe and worldwide is underway - from conservation methods and participatory governance to economic modelling and sustainability for cultural heritage sites.

This research activity has been made possible by public resources directed towards cultural heritage throughout Europe. The cultural heritage-related research areas addressed by European Commission framework programmes, such as Horizon 2020 and its successor Horizon Europe, or the Joint Programming Initiative on Cultural Heritage and Global Change[32], enable significant joint research efforts.

During the European Year of Cultural Heritage, in November 2018, the European Commission launched an online Platform of Innovators in Cultural Heritage[33] and a Task Force on Circular business and financial models for cultural heritage adaptive (re)use in cities. A call for proposals was also published to support the creation of a platform bringing together researchers, professionals, stakeholders and policy makers to map problems, practices and policy gaps relating to impact assessment and quality of interventions in the European historical environment and cultural heritage sites[34].

Lessons learned

Today the scope of cultural heritage research extends beyond conservation and restoration methods and tools, involving management, risk assessment, and potential impacts of interventions on the life and identity of communities. Research cooperation is broadly acknowledged as an efficient way to respond to emerging issues. There is scope to use these research results more effectively when programming and planning EU funding with potential impact on cultural heritage interventions.

Of central importance is the basic applied research that should underpin programme briefs and calls at the national or inter-regional level; this could be funded as part of EU initiatives. The development of the conceptual basis of programmes and projects requires preliminary studies to be undertaken to achieve high quality applications. Financial resources and adequate time thus need to be envisaged. As the links between cultural heritage and many aspects of contemporary life have become better appreciated – issues of urban and rural policy, environmental protection, clean energy, governance, circular economy, etc. - an integrated approach to cultural heritage research in Europe should be reinforced. Research into the economic and social value of heritage needs further elaboration.

Main recommendations

31. Technical, administrative and financial support for an integrated research policy and joint programming on cultural heritage in Europe should be increased as it would help to conceptualise the European dimension of cultural heritage. Building synergies with other EU funding programmes could bring considerable social and economic benefits.

32. Funding should be provided to conduct research at macro level (trends, impacts) and micro level (case-studies and comparison of practices in similar heritage places) on the financing of cultural heritage interventions by the EU.

33. Interdisciplinary research programmes should be developed and knowledge transfer from the social sciences and humanities field should be improved to include research on participatory planning, integrated management of cultural heritage and the development of smart technology measures.

34. European research on cultural heritage needs should provide appropriate funding instruments for small-scale projects.

35. The forthcoming Horizon 2020 Social platform on the impact assessment and the quality of interventions in European historical environment and cultural heritage sites should build on the results of this document.

Additional recommendations

• Research on cultural heritage interventions should be sensitive to the specific context and aware of changes in society, technology, the environment and the economy.

• Inventories, in addition to identifying cultural assets, provide data on interventions and their impact on cultural heritage. Therefore, the EU should encourage the composition and/or the permanent development of national and local inventories in this field.

4.4. Education and training

Education and training are fundamental to meeting the multi-faceted demands of cultural heritage conservation and management. The quality of education and training programmes (also lifelong learning opportunities) has a direct impact on the attainment of quality outcomes in the cultural interventions funded by the EU. There is a need to update educational and training provision so that professionals, craftsmen, and administrative and managerial staff have the tools to provide the highest standard of intervention. Similarly, the sector needs to better identify the target groups to be addressed and specific gaps in the existing educational and training system throughout Europe. A group of national experts is currently investigating skills, training and knowledge transfer in the heritage professions in Europe, within the framework of the European Work Plan for Culture[35]. Their recommendations are one of the deliverables of the European Year of Cultural Heritage and were to be made available at the end of 2018.

35 Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council, on a Work Plan for Culture (2015-2018) (2014/C 463/02), available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv: OJ.C_.2014.463.01.0004.01 .ENG

Main recommendations

36. A provision in EU-funded cultural heritage projects should be established for conservation training or upskilling schemes within the project brief and tendering process insofar as practicable.

37. Educational and training courses and programmes in the cultural heritage sector should conform to the relevant international standard setting texts and guidance in the field, and regularly update their curricula so that they are abreast of technical developments and innovation.

38. An information system about the most relevant European training programmes and institutions in the cultural heritage sector could be helpful if regularily updated.

39. Architecture schools should include conservation in their main curricula.

Additional recommendations

• Educational and training institutions with capacity to contribute to cultural heritage interventions should be encouraged to develop relationships and networks between themselves.

• Quality conservation learning encompasses both short and longer training courses that are based on real practice. Future conservation architects, building conservators and other practitioners should have training opportunities and be taught the following: good survey skills; techniques of interventions and of valorisation; and analysis and development of conservation proposals.

4.5. Rewarding quality

Achieving quality requires time, commitment, efforts, and dedication. It is not straightforward. Raising awareness of the issues faced in achieving quality in cultural conservation and management, and recognising achievements by those who are committed to quality. is a factor that can contribute to creating a positive environment. A good example is offered by the European Union Prize for Cultural Heritage/Europa Nostra Awards, an EU-funded initiative that has highlighted some of Europe's best achievements in heritage conservation and awareness-raising since its establishment in 2002. Independent expert juries coordinated by Europa Nostra have selected 485 award-winning projects from 34 countries. Exemplary heritage activities across Europe are awarded prizes in four main categories: Conservation projects; Research; Dedicated service to heritage conservation; and Education, Training, and Awareness raising within Europe's cultural heritage sector. Good practice in adaptive and respectful (re)use of cultural heritage buildings is rewarded by the European Union Prize for Contemporary Architecture – Mies van der Rohe Award, which is managed by Fundació Mies van der Rohe, and granted every two years to acknowledge and reward architectural quality in Europe. For example, the 2017 Prize was given to the rehabilitation of a post-war housing slab near Amsterdam (DeFlat Kleiburg).

On the basis of these two prizes, the European Commission is now exploring the possibility to create a joint Cultural heritage/Contemporary architecture prize to reward the best adaptive reuse projects of heritage buildings/sites.

To date, no special emphasis has been given to EU-funded projects within these schemes.

Main recommendation

40. The European Commission should evaluate the possibilities of developing a special European Award to reward quality in EU funded cultural heritage interventions, in synergy with existing schemes and prizes.

CHECKLIST OF SELECTION CRITERIA FOR PROJECTS WITH A POTENTIAL IMPACT ON CULTURAL HERITAGE

Our continually evolving environment contains many cultural heritage elements. Because cultural heritage is a common good that is not renewable nor replaceable, these elements should be cherished. To ensure that our generation is able to 'pay back what we borrowed', the following seven quality principles and selection criteria for interventions on cultural heritage have been developed:

1. **KNOWLEDGE-BASED** — Conduct research and surveys first of all
2. **PUBLIC BENEFIT** — Keep in mind your responsibility towards future generations
3. **COMPATIBILITY** — Keep the "spirit of the place"
4. **PROPORTIONALITY** — Do as much as necessary, but as little as possible
5. **DISCERNMENT** — Call upon skills and experience
6. **SUSTAINABILITY** — Make it last
7. **GOOD GOVERNANCE** — The process is part of the possible success

This evaluation tool consists of key questions that decision makers should ask themselves to assess the quality of proposed projects with a potential impact on cultural heritage, and to determine whether such projects are worthy of EU or other funding.

There are different types of projects: small and large, public and private, expensive and low-cost, with direct and indirect impact on cultural heritage. The first three quality principles of the evaluation tool are heritage-based and should be assessed by decision makers responsible for cultural heritage; the following two principles are process-related and may also be assessed by decision makers responsible for the overall process; the two remaining principles require an assessment by both types of decision makers.

1. Knowledge –based

Conduct research and surveys first

- Have the heritage element and its setting been researched and surveyed prior to the formulation of a project brief and prior to the design of the project?
- Have all relevant elements and features of the cultural heritage been identified? Is their history, current physical condition and values known and understood? If not, are there actions planned to identify these further?
- Has a cultural Heritage Impact Assessment been carried out? If so, was this undertaken by independent experts with heritage skills? In cases where there are several intervention options, have they all been considered in the cultural Heritage Impact Assessment?

2. Public benefit

Keep in mind your responsibility toward future generations

- Does the project explicitly recognize cultural heritage as a common good?
- Is the project necessary to preserve the historic environment and its cultural heritage for future generations? In cases where projects mainly respond to needs as currently perceived, which may then evolve over time and thus make the interventions redundant, are these interventions potentially reversible?
- Are all motivations for the project clearly acknowledged? Will the project generate public benefit or is it mainly driven by specific ambitions and interests?
- Will future generations continue to have access to the full richness of the historic environment and its cultural heritage after the proposed intervention, or will some features be lost? If so, is this loss justified by public benefit and how will it be perceived/judged by future generations?

3. Compatibility

Keep the spirit of the place

- Does the project uphold national and international cultural heritage standards and principles?
- Will the authenticity of the cultural heritage/landscape be maintained?
- Is the project respectful of the historic environment and its cultural heritage, in its setting, sizes, proportions, spaces, features and materials, as well as (former) use?

4. Proportionality
Do as much as necessary but as little as possible

- Is the proposed project cautious in its approach, in particular in cases where works are irreversible or knowledge is insufficient or currently unaffordable?
- Is the project focused on repair and conservation rather than heavy transformation (i.e. involving replacement of authentic material)? Is the project 'overdoing' it and 'overspending'?
- Is the authenticity being preserved, in particular when the project includes contemporary new design to accommodate (new) uses?
- Is there balance, harmony and/or controlled dialogue between the cultural heritage and the new elements?

5. Discernment
Call upon skills and experience

- Is the project calling upon knowledge from all relevant disciplines? Is it the result of a collective and interdisciplinary reflection?
- Does the project demonstrate the designer's understanding of the cultural heritage, their creativity to find balanced solutions, their knowledge of materials and attention to detail in their design?
- Are the proposed technical interventions well-tested? Can the technical interventions be described as state of the art? Are technical approaches with high risks/ uncertainties avoided?
- Is the project fit for purpose and tailor-made for this particular cultural heritage?
- Does the project reflect national, regional and local traditions, standards, settings and market?
- Are small- and medium-size conservation and building enterprises eligible to carry out the project?

6. Sustainability
Make it last

- Does the project take future maintenance into account? Is there a strategy for maintenance (post-project)?
- Is there a long-term strategy for the post-project management of the cultural heritage, in particular when new use is proposed?
- Are there indicated explicit factors of success/ appreciation in the long-term, in particular when contemporary creative design is proposed? In other words: how will future generations consider the proposed intervention, as high quality or 'fashionable at the time'?

7. Good governance
The process is part of the success

- Is there a clear understanding of which experts and local and national authorities have to be included at each step of the process?
- Is risk assessment and mitigation, with the implication of heritage professionals, an integral part of the project?
- Will a monitoring system be in place during and after the project implementation?
- Does the project include adequate provisions for contingency and flexibility in case of unexpected events or discoveries?
- Does the project include heritage conservation and management training and promotion (dissemination/ sharing) of knowledge?
- Is the project part of an integrated sustainable development strategy?

REFERENCES[36]

1. Recent EU documents related to Cultural Heritage

Relevant international documents on Cultural Heritage:

- European Parliament and of the Council - Regulation EU No 1295/2013 of 11 December 2013 establishing the 'Creative Europe Programme' (2014 to 2020)' and repealing Decisions No 1718/2006/EC, No 1855/2006/EC and No 1041/2009/EC1 - OJ L 347, 20.12.2013, p. 221.
- EU Council conclusions of 21 May 2014 on 'Cultural heritage as a strategic resource for a sustainable Europe' (OJ C 183, 14.6.2014, p. 36).
- EU Commission Communication of 22 July 2014 entitled 'Towards an integrated approach to cultural heritage for Europe' (COM 2014 0477).
- EU Commission Staff Working Document `European Framework for Action on Cultural Heritage' SWD(2018) 491 final
- EU Council conclusions of 25 November 2014 on 'Participatory governance of cultural heritage' and on the 'Work Plan for Culture for the period 2015-2018' - OJ C 463, 23.12.2014, and to the 'European Year of Cultural Heritage' - OJ C 463, 23.12.2014.
- EU Committee of the Regions' 'Opinion of November' 2014 on the Commission communication 'Towards an integrated approach to cultural heritage for Europe'.
- Latvian Presidency of the EU Council: Final Joint Statement of the international conference "Heritage, Contemporary Architecture and Design in Interaction" - Riga, March 12 and 13, 2015. Available at:
http://mantojums.lv/media/uploads/dokumenti/konf_sem_diksusiju_dokumenti/heritage_conference_joint_statement_13032015_final.pdf
- European Parliament resolution of 8 September 2015 "Towards an integrated approach to cultural heritage for Europe" ((2014/2149)INI) P8-TA(2015)0293.
- Council conclusions on the need to bring CH to the fore across policies in EU (2018/C 196/05).
- Urban Agenda for the EU. Available at: https://ec.europa.eu/futurium/en/urban-agenda
- HERO project - EU Urbact Programme, aimed at promoting integrated governance of historic cities and provided a guidebook on good practices in cultural heritage preservation and socialization as an important resource for local and regional development. Available at: https://urbact.eu/heroInterpret Europe (2017): Engaging citizen with Europe's cultural heritage. How to make the best use of the interpretive approach. A contribution to the European Year of Cultural Heritage 2018, awarded with the Altiero Spinelli Prize. Available at: http://www.interpret-europe.net/fileadmin/Documents/publications/ie_engaging_citizens_with_europes_cultural_heritage_co.pdf

- Voices of Culture (2018): Social Inclusion: Partnering with other sectors. Brainstorming report of the Structured Dialogue between the European Commission and the Cultural Sector available at:
  http://www.voicesofculture.eu/social-inclusion-partnering-with-other-sectors/
- European Commission, Mapping of Cultural Heritage actions in European Union policies, programmes and activities, August 2017. Available at:
  https://ec.europa.eu/culture/sites/culture/files/2014-heritage-mapping-version-2017_en.pdf

2. International Standard setting texts related to Cultural Heritage

UN & UNESCO
- UNESCO, Convention concerning the Protection of the World Cultural and Natural Heritage. (1972. Available at:
  https://whc.unesco.org/archive/convention-en.pdf).
- UNESCO, Operational Guidelines for the Implementation of the World Heritage Convention (last updated: 2017. Available at:
  https://whc.unesco.org/en/guidelines/).
- UNESCO, World Heritage and Sustainable Tourism Programme. Available at:
  https://whc.unesco.org/en/tourism
- UNESCO, Convention on the Protection and Promotion of the Diversity of Cultural Expressions. Adopted by the General Conference at its 33rd session on 20 October 2005.
- UNESCO, Recommendation on the Historic Urban Landscape, 2011. Available at:
  https://whc.unesco.org/uploads/activities/documents/activity-638-98.pdf
- Other UNESCO Conventions and Recommendations adopted by the UNESCO General Conference. Available at:
  - http://portal.unesco.org/en/ev.php-URL_ID=12025&URL_DO=DO_TOPIC&URL_SECTION=-471.html
  - http://portal.unesco.org/en/ev.php-URL_ID=12026&URL_DO=DO_TOPIC&URL_SECTION=-471.html
- United Nations, Sustainable development Goals. (2015. Available at:
  https://www.un.org/sustainabledevelopment/sustainable-development-goals/
- United Nations, The New Urban Agenda – HABITAT III. (2016. Available at:
  https://habitat3.org/the-new-urban-agenda
- United Nations, General Assembly, Report of the independent expert in the field of cultural rights, Farida Shaheed (2011), A/HRC/17/38.

Council of Europe
- Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro Convention). Adopted by the Committee of Ministers of the Council of Europe on 13 October 2005. Opened for signature to member states in Faro (Portugal) on 27 October 2005. Entered into force on 1 June 2011. Available at:
  https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680083746
- Council of Europe, European Cultural Heritage (Volume I) – Intergovernmental cooperation: collected texts, 2003, ISBN 92-871-4864-3.
- Council of Europe: European Cultural Heritage Strategy for the 21st century,
  https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=09000016806f6a03
- The Faro Convention Action Plan Handbook 2018-2019, (Council of Europe, 2018),
  http://rm.coe.int/faro-convention-action-plan-handbook-2018-2019/native/168079029c
- An Integrated Approach to Cultural Heritage – The Council of Europe's Technical Co-operation and Consultancy Programme, Council of Europe, February 2018.
- Other cultural heritage related conventions adopted by the committee of Ministers of the Council of Europe. Available at:
  https://www.coe.int/en/web/culture-and-heritage/standards
- Other texts related to the Council of Europe's work:
  - Davos declaration 2018 - Towards a high-quality 'Baukultur' for Europe. Adopted by the Conference of Ministers of Culture on 22 January 2018 in Davos (Switzerland). Available at:
    https://davosdeclaration2018.ch/media/Brochure_Declaration-de-Davos-2018_WEB_2.pdf
  - Context document Towards a European vision of high-quality Baukultur. Available at:
    https://davosdeclaration2018.ch/context/

ICOMOS
ICOMOS develops a corpus of doctrinal texts as a necessary basis for conservation policies. The references below include key texts, a multilingual compendium of the doctrinal texts, as well as other useful links.
- International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter), adopted by the IInd International Congress of Architects and Technicians of Historic Monuments meeting in Venice (Italy), 1964. Available at:
  https://www.icomos.org/images/DOCUMENTS/Charters/venice_f.pdf (original French version) and
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- ICOMOS Ethical Principles, adopted by the 18th General Assembly of ICOMOS, Florence (Italy), 2014. Available at:
  https://www.icomos.org/images/DOCUMENTS/Secretariat/2015/GA_2014_results/20150114-ethics-asadopted-languagecheck-finalcirc.pdf
- ICOMOS Charter- Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage, Ratified by the 14th General Assembly of ICOMOS, Victoria Falls (Zimbabwe) in 2003. Available at:
  https://www.icomos.org/images/DOCUMENTS/Charters/structures_e.pdf
- ICOMOS Charter on the Interpretation and Presentation of Cultural Heritage Sites. Ratified by the 16th General Assembly of ICOMOS, Québec (Canada) in 2008. Available at:
  https://www.icomos.org/images/DOCUMENTS/Charters/interpretation_e.pdf
- Other doctrinal texts by ICOMOS and other organisations available at:
  https://www.icomos.org/en/resources/charters-and-texts
- ICOMOS, International Charters for Conservation and Restoration = Chartes Internationales sur la Conservation et la Restauration = Cartas Internacionales sobre la Conservación y la Restauración. Monuments & Sites, Vol. I, ICOMOS, München, 2004, ISBN 3-87490-676-0.
- ICOMOS, Doctrinal Texts, articles 8-10 in: ICOMOS Rules of Procedure, adopted by the Extraordinary General Assembly in New Delhi (India) in 2017.
- ICOMOS Guidance on Heritage Impact Assessments for Cultural World Heritage Properties, 2011, available at:
  https://www.icomos.org/world_heritage/HIA_20110201.pdf
- ICOMOS Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013, available at:
  http://portal.iphan.gov.br/uploads/ckfinder/arquivos/The-Burra-Charter-2013-Adopted-31_10_2013.pdf

CEN-Standards of direct interest for cultural heritage
- Topic 1 - General guidelines on terminology and conservation process including documentation.
  - EN 15898:2011-Conservation of cultural property-Main general terms and definitions.
  - EN 16096-Conservation of cultural property-Condition survey and report of built cultural heritage.
  - EN 16853-Conservation of cultural heritage-Conservation process-Decision making, planning and implementation.
  - EN 16095-Conservation of cultural property-Condition recording for movable cultural heritage.

- Topic 2-Investigation and diagnosis on building materials (stones, mortars and wood structures).
  - EN 16085-Conservation of cultural property-Methodology for sampling for materials of cultural property-General rules.
  - EN 16515-Conservation of cultural heritage-Guidelines to characterize natural stone used in cultural heritage.
  - EN 17187-Conservation of cultural heritage-Characterisation of mortars used in cultural heritage.
  - EN 16572 -Conservation of cultural heritage-Glossary of technical terms concerning mortars for masonry renders and plasters used in cultural heritage.
  - EN 16455-Conservation of cultural heritage-Extraction and determination of soluble salts in natural stone and related materials used in and from cultural heritage.
  - prEN 17121- Conservation of cultural heritage-Historic Timber structure-Guidelines for the on site assessment.
- Topic 3-Environmental conditions related to materials.
  - EN 15758-Conservation of cultural property-Procedures and instruments for measuring temperature of the air and the surfaces of objects.
  - EN 16242-Conservation of cultural heritage-Procedures and instruments for measuring humidity in the air and moisture exchanges between air and cultural property.
  - EN 15757-Conservation of cultural property-Specifications for temperature and relative humidity to limit climate-induced mechanical damage in organic hygroscopic materials.
  - EN 16682 –Conservation of cultural heritage-Methods and measurements of moisture content or water content in materials constituting immovable cultural heritage.
  - TS 16163-Conservation of cultural heritage-Guidelines for choosing appropriate lighting for indoor exhibitions.
- Topic 3-Environmental conditions related to building management.
  - EN 15759-1:2011-Conservation of cultural property-Indoor climate-Part 1: Guidelines for heating churches, chapels and other places of worship.
  - EN 15759-2: 2018-Conservation of cultural heritage -Indoor climate-part 2:Ventilation management for the protection of cultural heritage buildings and collections.
  - EN 16893- Conservation of cultural heritage -Guidelines for improving the energy performance of historic buildings.
- Topic 4-Evaluation of methods and products for conservation works on buildings (cleaning, disinfestation, surface protection).
  - EN 16581-Conservation of cultural heritage-Surface protection for porous inorganic materials–Laboratory test methods for the evaluation of the performance of water repellent products.

- EN 15801-Conservation of cultural property-Test methods-Determination of water absorption by capillarity.
- EN 15802- Conservation of cultural property-Test methods- Determination of static contact angle.
- EN 15803-Conservation of cultural property-Test methods-Determination of water vapour permeability (δp).
- EN 15886- Conservation of cultural property-Test methods-Colour measurement of surfaces.
- EN 16302-Conservation of cultural property-Test methods-Measurement of water absorption by pipe method.
- EN 16322-Conservation of cultural property-Test methods- etermination of drying properties.
- EN 17036-Conservation of cultural heritage-Artificial ageing simulating solar radiation.
- EN 17114-Conservation of cultural heritage-Surface protection for porous inorganic materials-Technical and chemical data sheets of water repellent product.
- EN 16782-Conservation of cultural heritage-Cleaning of porous inorganic materials-Laser cleaning techniques for cultural heritage.
- EN 17138-Conservation of cultural heritage-Methods and materials for cleaning porous inorganic materials.
- EN 16790-Conservation of cultural heritage-Integrated pest management (IPM) for protection of cultural heritage.
• Topic 5 - Management of building/collection centres dedicated to conservation of CH.
- EN 16141-Conservation of cultural heritage-Guidelines for management of environmental conditions-Open storage facilities: definitions and characteristics of collection centres dedicated to the preservation and management of cultural heritage.
- EN 16893-Conservation of cultural heritage-Specifications for location, construction and modifications of buildings or rooms intended for the storage or use of heritage collections.
• Topic 6 -Treatment/Consolidation of cultural heritage objects.
- EN 16873-Conservation of cultural heritage-Management of waterlogged wood.

3. References related to some specific subtopics

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Education and training and cultural heritage
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