

Cultural Heritage in the Digital Era

#COSTconnect

COST Association Avenue Louise 149 1050 Brussels - BELGIUM

25 October 2017



TABLE OF CONTENTS

Programme	4
Maps	5
Where to stay?	5
COST Connect: Cultural Heritage in the Digital Era	7
The European Research Area and other European support for cultural heritage	7
Main Challenges and current expectations about "Cultural Heritage in the Digital Era"_	9
Selected stakeholders in the field Cultural Heritage in the Digital Era	11
Stakeholders and upcoming funding opportunities	11
European Commission: DG Education and Culture (DG EAC)	
European Commission: DG Research and Innovation (DG RTD)	
European Commission: DG for Communications Networks, Content and Technology	_
(DG CONNECT)	12
Research Executive Agency (REA): Horizon 2020	13
European Research Council (ERC)	
Executive Agency for Small and Medium sized Enterprises (EASME)	
Joint Programming Initiatives: JPI Cultural Heritage and Global Change	17
INTERREG	18
Education and Culture Executive Agency: Creative Europe, Erasmus+, Europe for Citizens	
programmes (EACEA)	
European Commission: Neighbourhood and Enlargement Negotiations (DG NEAR)	22
Stakeholders representing coordination and policy initiatives	24
European Research Infrastructures: E-RIHS	
Europeana	
European Council Presidencies	
European Technology Platforms: European Construction Technology Platform – 'Heritage & Regeneration' Focus Area (ECTP)	26
European Commission DG Joint Research Centre	
Europa Nostra	
UNESCO	
Selected COST Actions in the field Cultural Heritage in the Digital Era	
About COST	_ 30
About COST Actions	_ 30
Selected COST Actions in the field of Cultural heritage in the Digital Era	21
New Exploratory Phase in Research on East European Cultures of Dissent – CA16213	
Distant Reading for European Literary History – CA16204	
Citizen Science to promote creativity, scientific literacy, and innovation throughout Europe –	52
CA15212	33
Archaeological practices and knowledge work in the digital environment – CA15201	33
Ancient European languages and writings (AELAW) – IS1407	



Innovation in Intelligent Management of Heritage Buildings (i2MHB) – TD1406	34
Fostering knowledge about the relationship between Information and Communication	
Technologies and Public Spaces supported by strategies to improve their use and attractive	ness
(CYBERPARKS) – TU1306	34
Reassembling the Republic of Letters, 1500-1800 A digital framework for multi-lateral	
collaboration on Europe's intellectual history – IS1310	35
NanoSpectroscopy – MP1302	35
Civil Engineering Applications of Ground Penetrating Radar – TU1208	36
SUB-URBAN - A European network to improve understanding and use of the ground beneat	
cities – TU1206	37
Colour and Space in Cultural Heritage (COSCH) – TD1201	37
Investigating Cultural Sustainability – IS1007	38
European Architecture beyond Europe: Sharing Research and Knowledge on Dissemination	
Processes, Historical Data and Material Legacy (19th-20th centuries) – IS0904	38
Submerged Prehistoric Archaeology and Landscapes of the Continental Shelf – TD0902	39
Wood Science for Conservation of Cultural Heritage (WoodCultHer) – IE0601	39
Chemical Interactions between Cultural Artefacts and Indoor Environment (EnviArt) – D42_	
Non-destructive analysis and testing of museum objects – G8	41
List of Participants	42
COST FP9 Position Paper	46
NOTES	51
CONTINUE THE CONVERSATION	52

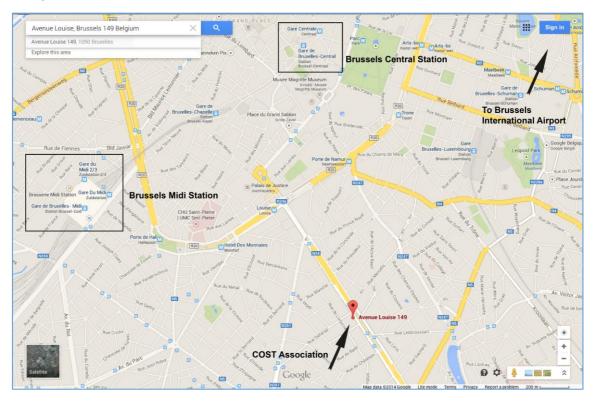


Programme

Coffee and arrival	08.45 – 09.00
Introduction and welcome	09.00 - 09.30
Welcome words by COST	
Setting the scene Short inputs from: 1. DG EAC – Unit D1: Cultural Policy (Anne Grady) 2. DG RTD – Unit B6: Open and Inclusive Societies (Zoltan Krasznai) 3. DG RTD – Unit I3: Sustainable management of natural resources (Emanuela de Menna) 4. DG CONNECT – Unit G2: Creativity Unit (Albert Gauthier) 5. REA – Unit B3: Inclusive, Innovative and Reflective Societies (Ellen Schraudolph—Gautier) 6. ERC – Unit B5: Social Sciences and Humanities (Eva Gabriela Stiermayr) 7. EASME - H2020 Environment and Resources Unit (Christophe Coudun) 8. JPI Cultural Heritage and Global Change: a new challenge for Europe (Cristina Sabbioni) 9. Interreg Central Europe (Christophe Ebermann) 10. Research Infrastructure E-RIHS (Luca Pezzati) 11. Europeana (Eleanor Kenny) 12. DG RTD – Unit A6: Open Data Policy and Science Cloud (Daniel Spichtinger) 13. IPR and copyright (Marco Ciurcina)	09.30 – 10.45
Coffee break	10.45 – 11.00
Welcome round and check-in All participants briefly introduce themselves	11:00 – 11.40
Announcing, discussing and selecting questions People bring forward their question with the offer to host a discussion table. After all tables have been chosen by someone sharing a question, the other participants are invited to think about which table they want to join first.	11:40 – 12.15
Pro-Action Café Round 1: What is the quest behind the question Every participant is invited to challenge the table host and different facets of the question are explored.	12.15 – 13.00
Lunch	13:00 – 14.15
Pro-Action Café Round 2: What is missing The participants aim to make the picture more complete, redefine and deepen the discussion on the question (e.g. questions not asked yet, perspectives or options not considered yet).	14.15 – 15.00
Pro-Action Café Round 3: What is next What did we learn? What next steps will each of us take? What are the possible actions (individually and together in variable geometry)?	15.00 – 15.45
Coffee break	15.45 – 16.00
Presentation of results Wrap up of the results by the hosts of the tables	16.00 – 16.45
Next steps and closing of the meeting Short input from representatives of the Council Presidencies (Estonia, Bulgaria and Austria) and COST on the next steps, feedback by all participants.	16.45 – 17.45



Maps



COST ASSOCIATION - AVENUE LOUISE 149 - 1050 BRUSSELS - BELGIUM TEL. +32 2 533 38 00

From Brussels National Airport: Take a train to Brussels South Station (Midi/Zuid) (30 min)

From Brussels South Station (Midi/Zuid): Take metro 2, direction <u>Elisabeth</u>, and get off at "Louise/Louiza" (3rd stop). Then take tram 94, direction Musée du Tram/Trammuseum or 93, direction Legrand, and get off at "Defacqz" (2nd stop).

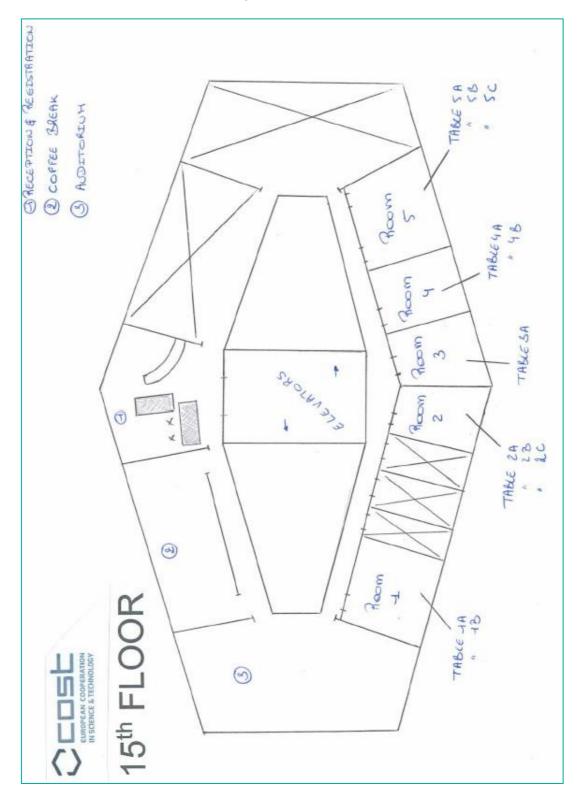
Where to stay?

Here is a <u>list of hotels</u>¹ near the COST Association.

¹ http://www.cost.eu/module/download/60432



COST – 15th Floor's map





COST Connect: Cultural Heritage in the Digital Era

COST allows researchers, engineers and scholars to jointly develop their own ideas and take new initiatives across all fields of science and technology, while promoting multi- and interdisciplinary approaches. COST Actions are completely bottom-up and focus on the networking aspect. Participants are from any disciplinary background and include also companies and stakeholders such as European and international organisations. COST Actions are open and easy to join.

In this spirit, COST organises the "COST Connect" events, which bring together representatives of COST Actions (Chairs, Vice-Chairs, members of the Management Committee and beneficiaries) and stakeholders working on programme and project development in the same thematic field. COST aims to encourage communication between researchers and policy makers, to increase awareness of the Actions on the different funding opportunities and how to access them, to discuss the emerging scientific topics in the field and the current priorities in order to identify possibilities for future research cooperation and align efforts. COST believes that there is a lot to learn from COST Action activities and COST experiences in building cooperation and trust across research fields and geographical distances. Building on the success of COST in geographical widening and multidisciplinarity, the development of larger projects for future calls is one of the objectives. COST's vision is to connect the dots in the European Research Area and the aims of the COST Connect are bottom up, results and connective-oriented:

- how to fight against fragmentation of research
- how to build bridges between communities to avoid the silo culture
- how to best reach out to stakeholders and end-users

The COST Connect event on "Cultural Heritage in the Digital Era" is placed in the context of the European Year of the Cultural Heritage 2018, which will be launched by the Commission during the European Culture Forum in Milan (7th and 8th December 2017)².

As there is a wide variety of stakeholders and initiatives in the European Research Area that are active in the field and also supported the preparation of this event, please find in the section "Selected stakeholders in the field Cultural Heritage in the Digital Era", page 11 and following, brief factsheets about the main contributors.

COST supports about 15 Actions in the nexus of humanities and information and communication technologies, particularly suitable to discuss relevant topics.

An overview of the Actions is provided in this booklet available in the section "Selected COST Actions in the field Cultural Heritage in the Digital Era", page 30.

The European Research Area and other European support for cultural heritage

European cultural heritage benefits from a range of EU policies, programmes and funding. In 2007-13, €3.2 billion were invested in heritage from the European Regional Development Fund; a further €1.2 billion on rural heritage from the European Agricultural Fund for Rural Development, and around €100 million worth of heritage research was funded from the 7th Framework Programme. Support to protect

² https://ec.europa.eu/culture/event/forum-2017_en#section0



and promote European cultural heritage also includes European Union prizes, heritage labels, heritage days, as well as the EC framework programme "Creative Europe" which also currently provides "Support for European Cooperation Projects 2018" and "Support for cooperation projects related to the European Year of Cultural Heritage 2018"³. Recently, an update of the "Mapping of Cultural Heritage actions in European Union policies, programmes and activities" was released.⁴ An Expert Group on Digital Cultural Heritage and Europeana (DCHE) was set up in March 2017 as a continuation of the Member States' Expert Group on Digitisation and Digital Preservation. Under the Connecting Europe Facility, Europeana is funded by the EU as a Digital Service Infrastructure that makes culture widely accessible and provides data, technology, tools and services to Europe's cultural heritage sector and the creative industries.

In Horizon 2020, the EU Framework Programme for Research and Innovation, support for heritage-related research is available in the three pillars of the programme: Excellent Science, Industrial Leadership, and Societal Challenges, which encompasses activities and opportunities linked with information & communications technologies for cultural heritage under Societal Challenge 6 "Europe in a Changing World: Inclusive, Innovative and Reflective Societies" as well as several other work programmes⁵. While Horizon 2020 funding is managed directly by the European Commission or its Agencies (including also e.g. European Research Council (ERC); Marie Skłodowska Curie Actions, Future and Emerging Technologies etc.), other initiatives are partnerships with the private sector (e.g. the Public-Private Partnership on "Energy-efficient Buildings" and the European Construction Technology Platform) or member-state-driven public-public-partnerships. There are several programmes aiming at pooling national research efforts around topics that Member States cannot tackle on their own.

The Joint Programming Initiatives (JPIs) are supported via the ERA-NETS in their preparation, establishment of networking structures, design, implementation and coordination of joint activities as well as topping up of single joint calls and of actions of a transnational nature. One of the currently 10 running initiatives is dedicated to the field of cultural heritage: the "Joint Programming Initiative in Cultural Heritage and Global Change".

The European Strategy Forum on Research Infrastructures – ESFRI – identifies European (and international) multidisciplinary cultural heritage research infrastructure facilities. The ESFRI Roadmap 2016 includes currently three projects relevant to Cultural Heritage: "Digital Research Infrastructure for the Arts and Humanities" and "Common Language Resources and Technology Infrastructure" and "European Research Infrastructure for Heritage Science" listed as new project in 2016.

This particularly interdisciplinary field encompasses a very diverse scientific audience from the sharpest 3D engineers and computer scientists to the highest specialised historians, including satellite or underwater archaeologists. The field is highly interdisciplinary and funding structures are currently also rather fragmented.

³ See https://eacea.ec.europa.eu/node/2099

⁴ See http://ec.europa.eu/assets/eac/culture/library/reports/2014-heritage-mapping_en.pdf for an update as of August 2017 on which parts of this mapping exercise are based.

⁵ For example "ICT for Social Interaction and Culture" in the Future and Emerging Technologies Work Programme 2018-20 (https://ec.europa.eu/programmes/horizon2020/en/future-and-emerging-technologies-fet-work-programme-2018-2020-preparation); https://ec.europa.eu/programmes/horizon2020/en/what-work-programme.



Main Challenges and current expectations about "Cultural Heritage in the Digital Era"

For the preparation of this event, a questionnaire has been sent to all potential participants to know more about the main challenges of the domain, the research objectives, the success stories, as well as the level of cooperation and the concrete expectation from the field to better identify which topics should be treated as a priority during the event.

The replies can be classified in three main categories: the challenges, the success stories, the expectations.

1. The Challenges:

• Fight against fragmentation of activities and dispersion of resources: given the high interdisciplinarity of the domain, the need for a better structured dialogue and a common understanding between communities is clearly the main priority shared by all respondents. The difficult collaboration between scientists in Humanities and IT specialists has been raised by many as well as a change of minds. Digitalisation is an opportunity and not an enemy and requires the main actors in the field to develop a new culture of sharing, to re-design their skills and profiles and to open up to co-creation.

This leads to a bottom-up demand for a Pan-European initiative to structure the current requirements of cross-sectorial dialogues and connections.

Linking research with needs of society and citizens: Culture is more and more seen as the new
cement for redefining European identity and integration. Investigating cultural heritage and
promoting discoveries in combination with new technologies, contribute to a better
understanding of our common past in order to valorise, conserve, protect and preserve the
European heritage.

The dissemination of knowledge to the general public is another critical challenge, including how citizens can be actively involved in promoting, contributing and exploiting cultural heritage around them. Preserving the memory of damaged/destroyed cultural heritage is a common challenge. This topic becomes therefore innovative by connecting research for the benefit of the broad society: protect and preserve cultural heritage for future generations.

- Big data management: this challenge is related to big data analytics and interoperability of data and models, particularly focused on semantic harmonization issues and its relation to the application level regarding data acquisition. Datafication⁶ has changed cultural heritage deeply, for example using information with a "Big Data" approach, for instance, for massive predictive analyses. Last but not least, the compatibility of various repositories and data bases including at international level with transnational navigation tools, is an additional challenge.
- Open data: A major challenge is the lack of ontologies and standard vocabularies. Open access
 culture is thus very limited in the field of cultural heritage, as is the reuse of data. The use of
 digitized data is important: common challenges are the approaches, how to develop these data,
 how to store and to handle it.
- Copyrights and IPR: most of the respondents highlighted the topic of copyrights and IPR as a
 major challenge due to the limited knowledge by relevant actors of what is actually possible or
 not. In particular, the high cost of images, whether originally in digital form or not, whether
 contemporary or historic, due to copyright restrictions and abusive enforcement of allegedly

-

⁶ Datafication is the transformation of objects, processes, etc. in a quantified format.



legal stipulations. The overcoming limitations due to regulations and museological approaches that can be seen as obsolete have also been raised. Open access to some specific data, for example in the archaeological sector, also raises fragmented legal and ethical issues.

2. Success stories

All respondents shared fascinating successes that embrace a very broad spectrum such as the creation of highly sophisticate, interoperable and harmonized databases, the launch of a peer review open access journal, the creation of a freeware tool or a new version of a simulator. The stories also encompass Open Data applied to archaeology, the creation of a virtual museum network, of a new algorithm for mapping IT archaeological Open Data archives or the set-up of an e-repository for Shakespeare translations.

3. Expectations

The main expectation expressed by all is the sharing of experience. How to be aware of other initiatives, how to promote, enhance and encourage networking. There is clearly a need to know how to be involved, a need for harmonisation at European level in order to tackle the lack of visibility of who is doing what.

At specific levels, there are also clear expectations on promoting real open data, encouraging research on semantics, harmonising national databases, developing a software or a (new) (re)search tools in digital humanities as well as on strengthening cooperation between the research community and the private sector.

At the national level, researchers expect to learn more about European opportunities and look for support in the labyrinth of multiple actors and sources of funding.

All respondents are fully convinced of the relevance of a strong initiative to structure the sector.



Selected stakeholders in the field Cultural Heritage in the Digital Era

As mentioned above, the European support provided is a web of different initiatives that complement each other. COST aims to bring together representatives of these initiatives with researchers who represent COST Actions. The following section provides information about selected stakeholders which contribute to the discussion on the nexus of cultural heritage and digitalisation.

Stakeholders and upcoming funding opportunities

European Commission: DG Education and Culture (DG EAC)

European Com	inission. Do Education and Culture (Do EAC)
* * * * * * _{**} *	The Directorate General for Education, Youth, Sport and Culture is the part of the European Commission that deals with education, training, youth, sport, languages, and culture. The culture department's activities in this area are framed by the European Agenda for Culture, which aims to reinforce the role and position of culture in an increasingly globalised world. The department develops evidence-based policy and manages of initiatives, such as Creative Europe, in support of Europe's cultural heritage. As the executive arm of the EU, the European Commission is accountable to the European Parliament - more specifically, in this area, to its Education and Culture Committee.
Link to the initiative	European Year of Cultural Heritage 2018 (#EuropeForCulture)
Priorities	The department's main responsibilities in the field of culture are to ensure: • policy development and dialogue in the field of culture • support for cultural and creative industries and professionals (by means of a variety of initiatives).
Key documents	https://ec.europa.eu/culture/ Conclusions on cultural heritage as a strategic resource for a sustainable Europe: https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/educ/1427 05.pdf Mapping of Cultural Heritage Actions: https://ec.europa.eu/culture/sites/culture/files/2014-heritage-mapping-version-2017_en.pdf
Members	EU and Associated member countries
Contact person(s)	https://ec.europa.eu/culture/contacts_en
Calls	https://ec.europa.eu/culture/calls_en?field_eac_culture_calls_status_value=open&items_per_page=15&=Apply
Runtime	2014-2020, the current Work Plan for Culture is running 2015-2018



European Commission: DG Research and Innovation (DG RTD)

European Commissi	on. DG Research and innovation (DG RTD)
* * * * * * *	The Directorate-General for Research and Innovation defines and implements European Research and Innovation (DG RTD) policy with a view to achieving the goals of the Europe 2020 strategy and its key flagship initiative, the Innovation Union. To do so, the DG contributes to the European Semester by analysing national R&I policies, by assessing their strengths and weaknesses, and by formulating country specific recommendations where necessary. It monitors and contributes to the realisation of the Innovation Union flagship initiative and the completion of the European Research Area. It funds excellent Research and Innovation through Framework Programmes taking a strategic programming approach. The main instrument of DG R&I is Horizon 2020, which provides support for cultural heritage related research in different pillars of the programme: 1. Excellent Science (see e.g. European Research Council and Marie Skłodowska Curie Actions), 2. Industrial Leadership (e.g. for materials based solutions) and 3. Societal Challenges (in particular SC5 on "Climate action, environment, resource efficiency and raw materials" addresses tangible heritage and SC6 "Europe in a changing world: inclusive innovative and reflective societies").
Link to the initiative	Community of Innovators and Ambassadors on cultural heritage: https://ec.europa.eu/research/environment/index.cfm?pg=cultural
Priorities	Make Europe a better place to live and work, by developing and implementing R&I policy to improve Europe's competitiveness, boost its growth, create jobs, and tackle the main current and future societal challenges.
Key documents	http://ec.europa.eu/culture/library/publications/2014-heritage- communication en.pdf
Members	EU and Associated member countries
Contact person(s)	http://ec.europa.eu/research/index.cfm?pg=contacts≶=en&origin=footer
Calls	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html https://ec.europa.eu/programmes/horizon2020/en/what-work-programme

European Commission: DG for Communications Networks, Content and Technology (DG CONNECT)



The Directorate-General for Communications Networks, Content and Technology (DG CONNECT) conceives and implements the policies required to create a digital single market for more growth and jobs, where citizens, businesses, and public administrations can seamlessly and fairly access and provide digital goods, content and services.

DG CONNECT fosters a modern, secure, open, and pluralistic society building on Europe's cultural diversity, creativity and respect of creators' rights and our values such as democracy, freedom of expression and tolerance.



	DG CONNECT helps drive the digital transformation of European industry and public services through the use of innovative digital technology and support for the development of digital skills. DG CONNECT strives to develop a long-term vision investing in potential technology breakthroughs and flagships, which can improve peoples' lives and to increase the competitiveness of the European economy at large and its key sectors. DG CONNECT lives its values as a creative, responsible and result-oriented European Union public service. It works on the best available evidence, and cooperates closely with its stakeholders, international partners and other EU institutions.
Link to the initiatives	https://ec.europa.eu/digital-single-market/en/digital-single-market https://ec.europa.eu/digital-single-market/en/digital-society https://ec.europa.eu/digital-single-market/en/content-and-media https://ec.europa.eu/digital-single-market/en/fourth-industrial-revolution https://ec.europa.eu/digital-single-market/en/public-services-egovernment https://ec.europa.eu/digital-single-market/en/research-and-innovation
Priorities	DG CONNECT develops and carries out the Commission's policies on: <u>Digital economy and society, Research and innovation, Business and industry, Culture and media.</u> The department participates in developing policies on: <u>foreign affairs and security policy, public health, economy, finance and the euro, education and training.</u> Of the Commission's <u>10 political priorities</u> , the Directorate-General contributes to: <u>Digital single market</u> , and <u>Jobs, growth and investment</u> .
Key documents	https://ec.europa.eu/info/departments/communications-networks-content-and-technology_en
Members	EU and Associated member countries
Contact person(s)	https://ec.europa.eu/info/departments/communications-networks-content- and-technology_en#contact

Research Executive Agency (REA): Horizon 2020

The REA main responsibilities are to:

 manage a large part of Horizon 2020 actions, the EU's framework programme for research and innovation



provide administrative and logistical support services for proposal evaluation and project management including support for independent experts and for legal and financial validation of project participants manage the European Commission research enquiry service, which answers questions from grant applicants, EU-funded researchers and the broader public.

The REA supports programmes delegated to the agency from DGs RTD, EAC, CONNECT, AGRI and GROW.





	i i
Link to the	https://ec.europa.eu/info/departments/research-executive-agency_en
activities	http://ec.europa.eu/research/participants/portal/desktop/en/home.html
Priorities	 The Societal Challenges (SC) part of H2020 regularly support topics related to cultural heritage under SC6: Europe in a changing world - Inclusive, innovative and reflective societies: New ideas, strategies and governance structures for overcoming the crisis in Europe (resilient economic and monetary Union, EU growth agenda, EU social policies, the future of European integration, emerging technologies in the public sector). The young generation in an innovative, inclusive and sustainable Europe (job insecurity, youth mobility, adult education, social and political engagement of young people, modernisation of public administrations). Reflective societies: transmission of European cultural heritage, uses of the past, 3D modelling for accessing EU cultural assets. Europe as a global actor: focusing research and innovation cooperation with third countries, new geopolitical order in the Mediterranean, EU eastern partnership and other third countries. New forms of innovation in the public sector, open government, business model innovation, social innovation community, ICT for learning and inclusion.
Key	https://ec.europa.eu/programmes/horizon2020/en/h2020-section/europe-changing-
documents	world-inclusive-innovative-and-reflective-societies
Participating countries	EU Member States, countries associated to Horizon 2020 and a list of third countries.
Contact	REA: https://ec.europa.eu/info/departments/research-executive-agency_en#contact National Contact Points for Horizon 2020: https://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html
Calls	Next Horizon 2020 Work Programme (2018-2020) will be published in October 2017 http://ec.europa.eu/programmes/horizon2020/en/what-work-programme http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.htm l
Runtime	2014 – 2020

European Research Council (ERC)



European Research Council

Established by the European Commission

The European Research Council (ERC), set up by the European Union is the first European funding organisation for excellent frontier research. Every year, the ERC selects and funds the most creative researchers of any nationality and age, to run ambitious projects based in Europe in all fields of research - physical sciences and engineering, life sciences, social Sciences and humanities. It offers four core grant schemes: Starting Grants (up to €1.5 million each), Consolidator Grants (up to €2 million), Advanced Grants (up to €2.5 million), and Synergy Grants (up to €10 million). The ERC also strives to attract top researchers from anywhere in the world to come to Europe. To date, the ERC has funded more than 7,000 top researchers at various stages of their careers. The funding helped them employ around 40,000 members



**** * * *	in their research teams. With a budget of over €13 billion for the years 2014 to 2020, the ERC is part of the EU research and innovation programme, Horizon 2020, for which European Commissioner Carlos Moedas is responsible.
Link to the initiative	https://erc.europa.eu/
Priorities	 ERC funding is bottom-up excellence based. It provides Starting grants Consolidator grants Advanced grants Proof of Concept grants Synergy grants
Key documents	https://erc.europa.eu/document-library
Contact person(s)	https://erc.europa.eu/about-erc/contact-us
Calls	https://erc.europa.eu/
Runtime	Currently 2014-2020

Executive Agency for Small and Medium sized Enterprises (EASME)

The Executive Agency for Small and Medium-sized Enterprises (EASME) has been set-up by the European Commission to manage on its behalf several EU programmes.

- Most of <u>COSME</u>, the <u>EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs), including Enterprise Europe Network (EEN), Your Europe Business;
 </u>
- Part of Horizon 2020, the EU Framework Programme for Research and Innovation, and in particular:
 - Part II 'Industrial leadership':
 - <u>Innovation in SMEs</u> (including the <u>European IPR</u>
 <u>Helpdesks</u>, <u>INNOVACESS</u> and <u>Peer learning for</u>
 innovation agencies)
 - The Sustainable Industry Low Carbon Scheme (SILC
 II)
 - part of the <u>Leadership in Enabling and Industrial</u>
 Technologies
 - INNOSUP
 - Part III 'Societal challenges':
 - The Energy Efficiency part of the challenge 'Secure, Clean and Efficient Energy';
 - The Societal Challenge 5 'Climate action, Environment, Resource Efficiency and Raw Materials'
 - The SME instrument
 - Fast Track to Innovation (FTI) Pilot
- Part of the EU programme for the Environment and Climate action (LIFE)
- Part of the European Maritime and Fisheries Fund (EMFF)





	The legacy of the Intelligent Energy – Europe programme and the Eco-innovation initiative The EASME also organises the EU Sustainable Energy Week (EUSEW).
Link to the initiative	http://ec.europa.eu/easme
Priorities	Vision EASME aims to help create a more competitive and resource-efficient European economy based on knowledge and innovation. Mission EASME provides high quality support to our beneficiaries, turning EU policy into action. As an executive agency of the European Commission, EASME manages significant parts of COSME, LIFE, Horizon 2020 and EMFF. EASME ensures that actions funded by these programmes deliver results and provide the Commission with valuable input for its policy tasks. Values The EASME is committed to the public service principles for EU civil servants. These are: • commitment to the European Union and its citizens; • integrity; • objectivity; • respect for others; • transparency.
Key documents	https://ec.europa.eu/easme/en/horizon-2020-societal-challenge-climate-action-environment-resource-efficiency-raw-materials
Contact person(s)	https://ec.europa.eu/easme/en/contact
Calls	https://ec.europa.eu/easme/en/tenders
Runtime	Currently 2014-2020



Joint Programming Initiatives: JPI Cultural Heritage and Global Change

Joint Programming initiat	ives: JPI Cultural Heritage and Global Change
CULTURAL HERITAGE A CHALLENGE FOR EUROPE	"Joint Programming" is a concept introduced by the European Commission in July 2008 as the core of the 10 Joint Programming Initiatives (JPIs) aimed at implementing the European Research Area (ERA). The concept intends to tackle a few current challenges that cannot be solved solely on the national level and allows Member States and Associated Countries to deal with critical issues through a joint transnational approach. **Objective of JPIs**. To increase the value of relevant national and EU R&D and infrastructure investments by concerted and joint planning, implementation and evaluation of national research programmes. **Functioning principle of JPIs**. Member States and Associated Countries are expected to coordinate national research activities, as well as the use of resources, benefit from complementarities and develop common research and innovation agendas, as a basis for long-term cooperation in order to face grand societal challenges. **More information on The website of the European Commission.** The main objective of JPI CH is to promote the safeguarding of cultural heritage in its broader meaning including tangible, intangible and digital assets. The strong relationship between cultural heritage, technological innovation and economic development allows for further considerations within the European framework of challenges and competitiveness. Social and regional cohesion, cultural and educational challenges are crucial aspects of the European Union development, and a number of economic, social and cultural instabilities are currently undermining local heritage, in a non-homogeneous way, posing critical questions for the future.
Link to the initiative	http://www.jpi-culturalheritage.eu/
Priorities	 The effort to inspire an in-depth and common understanding of what is cultural heritage, who owns it, who is responsible for it, and why it is so important in the developmental path of a country goes on the same direction of the willingness of getting the European Union a region of integration on a knowledge- based economy model. The JPI CH promotes a joint multidisciplinary approach to cultural heritage sustainability which arises from research. It develops within a multi-frame scenario called the Scientific Cultural Area – as a part of the European Research Area – which includes science, engineering, technology, art, literature, conservation and culture. Supporting research activities and researcher training means reaffirming the European cultural identity as worldwide ambassador of cultural heritage excellence. The 2017 calls included the following priorities: The Critical: Engagements with Digital Heritage Safeguarding Digital Heritage Safeguarding and use of Europe's unique cultural heritage under global and environmental change conditions Development of new, research-based knowledge on cultural heritage and thereby meet societal challenges and contribute

to the development of society.



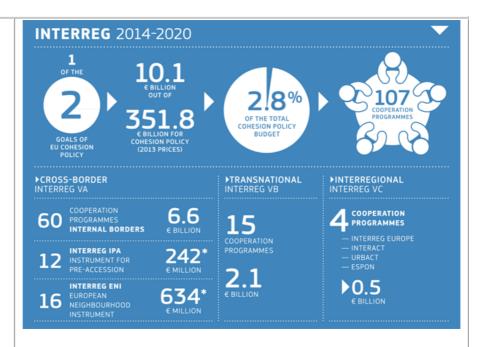
Key documents	http://www.jpi-culturalheritage.eu/wp-
	content/uploads/brochureJPI_280x173_web.pdf
Members	Members in blue, observers in light blue. The Members list is regularly updated. http://www.jpi-culturalheritage.eu/country-members/
Contact person(s)	http://www.jpi-culturalheritage.eu/about-us-2/contact/
Calls	Joint Call on Digital Heritage closed 22 June 2017. http://www.jpi-culturalheritage.eu/joint-activities/joint-calls-2017/joint-call-on-digital-heritage/ The current Call for proposal "JPICH Heritage in Changing Environments" has a deadline 30 November 2017. http://www.jpi-culturalheritage.eu/2017/09/jpich-heritage-in-changing-environments-call-for-proposal/
Runtime	2018

INTERREG



European Territorial Cooperation (ETC), which is also known as Interreg, is one of the two goals of cohesion policy and provides a framework for the implementation of joint actions and policy exchanges between national, regional and local actors from different Member States. It is funded by the European Regional Development Fund (ERDF). The overarching objective is to promote a harmonious economic, social and territorial development of the Union as a whole. Interreg is built around three strands of cooperation: cross-border (Interreg A), transnational (Interreg B) and interregional (Interreg C).





Based on European Cohesion Policy 2014-2020, Interreg is based on 11 investment priorities laid down in the ERDF Regulation contributing to the delivery of the Europe 2020 strategy for smart, sustainable and inclusive growth – "Research and Innovation" is one of them and some programmes also cover the support to the protection and development of cultural heritage, for example as part of the environment and resource efficiency theme.

As the broadest example, Interred Europe helps regional and local governments across Europe (28 Member States, Switzerland and Norway) to develop and deliver better policy and assists public authorities (local, regional and national), managing authorities/intermediate bodies as well as agencies, research institutes, thematic and non-profit organisations engaging with their local policymakers in order to identify options for collaboration. Out of a total of 130 projects from the first two calls of Interreg Europe, four projects address the topic of cultural heritage and five projects work on both. cultural and natural heritage (e.g. https://www.interregeurope.eu/cd-eta/ project: Collaborative Digitization of Natural and Cultural Heritage).



Interreg CENTRAL EUROPE aims at improving capacities for regional development in innovation, carbon dioxide reduction, the protection of natural and cultural resources as well as transport and mobility through transnational cooperation. Out of the 85 projects currently funded after 2 calls for proposals, 16 projects with a total contribution of 29,2 Million € from the ERDF are dealing with cultural resources and heritage. Among them are for example the VirtualArch project, which focuses on regional archaeological heritage located underground or submerged. For its valorisation visualisation tools in the field of virtual and augmented reality are developed. Another example is the ProteCHt2save project which aims to develop solutions to increase resilience of cultural heritage to floods and



Danube Transnational Programme	heavy rain events through an improved risk management based on ICT solutions. More project examples and information are available at www.interreg-central.eu/culture . Interreg Danube Transnational Programme also includes a priority on (environment and) culture responsible Danube Region — which fosters the sustainable use of cultural heritage and resources. The calls so far supported also projects providing and increasing access to cultural heritage using ICT tools and created a thematic pole focusing on cultural heritage.
Links to the initiatives	Overview: http://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial Individual programmes: https://www.interregeurope.eu http://www.interreg-central.eu http://www.interreg-danube.eu and more e.g. via http://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/trans-national/
Priorities	Thematic focus of the call Fully open specific objectives, encouraging transnational project ideas to improve: • SO 2.2 - Low-carbon energy planning strategies and policies supporting climate change mitigation • SO 3.1 - Capacities for the protection and sustainable use of natural heritage and resources • SO 3.3 - Environmental management of functional urban areas • SO 4.1 - Planning and coordination of regional passenger transport systems for better connections to existing networks • SO 4.2 - Coordination among freight transport stakeholders for multimodal environmentally-friendly solutions Targeted specific objectives, looking for transnational project ideas to improve: • SO 1.1 - Sustainable linkages among actors of the innovation systems • SO 1.2 - Skills and entrepreneurial competences for advancing economic & social innovation • SO 2.1 - Energy efficiency and renewable energy usage in public infrastructures • SO 3.2 - Capacities for the sustainable use of cultural heritage and resources Closed specific objective, in which no projects proposals will be selected for funding in the third call: • SO 2.3 - Improving capacities for mobility planning in functional urban areas to lower CO2 emissions



Remains closed because topics are already sufficiently covered by running More detailed information about all funding priorities and specific objectives is available in the Interreg CENTRAL EUROPE Cooperation Programme -Version 2.0 (zip 8.5 MB). The different Interreg programmes have different territories eligible for the respective funding, going also beyond the European Member States. Transnational programmes: **Members** Cross-border programmes: Policy Brief on the role of regional cooperation in preserving cultural heritage: https://www.interregeurope.eu/news-andevents/news/466/policy-brief-on-the-role-of-regional-cooperation-inpreserving-cultural-heritage Key documents/links European Territorial Cooperation: building bridges between people http://ec.europa.eu/regional_policy/sources/information/pdf/brochures/etc book_lr.pdf **Runtime** 2014 - 2020



Education and Culture Executive Agency: Creative Europe, Erasmus+, Europe for Citizens programmes (EACEA)

programmes on Creative Europe Aid Volunteers to The Creative audiovisual, cult sub-programme cultural and creative audiences and to the European includes a call of Cultural Heritage The European support activities past, some projet the Erasmus Mu The Europe for remembrance to the EU. Different invited to participrojects in the file	and Culture Executive Agency manages several behalf of the European Commission, among them the programme, but also Erasmus+, Europe for Citizens, EU hat might have benefits for cultural heritage stakeholders. Europe programme aims to support the European ural and creative sector with a culture and a media specific. The different funding schemes encourage the audiovisual, eative players to operate across Europe, to reach new of develop the skills needed in the digital age. For example, Cooperation Projects Call 2018 (Culture Programme) esigned for projects related to the 2018 European Year of St. Union's Erasmus+ programme is a funding scheme to sin the fields of Education, Training, Youth and Sport. In the exist with a focus on cultural heritage have been selected in indus or the Youth in Action subprogrammes. **Citizens** programme provides one strand on European araise awareness of common history, values and the aim of the types of organisations (including research institutes) are pate and activities such as research is possible. Funded field of cultural heritage are available on the programme coeuropa.eu/programmes/europe-for-citizens/projects).
Link to the initiative http://eacea.ec.e	europa.eu/homepage_en europa.eu/creative-europe_en europa.eu/erasmus-plus_en europa.eu/europe-for-citizens_en
	p-programme helps cultural and creative organisations to
Priorities of culture and the	tionally and promotes the cross-border circulation of works e mobility of cultural players. It provides financial support to uropean dimension aiming to share cultural content across
Priorities of culture and the projects with a E	e mobility of cultural players. It provides financial support to
Priorities of culture and the projects with a E borders. Key documents /	e mobility of cultural players. It provides financial support to
Priorities of culture and the projects with a E borders. Key documents / Contact person(s) http://eacea.ec.e.e.e.e.http://eacea.ec.e.e.http://eacea.ec.e.e.http://eacea.ec.e.e.e.http://eacea.ec.e.e.e.http://eacea.ec.e.e.e.http://eacea.ec.e.e.e.http://eacea.ec.e.e.e.e.http://eacea.ec.e.e.e.e.e.http://eacea.ec.e.e.e.e.e.http://eacea.ec.e.e.e.e.e.e.http://eacea.ec.e.e.e.e.e.e.http://eacea.ec.e.e.e.e.e.e.e.e.e.e.http://eacea.ec.e.e.e.e.e.e.e.e.e.e.e.e.e.e.e.e	e mobility of cultural players. It provides financial support to uropean dimension aiming to share cultural content across

European Commission: Neighbourhood and Enlargement Negotiations (DG NEAR)



The mission of the Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR) is to take forward the EU's neighbourhood and enlargement policies, as well as coordinating relations with EEA-EFTA countries insofar as Commission policies are concerned. DG NEAR works closely with the European External Action Service and the line DGs in charge of thematic priorities.



	By implementing assistance actions in Europe's eastern and southern neighbourhood, DG NEAR supports reform and democratic consolidation, and strengthens the prosperity, stability and security around Europe. DG NEAR helps to promote EU values, policies and interests in this region, and to contribute to developing the special relationship of the EU with its neighbouring countries. In the enlargement area, DG NEAR assists those countries with a perspective to join the EU in meeting the criteria defined by the Treaty of European Union and the European Council. DG NEAR closely monitors the progress of enlargement countries towards the EU and supports accession negotiations as required by the Council. The DG manages the bilateral relations of the Union with candidate and potential candidate countries on their path to the EU, frontloading reforms on rule of law, economic governance and public administration reform. Concerning the Western Balkans, the DG develops and implements the stabilisation and association policy of the European Union as defined by the European Council.
Link to the initiatives	http://www.enpicbcmed.eu/enicbcmed-2014-2020
Priorities	The new Programme will be structured in two overarching objectives declined in four thematic objectives and eleven priorities. The strategy adopted could be amended during the preparation phase of the Programme and until its final approval by the European Commission. One of the biggest challenges of the cooperation area is to create economic opportunities and jobs to reduce high rates of unemployment: the thematic objective entitled 'Business and SMEs development' seeks to positively contribute to this situation through the support to start-up enterprises and the enhancement of Euro-Mediterranean value chains and clusters. Diversification of tourism into new segments and niches is also part of this first objective. Innovation is a major driver for competitiveness and productivity of Mediterranean economies. The objective referring to 'Support to education, research, technological development and innovation' focuses on technological transfer, commercialisation of research results and links between industry and research. 'Promotion of social inclusion and fight against poverty' represents a new topic of the Programme compared to the current one. Issues to be addressed concern the support to the NEETS category (Not in Education, Employment or Training) as well to actors from the social and solidarity economy. 'Environmental protection, climate change adaptation and mitigation' continues to be a major field of intervention of the Programme. Efficiency in water, waste and energy management as well as conservation of coastal areas are set to contribute to a more sustainable Mediterranean region. 'People to people cooperation' shall be considered as a modality to achieve the four thematic objectives mentioned above while 'institutional capacity building' will act as a transversal priority.
Key documents	http://www.enpicbcmed.eu/sites/default/files/jop_eni_cbc_med_2014-2020_adopted.pdf http://www.enpicbcmed.eu/sites/default/files/eni_cbc_med_programme_strategy_2 014-2020.pdf http://www.enpicbcmed.eu/sites/default/files/eni_cbc_med_programme_11.07.201 6.pdf
Members	EU and Associated member countries



Contact person(s)	http://www.enpicbcmed.eu/en/contacts
Calls	http://www.enpicbcmed.eu/sites/default/files/jop_eni_cbc_med_2014- 2020_adopted.pdf

Stakeholders representing coordination and policy initiatives

European Research Infrastructures: E-RIHS

European Research	Infrastructures: E-RIHS	
* * * * * * * * *	Research infrastructures that support research across and within the Social Sciences and Humanities are among the first known infrastructures: libraries, museums and archives for example. The ESFRI has a key role in policy-making on research infrastructures in Europe. In particular the ESFRI contributes to the development of a strategic roadmap that identifies vital new European RIs for the next 10-20 years. The 2016 roadmap contains details of 21 ESFRI projects and 29 ESFRI landmarks. These landmarks are RIs that reached the implementation phase before the end of 2015. Furthermore there are also Complementary projects and Emerging projects. In 2016, a new ESFRI project entered the roadmap: E-RIHS - European Research Infrastructure for Heritage Science. The Preparatory Phase will run 2016-2019 and E-RIHS will be launched as a stand-alone RI in 2020. Other projects in relation to the field of "Social and Cultural Innovation" (five ESFRI Landmark SSH RIs which first appeared on the ESFRI Roadmap 2006) have all now been implemented: • CESSDA - Consortium of European Social Science Data Archives • CLARIN ERIC - Common Language Resources and Technology Infrastructure • DARIAH ERIC - Digital Research Infrastructure for the Arts and Humanities • ESS ERIC - European Social Survey • SHARE ERIC - Survey of Health, Ageing and Retirement in Europe RIs for Humanities and cultural innovation interact with each other, as distributed infrastructures or as physical RIs.	
Link to the initiative	www.ec.europa.eu/research/infrastructures/index_en.cfm?pg=esfri http://www.e-rihs.eu/	
Priorities	 ESFRI infrastructures cover all fields of science and are structured in the priorities including energy, environment, health & food, physical sciences & engineering, social & cultural innovation and e-RI E-RIHS will support research on heritage interpretation, preservation, documentation and management aiming at integrating existing Heritage Science Infrastructures 	
Key documents	ESFRI Roadmap 2016: http://www.esfri.eu/roadmap-2016 E-RIHS in a nutshell http://www-e-rihs-eu.infn.it/wp-content/uploads/2016/04/ERIHS-in-a-nutshell-1.pdf	



Europeana



Europeana is Europe's digital platform for cultural heritage, set up 2008. It works with over 3,700 museums, libraries and archives, galleries and audiovisual collections from all EU member states and beyond to share cultural heritage for enjoyment, education and research.

Europeana Collections provides access to over 50 million digitised items – books, music, artworks and more – with sophisticated search and filter tools to help you find what you're looking for. It has developed the most advanced aggregation infrastructure in cultural heritage. Through partners such as ApEx, EU SCreen and the European Library, Europeana has the means to collect data from digitised and non-digitised collections throughout Europe. Europeana employs a licencing framework and a data model to ensure that its collected data is interoperable and re-usable. It also provides research grants for researchers in the digital humanities, and it is open to participate in Horizon 2020 projects. Europeana receives funding under the Connecting Europe Facility as Digital Service Infrastructure.

Link to the initiative

http://www.europeana.eu/ http://research.europeana.eu/ https://ec.europa.eu/inea/en/connecting-europe-facility

Priorities

 Europeana features thematic collections on art, fashion, maps & geography, music, natural history, photography, sport and World War I (1914-18).

 Europeana Labs is the place for those who have the imagination, skills and desire to play with digital cultural content and use it in their experimental works or sustainable business projects. It provides practical resources to start building with cultural collections as quickly and easily as possible, including openly licensed, thematic datasets and four free APIs. And it fosters a growing community through blog posts, events and direct support.

European Council Presidencies



The presidency of the Council rotates among the EU member states every 6 months. During this 6-month period, the presidency chairs meetings at every level in the Council, helping to ensure the continuity of the EU's work in the Council.

The Estonian presidency of the Council of the EU runs 1 July - 31 December 2017. On 11-13 July, an event was organised by Estonian Presidency: "Cultural Heritage 3.0: Audience and access in the digital era" (recording available).

Also the Bulgarian Presidency (1 January -30 June 2018) acknowledged "Culture as a Strategic Resource for the Better Future of the EU" as a priority. During the Bulgarian Presidency, better inclusion of culture in the Multiannual Financial Framework post-2020 and in the new Work Plan for Culture 2019-2022 will be promoted.



	Trio Programme Member states holding three successive presidencies of the Council of the European Union, a trio Presidency, work together over an 18-month period, on the basis of a common programme. The advantages of the trio Presidency are that it facilitates a smoother transition between rotating presidencies, and promotes shared long-term priorities through a common programme. This fosters a shared understanding behind important themes and decisions. Working as a trio Presidency also means that the three member states have the opportunity to learn about each other and to work together closely, thus strengthening the EU as a whole. The trio Presidency cooperates to perform the tasks entrusted to it in the Trio Programme.	
Link to the initiative	https://www.eu2017.ee/political-meetings/cultural-heritage-30-audience-and-access-digital-era http://www.eu2018bg.bg/bg/view/podgotovka-na-bulgarskoto-predsedatelstvo/prioriteti%20/draft-programme-en	
Priorities	 Single Market Entrepreneurship and job creation Environmental sustainability Investing in the future Economic and Monetary Union 	
Key documents	https://www.eu2017.ee/sites/default/files/2017-06/Trio%20programme.pdf	

European Technology Platforms: European Construction Technology Platform – 'Heritage & Regeneration' Focus Area (ECTP)

Tiernage a regeneration researched (EGT)		
ECTP INNOVATIVE BUILT ENVIRONMENT	European Technology Platforms (ETPs) are industry-led stakeholder fora that develop short to long-term research and innovation agendas and roadmaps for action at EU and national level to be supported by both private and public funding, one of them, the European Construction Technology Platform (ECTP) also covers cultural heritage. ECTP was launched by the construction sector in October 2004 to develop new R&D&I strategies to improve competitiveness, meet societal needs and take up environmental challenges. It gathers around 160 member-organizations from the whole supply chain of the Built Environment. The Steering Committee is composed of up to 30 Members, appointed for a period of 2 years and under the Steering Committee there are five Committees focused on among them "Heritage & Regeneration".	
Link to the initiative	http://www.ectp.org and http://heritage.ectp.org/	
Priorities	 Driving innovation and change through research. To help create a better future for the Built Environment industry in Europe. Informing and influencing Research and Innovation investment in Europe. Supporting collaboration and helping mobilise expertise in the Built Environment. 	



European Commission DG Joint Research Centre

Luiopean Commiss	ion by Joint Research Centre	
* * * * * * *	The Joint Research Centre (JRC) is the European Commission's science and knowledge service which employs scientists to carry out research in order to provide independent scientific advice and support to EU policy. The JRC hosts specialist laboratories and unique research facilities and is home to thousands of scientists working to support EU policy. The scientific work serves the policy Directorates-General of the European Commission and address key societal challenges. Cultural heritage is not a key topic of the JRC, but it investigates the importance of cultural and creative industries. JRC also developed the "Cultural and Creative Cities Monitor" (2017) () which assesses a range of measures describing the 'Cultural Vibrancy', the 'Creative Economy' and the 'Enabling Environment' of a city, using both quantitative and qualitative data. In the frame of its analysis of Smart Specialisation Strategies (RIS3), the JRC also identified Digitisation of Cultural Heritage as an important aspect in its support to regional and national authorities (see the Digital Agenda Toolbox developed from joint activities between the Smart Specialisation Platform of the Joint Research Centre, DG CONNECT and DG REGIO). JRC intends to investigate skills and competences related to creativity and supports the construction of the European Cultural Index.	
Link to the initiative	https://ec.europa.eu/jrc/en http://s3platform.jrc.ec.europa.eu/digitisation-of-cultural-heritage	
Priorities	 Education, skills and employment Environment, resource scarcity, climate change and sustainability People, governance in multicultural and networked societies Data and digital transformations Innovation systems and processes 	
Key documents	Cultural and Creative Cities monitor: https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor Digital Agenda Toolbox: http://publications.jrc.ec.europa.eu/repository/bitstream/JRC88896/ipts.jrc 88896 %28print%29 final.pdf	

Europa Nostra





Policy	Europa Nostra contributes to the development of heritage-related policies at EU level with the aim of mainstreaming heritage in EU policies and actions, and securing adequate funding for heritage. Europa Nostra have strongly campaigned for and will actively contribute to the European Year of Cultural Heritage (EYCH) which will take place in 2018. This European Year offers a unique opportunity to give a further impetus to EU policy, action and funding in support of cultural heritage and a formidable chance to convey a positive and cohesive message for Europe and its citizens. Europa Nostra acts as coordinator of the European Heritage Alliance 3.3, an informal platform of 40 European and international networks active in the wider field of heritage. Together with five other European partners, Europa Nostra recently produced a comprehensive Report entitled Cultural Heritage Counts for Europe (CHFCE) which provides compelling evidence of the value of heritage and its positive impact on Europe's economy, culture, and society, as well as the environment. Its Executive Summary has been translated into several languages, to further spread the message at local level. We work closely together with Institutional Partners, namely the EU institutions and the Council of Europe, advocating for an integrated approach to cultural heritage. We also seek to contribute to a global mobilisation for heritage, especially through our close cooperation with UNESCO.
Key documents	http://www.europanostra.org/our-work/publications/

UNESCO

United Nations Educational, Scientific and Cultural Organization	 UNESCO is responsible for coordinating international cooperation in education, science, culture and communication. It strengthens the ties between nations and societies, and mobilizes the wider public so that each child and citizen: has access to quality education; a basic human right and an indispensable prerequisite for sustainable development; may grow and live in a cultural environment rich in diversity and dialogue, where heritage serves as a bridge between generations and peoples; can fully benefit from scientific advances; and can enjoy full freedom of expression; the basis of democracy, development and human dignity. UNESCO's messages are of increasing importance today, in a globalized world where interconnections and diversity must serve as opportunities to build peace in the minds of men and women. 	
Link to the initiative	http://en.unesco.org/	
Priorities	Global Priorities	





Selected COST Actions in the field Cultural Heritage in the Digital Era

About COST

COST (European Cooperation in Science and Technology) is a pan-European intergovernmental framework.

Its mission is to enable break-through scientific and technological developments leading to new concepts and products and thereby contribute to strengthening Europe's research and innovation capacities.

It allows researchers, engineers and scholars to jointly develop their own ideas and take new initiatives across all fields of science and technology, while promoting multi- and interdisciplinary approaches. COST aims at fostering a better integration of less research intensive countries to the knowledge hubs of the European Research Area. The COST Association, an International not-for-profit Association under Belgian Law, integrates all management, governing and administrative functions necessary for the operation of the framework. The COST Association has currently 36 Member Countries.

www.cost.eu

About COST Actions

COST Actions are a flexible, fast, effective and efficient networking instrument for researchers, engineers and scholars to cooperate and coordinate nationally funded research activities. COST Actions allow European researchers to jointly develop their own ideas in any science and technology field.

COST Actions are bottom-up science and technology networks, open to researchers and stakeholders with a duration of four years. They are active through a range of <u>networking tools</u>, such as workshops, conferences, training schools, short-term scientific missions (STSMs), and dissemination activities. **COST does not fund research itself.**

COST prides in its support for high-risk, innovative and emerging research themes. However, **COST** does not set any research priorities.

COST Actions can also pave the way to or establish synergies with EU-funded research projects. Moreover, collaboration within research projects can also lead to new Actions, thus enhancing the networking potential of such consortia.

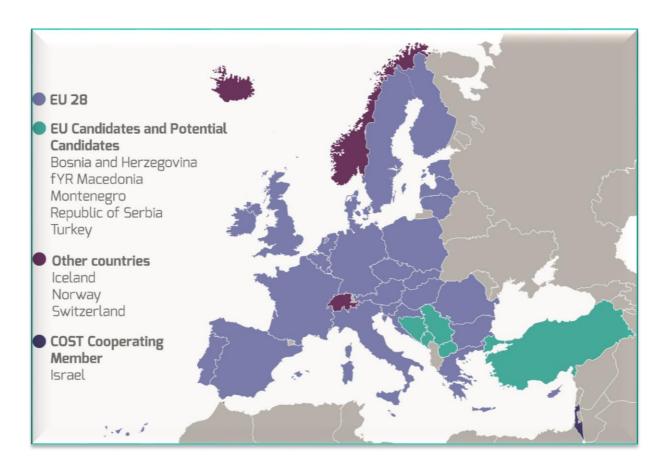
COST Actions cover scientific and technological research activities for peaceful purposes and of public interest, aiming to contribute to the <u>COST Mission</u>.

Every COST Action has an objective, defined goals and clear deliverables. These are described in a Memorandum of Understanding, accepted by at least five participating COST Member Countries. You can browse through all the <u>running COST Actions</u>.

COST Actions are:

Pan-European - Spanning 37 Member Countries





- Researcher-driven In terms of proposed topics, objectives and work organisation; researchers choose their own topics; all decision are entrusted to the Action's Management Committees
- Open and Inclusive Open to all researchers, engineers and scholars, irrespective of gender, field or career stage. Actions can expand, as researchers from new countries can join in during the first three years
- **Multi- and interdisciplinary** Building, bridging and expanding multi- and interdisciplinary science and technology research communities
- Future-oriented Engaging the next generation of young researchers
- **Lightweight** They are a light platform to coordinate national research funding through easy networking tools and simple rules.

On the basis of mutual benefit, researchers, engineers and scholars from Near Neighbour Countries and International Partners Countries may join.

Selected COST Actions in the field of Cultural heritage in the Digital Era

The following section lists selected Actions that will contribute to the event.

New Exploratory Phase in Research on East European Cultures of Dissent – CA16213

Resistance and dissent in former socialist Europe 1945-1989 constitutes a remarkable chapter of Europe's recent past, which not only informs in a decisive way the identities of post-socialist societies, but has also reshaped the continent as a whole and still provides an important reference for contemporary social movements worldwide.



The proposers of this Action believe that, after a period of growth and consolidation, this field of study and the respective domain of cultural heritage have stalled and fell short of its true significance. This state of affairs results from (1) the inheritance of Cold War-era conceptual distinctions, (2) confinement of research within national silos and (3) neglecting the problem of access to original archival sources for digitally enabled research due to both their heterogeneity and uneven investment in research infrastructures.

The main aim of the Action is to trigger the next discovery phase of this legacy through forging a new, reflexive approach and providing a platform for incubating networked, transnational, multidisciplinary and technology-conscious research with creative dissemination capacities.

The Action will create a valuable interface for communication between three communities of practice: researchers and archivists, art and cultural heritage curators and IT experts with humanities and social sciences expertise in order for future research to be technologically advanced and better disseminated. The Action will enable participant researchers to train with cutting edge digital tools, and to increase their capacities for creative dissemination through engaging in productive dialogue with art and cultural heritage curators, proposing best practices of cooperation between those three communities of practice.

http://www.cost.eu/COST Actions/ca/CA16213

Runtime: 2017 – 2021, currently 17 COST Countries are participating

MC Chair	Dr Maciej Maryl (PL)
MC Vice Chair	Dr Jan MERVART (CZ)

Distant Reading for European Literary History – CA16204

This Action's challenge is to create a vibrant and diverse network of researchers jointly developing the resources and methods necessary to change the way European literary history is written. Grounded in the Distant Reading paradigm (i.e. using computational methods of analysis for large collections of literary texts), the Action will create a shared theoretical and practical framework to enable innovative, sophisticated, data-driven, computational methods of literary text analysis across at least 10 European languages. Fostering insight into cross-national, large-scale patterns and evolutions across European literary traditions, the Action will facilitate the creation of a broader, more inclusive and better-grounded account of European literary history and cultural identity. To accomplish this, the Action will:

- 1. build a multilingual European Literary Text Collection (ELTeC), ultimately containing around 2,500 full-text novels in at least 10 different languages, permitting to test methods and compare results across national traditions:
- 2. establish and share best practices and develop innovative computational methods of text analysis adapted to Europe's multilingual literary traditions;
- 3. consider the consequences of such resources and methods for rethinking fundamental concepts in literary theory and history.

The Action will contribute to the development and distribution of methods, competencies, data, best practices, standards and tools relevant to Distant Reading research. This will not only affect the way scholars in the Humanities do research, but also the way institutions like libraries will make their holdings available to researchers in the future. The Action will foster distributed research, the systematic exchange of expertise, and the visibility of all participants, activities and resources.

http://www.cost.eu/COST_Actions/ca/CA16204



Runtime: 2017 - 2021, currently 20 COST Countries are participating

Citizen Science to promote creativity, scientific literacy, and innovation throughout Europe – CA15212

We are witnessing a remarkable growth of citizen science (CS), that is, the participation of people from all walks of life in scientific research. The main aim of this Action is to bundle capacities across Europe to investigate and extend the impact of the scientific, educational, policy, and civic outcomes of citizen science with the stakeholders from all sectors concerned (e.g., policy makers, social innovators, citizens, cultural organizations, researchers, charities and NGOs), to gauge the potential of citizen science as enabler of social innovation and socio-ecological transition. The Action will explore the potential transformative power of citizen science for smart, inclusive, and sustainable ends, and will provide frameworks for the exploitation of the potential of European citizens for science and innovation. The relevance and timeliness of the Action derive from the recent explosion of activity around citizen science, as ordinary people and researchers begin to understand the power of technological devices which allow them to record the environment around them and share and collectively interpret data and knowledge to advance science and society.

Given the trans-disciplinarity of citizen science, the Action will benefit from the different contributions and perspectives from a range of disciplines and research cultures. As the latter rarely overlap and engage directly, the Action provides an ideal means for knowledge sharing and focused development on the topic by enabling better integration of separate national activities at a European and international scale.

http://www.cost.eu/COST Actions/ca/CA15212

Runtime: 2016 - 2020, currently 35 COST Countries are participating

MC Chair	Dr Katrin VOHLAND (DE)
MC Vice Chair	Dr Marisa PONTI (SE)

Archaeological practices and knowledge work in the digital environment – CA15201

As nations and the EU are making considerable investments in technologies, infrastructures and standards for all aspects of working with archaeological knowledge, critical understanding of how this knowledge is produced and used remains fragmentary. This COST Action will overcome this fragmentation by forming a transdisciplinary network that brings together the knowledge from individual research projects, national initiatives and EU projects (e.g. CARARE, LoCloud, Europeana Cloud, ARIADNE, DARIAH) in the field of archaeological knowledge production and use. This Action is an acute priority and prerequisite for ensuring the expected benefits of the large-scale investments in the cultural heritage sector.

The better coordination of current fragmented efforts to study archaeological practices, knowledge production and use, social impact and industrial potential of archaeological knowledge will 1) strengthen and consolidate the current state of the art, as represented in leading research in the field, on the making and emergence of archaeological knowledge and its application for societal benefit, and 2) provide a basis for guidance to diverse stakeholders responsible for making, regulating, preserving, managing and using archaeological knowledge including field archaeologists, museum professionals, heritage administrators, researchers, policymakers, cultural industry and the public.

http://www.cost.eu/COST Actions/ca/CA15201



Runtime: 2016 - 2020, currently 29 COST Countries are participating

MC Chair	Prof Isto HUVILA (SE)
MC Vice Chair	Prof Costis DALLAS (EL)

Ancient European languages and writings (AELAW) – IS1407

There is written evidence of about twenty fragmentary ancient European languages. Of these some 20,000 documents are conserved on stone, metal or pottery in diverse systems of writing, some of which have not been completely deciphered yet.

Research into them requires specialists in historical and philological-linguistic matters and these suffer from a pronounced geographical dispersion according to their geographical field of study (Gaul, Hispania Italy, the North of Africa) or to their corresponding linguistic family (Latin, Celtic, Italic, other minor Indo-European branches, Basque, ...).

The main objective of the Action is the co-ordination of researchers dedicated to the study of the different ancient languages and writings with the aim of creating an ample work team capable of establishing the foundations for the creation, for the first time, of a large online data bank which will permit the cataloguing of all the currently known documents in this type of languages, thus introducing this important part of the European cultural heritage into the 21st century.

http://www.cost.eu/COST_Actions/isch/IS1407

Runtime: 2015 - 2019, currently 13 COST Countries are participating

1	MC Chair	Prof Francisco BELTRÁN (ES)
	MC Vice Chair	Dr Simona MARCHESINI (IT)

Innovation in Intelligent Management of Heritage Buildings (i2MHB) – TD1406

The objective of this Action is to create a pan-European open network, to promote synergies between Heritage Science's specialists, industrial stakeholders and research/education players, to achieve a unified common understanding and operation in the Heritage Buildings domain, integrating multidisciplinary expertise, technology and know-how through a novel and independent global framework.

http://www.cost.eu/COST_Actions/tdp/TD1406

Runtime: 2015 – 2019, currently 26 COST Countries are participating

MC Chair	Prof João MARTINS (PT)
MC Vice Chair	Dr Styliani SYLAIOU (EL)

Fostering knowledge about the relationship between Information and Communication Technologies and Public Spaces supported by strategies to improve their use and attractiveness (CYBERPARKS) – TU1306

The Action's main objective is to create a research platform on the relationship between Information and Communication Technologies (ICT) and the production of public open spaces, and their relevance to



sustainable urban development. The impacts of this relationship will be explored from social, ecological and urban design perspectives.

<u>ICT</u> is a driving force, media and tool, which operates as a mediator between users and their virtual and real worlds. Public spaces have multiple functions, including social gathering places where outdoor interactions between people can occur and communication and information exchange can take place.

The relationship between <u>ICT</u> devices and public open spaces is not new but is growing at a rapid pace, becoming a challenge for <u>ICT</u> experts, spatial planners and social scientists. ICTs cause and enable innovative outdoor social practices which challenge spatial and social experts to use them in policies, methodologies, design and research to produce responsive and inclusive urban places.

The Action deals with opportunities and risks ICTs offer to the user, via the appreciation, design and usage of public spaces. It exploits the benefits of interweaving a green experience with digital engagement via sharing knowledge, experiences and ideas, and analysing public spaces.

http://www.cost.eu/COST_Actions/tud/TU1306

Runtime: 2014 – 2018, currently 31 COST Countries are participating

MC Chair	Dr Carlos SMANIOTTO COSTA (PT)
MC Vice Chair	Ms Ina SUKLJE ERJAVEC (SI)

Reassembling the Republic of Letters, 1500-1800 A digital framework for multi-lateral collaboration on Europe's intellectual history – IS1310

The early modern communications revolution allowed scholars to scatter correspondence across Europe, knitting together the international, knowledge-based civil society crucial to that era's intellectual breakthroughs and formative for many of modern Europe's values and institutions. The current IT revolution provides means for reassembling and disseminating this precious literary heritage for the first time while fostering new forms of scholarly cooperation. In pursuit of these aims, this Action will (1) undertake a historiographical reconsideration of the place of the Republic of Letters in Europe's cultural formation; (2) coordinate the intensive discussion amongst librarians and archivists, IT experts, and scholars needed to plan a state-of-the-art digital system within which to collect a pan-European pool of highly granular data on the Republic of Letters; (3) design tools for navigating, analysing and visualising this huge pool of data, and for facilitating new forms of international and interdisciplinary scholarly collaboration, thereby consolidating a new virtual Republic of Letters; and (4) experiment with using this system to engage the broader public with the cutting-edge technical and scholarly work on this key phase of European cultural and intellectual integration.

http://www.cost.eu/COST Actions/isch/IS1310

Runtime: 2014 – 2018, currently 32 COST Countries are participating

MC Chair	Prof Howard HOTSON (UK)
MC Vice Chair	Dr Thomas WALLNIG (AT)

NanoSpectroscopy – MP1302

With today's research and industry aiming for ever smaller objects and feature sizes, there is an increasing demand for spectroscopic methods to investigate processes, objects, and material properties



with unprecedented spatial and temporal resolution as well as chemical specificity. The new insights are important for issues such as understanding life on the (sub-)cellular level, light-matter-interaction, light-to-energy conversion, or materials engineering. The interdisciplinary approach of nanospectroscopy encompasses the fields of Physics, (Bio-)Chemistry, Biology, Medicine, Nanotechnology, and Materials Science.

Optical nanospectroscopy uses methods such as confocal and/or ultrafast Raman and fluorescence spectroscopy for the detection and spectral analysis of objects at the nanoscale, down to the single-molecule level. In this Action, nanospectroscopic techniques will be applied to tailored materials and nanostructures (organic/inorganic, semiconducting, metallic, hybrid, bio) to gain deeper understanding of nanoscale processes.

This Action aims at consolidating European expertise on all aspects of UV/Vis/NIR nanospectroscopy (modelling, experiment, nanostructures, materials, equipment, and applications) into one coherent Action. The COST networking approach is particularly well suited for this purpose. A training program will be established to spread the know-how of applying nanospectroscopic techniques and the gained insights. In dialogue with European industry, nanospectroscopic techniques will be further developed, e.g. as applied techniques for non-specialists.

http://www.cost.eu/COST_Actions/mpns/MP1302

Runtime: 2013 - 2017, currently 31 COST Countries are participating

MC Chair	Prof Monika FLEISCHER (DE)
MC Vice Chair	Prof Pierre-Michel ADAM (FR)

Civil Engineering Applications of Ground Penetrating Radar – TU1208

This Action focuses on the exchange of scientific-technical knowledge and experience of Ground Penetrating Radar (GPR) techniques in Civil Engineering (CE). The project will be developed within the frame of a unique approach based on the integrated contribution of University researchers, software developers, geophysics experts, Non-Destructive Testing equipment designers and producers, end users from private companies and public agencies. In this interdisciplinary Action, advantages and limitations of GPR will be highlighted leading to the identification of gaps in knowledge and technology. Protocols and guidelines for EU Standards will be developed, for effective application of GPR in CE. A novel GPR will be designed and realized: a multi-static system, with dedicated software and calibration procedures, able to construct real-time lane 3D high resolution images of investigated areas. Advanced electromagnetic-scattering and data-processing techniques will be developed. The understanding of relationships between geophysical parameters and CE needs will be improved. Freeware software will be released, for inspection and monitoring of structures and infrastructures, buried-object localization, shape reconstruction and estimation of useful parameters. A high level training program will be organized. Mobility of early career researchers will be encouraged. The project has already received the interest of key end users and excellent EU Institutions.

http://www.cost.eu/COST Actions/tud/TU1208

Runtime: 2013 – 2017, currently 29 COST Countries are participating

MC Chair	Dr Lara PAJEWSKI (IT)
MC Vice Chair	Dr Andreas LOIZOS (EL)



SUB-URBAN - A European network to improve understanding and use of the ground beneath our cities – TU1206

Increasing urbanisation throughout the world challenges the sustainable development and resilience of cities. Despite this, the importance of the ground beneath cities is under-recognised and often overlooked. The main aim of the Action is to provide a long-needed contribution to greater interaction and networking, and so transform the relationship between experts who develop urban subsurface knowledge and those who can benefit most from it - urban decision makers, practitioners and the wider research community. The Action will establish a network to co-ordinate, integrate and accelerate the world-leading research into modelling the subsurface taking place in European institutions and to develop a Toolbox to enable subsurface knowledge to be widely disseminated.

Thus, to maximise the economic, social and environmental benefits of urban subsurface resources and ecosystem services on which cities depend, the Action will:

- Draw together collective research capabilities in 3D/4D characterisation, prediction and visualisation of the subsurface
- Deliver this in appropriate forms
- Provide training and continuing support and advice to better inform and empower decision makers and other end-users
- Foster development of policy which reflects the importance of the urban subsurface
- Recommend the basis for improved availability, initial use and re-use of subsurface data.

http://www.cost.eu/COST_Actions/tud/TU1206

Runtime: 2013 – 2017, currently 30 COST Countries are participating

MC Chair	Dr Seumas CAMPBELL (UK)
MC Vice Chair	Mr Johannes DE BEER (NO)

Colour and Space in Cultural Heritage (COSCH) – TD1201

True, precise and complete documentation of artefacts is essential for conservation and preservation of our cultural heritage (CH). By ensuring access to the best possible documentation of artefacts we are contributing to the enhanced understanding of material CH and help its long-term preservation. We are all responsible for ensuring that this heritage is passed on to future generations.

Documentation of CH involves researchers, scientists and professionals from multiple disciplines and industries. There is a need to promote research, development and application of non-contact optical measurement techniques (spectral and spatial), adapted to the needs of heritage documentation, on a concerted European level, in order to protect, preserve, analyse understand, model, virtually reproduce, document and publish important CH in Europe and beyond.

Research in this field typically relies on nationally-funded projects with little interaction between stakeholders. This Action will provide a stimulating framework for articulating and clarifying problems, sharing solutions and skills, standardising methodologies and protocols, encouraging a common understanding, widening applications and dissemination. The Action will foster open standards for state-of-the-art documentation of CH. It will simplify the usage of high-resolution optical techniques in CH and define good practice and stimulate research.

http://www.cost.eu/COST Actions/mpns/TD1201



Runtime: 2012 - 2016, 28 COST Countries have participated

MC Chair	Prof Frank BOOCHS (DE)
MC Vice Chair	Dr Anna BENTKOWSKA-KAFEL (UK)

Investigating Cultural Sustainability – IS1007

Due to its broad definition and understanding "culture" can be regarded as a fundamental issue, even a precondition to be met on the path towards Sustainable Development (SD) that is necessary to get to grips with in our various European societies. Yet the theoretical and conceptual understanding of culture within the general frames of sustainability remains vague. Consequently, the role of culture in the political framework of sustainable development is poorly operationalised. Therefore, the ultimate goal of this proposed COST-Action is to increase understanding of and determine the role of culture in SD based on multidisciplinary principles.

The work will be carried out 1) by investigating and operationalizing the concept of culture in the context of SD through multidisciplinary approaches and analyses; 2) by examining the best practices for bringing culture into policy and practical domains, and 3) by developing means and indicators for assessing the impacts of culture on SD. The results of the Actions will be exploited by the scientific community, policy makers, administrative personnel and practitioners working with sustainability and culture from the EU to the local level.

http://www.cost.eu/COST Actions/isch/IS1007

Runtime: 2012 – 2016, 25 COST Countries have participated

MC Chair	Dr Katriina SOINI (FI)
MC Vice Chair	Prof Joost DESSEIN (BE)

European Architecture beyond Europe: Sharing Research and Knowledge on Dissemination Processes, Historical Data and Material Legacy (19th-20th centuries) – IS0904

This Action aims to produce a broader understanding of the worldwide spread of European architecture across empires during the 19th and 20th c. by focusing on its vectors, connections, semantics and materiality in a large range of geographic and linguistic contexts engaging both Western and non-Western environments. It posits that the bilateral colonial channel (e.g. French architecture in Algeria or British architecture in India), represented but one aspect of a larger multifaceted history. By combining architectural history with area studies' knowledge, the intention is to map and analyse more complex dissemination patterns and border-crossing relationships. Beyond architecture, the challenge is to contribute to the writing of a global history of modern European culture, including overseas expansions and transnational dynamics in its scope. To that end, this Action proposes joining efforts at the European level in collaboration with non-European researchers. A major outcome will be the development of accurate digital resources on the topic, as a first step towards the building of a research infrastructure.

http://www.cost.eu/COST_Actions/isch/IS0904

Runtime: 2010 – 2014, 14 COST Countries have participated

MC Chair Prof Mercedes VOLAIT (FR)



MC Vice Chair Prof Johan LAGAE (BE)

Submerged Prehistoric Archaeology and Landscapes of the Continental Shelf - TD0902

The main objective of the Action is to promote research on the archaeology, climate and environment of the drowned landscapes of the continental shelf, created during periods of lower sea level, which form a major part of the European cultural heritage. For most of human history on the European continent over the past one million years, sea levels have persisted at levels lower than present by as much as 130m, creating extensive coastal and lowland landscapes attractive to human settlement. Between 16,000 and 6000 years, most of this territory was drowned by rapid sea level rise from -130m, following the last Ice Age, transforming the geographical and environmental context of human development with consequences that persisted into the modern era. This drowned landscape preserves valuable sedimentary archives of long-term environmental and climatic changes, and an increasing number of archaeological remains have been found, documenting human response and adaptation to this rapidly changing environment. With intensification of commercial activity on the seabed and improved research technology, the quantity of evidence is increasing rapidly. So too are the threats of destruction of this cultural heritage. This Action will improve knowledge on the location, preservation conditions, investigation methods, interpretation and management of underwater archaeological, geological and palaeoenvironmental evidence of prehistoric human activity, create a structure for the development of new interdisciplinary and international research collaboration, provide guidance for archaeologists, heritage professionals, scientists, government agencies, commercial organisations, policy makers and a wider public.

http://www.cost.eu/COST_Actions/isch/TD0902

Runtime: 2010 – 2014, 23 COST Countries have participated

MC Chair	Prof Geoffrey BAILEY (UK)
MC Vice Chair	<u>Dr Dimitris SAKELLARIOU</u> (EL)

Wood Science for Conservation of Cultural Heritage (WoodCultHer) – IE0601

The main objective of the Action is to improve the conservation of our wooden cultural heritage by increasing the interaction and synergy between wood scientists and other professionals applying wood science and technology towards the study, conservation and restoration of wooden artefacts of artistic or historic interest (WCHOs, i.e. Wooden Cultural Heritage Objects). Specific objectives may be identified as follows: General - To put into evidence how the modern scientific knowledge about wood may contribute to Diagnosis and Conservation of wooden Cultural Heritage. - To favour meeting and interaction, at both scientific and practical level, of researchers in the field of wood, specialists in conservation of wooden artworks, manufacturers of equipment and products which might be successfully used for the diagnosis, restoration and conservation of wooden artworks. - To acquire a deeper insight into several fields and processes concerning wood material (e.g. the ageing processes, their factors - physical, mechanical, biological, chemical, environmental - and their interactions), in order to improve the conservation of wooden artworks. - To develop criteria for evaluating durability of interventions during very long time (centuries). - To develop criteria for ensuring "re-treatability" (i.e. that present interventions will not impede future interventions, if and when needed). Wood deterioration - To develop new methods for the evaluation of new techniques and products for the conservation of wooden artworks. - To acquire further understanding of the process of bacterial wood degradation in order to develop practical conservation methods to preserve historical wooden structures and remains in the



soil. - To further develop micro waves as a conservation method against insect degradation. Diagnostic methods and equipment - To develop and foster the implementation of the use of practical sensors to indicate risk to wooden objects in museums and at historic sites, or during the transportation of artworks. Interactions between wooden artworks and environment - To be able to better evaluate the interactions between individual wooden artworks and environment, also by direct monitoring physical changes and damage processes in objects. Dendrochronology - To stimulate the development of non-destructive high resolution scanners for in situ inspection of wooden objects to identify aging and degradation processes, that also allows tree-ring analyses (dendrochronology) for exact age determination. - To disseminate results which obtained by applying "dendro-provenancing" techniques, in order to support further historical and technological studies. Non-destructive inspection of wooden objects - To further develop non-destructive methods and equipment, for inspection and evaluation of both movable and non-movable WCHOs. Numerically modelling of risk of damage - To develop and validate mathematical models and computer simulations of short- or long-term phenomena, from the observation of past events and processes, aiming towards prediction of future behaviour. - To develop methods for predicting by simulation the long-term result of present interventions (e.g. present tendency to provide panel paintings with flexible cross-ties or frames). Long-term behaviour and "accelerated ageing" - To further explore specific subjects such as the properties and behaviour of "old" wood, the influence of ageing on the properties of WCHOs. - New principles, criteria, observation and evaluation methods need therefore to be developed in order to evaluate expected deterioration of WCHOs in the very long term. - To acquire knowledge and establish methods for studying deteriorations that take place during very long time periods (decades and centuries), and for evaluating the long-term compatibility of interventions, treatments, products, aiming to improve the conservation of wooden artworks. - To develop adequate models of the ageing and deterioration processes, deriving from the observation of past events and processes, aiming towards prediction of future behaviour. Archaeological and archaeo-botanic wood -To improve prevention of bacterial decay of wood in foundation piles and archaeological sites. - To develop methods and standards for evaluating procedures and products for conservation of archaeological and archaeo-botanic wood. Timber structures - To develop specific safety factors for verification of WCHO timber structures. - To develop appropriate load tests for WCHO timber structures. - To produce guidelines about criteria for conservation (and reinforcement, if necessary) of WCHO timber structures. - To produce guidelines and standard documents concerning (for various situations and types of structures) inspection, assessment of load-bearing capacity, use of visual versus instrumental methods, practices and responsibilities. - To develop criteria for evaluating effectiveness and durability (during very long time, i.e. centuries) of interventions performed on WCHO timber structures. - To foster development of national or local grading rules for existing "old" timber structural elements; to encourage, make available and compare results of test campaigns aimed to determine reliable strength and stiffness values for such timbers. Wooden foundations - To improve knowledge and techniques appropriate for conserving wooden foundations piles under historical buildings. - To increase knowledge on the process of bacterial wood degradation under water (e.g. ship wrecks, foundations piles), and to define strategies to control the soil hydrology or water streaming in open water leading to a reduction or even to stop the wood degrading bacterial activity. Standardization - To put in active contact the European scientific communities dealing with conservation of wooden Cultural Heritage, in order to provide a very strong and wide scientific background, and an informed consensus throughout European countries, for standardization (particularly of CEN/TC 346) in the field of wooden artworks. - To contribute to European Standardization in the field (inputs to CEN/TC 346 "Conservation of Cultural Property") - It should be emphasized here that since in the field of Cultural Heritage each artwork - especially if made of wood - is different (materials, wood species, manufacture, history, environment(s), decay/deterioration, interventions, ...), each artwork needs/deserves a "personal" care, i.e. individual assessment, evaluation, solutions; therefore the technical standards should specify methods and criteria, not "standard solutions" to problems.

http://www.cost.eu/COST_Actions/mpns/IE0601



Runtime: 2007 - 2011, 26 COST Countries have participated

MC Chair	Prof Luca UZIELLI (IT)
MC Vice Chair	Dr Joseph GRIL (FR)

Chemical Interactions between Cultural Artefacts and Indoor Environment (EnviArt) – D42

The description of the state-of-the-art showed that research on the chemical interactions between cultural artefacts and the indoor environment and standardisation is performed already at the international level, but still needs serious efforts for coordination. Only a close multidisciplinary cooperation will ensure that our current collection of cultural artefacts will be accessible for future generations.

The main objective of the Action is to explore chemical interactions between cultural artefacts and typical indoor environmental conditions through field studies and laboratory experiments and to translate the results into preventive conservation practice.

http://www.cost.eu/COST_Actions/cmst/D42

Runtime: 2006 – 2010, 26 COST Countries have participated

MC Chair	Dr John HAVERMANS (NL)
MC Vice Chair	Prof Annemie ADRIAENS (BE)

Non-destructive analysis and testing of museum objects – G8

The main objective of the Action has been to achieve a better preservation and conservation of cultural heritage by increasing the knowledge of museum objects through non-destructive analysis and testing and by improving the synergy between art historians, archaeologists, conservators and natural scientists. The Action strengthened the multidisciplinary community in this field. It enhanced the capability for answering questions related to museum objects and the exchange of knowledge. Action G8 provided museums and similar institutes easy access to universities and research facilities that have the required analytical techniques and related expertise available. Moreover COST Action G8 led to several new developments like instrumentation and methods for parallel in-situ electrochemical and X-ray studies of corrosion and cleaning/passivation of metals, ultra-low energy SIMS for the study of the early stages of corrosion on glass and metal surfaces, differential PIXE measurements of thin metal and many other.

http://www.cost.eu/COST_Actions/mpns/G8

Runtime: 2001 – 2006, 24 COST Countries have participated

MC Chair Prof Annemie ADRIAENS (BE)



List of Participants

Name and e-mail	
Adriaens Mieke mieke.adriaens@ugent.be	University of Gent
Alliez Pierre pierre.alliez@inria.fr	Inventors for the digital world (INRIA) TITANIUM (ERC)
Ambroziewicz Greg g_ambroz@yahoo.com	European Commission DG RTD - Unit B5
Anichini Francesca francesca.anichini@for.unipi.it	University of Pisa ArchAIDE (EC Project)
Battistin Fabiana fabiana.battistin@hotmail.it	University of La Tuscia CLIMA (JPI - Heritage Plus)
Bianconi Patrizia Patrizia.BianconiBianconi@italian.eu	Italian National Research Council - CNR Joint Programming Initiative (JPI) "Cultural Heritage and Global Change: a new challenge for Europe"
Buelinckx Erik erik.buelinckx@kikirpa.be	Royal Institute for Cultural Heritage (KIK-IRPA)
Cauchi Eric e.cauchi@iccs.gr	Institute of Communications and Computer Systems PLUGGY (EC Project)
Ceruti Veronica veronica.ceruti@comune.bologna.it	Municipality of Bologna (Italy) ROCK (EC Project)
Cetera-Wlodarczyk Anna a.cetera@uw.edu.pl	Warsaw University E-repository of the Polish 19th century Translations of Shakespeare
Ciurcina Marco ciurcina@studiolegale.it	StudioLegale.it
Coudun Christophe christophe.coudun@ec.europa.eu	European Commission EASME
Dall Elke Elke.DallDall@cost.eu	COST Association
De Angeli Stefano deangeli@unitus.it	University of La Tuscia CLIMA (JPI - Heritage Plus)
de Bruin Ronald Ronald.deBruin@cost.eu	COST Association
De Menna Emanuela emanuela.de-menna1@ec.europa.eu	European Commission DG RTD - Unit I3
Degraeve Ann adegraeve@sprb.brussels	Brussels Capital Region COST Action - Archaeological practices and knowledge work in the digital environment (CA15201)
Degrigny Christian christian.degrigny@he-arc.ch	Haute Ecole Arc Conservation-Restauration COST Actions: TD1201, TD1406, CA16215 Co-manager of Château de Germolles, Burgundy (FR)
Di Giulio Rpberto dgr@unife.it	University of Ferrara INCEPTION (EC Project)
Dusart Jean jean.dusart@ec.europa.eu	European Commission JRC
Ebermann Christophe ebermann@interreg-central.eu	Interreg Central Europe
Eller Eike eike.eller@mfa.ee	Permanent Representation of Estonia to the EU



Name and e-mail	
Emeriau Estelle estelle.emeriau@cost.eu	COST Association
Ersoz Mustafa ersozm@gmail.com	Selcuk University Scientific Committee Member
Facelli Giulia Giulia.FacelliFacelli@european.eu	European Commission DG RTD - Unit I3
Filarski Gertjan gertjan.filarski@huygens.knaw.nl	Huygens ING Research Institute COST Action - Reassembling the Republic of Letters, 1500–1800 (IS1310)
Fioravanti Marco marco.fioravanti@unifi.it	University of Florence COST Action - Wood Science for Conservation of Cultural Heritage (IE0601)
Ganga Rafaela r.neivaganga@ljmu.ac.uk	John Moores University - Liverpool House of Memories
Gattiglia Gabriele gabriele.gattiglia@for.unipi.it	University of Pisa ArchAIDE (EC Project)
Gauthier Albert albert.gauthier@ec.europa.eu	European Commission DG CONNECT - Unit G2
Georgiev Ivan ivan.georgiev@parallel.bas.bg	Institute of Information and Communication Technologies - Bulgarian Academy of Sciences
Grady Anne anne.grady@ec.europa.eu	European Commission DG EAC - Unit D1
Haskiya Zhivka Zhivka.HaskiyaHaskiya@permanent.eu	Permanent Representation of Bulgaria to the EU
Hotson Howard howard.hotson@history.ox.ac.uk	University of Oxford COST Action - Reassembling the Republic of Letters, 1500–1800 (IS1310)
Huvila Isto isto.huvila@abm.uu.se	Uppsala University COST Action - Archaeological practices and knowledge work in the digital environment (CA15201)
loannides Marinos marinos.ioannides@cut.ac.cy	Cyprus University of Technology COST Action - Innovation in Intelligent Management of Heritage Buildings (TD1406) ViMM and INCEPTION (EC Projects), Interreg Balkan-Med, DARIAH-ERIC and DARIAH-CY, EUROPEANA, and FP7 Marie Curie ITN on Digital Cultural Heritage
Kenny Eleanor eleanor.kenny@europeana.eu	Europeana
Krasznai Zoltan zoltan.krasznai@ec.europo.eu	European Commission DG RTD - Unit B6
Lagae Johan johan.lagae@ugent.be	University of Gent COST Action - European architecture beyond Europe: Sharing Research and Knowledge on Dissemination Processes, Historical Data and Material Legacy (19th-20th centuries) (IS0904)
Lambot Sébastien sebastien.lambot@uclouvain.be	Catholic University of Louvain COST Action - Civil Engineering Applications of Ground Penetrating Radar (TU1208)
Liévaux Pascal pascal.lievaux@culture.gouv.fr	French Ministry of Culture JPI-CH and E-RIHS
Manolov Vladimir Vladimir.ManolovManolov@permanent.eu	Permanent Representation of Bulgaria to the EU



Name and e-mail	
Marchesini Simona	Alteritas
s.marchesini@progettoalteritas.org	COST Action - Ancient European languages and writings (IS1407)
Martin Galan Rodrigo rodrigo.martin-galan@ec.europa.eu	European Commission REA
Martins João jf.martins@fct.unl.pt	NOVA University Lisbon COST Action - Innovation in Intelligent Management of Heritage Buildings (TD1406) Smart Heritage City (SHCity) (INTERREG Project); New Cost Efficient Business Models for Flexible Smart Grids (NOBELGRID); Storage4Grid - (EC Projects)
Maryl Maciej maciej.maryl@ibl.waw.pl Meissnitzer Heidemarie	Institute of Literary Research of the Polish Academy of Sciences COST Action - New Exploratory Phase in Research on East European Cultures of Dissent (CA16213) DARIAH-PL (Research Infrastructure), OPERAS Permanent Representation of Austria to the EU
heidemarie.meissnitzer@bmeia.gv.at	remailent representation of Austria to the EU
Mendes da Silva Antonio antonio.mendes@inha.fr	History of Art National Institute COST Action - European architecture beyond Europe: Sharing Research and Knowledge on Dissemination Processes, Historical Data and Material Legacy (19th-20th centuries) (IS0904)
Menezes Marluci marluci@lnec.pt	National Laboratory for Civil Engineering COST Action - Fostering knowledge about the relationship between Information and Communication Technologies and Public Spaces supported by strategies to improve their use and attractiveness (TU1306) E-RIHS (Research Infrastructure), TERPSICHORE (EC Project)
Migliorini Massimo migliorini@siti.polito.it	Istituto Superiore sui Sistemi Territoriali per l'Innovazione RESCULT (EC Project) and PRODIGE (Interreg Project)
Ortelli Federica federica.ortelli@cost.eu	COST Association
Padeletti Goiuseppina gpadeletti@gmail.com	Italian National Research Council Heracles (EC Project)
Pajewski Lara lara.pajewski@uniroma1.it	Sapienza University COST Action - Civil Engineering Applications of Ground Penetrating Radar (TU1208)
Paliou Eleftheria e.paliou@uni-koeln.de	University of Cologne COST Action - Archaeological practices and knowledge work in the digital environment (CA15201)
Pezzati Luca luca.pezzati@cnr.it	National Institute of Applied Optics E-RIHS and DARIAH-IT (Research Infrastructures), IPERION and PARTHENOS (EC Projects)
Poclen Luisa luisa.poclen@regione.fvg.it	Friuli Venezia Giulia Autonomous Region Regional initiative for culture and creativity (RICC)
Rasmussen Palle palleras@learning.aau.dk	Aalborg University COST Scientific Committee Member
Rodriguez-Maribona Isabel isabel.rodriguez-maribona@tecnalia.com	Tecnalia European Construction Technology Platform (ECTP)
Rovere Barbara barbara.rovere@innorenew.eu	InnoRenew CoE
Sabbioni Cristina c.sabbioni@isac.cnr.it	Italian National Research Council - CNR Joint Programming Initiative (JPI) "Cultural Heritage and Global Change: a new challenge for Europe"



Name and e-mail	
Schraudolph Ellen ellen.schraudolph-gautier@ec.europa.eu	European Commission REA
Spichtinger Daniel Daniel.SPICHTINGER@ec.europa.eu	European Commission DG RTD - Unit A6
Spizzichino Daniele daniele.spizzichino@isprambiente.it	National Institute for the Environmental Protection and Research PROTHEGO (JPI - Heritage Plus)
Stiermayr Eva eva-gabriela.stiermayr@ec.europa.eu	European Commission ERC
Stoddart Simon ss16@cam.ac.uk	University of Cambridge FRAGSUS (ERC)
Strivay David dstrivay@ulg.ac.be	Liege University COST Action - Colour and Space in Cultural Heritage (TD1201) European network for the promotion of portable, affordable and simple analytical platforms (CA16215)
Tapavički-Ilić Milica mtapavic@sbb.rs	Institute of Archaeology COST Action - Archaeological practices and knowledge work in the digital environment (CA15201) Viminacium
Viviani Raffaella raffaella.viviani@regione.fvg.it	Friuli Venezia Giulia Autonomous Region
Wallace Emmanuel (Manolis) wallace@uop.gr	University of Peloponnese COST Action - Semantic keyword-based search on structured data sources (IC1302) Crosscult (EC Project)
WandI-Vogt Eveline eveline.wandI-vogt@oeaw.ac.at	Austrian Academy of Sciences COST Action - European Network of e-Lexicography (IS1305)
Wefers Stefanie stefanie.wefers@hs-mainz.de	Mainz University of Applied Sciences COST Action - Colour and Space in Cultural Heritage (TD1201)



7 June 2017

COST 047/17





Key position points

- The next European Framework Programme for Research and Innovation should provide sufficient funding for open networks that are selected under a bottom-up and inclusive approach, ensure scientific and technological excellence, have a multidisciplinary character, and encourage involvement along the whole value chain of production and dissemination of knowledge.
- The activities of these networks should create links and synergies between all European countries and enable the connection of various islands of excellence in Europe and beyond; and ensure the maximization of resources, the defragmentation of knowledge and effective leveraging of nationally funded research.
- Within these networks, there should be a special focus on **young researchers** allowing them to fully use their talent and encouraging 'brain circulation'.

COST has the tools and experience to contribute to these objectives through activities that produce scientific results, propel careers, and use an inclusive approach to strengthen European scientific and technological development.

COST can become the leading open networking programme within the ERA through the critical impact it achieves by pooling national investment for research and innovation projects. COST addresses societal challenges by focusing on emerging topics of research and breakthrough knowledge that will provide relevant input for the next Framework Programme for Research and Innovation. COST's policies, objectives, and activities, will contribute to the DG R&I's 'three O's' priorities: Open Science, Open Innovation, Open to the World. COST activities will enhance brain circulation, and contribute to production and exploitation of excellent European science and innovation. In order to fulfil these objectives, COST will need its budget to be reinforced in the next European Framework Programme for Research and Innovation, as well as a funding scheme that is better suited to its organisation.



How to ensure the future of Europe through research and innovation

Europe faces changes that will affect our societies and environment with unanticipated speed. As social and economic challenges mount, research and innovation provides the best prospect for solutions. Investment in research and innovation is key for the EU to realise its ambition of becoming a smart, sustainable and inclusive economy and to make an important contribution to the future well-being of society. The next Multi-Annual Financial Framework should allocate a significantly larger share of the overall EU budget to the next Framework Programme for Research and Innovation (FP9), increasing it from the current 8% of the overall EU budget for Horizon 2020.

For research and innovation to ensure the future of Europe, EU decision-makers must attribute sufficient funding for following objectives:

1. Foster excellent collaborative, transdisciplinary, bottom-up research undertaken by networks

Cooperation - across disciplines and areas of science, as well as with stakeholders outside the science system - is an essential precondition to achieving real breakthroughs in research and innovation. Collaborative, bottom-up research projects will enhance European excellence and bring clear added value by drawing together various kinds of expertise, knowledge and cultures. The open nature of bottom-up research allows researchers the freedom of thought that leads to solutions to societal challenges and identifies new emerging topics. Multidisciplinary research often results in discoveries and innovations that, in turn, will help the European Union to realise its ambition to boost jobs, economic growth, investments, and improve the quality of life of its citizens and the environment.

2. Closing the innovation divide in Europe

Under the current implementation of Horizon 2020, not enough is being done to narrow the participation gap and close the innovation divide, or to support excellent researchers and institutions located in all geographical areas of Europe. Structural Funds play a part in building up excellence, but they must be complemented by actions that focus on inclusiveness in order to create strong links and synergies between researchers all across Europe. It is crucial to eliminate structural disadvantages, reduce disparities and close the innovation gap between regions and countries, so that researchers from every part of Europe can participate in EU programmes on an equal footing.

3. Focus on the next generations

Europe is currently building a next generation of researchers and innovators capable of leading the European Union into the future. Europe must take advantage of the enormous amount of talent that exists in the young generation and offer career perspectives that will enable them to develop and exploit their full potential. Networks and contact with more experienced researchers will empower young researchers and open their career perspectives. It is important for young researchers to broaden their scope and knowledge beyond their own scientific discipline, and to be exposed to transferrable and transversal skills, so that they can pursue multiple career pathways.

How is COST contributing?

COST activities contribute to all these objectives. COST has accumulated more than 45 years of experience of creating open networks of excellence in all scientific fields, where knowledge is freely shared among all types of specialists using bottom-up principles. COST nourishes open, free spaces where people and ideas can grow. This helps to internationalise the scientific community and leads to



true breakthroughs in science and technology in Europe and beyond. In 2016, 327 COST Actions were running, with more than 45,000 researchers involved.

COST plays an active role in the Spreading Excellence and Widening Participation part of Horizon 2020 by providing access to international networks for excellent researchers and innovators who may lack sufficient involvement at the European and international level. As concern about the innovation divide in Europe moves up the agenda in the years to come, COST should play an even more important part of the effort to realise Europe's potential in research and innovation.

COST will continue to fund advanced, cutting-edge, innovative networks that invite the participation of all relevant players - from researchers to SMEs and civil society organisations. COST will become the most efficient and user-friendly research networking mechanism for researchers and it will be the leading community for exchange of knowledge in the ERA. COST Actions are selected through a proposal and evaluation process that is peer-reviewed and multi-disciplinary, friendly, simple, transparent and competitive. COST activities will need to address digitalisation and big data management challenges. Networks will exploit the virtual environment and digital opportunities, while also continuing to encourage 'face-to-face' activities such as workshops, conferences, short-term missions and training schools. Research topics will remain a core network activity, but at the same time, COST has learned that users need to take up other activities such as mentoring and mobility schemes, training in the use of digital tools and methods, and training in innovation. These will all be on offer for COST Action participants. Young researchers will have access to training in transferrable skills that will enhance and broaden their career perspectives.

As well as continuing to fund advanced, cutting-edge, innovative research networks, COST will link participants in COST activities with other ERA instruments, making a tangible contribution to achieving the goals of the ERA. COST will establish partnerships with other research and innovation stakeholders creating a unique network and abundant opportunities for researchers across Europe. These links will be established within the framework of regular COST activities as well as on a higher level that will systematically link COST activities with key ERA stakeholders (such as the European Commission DG R&I, JRC, JPIs, EIT/KICs, etc.) and other European research communities that are working on similar topics or with similar objectives. This will strengthen the contribution of COST to the ERA through mutualisation and pooling of resources at European level.

COST activities will not only focus on Europe. With its Open to the World approach, and targeting the greater participation of non-COST member countries (or countries that could become partners), COST will explore possibilities for future international cooperation.

For more than 45 years, COST has proven to be a valuable networking mechanism in Europe building trust and cooperation with, and within, scientific communities in Europe and beyond. COST provides European added-value through opportunities to collaborate and access new knowledge and know-how, with a modest budget. COST will continue to work to build efficiency, and a fit-for-purpose organisation that maximizes its resources as it provides user-friendly networking platforms. But as COST moves to a more advanced set of activities designed to keep up with trends in networking and how people connect and collaborate, COST will need a reinforced budget in FP9 that is adapted for the enormous societal challenges ahead and allows COST to fulfil the objectives described above. A larger budget, as well as a more sustainable EC funding mechanism, are required.



What impact will COST create?

COST has a clear target for societal outcome and impact: to attract and keep talent in Europe in order to help address the challenges of European society. The impact is on three levels: at the level of the researchers/COST participants, at the level of the COST Action, and at the level of the overall ERA framework.

At the individual level of researchers and innovators, COST will:

- boost careers in research and beyond by preparing and empowering individuals with greater certainty; establish Europe as an attractive environment to pursue their careers; and connect them to international reference networks inside and outside Europe;
- promote brain circulation in Europe by integrating all types of specialists (researchers, innovators, policy makers, civil society) within international networks of excellence - constituting an effective brake on the brain drain from peripheral to central regions in Europe or to other attractive ecosystems.

At the **level of the COST Action activities**. COST will:

- promote knowledge creation and its application, through new models, theories, methodologies, processes, and databases as well as standardisation, policy contributions and technological applications;
- · defragment knowledge production and boost scientific and technological productivity, through the leveraging effect of COST Actions;
- assist in the identification of emerging topics and breakthrough knowledge, making a contribution to programming and priority setting within FP9.

At the level of the overall ERA framework, COST will:

- contribute to the achievement of the ERA by pooling national resources and linking research and innovation communities to other initiatives taken at the European level and beyond;
- · continue to have a positive impact on the priorities of the ERA, including priorities such as gender equality, mobility of human resources, Open Science, Open Innovation and International Cooperation;
- contribute to the integration of knowledge and encourage true cooperation between engineering, humanities, natural and social sciences, incorporating stakeholders from the research community at large as well as industry, SMEs, governmental actors and civil society.

Through its enhanced networking activities, COST will contribute to resilient and prosperous societies that are built on research and innovation, and that are capable of adapting to the significant changes that have already occurred or will come, transforming Europe and the world.

50

NOTES







•		
-		
-		
-		
-		
-		
-		

CONTINUE THE CONVERSATION

#COSTconnect Share your thoughts on the event and its contents
#EYCH18 Official # for the European Year of Cultural Heritage

#EuropeForCulture Connect to cultural news and developments from across Europe

FOLLOW COST:

COST Website: www.cost.eu Stay up to date with the latest news and events

from COST, find out about COST Actions and sign up to the

newsletter.

Social Media: Twitter @COSTprogramme

Facebook COST.Programme LinkedIn COST Association

YouTube COST European Cooperation in Science and

Technology