COST Actions - Background Information

http://www.cost.eu/about_cost/how_cost_works
COST Actions are active through a range of networking tools, such as meetings, workshops, conferences, training schools, short-term scientific missions (STSMs) and dissemination activities. COST Actions are open to researchers from universities, public and private research institutions, as well as to NGOs, industry and SMEs. To learn more about participating in COST Actions, please visit the Participate page.

"Actions are networks centred around nationally funded research projects in fields that are of interest to **at least five COST countries**."

http://www.cost.eu/participate
COST Actions are science and technology networks open to researchers and stakeholders with a duration of four years. COST Actions are active through a range of networking tools, such as workshops, conferences, training schools, short-term scientific missions (STSMs), and dissemination activities. Many COST Actions pave the way towards successful projects in the EU Framework Programme. They engage in dissemination to policy-makers and the general public and contribute to addressing problems of global societal relevance. COST Actions also contribute to widening pan-European participation and reinforce cooperation with COST Near Neighbour Countries.

The financial support averages EUR 130 000 per year for a four-year period.

Who can participate?

Researchers can participate in COST Actions based on their affiliation to an institution or organisation and on geographic location.
Researchers affiliated to the following institutions can participate in COST Actions:

- 'Institutions' from COST Member Countries, Near Neighbour Countries and International Partner Countries, including:
    - Government Organisations, except Intergovernmental Organisations;
    - Universities and Associated Organisations;
    - Business Enterprises (ranging from SMEs to multinationals);
    - Private Non-Profit Organisations/NGOs (even if international);
    - Standards Organisations (even if international);
- European Commission and EU Agencies;
- European RTD Organisations, including: CERN, EMBL, ESA, ESO, ESRF, European XFEL, ILL, EFDA JET;
- International Organisations (i.e. intergovernmental organisations whose members are countries), excluding European RTD Organisations.

How does a COST Action work?

COST Actions are set up to achieve specific objectives within their four-year duration. These objectives define the collective creation, diffusion and application of knowledge in the frame of the COST Action, and form the basis of the Actions' Memoranda of Understanding (MoUs).
COST Actions are managed by a Management Committee (MC) which is composed of up to two representatives of each COST Country having accepted the MoU of the Action. MC Members are

nominated by the COST National Coordinators (CNC) of the COST Countries they represent. The Action MC decides upon all budget-related questions, devises the general Action strategy and manages the organisation of the Action's scientific and technological activities.
They are open throughout their lifetime to new members and are adaptable in terms of internal organisation and strategy. Thus, COST Actions are especially well suited to pursue new ideas through collaborative efforts and to build communities around science and technology topics that have previously failed to gather the necessary critical mass.

http://www.cost.eu/service/faq

A successful proposal:

1. clearly spells out the scientific issue and its proposed impact;
2. thinks about how to involve interdisciplinary competences;
3. does not confuse a COST Action with an FP7 proposal;
4. explains the state-of-the-art scientifically and with a view to the networking aspect
5. has concrete plans for gender balance; involvement of young researchers or dissemination activities.

Proposals receiving low marks often:

1. appear to do no more than perpetuate existing structures;
2. do not involve countries that have a good reputation in the field;
3. propose a non-standard management structure (i.e. other than a Management Committee (MC) meeting twice a year, with up to four working groups (WGs) also meeting twice a year);
4. suggest that the proposer does not understand what COST is or how it works;
5. were last minute submissions.

Application (first round)

Proposal Title: Open Data/Content and Crowdsourcing in the Heritage Domain

Abstract (max 1000 characters, including blanks):

More and more heritage institutions make their data and content available as open data, enabling maximum re-use, modification and distribution. Open data facilitates the connection of datasets of various institutions and encourages the creation of new value-added services and artistic creations. Institutions also increasingly engage in crowdsourcing practices and online collaborative projects like Wikipedia to involve their audiences in novel ways, enhance metadata and content, and make cultural objects available in new contexts.
In this COST Action a network of researchers, heritage professionals and open data advocates works on ensuring swift progress in the area of open data in the heritage domain by:

1. Monitoring and understanding the diffusion of open data / content and crowdsourcing in the heritage domain
2. Documenting crowdsourcing approaches and their impact on organizations and their ecosystems
3. Integrating infrastructures for digital heritage and the digital humanities

Key Words (open format, max 400 characters, including blanks):

cultural heritage, digital humanities, open data, linked open data, semantic web, crowdsourcing

Text of proposal (maximum 10 000 characters, including blanks):

Please use the following structure:

BACKGROUND, PROBLEMS

This part should be a introduction to describe, in general terms, **why** it is desirable to launch the COST Action in question. It should summarise the previous research and the current state of knowledge in the field of the proposal. It could include an analysis of relevant research in the EU Framework Programmes and other European fora. It may be useful also to compare the European research with that in, for example, the USA, Canada, Japan or other parts of the World.
In addition it should explain the **reasons for the proposed cooperation** with a distinction between the objectives, the expected results and the means to achieve them. As far as possible, this should be done with emphasis on immediate or future applications envisaged, so that even a reader who is not a specialist in the field obtains a clear picture of the expected benefits of the Action.
You may briefly describe also **possible complementarity** with ongoing or planned research in the EU Framework Programme and other European organisations such as EUREKA, etc., as one of the goals of COST is to avoid duplication of efforts in Europe.
Indicate the background of the proposal, the specific problems the network wants to solve and the goal the network would like to achieve. This part should demonstrate that the proposal addresses real current scientific and or technical issues with a high relevance for European society.

State-of-the-Art (including references to present and past EU projects)

Digitization in the cultural heritage sector has turned out to be a powerful means to expand access to collections for wider audiences. Increasingly, users/visitors are integrated in the 'production process', thus becoming 'prosumers'. Over the last years, crowdsourcing has spread thanks to projects like Wikipedia or Flickr Commons. Another recent trend concerns the adoption of open data policies in order to make data available in a structured, machine-readable format – free for anyone to be re-used, modified and re-published. Also, since 2013, the EU PSI Directive extends to heritage institutions.

While the advancement of digitization efforts in Europe is being monitored (e.g. by the ENUMERATE project), the diffusion of open data and crowdsourcing has hardly been investigated yet, and research into new collaborative approaches

pursued by heritage institutions is scarce. Regarding the technical infrastructure, several coordination issues still need to be tackled: semantic interoperability of digitized holdings, the integration of platforms for cultural heritage and the digital humanites, and the alignment of processes leading to the population of such platforms.

A group of researchers, open data advocates and heritage professionals presently works on establishing an international benchmark survey on open data and crowdsourcing among heritage institutions, which is complementary to the ENUMERATE survey. The project is carried out based on nationally funded projects and voluntary efforts of participants. This COST Action is instrumental for improving the international cohesion of the network, its extension to further countries, and the effective dissemination of results. By extending the ENUMERATE framework for digitial heritage statistics, and by carrying out a comparative analysis of context factors in the various countries, the Action facilitates various research endeavours and ensures the compatibility and comparability of results.

In various countries innovative projects in the area of crowdsourcing have been described, and there have been first attempts (e.g. by the Wikimedia Foundation) to establish a coordinated approach regarding the evaluation of such practices. This COST Action enables research in this area by developing a common case study methodology to describe novel practices and by creating a repository of reference cases for comparative evaluation.

Over the past decade a considerable number of open data/content platforms appeared in the heritage sector (i.a. EU-funded platforms Europeana and Archives Portal Europe) and many new ones are presently developed for the digital humanities. There is an acute need to ensure the interoperability of these platforms, to better exploit synergies between them, to align the processes by which they are are populated, and to ensure the interoperability of the content that is provided or generated on these platforms. This COST Action is instrumental in bringing researchers, software developers, heritage institutions, and open data advocates together in order to tackle these issues.

- ENUMERATE project: digitization and digital archiving in the cultural heritage sector. cf. ENUMERATE estimate: 40’000 to 45’000 heritage institutions in Europe with preserving as part of their mission

- Existing research regarding open data and crowdsourcing in the cultural heritage sector.

- International benchmark survey on the diffusion of open data / open content and crowdsourcing practices in the heritage sector to further countries: state of advancement, driving and hindering factors (comparisons between countries and types of institutions)

- Present situation regarding the promotion of open data in the cultural heritage domain and in the digital humanities at the practical level: PSI Directive, platform landscape, EUROPEANA, DM2E project,

- Present situation regarding the use of crowdsourcing in the cultural heritage domain and in the digital humanities

Reasons for the proposed cooperation (objectives / expected results / means; including background of the proposal)

- Complementarity with / extension of present activities at the international level
- More specific reasons in alignment with the deliverables
- Outlook regarding Horizon 2020

Complementarity with ongoing or planned EU research

→ *Describe synergies regarding Horizon 2020 call topics and national funding programmes*
→ *Describe complementarity with the ENUMERATE project*
→ *Describe complementarity with EUROPEANA, DM2E Project*

Notes from Horizon 2020

- Reflective Societies 6: “growing urge to share the wealth of knowledge in our collections and to show how digitial cultural resources can inform scholarship, how richer interpretations of the past can drive research and new developments, generate societal and economic benefits and contribute to innovation. Europe’s vast cultural heritage needs to be transformed into assets, whose integraton and reuse can create value for European cultural institutions and the cultural and creative industries.” Scope: “Support and promote access and reuse of cultural heritage resources. Projects should enable new paths towards analysing and understanding Europe’s cultural and intellectual history and/or bring cultural content to new audiences in novel ways”.

- Reflective Societies 2: “In all its forms, cultural heritage, values and language are crucial for the collective memories and sociability of groups but also for the personal development of citizens, enabling them to find their place in society. They also serve as a source of inspiration for the development of people’s personalities and talents [...] they play a key role in providing a sense of European belonging and EU citizenship as distinct from, but combined with, national citizenship.” Scope: “The multidisciplinary and comparative research will focus on the emergence of a European cultural heritage in a historical perspective. It will address how the local, regional, national and European aspects of cultural heritage are interlinked, how they are understood or not by citizens and encouraged or not by various stakeholders and promoters of cultural heritage.”

- Reflectivie Societies 5: Scope: “The multidisciplinary, geogrpahically balanced and comparative research will aim at exploring the complex relationship that contemporary European societies have with the tangible and intangible cultural heritage of the major armed conflicts fought on their soil in the 20th century.[...] The research will map the use of the cultural heritage of the selected major armed conflicts in memorial practices, media and popular culture, political appropriation, education, heritage preservation and related cultural heritage tourism. [...] It will explore links between national cultural heritage traditions and assess how these can be better articulated.”

- Innovative Societies 1: “The transformation of european public administrations requires public sector innovation in order to foster efficient, open and citizen-centric public services. An important elementz to this is innovation by using emerging ICT technologies. This requires multidisciplnary research taking into account the societal, political as well as human factors. [...] Applying emerging technologies in the public sector starts from one or combinde emerging technologies, possibly also linking with existing technologies, analyses the potential applications and finally demonstrates the benefit. This can allow emerging technologies to take-off and help modernise the public sector in order to become innovative, open and collaborative. For example, how can web3.0 (semantic web technologies), semantic interoperability, linked open data, Internet of things, social sensor networks, radio-frequency identification or warable technologies, be used in the public sector? How can emerging, new technolgies facilitate the process of government to become a platform allowing public and private actors to collaborate and create new services using open data and open services?”

- Innovative Societies 2: “The availability of sophisticated ICT tools, open data and open services, support the collaborative forms of service design and delivery, which also facilitates personalised and user-friendly services. Empowering citizens and businesses can foster participatory and open societies. Furthermore, ICT tools facilitate the involvement of cititzens in policy-making, and also in wider changes across all public sector activities, processes and structures. [...] Collaboration with users plays an important role in the transformation of public services.

BENEFITS

This part should explain the expected benefits of the proposal itself, without the networking aspects. These benefits could be societal, scientific or in the field of technology. There may be also other benefits for other areas which should be elaborated here.

Society: Economic, cultural, and democratic benefits

Making cultural data and content available as a freely accessible infrastructure resource for creative workers, researchers, educators, journalists, and for public discourse in general leads to economic and cultural benefits thanks to facilitated and increased re-use of data and content. At the same time, it promotes free access to knowledge and information, which is an important pillar of a democratic society. This is particularly true for the holdings of archives which play an important role regarding transparency and accountability of government activities. Encouraging the engagement of audiences with cultural heritage leads to increasingly pluralistic discources about the signification of our heritage, while crowdsourcing approches allow harnessing the intelligence and working capacity of online communities and the borader public in order to solve tasks that cannot be solved by institutions alone. The Action makes an important contribution regarding the achievement of the economic, cultural, and democratic benefits that open data/open content and crowdsourcing have in store. [180]

Science

Holdings of heritage institutions play an important role in the humanties as well as in scientific fields relying on historical data (e.g. climate data). Improving the accessibility and (re-)usability of heritage collections therefore plays an important role for research as it leads to improved availability and findability of source documents. The opening up of collections also lays the basis for the improvement of their semantic interoperability and eventually enables research projects that rely on holdings from different institutions. Crowdsourcing approaches can not only be used to improve the description and semantic interoperablity of cultural data and content that serve as a basis for scientific endeavours, but also in the research process itself. The Action thus makes an important contribution with regard to the leveraging of the potential of open data/open content and crowdsourcing in the scientific area. [162]

Technology

The Action contributes to the further development and concrete application of semantic web technologies in order to combine data and content from various sources. It also fosters the improvement of functionality and usability of open data/open content and crowdsourcing platforms as well as the integration of such platforms by tackling interoperability issues. [361]

OBJECTIVES, DELIVERABLES AND EXPECTED SCIENTIFIC IMPACT

This part should clearly indicate what one expects to achieve through the Action in particular what will be the expected impact of this Action. It is very important to explicitly state all the objectives, whenever possible in quantitative terms making it easier to evaluate, how well the Action may achieve its goals. As far as possible, the likely end users of expected results should be clearly indicated. In formulating objectives one has to distinguish between the aims (something toward which effort is directed) and the means to achieve them (methods or ways for accomplishing something). Carefully avoid all specifications of means - e.g. scientific problems to be solved as well as research tasks - as they belong to the part "Scientific programme and innovation".

D 1.1: Extension of the partner network for the international benchmark survey
Extend the network of participating countries to 25 in order to raise collective awareness of open data and crowdsourcing among key stakeholders throughout Europe and to translate research results into national action plans for the promotion of open data and crowdsourcing in the heritage domain.

D 1.2: Extended framework for digital heritage statistics
Build upon the ENUMERATE framework for digital heritage statistics to cover practices and issues related to open data and crowdsourcing, providing researchers with a basis for reliable statistical information for country comparisons.

D 1.3: Federated contact database of heritage institutions
Create and maintain a network of federated contact databases of heritage institutions (covering 90% of institutions in 25 countries) as a basis for representative surveys and the creation of digital heritage inventories for research and advocacy purposes.

D 1.4: Analytical framework for comparative context analysis
Provide a framework to compare relevant context factors (organizational, political, technical, social) in different countries in order to empower researchers and practitioners to learn more efficiently from each other and to account for context differences in country comparisons.

D 2.1: Analytical framework and repository of reference cases for comparative evaluation
Create a common evaluation framework and standard metrics for crowdsourcing projects and cooperation projects involving online communities. Maintain a repository of 40-60 reference cases from at least 10 countries for comparative evaluation that can be used for benchmarking purposes, leading to shorter research cycles and increased accuracy and efficiency of evaluations.

D 2.2: Repository of innovative practices and case studies documenting organisational change
Create a repository of innovative practices and cases studies documenting organisational change related to the engagement of audiences and the fostering of participation in order to create a corpus of cases for comparative analysis of organisational change that can inform both researchers and practitioners.

D 3.1: Map and integration concept for the platform landscape
Create an overview of the existing open data and crowdsourcing platforms in the area of cultural heritage and the digital humanities. Devise a strategy to make better use of the synergies between platforms and align processes to populate the platforms, resulting in efficiency gains for data providers, open data / crowdsourcing advocates, and data re-users.

D 3.2: Federated inventory of data sets from the cultural heritage domain
Ensure the interoperability of national inventories of data sets in order to report quality levels, completeness and interoperability of data sets across the cultural heritage domain, regardless of national borders. Put in place tools to improve the coordination of (linked) open data related efforts in the cultural heritage sector, leading to increased value for data re-use thanks to improved interoperability and completeness of available data sets.

SCIENTIFIC PROGRAMME AND INNOVATION

Here the most important research tasks to be carried out should be described (the structure of the work plan), with necessary explanation of how they will lead to achieving the objectives. In particular the innovative elements of the proposals and its originality have to be presented.
You should remember that scientists that have not participated in the preparation are also entitled to join the network at a later stage if their countries sign the MoU. For that reason, the proposal must provide an **open and flexible framework** making it possible for any interested country to join the Action.
It will greatly enhance the clarity of the proposal if this section is focused on outlining the scientific content of the Action, while all organisational matters such as the description of the Working Groups are elaborated in the section "Organisation".

The scientific work program supported by this Action focuses on three areas (corresponding to the 3 Working Groups):

1. Monitoring and understanding the diffusion of open data / open content and crowdsourcing in the heritage sector:

a) Institutionalize an international benchmark survey on the diffusion of open data / open content and crowdsourcing practices in the heritage sector, examining the state of advancement, driving and hindering factors, as well as perceptions among institutions (comparisons between countries and types of institutions)

b) Carry out a context analysis for each country based on a common analytical framework in order to put differences between countries into perspective

2. Documenting crowdsourcing approaches and their impact on organizations

a) Evaluate crowdsourcing approaches and cooperations involving online communities based on a common evaluation framework. Use reference cases for benchmarking purposes.

b) Carry out a comparative analysis of cases studies documenting the impact of crowdsourcing on organizations.

3. Integrating infrastructures for digital heritage and the digital humanities

a) Devise and implement an integration concept for cultural heritage and digital humanities platforms

b) Develop shared metadata standards to ensure interoperability among platforms hosting or referencing open cultural data and/or open cultural content as well as platforms catering to the digital humanities

ORGANISATION
The main purpose of this part is to give a clear picture of the arrangement of the Action. **List and describe the working groups (between 3 and 6) you intend to set up**.
Please also explain why COST seems to offer the best framework for you proposal, for as compared with, e.g. EUREKA or the EU research programmes. This can be explained by describing the advantages or benefits, which should be gained from carrying out your project within the COST framework.
This part should clearly reflect the fact that a COST Action is implemented through the concerted action, what means that the research is carried out in the participating countries and financed by themselves, while COST provides the necessary co-ordination.

The Action is coordinated by a Management Committee (MC) which is composed of up to two representatives per country. The MC decides upon all budget-related questions, devises the general Action strategy and manages the organisation of the Action's scientific and technological activities.

The Action's scientific and technological activities are carried out within 3 Working Groups (the numbering corresponds to the numbering in the two previous sections):

WG 1: Monitoring Innovation Diffusion

WG 2: Social Innovation

WG 3: Infrastructures

Each working group meets twice a year for a 2-3 days workshop and is coordinated by a working group lead and works towards clearly defined deliverables. Complementary working groups may be specified in the course of the Action.

The applicants are presently involved in various research activities and R&D projects at the national level. Some of these activities have an international component. There are regular online meetings to exchange experiences and best practices, but so far no or only marginal funding for real life meetings and exchanges are available. The COST Action allows the applicants to institutionalize such exchanges, to reach out to researchers in further countries and to thematically align their national activities in a way that facilitates the exchange of experiences, the use of synergies and the avoidance of duplicate work. The applicants also plan to use the resulting network as a starting point to initiate EU research projects (e.g. in the Horizon 2020 programme).

The team submitting this proposal is mainly composed of early stage researchers and has a balanced gender distribution.

COST Participants interested in network (name, institution and country)

Please note that the list of participants (name and institution name) will not be shown to the assessors to guarantee the anonymity of the proposers and avoid any conflict of interest (but the country will be shown). If your proposal involves more than 10 different participants , just include the 10 most relevant of them in terms of country distribution; the full list will be requested if you are invited to submit a full proposal. Remember that there should be participants from at least 5 different COST countries. Please start the list with yourself and your institution.

Name	**Institution**	**Country**
Beat Estermann	Bern University of Applied Sciences, E-Government Institute	Switzerland
Iolanda Pensa	University of Applied Sciences and Arts of Southern Switzerland	Switzerland
Bernhard Krabina	KDZ - Centre for Public Administration Research	Austria
Lieke Ploeger	Open Knowledge Foundation	United Kingdom
Marc Hernández Güell	Culture Institute of Barcelona	Spain

Begoña Batres	Spanish Federation of Societies of Archivists, Librarians, Documentalists and Museology	Spain
Dorota Kawęcka	Fundacja Projekt: Polska (Centrum Cyfrowe)	Poland
Sylvia Petrovic-Majer	Open Knowledge Forum Austria (OFKN.at - Austrian Chapter)	Austria
Sanna Marttila	Aalto University	Finland
Joris Pekel	Europeana Foundation	The Netherlands
Maarten Brinkerink	Netherlands Institute for Sound and Vision	The Netherlands