

PROMETHEUS — PROMoting and ExperimenTing

witH Europeana cUltural resourceS

G. Laquidara¹, M. Mazzi Boém¹, M. Colombani¹, D. Malfitana², L. Cutroni²

¹X23 Ltd, MIUR Research Archive #60954DHH in Artificial Intelligence, Physics and Cybernetics, Computer Science, Network Science, Non-linear and Complex Systems; Financial Quantitative Modeling, Systems' Dynamics Qualitative Analysis, Quantified Politics - (Rome, Salerno - Italy; Lisbon - Portugal)¹ — Giuseppe_Laquidara@x-23.org; ²CNR-IBAM, National Research Council, Institute of Archeological Heritage - Monuments and Sites (Catania, Italy) — Daniele_Malfitana@ibam.cnr.it

Keywords: Intangible Cultural Heritage, Decimal Dewey Classification, Education, Europeana, Filamento, Cultural Heritage, Knowledge Management, Life Long Learning, Network of Networks, The Primate Ecosystem, Universal Decimal Code **Submitted to:** European Commission, ICT PSP Seventh Call - 2013, Best Practice Network

Abstract.

PROMETHEUS is a BPN submitted under the Obj. 2.1b, coordinated by CNR, Institute of the Archeological and Monumental Heritage. It is designed to facilitate/promote the use of Europeana by creative industries (CCIs) by participation, upskilling and delivering innovative sector specified mobile apps/web tools for experimentation. CCIs requires a proper knowledge on how to use Europeana contents as well as performing tools for design thinking and creative process. Mobile devices play a key role in this as well as in contributing to the rise of the "single digital market". The activities will be delivered through: a) a challenging web environment, based on networking, allowing experimentation and competitiveness within the creative process; b) a physical network of open living labs (CREALabs) delivering mentorship services (licensing, business models, use cases) as well as setting f2f competitions for fund rising. This will turn the most disruptive ideas into real business; c) the Europeana "Be Creative Suite", a powerful regulatory and experimental tool to support CCIs in business strategies, assessing market value, upskilling in licensing, creating products by re-using Europeana's contents.

¹X23 Ltd. developed PROMETHEUS project together with several European institutes, universities and private entities. In particular, contributions came by: CNR-IBAM, National Research Council, Institute of Archeological Heritage - Monuments and Sites (Catania, Italy); Fondazione Rinascimento Digitale, Italy; Fratelli Alinari, Fondazione per la Storia della Fotografia, Italy; Cap Digital Paris Region, France; MFG Medien - und Filmgesellschaft Baden-Wurttemberg mBH, Germany; Fondazione Rosselli, Italy; Mozaika, Bulgary; European Business And INnovation Center Network, Belgium; Lisbon Architecture Triennale, Portugal; Madrid Graphic and Communication Cluster, Spain; university of Helsinki, Finland; European Business Angel Network, Belgium; Stichting Hogeschool Van Amsterda, The Netherlands; National Technical University Of Athens, Greece; University of Ljubljana, Slovenia; University of Zabrev, Croatia; Digital Space Living Lab, Bulgaria; Insituto de Engenharia de Sistemas e Computadores do Porto, Portugal; Center for Usability Research & Engineering, Austria; Jiulius-Maximilians Universitatet Wuerzburg, Genrany; The International Center for Information Management Systems and Services, Poland; VIGC, Belgium; iRights.Law, Gernany; The British Library, UK.

The project was also supported by: Europeana Foundation; European Interest Group on Creativity and Innovation EICI; Digital Research Ingrastructure for the Arts and Humanities (DARIAH- EU); Beirut Creative Cluster; Europeana Judaica; Europeana Fashion Project; The National Library of Finland; IIP CREATE - ICT Innovation Platform / Creative Industry; Europeana Newspaper; The European Digital Think Tank; European Network of Living Lab (ENOLL); CREATIVE COMMONS - Mountain View (US)

1. Introduction.

PROMETHEUS will be the reference network for CCIs and stakeholders where to find a mix of networking and guidelines to support CCIs in strategies settings and in assessing their economic potential in the creative market; new licensing use cases for the selected market fields, innovative online tools and web services ad-hoc for CCIs, stimulating their engagement and fostering competitiveness as well as new businesses. The project aims to create a strong and vibrant community, both physical and virtual, to stimulate participation, creative experimentation, upskill, to encourage living experiences through online challenges and f2f competitions. To achieve these goals, a physical network of creative and innovation linving labs will be created - **the CREALabs** - at first one for each market field selected (fashion&photography, audiovisual, architecture, advertising, book&press) to be further expanded. There, CCIs will find an ideal place for networking, experimenting, getting mentorship support, and also for competing through engaging f2f competitions. CREALabs will also set up regular meet ups and joint events with Europeana Cloud OpenLabs and with Europeana Creative pilots to share experiences, methodologies, and creative inspirations and settings.

The living experiences will be facilitated and stimulated by the adoption of EUROPEANA "Be Creative Suite", a powerful regulatory and experimental tool consisting of: 5 Syllabi / 1 for each market fields, 1 Handbook, 1 Case Histories Book + a Toolkit of mobile sector specified apps. The 5 Syllabi will be based on situational approaches and quantitative metrics, showing specific models to comprise beginnings, production, circulation, exhibition, audience feedback, economic impacts of the creative reuse of the digital CH.

PROMETHEUS 4 main objectives are:

- 1. to set-up a strong network for a wider participation and engagement, both online and physical
- 2. to provide broad capacity-building to the target audience (CCIs, designers, startups, entrepreneurs, practitioners, professionals)
- 3. to stimulate and facilitate the use of Europeana's cultural heritage contents by CCIs through live experiences and innovative tools and services
- 4. to support, sustain and follow-up innovative creative and cultural entrepreneurships, and as a result, culture of reuse of CH and specialised jobs creation.

Related objectives are:

- to promote and contribute to the Europeana Content Re-Use Framework and to implement it
 accordingly to the 5 added creative sector fields;
- to offer mentorship services to support CCI's or startups in identifying the best business models and in fundrising activities;
- to offer a challenging ecosystem where CCIs could experiment with the re-use of Europeana's contents, upskill, get confidence with the re-use process and get the chance to sustain their project
- to run 5 pilot experiences (fashion&photography, books&press, advertising, architecture, audiovisual), also open to an audience of interested visitors, to engage experimentation, attract stakeholders, apply the Europeana "Be Creative" Suite in a real scenario;
- to finally identify 5 disruptive projects to be introduced in the real market.

Activities and Outcomes.

PROMETHEUS is a vibrant, strong network targeted to the CCIs, in particular for photography&fashion, book&press, ADV, architecture and audiovisual market field.

The key activities of PROMETHEUS will focus on:

- networking and engaging the target audience: by fostering the participation to the web
 environment as well as to the physical network, facilitating the content discovery related to the
 creative sector fields selected, underpinning capacity building;
- learning and capacity building, providing guidelines as well mentorship and tutoring services
 both to policy makers as well as CCIs, analysis and content strategy being a relevant path to
 produce digital as well as training materials;
- facilitating and enhancing the experimentation process, so users could apply the training
 acquired in a real scenario;
- incubation and advisory, to allow the most promising CCIs/projects to turn their ideas in a real business.

Following the objectives, PROMETHEUS will pursue the following outcomes:

- i. 5 added licensing policies to be integrated into the Europeana Content Re-use Framework: efficient and easy-to-find/follow use cases to be adopted, in perpetual implementation thanks to the strong interaction with Europeana Creative:
- ii. the establishment of 5 CREALabs covering a wide geographical area throughout Europe (Italy, France, Finland, Spain, Portugal) to be further implemented in synergy with ENoLL support and cooperation;
- iii. **mentorships and coaching programmes for CCIs** to upskill in the re-use of the cultural resources and in identifying business potentials as well as successful applications;
- iv. provide a set of innovative sector specified business models;
- v. the **EUROPEANA "Be Creative" Suite** standing as an ideal reference summary of methodologies, practical toolkits and mobile applications to support in the creative re-use of the cultural resources coming from Europeana;
- vi. **at least 5 disruptive business ideas/projects** to be introduced in the real market;
- vii. **a concrete path for business incubation** to sustain entrepreneurship as a best practice, supported by both expert and funding bodies, actually engaged in spin-offing projects from the network, promoting the best ones, bringing them up to full identity/maturity and exit;
- viii. a specific environment, dedicated to the CCIs, where their projects may be exposed and financed with the mechanism of crowd-funding. This original environment, created through an open-source framework, will be named "Atlas", and will be accessible without limits from all European / worldwide CCIs;
- ix. an original and vibrant **Festival of Culture and Creativity, the "CREAFest!",** a great attraction for European, worldwide creatives in each category. Its characteristic is the diversity and variety of cultural and creative themes touched. The objective is to accelerate to the maximum value the creative use of CH, so that artists and many categories of lively creatives will be invited, opening up debates, play areas, contamination stages such as beauty / science, so the "**CREAFest!**" will acquire a continental and intercontinental role of point of reference, with the reuse of assets of the archives of Europeana at its center.

Cooperation Model.

The used cooperation-model adopted by PROMETHEUS is based on a criterion at the same time robust and innovative, built on "semi-loose-coupling model", and derived from the **PMI PMBOK Guide, APM Bok, IPMA ICB 3.0, and PRINCE2 method;** it is based on a strong adaptability of the relations between the components of an organization, corresponding each to the others within harmonic reactions to stimuli, and strongly linked to the principles of *Sustainability Management Plan development and implementation, Sustainable/Ethical Process, Cradle to Grave Risk Analysis, P5 Integration.* This mechanism is well interpreted through the adopted Project Management called **Prism***.

Prism[®], differently from PRINCE2, from which also has derived, while is process-driven, do plan far beyond the project strict life-cycle, and adopts reactive/adaptive stimuli, flexible and holistic methods, opposed to PRINCE2 sequential approach.

Impact.

There are 4 main impacts resulting from the activities:

- EU as beneficiary: PROMETHEUS will meet the general aims stated in "Europeana and Creativity" objective of the ICT CIP PSP Work Programme, specifically objective 2.1b by involving approx 125.000 potential users in the creative fields and 1.600 stakeholders and policy makers, thus increasing substantially the use and the re-use of the Europeana cultural heritage resources:
- EUROPEANA as beneficiary: PROMETHEUS will determine an easy to access content discovery by CCIs, providing enhanced services and tech mobile tools (EUROPEANA "Be Creative" Suite), so contributing to reinforce Europeana's role as leader in bringing out the economic potentials of digitization actions in Europe:
- policy makers as beneficiaries: PROMETHEUS will procure evident base analysis to support
 policy makers in their key-role as crucial agent in supporting CCIs strategy assessment; a broad
 awareness on the sector specified market will allow a wider learning and capacity building as well
 efficiently;
- CCIs, creatives, startups, practitioners as beneficiaries: PROMETHEUS will offer advanced
 web services and innovative technological tools to explore cultural content paving the way to new
 path for experimentation and new creative processes. For startups, the project will provide
 trusted, free and efficient mentorship and tutoring services, thus increasing their skills; new
 concrete business opportunities will arise by the CREALabs competitions, increasing jobs
 creations within the creative sector field;
- general public, EU citizens as beneficiaries: the project will determine social happenings ("CREAFest!") connected to creativity, spreading out the social positive value of creativity and of being creative as part of the European community, and bringing Culture at the highest levels of brainstorming and industry.

PROMETHEUS's indirect impact will also result from:

- a huge interaction between the users and the systems thanks to **CREAlabs** networks;
- an increased promotion of the Europeana Content Re-Use Licensing Framework;
- stimulating a conducive, pragmatical and evaluable approach to digital Culture, through the
- medium of 5 specific Culture fields (*cross-fertilization* brought by the Creative Suite)
- boosting the digital economy and the digital single market in Europe, as a result of the rising of a
 new dynamic process able to combine innovative economic impact factors, experimentation,
 creativity, competitiveness and European tradition.

2. Relevance

Project objectives.

PROMETHEUS, as a Best Practice Network submitted under Objective 2.1 b of the current CIP ICT PSP Call 7 (Europeana and Creativity, Promoting the use of Europeana by creative industries), is designed to:

- establish a strong network of physical living labs (CREALabs) for a wider participation and
 engagement within the experimental creative processes involving cultural heritage data and
 information:
- **upskill CCIs competences** related to the different use case scenario;
- **stimulate and facilitate the use** of Europeana's cultural heritage contents by CCIs;
- offer innovative sector specific tools for experimentation (EUROPEANA "Be Creative" Suite);
- support and sustain innovative creative and cultural entrepreneurship through crowdfunding mechanism and f2f competitions;
- **identify 5 disruptive business ideas** to be introduced in the real market;
- stimulate business growth as well as job creations.

In developing a **Creative Suite** as a powerful toolkit for upskilling knowledge and facilitate creative reuse of cultural content, PROMETHEUS reflects an ideal extension of Europeana Creative and is a bearer of value for Europeana as well.

In setting the **Creative Suite** to support CCIs and in facilitating the use of Europeana, the proposal follows the goals of the Digital Agenda for Europe, in particular the second of the new priorities set for 2013 "New public digital service infrastructures through Connecting Europe Facility (CEF)", which states to "fast-track the roll out of digital services (especially their cross border interoperability) [...] including cultural platform such as Europeana".

Digitisation and online accessibility of all players to cultural heritage contribute to the economic growth and job creation and to the achievement of the **digital single market** through increasing the offering of new and innovative online products and services. This is particularly true for the creative and cultural industries account for 3.3% of EU GDP and 3% of employment in the EU.

In this perspective, PROMETHEUS will facilitate and boost the use of Europeana by CCIs by offering a mix of policies, services, training and toolkits for creative experimentation, thus reinforcing the "catalyst role of Europeana for Innovation, Growth and Convergence towards a single Digital Market".

The proposal could also find interesting interaction with Creative Europe Programme, as it focused on the 5 main relevant creative market fields, in particular audiovisual and book&press markets. Furthermore, PROMETHEUS meets the general aim of 2013 CIP ICT PSP Work Programme in stimulating smart sustainable and inclusive growth by accelerating the wider uptake and best use of innovative digital technologies and content by citizens, governments and businesses. In particular, the proposal meets the aim for "contributing to the design of added-value products and services across Europe based on high-quality digital content" and to stimulate experimentation with models, innovative applications and services by CCIs for creative reuse of digital cultural resources, in particular the material accessible through Europeana.

In this perspective, the project enhances Europeana's content creative re-use and how this stands as a powerful fuel for CCIs' business development and, as a consequence, for new jobs creation. The target audience of the results of this project is broad, e.g. existing creative industries, professionals dealing

with creative business, entrepreneurs and creative startups, practitioners, stakeholders, policy makers; focusing on 5 market fields (Fashion&Photography, Architecture, Advertising, Audiovisual, Book&Press), **PROMETHEUS provides sector specified contents as well as tools and knowledge.**

Finally, **PROMETHEUS** is supported by **DARIAH-ERIC**, a European Research infrastructure connecting network of people, expertise, information, knowledge, content, methods, tools and technologies for investigating, exploring and supporting work across the broad spectrum of the digital humanities. DARIAH focuses on research and knowledge creation practices with a particular emphasis on supporting scholarship in a rapidly changing digital environment. It is this focus on research data creation and use in a research context as opposed to a preservation context that marks out DARIAH as unique. In terms of developing a network with researchers, the integration of DARIAH (Digital Research Infrastructure for the Arts and Humanities) is crucial, helping PROMETHEUS to interact with researchers that Europeana has previously not been able to reach.

The key objectives of PROMETHEUS are:

10) to set-up a strong network for a wider participation and engagement.

Participation and engagement, as well as consensum, are key points for the creative experimentations to start. A vibrant **network, both online and physical,** is the needed assumption to catalyze the target audience, to foster participation, to share ideas and to stimulate competitiveness.

PROMETHEUS establishes a strong network where CCIs and stakeholders could meet both virtually and physically:

- a) virtually, through the web environment;
- b) physically: through a network of living-labs (the **CREALabs**, one for each market field selected); during the events referred to **CREAFest!**, ie Festival of Culture and Creativity, when visitors, artists, professionals and many categories of lively creatives will be invited to share, debate, experiment, spread their ideas intrinsically linked to cultural resources of EUROPEANA.

11) to provide broad capacity-building to the target audience

- (Support from policy makers). An easy and open access to digital creative contents does not mean a proper use of it, in particular for business purposes connected to the reuse. **CCIs need to get support from experts and policy makers** on how to assess their strategies as well as economic potential within their market fields. This is an essential ground base for understanding how an ethical, proper use of digital creative contents could impact on their business. To achieve these aims, PROMETHEUS offers to policy-makers **guidelines** as they play a crucial role in setting up an environment conducive to creativity and innovation, **perfectly attentive to the ethical guidelines for a fair cultural reuse.**
- (Upskilling). Upskilling is another milestone in the path to the successful re-use of the cultural contents. CCIs needs to understand how to re-use the contents within their market fields: the commercial reuse is a relevant step in the creative process, but there is still a gap between content availability, creative experimentation and real application in the market, in particular for the selected 5 market fields. PROMETHEUS implements the Europeana Content Re-Use Licensing Framework, lending an ear to the needs arising from the experts of the 5 selected markets, and by developing 5 added sector specified licensings, so that CCIs could refer to their own market field use cases for the best re-use scenario. In addition, Prometheus will produce an additional tool of the "Be Creative" Suite, consisting of a series of regulatory Books, the "Syllabi", one for each specific sector, accompanied by a "Code of Ethics" and a handbook of practical use cases and best practices. This tool will be delivered in electronic edition available from Prometheus web site through an "app" delivery, which will become the "milestone" application in the series "Be Creative" Mobile Apps; to complete the offer, a printed version will be distributed through CreaLabs and during the

Festival "CREAFest". All versions, including printed books, will be periodically updated with new normative samples, use cases and best practices.

12) 3. to stimulate and facilitate the use of Europeana's cultural heritage contents by CCIs.

- A proper knowledge needs to be tested in a real scenario, as a good creative process always passes through the live practice. **Live experiences** are key points for stimulating CCIs' knowledge application, to test it in a real landscape, and to encourage with the use and re-use of Europeana's content.
- By participation and engagement comes networking, cross-fertilization so that the creative process could be really facilitate; as result, experimentation is stimulated and this bring a disruptive added value to the value chain and finally to business dynamics.

So creative experimentation happens through living experiences:

- 1. online challenges facilitating competitiveness, crowdfunding mechanisms to foster participation and aggregation ("Atlas" crowdfunding environment);
- 2. a physical network of living labs (CREALabs) where live experiences happen: 5 CREALabs, one dedicated to each market field, will be created and located in strategic geographical area: Italy for "Fashion&Photography", Portugal for "Architecture", France for "Audiovisual", Spain for "Advertising" and Finland for "Book&Press". The CREALabs hosts f2f networking training and competitions, where CCIs could test their ability and their business idea potentials.
- Practical and smart tools for stimulating experimentation are essential for encouraging to and facilitating the use of Europeana's cultural resources and contents: so PROMETHEUS deploys a **Creative Suite** [EUROPEANA "Be Creative"] of sector specified new multichannel mobile technological apps and regulatory tools, to allow CCIs a free and engaging experimentation.

13) 4. to support and sustain innovative creative and cultural entrepreneurship

- Mentorship, tutoring and a median follow-up for start-ups founded in CreaLabs are relevant to any creative industry, in particular for new potential entrepreneurs who want to introduce innovative creative ideas based on the reuse of Europeana cultural contents in the real market. It stand as an essential activity in sustaining a new industry in its exponential growth, as well as in assisting the existing CCIs in increasing their potentials.
- PROMETHEUS offers mentorship and coaching services **both online and physically.** The services aim to identify the best business models providing successful case histories.
- To support CCIs in sustaining their idea/project or a brilliant talent, or to boost an existing one, PROMETHEUS provides CCIs and entrepreneurs the chance to get supports and funds, and to turn their ideas into a real business through crowdfunding environments (Atlas) as well as private funding bodies and investors.

3. Contribution to the European Digital Library initiative

Premise.

The European Digital Library Initiative, which is based on the general framework of the Digital Agenda for Europe, e.g. the first of seven flag ships initiatives under Europe 2020 is the EU's strategy to deliver smart sustainable and inclusive growth, aims at rebooting Europe's economy and help Europe's citizens and businesses to get the most out of digital technologies, and "further strengthening of the European digital leadership and completion of the Digital Single Market by 2015".

Three of the seven key areas addressed by the *Digital Agenda of Europe* in the review published in December 2012 are:

- the creation of a new public digital service infrastructures through Connecting Europe Facility, that involve among others cultural platforms such as Europeana with the purpose to accelerate the rolling-out of digital services providing cross-border interoperability;
- the launch of a grand coalition on digital skills and jobs to "increase IT training placements, create
 more direct education-business links, agree standard job profiles and promote skill certification to help
 job mobility.... deliver an action plan to support web entrepreneurs and make Europe more "startup
 friendly": and
- the update of EU's copyright framework where rapid progress is needed via a structured stakeholder dialogue in 2013, and steps to be taken to modernize EU legislative framework concerning copyright.

In the Recommendation of the digitization and online accessibility of cultural material and digital preservation from October 2011, the European Commission claims that

"the online accessibility of cultural material will make it possible for citizens of Europe to access and use it for leisure, studies or work. [...] Moreover, the digitized material can be re-used for both commercial and non-commercial purposes, by including it in learning and educational content, documentaries, tourism applications, games, design tools, provided that this is done with full respect for copyright and related rights".

The full implementation of the *Digital Agenda of Europe* will lead to increase of the European GDP by 5%, and 1,2 million new jobs in the digital infrastructure area, which will translate into 3,8 million new jobs overall throughout the economy. The **creative industries** account for 3,3 % of EU GDP and 3 % of employment.

"These industries are faced with a digital transition that is shaking up traditional models, transforming value chains and calling for new business models. Digitising and providing wider access to cultural resources offers enormous economic opportunities and is an essential condition for the further development of Europe's cultural and creative capacities and of its industrial presence in this field"

The European Commission's Green Paper on Unlocking the potential of cultural and creative industries [8] argues for the need of "development of a strategic approach to make Europe's strong and attractive cultural assets the basis of a powerful creative economy and a cohesive society". It points to the challenges that have to be faced at the European and regional level to be able to make the most of the opportunities offered by cultural diversity, globalization and digitization, that are key drivers for the further development of these industries, e.g. a) put the right enablers in place by increasing the capacity to experiment, innovate and succeed as entrepreneurs, b) to help cultural and creative industries (CCIs) develop in their local and regional environment as a launch pad for a stronger global presence, c) move towards a creative

economy by catalyzing the **spill-over effects** of CCIs on a wide range of economic and social contexts. Objective 2.1.b CIP ICT PSP Call 7 addresses these aspects and invites proposals which envisage the **creation of best conditions for the integration of cultural content in creative enterprises and for Europe's industrial presence in the field of CCIs. Its goal is to give the opportunity of project beneficiaries "to experiment with models, innovative applications and services for creative re-use of cultural resources, and in particular the material accessible through Europeana". The planned actions are intended to "lead to environments enabling the development of creative applications and services that make the best use of Europeana cultural resources [...] and contribute for wider re-use of Europe's cultural resources and boost creativity and business development".**

PROMETHEUS' Contribution.

PROMETHEUS project is set to bring important advances in meeting the objectives of the call and in promoting the creative re-use of cultural content, advocated in the European policies quoted above, in areas with thriving economic growth such as fashion, architecture, advertising and book editing. It will also demonstrate continuity in the process of building public services digital infrastructures by adopting and extending the infrastructure provided in **Europeana Creative.**

Prometheus will showcase and unlock the value of re-use of cultural contents by incubating CCIs business ideas in the CREALabs to be organized within the project, and building community inspired prototypes. It will facilitate and boost the use of Europeana by CCIs by offering a mix of policies, services, training and a toolkit for creative experimentation, thus **reinforcing the "catalyst role of Europeana for Innovation, Growth and Convergence towards a single Digital Market".** Focusing on areas with enormous economic potential, and building on existing service infrastructure, **PROMETHEUS** will achieve the goal of facilitating and promoting the best re-use of digital cultural resources coming from

Europeana by creative industries by engaging in the following core activities:

- Supported by the European Network of Living Labs (ENoLL), PROMETHEUS will set-up and nourish a vibrant network and community of stakeholders from the CCIs both virtual and personal. The virtual network will be supported by a Web environment, which will allow information exchange and collaboration by using online CH content, technological infrastructures for collaborative creativity, virtual experimentation settings for novel web-based and mobile applications designed for re-use of cultural content. The personal network will extend the Europeana Network of Living Labs, and will seek communication and joint initiatives with the Open Labs established by Europeana Creative.
- 2. Adopting Europeana Content Re-use Framework built within Europeana Creative project, in close collaboration with Europeana Cloud, and input from CH institutions and CCIs representatives from the Europeana Network, PROMETHEUS will promote, extend and solidify the reach of use of the technological backbone of Europeana in prominent for the European economy areas, such as fashion, advertising, architecture, book printing, thus covering recently introduced or not explored by CCIs Europeana material. This will serve as a proof for the viability of the technological infrastructure of Europeana, and will provide use cases for testing and demonstrating its potential to bring Europeana to a leading role in the European knowledge economy overall.
- Focusing on 5 domains, PROMETHEUS will conceive application prototypes and explore
 usage scenarios that go beyond cultural heritage consumer as an end-user in the education or
 tourism sectors. It will foster in addition support and enhancement of the professionals creators'

work and creative activities in general, by employing technologies and techniques that **enable productivity, creativity and diversification in the use of cultural content,** such as the **mobile EUROPEANA** "Be Creative" Suite, intended to enable access to cultural resources and creative collaboration on the go, color search, ontology enhanced creative writing, profiling of image tagging, etc. This will contribute to the *European Digital Library Initiative* and the *Digital Agenda for Europe*, by **collecting a set of best practices for use and re-use of CH content,** mixing and interlinking it in applications and services for CCIs in a variety of contexts with different end-user profiles in mind.

4. The established within PROMETHEUS CREALabs will foster mentorship, tutoring, training and follow-up in first period of growth, to encourage and inspire entrepreneurship and pursuit of creative ideas with business value based on re-use, mix, link of cultural heritage content from Europeana. The "Be Creative" Suite for mobile will provide a great basis for experimentation and engaging the public and experts in creative endeavors with the CH content provided by Europeana Content Re-use Framework. The CREALabs will be set up to provide sustainable support for cultural entrepreneurs from their idea generation, through funding, idea realization, business management, governance and strategic planning. Opportunities to test drive and validate the project ideas will be given through the organized online challenges and competitions, that will contribute to the consolidation of the vibrant PROMETHEUS, Atlas and CREALabs communities. PROMETHEUS will operate in the upskilling of its communities within the framework of good / ethical practices of reuse of CH, regulated and exemplified through the Code of Ethics, Syllabi and Handbook, thus contributing to the Copyrights Agenda of Europe and Europeana by dedicated concerted effort to establishing of licensing policies and copyright arrangements.

Building on the **strategic priorities of Europeana as per Europeana Strategic Plan 2011 - 2015**, the project Europeana Creative and the directives of the Digital Agenda for Europe, PROMETHEUS will contribute substantially in the **Europeana "strategic tracks**" as follow:

- facilitate, ie support the Cultural Heritage sector through knowledge transfer, innovation
 and advocacy: by facilitating the usage of the cultural resources in the creative process,
 PROMETHEUS will promote a vivid cooperation and dialogue between CCIs, stakeholders and
 policy makers, contributing to the wider consensus to the Europeana Network;
- distribute, make their heritage available to users wherever they are, whenever they want it:
 mobile devices are playing a prominent role in daylife, not only for the general public, but also for
 professionals, influencers, policy makers. The Europeana "Be Creative Suite" will also deploy a
 console for accessing innovative mobile apps, thus increasing exponentially the access to
 Europeana by a wider target audience according to different use cases (business purposes, leasure,
 experimentation);
- engage, cultivate new ways for users to participate in their cultural heritage: engaging passes through easy to access participation as well as through immediate and easy-to-use tools. The internet, web 2.0 and 3.0 (p2p, georeferencing, collaborative, ranking) and mobile services and tools play a key role in the engaging process. Creatives are naturally attracted by challenging environments and are used to web 2.0 as well as social media platforms. PROMETHEUS will provide a challenging web environment enhancing user experience thus ensuring participation and engagement.

Furthermore, it is primary to determine intersection, sharing and discussion, and in particular, a prolific practice of *idea worth spreading*, through physical events — ie the so-called *hackathons*; to help with a particular force in this sense, expanding the creative culture, interchang of information and skills, vivid experiences, and a cross-fertilizer tissue for stakeholders, **the network of CreaLabs organizes the** "CREAFest!", **the Festival of Culture and Creativity**, adhering as best you can to primary strategic European objectives.

In carrying out successfully the above mentioned activities, PROMETHEUS will contribute to the process of realizing the potential of the recommendations, objectives and goals presented in the European reports and policy documents quoted in the beginning of this section, as milestones for the *European Digital Library Initiative*.

4. Impact

Target outcomes and expected impact.

The digital creative sector is considered one of Europe's most dynamic market, globally the digital one being the most relevant and potential, a sector where creative and cultural industries play a very disruptive role. The 'European Competitiveness Report 2010' identifies the cultural and creative industries as one of Europe's most dynamic sectors, accounting for 4.5% of total EU GDP and some 3.8% of its workforce. The future of this industry is "digital", and its positioning worldwide depends on how ICT could contribute in this growing, as is already happening for areas like digital games or industrial design. However, at present time, while Europeana's huge catalogue of digital resources (near 30 mlns of objects) is well known by the European Cultural Heritage institutions (archives, libraries, museum), rarely CCIs have ever heard about them.

As a result, there is a **lack in the CCIs awareness** of this potential heritage availability and its powerful reuse, as well as a **gap** between the use and re-use of the digital cultural resources and **how to effectively turn this potential cultural "fuel" into a benefit** for CCIs as well as for the general public.

The players of this vital market sector need:

- to discover the versatile uses of cultural resources, their countless applications,
- but they also need to learn about what the best business models could be, what the available licensings are,
- how to **improve their skills** in the creative process,
- how to assess the best strategies and economic potentials,
- how to turn an idea into a real enterprise.

Besides **experimentation**, which is a relevant point of PROMETHEUS, **understanding** sector fields, licensing policies, **sharing knowledge and best practices** as well as **mutual cooperation** are key elements. Users need to be supported on how to exploit the potential of **metadata and contents** coming from Europeana, and on how to assess their strategy; they need to get proper support on how to turn a creative idea into a disruptive creative industry, continuing to keep track of **certain ethical principles**.

PROMETHEUS will enable a strong open network; through the Consortium partners the project will engage a **potential target audience of approx. 125.000 users** (CCIs, entrepreneurs, startups, students, professionals, practitioners, educators, stakeholders, policy makers); through the **pilot experiences** promoted by CREALabs, PROMETHEUS will engage **an effective target of approx 3.000 direct users** among the same target groups focusing on the 5 most promising and growing creative market fields: Fashion&Photography, Audiovisual, Architecture, Advertising, Book&Press.

Percentage of Enterprises per Sector.

The targets to which the project will address, in each one of the analyzed sectors, are the following:

- potential entrepreneurs, start-up and/or spin-offs (innovation centers, incubator managers, professionals);
- existing CCIs in the field of Creativity and Culture, and the induced markets (Tourism, Education, etc.);
- companies belonging to the so-called 'Born global' phenomenon: young and small, fast
 internationalised after their establishment, prevalent in new CCI businesses such as microenterprises, they are able to defy conventional categories, rapid-prototyping, playing a new

paradigm in the media-design-music-fashion fields by introducing new products-services division. They are linked to mobility, social media connectivity and **usually start as seeds** from diverse art and design institutes. This makes them really different from the other CCIs in terms of potential growth, so **they require a different range of support** in terms of skills and economic resources:

- firms who are leaders in the collection and management of digital contents (producers, aggregators and distributors), and institutions and big owners;
- experts, professionals and academics in their respective sectors;
- policy and decision makers;
- funding bodies, and potential public/private stakeholders.

Focus and Outcomes.

PROMETHEUS introduces an **easy-to-access and easy-to-use approach** within the experimental process.

In this sense, the key activities are:

- the creation of an open web and mobile environment, where CCIs could access to find relevant info (*content discovery*), broad knowledge and training on how to use the cultural resources for their business purposes, experiment with the tools provided by the project;
- the physical network of living labs (CREALabs), based on a "glocal" approach, who have to offer support to based country CCIs, since *cross-fertilization* is a relevant aspect of project;
- openness to a wider international audience, according to a mix of social-, situational-, happening-approach, made possible in the CreaLabs network with continuous live activities, periodic hackathons, especially with the Festival of Creativity and Culture "CREAFest!";
- openness to a wider audience of users of the cultural property, such as performers, artists and
 producers, to be able to propagate a mellow culture of creativity, focusing on Europeana as a
 reservoir of raw material:
- openness to contribution coming from the communities of creatives and developers, enhancing the crowdsourcing practice thus enriching EUROPEANA's kernel layer with new APIs, features and applications that will be useful to others creatives;
- ethic competitiveness between creative industries, projecting and following them to the real
 exploitation of the creative industrial process.

To achieve the aims set by the ICT PSP Work Programme, the activities will develop in the following steps:

1. setting-up a strong network for a wider participation and engagement:

- To involve and engage an extensive target audience by exploiting the existing network of relations of the Consortium partners. This will lead to a potential target audience of approx 125.000 users, and an effective target audience of direct pilot experience users at CREALabs of approx 3.000 users, among CCIs, entrepreneurs, startups, students, practitioners, educators, mentors, researchers, professionals, policy makers, stakeholders.
- To involve a wider audience of visitors, through the participation in the recurrent fun events of "CREAFest!", staged by the local communities of CREALabs, which center on and celebrate some unique aspect of Culture and Creativity.

2. provide broad capacity-building to the target audience:

- To undertake a deep users need analysis (focused on the target audience strictly connected to the
 selected market fields) to gather requirements from policy makers, stakeholders and CCIs who
 will benefit from the outputs of the project.
- To investigate the strategic, legal and economic key factors related to the creativity process and its potentials, in order to ensure the best support to the target audience. This will lead to the Content Development Strategy aiming to produce the Europeana Be Creative Sillabi to provide strategic guidelines and licensing policies, the Europeana Be Creative Handbook for practical exploitation within the business modelling and the Europeana Be Creative Case History Book to document the results achieved from the project, to be further adopted as Best Practices.

3. to stimulate and facilitate the use of Europeana's cultural heritage contents by CCIs:

- To enable "content discovery" by providing useful information about the sector specified cultural
 resources that could be used by the CCIs for their market field.
- To set up a feedback system on which to develop and provide the Europeana Be Creative Toolkit
 of multichannel mobile apps, specific for each market sector, paving the way for a large
 engagement and contribution of the creative and developer community.
- To activate a diffuse sector oriented dissemination activity to spread out the project visibility, stimulate content discovery and definitively ensure participation as well as experimentation.

4. to support and sustain innovative creative and cultural entrepreneurship:

- To plan, organize and offer real opportunities to the CCIs to turn their ideas into business: online
 challenges, crowdfunding tools and mechanisms, mentorship and tutorships web services, f2f
 competitions to be hosted in the CREALabs, represent the path to the sustainability.
- To ensure a business matching with private and public investors, by the presence in the Consortium of EBAN, providing investors from the market fields and a real funding opportunity.

The achievement of these aims above described will determine the following impacts:

IMPACT AREA 1: TARGET AUDIENCE

— EU as beneficiary: PROMETHEUS will meet the general aims stated in "Europeana and Creativity" objective of the ICT CIP PSP Work Programme, specifically objective 2.1b by involving approx 125000 potential users in the creative fields, thus increasing substantially the use and the re-use of the Europeana cultural heritage resources.

This will generate:

 establishment and strengthening of European networks in different areas of interest sharing needs, solutions, challenges for the launch of innovative joint projects;

- wider dissemination of the digital economy in Europe, as a result of the rising of a new dynamic process able to combine innovative economic impact factors, experimentation, creativity, competitiveness and European tradition.
- **EUROPEANA** as beneficiary: PROMETHEUS will determine an **easy-to-access** and **easy-to-use approach** to the content discovery by CCIs, providing enhanced services and tech mobile tools (EUROPEANA "Be Creative" Suite), so contributing to reinforce Europeana's role as leader in bringing out the economic potentials of digitization actions in Europe.

As a result it will induce:

- the increase of the creative and innovative processes and aggregation models in the re-use of cultural resources and contents for Europeana;
- wider promotion of the Europeana Content Re-Use Licensing Framework;
- **Policy makers as beneficiaries:** PROMETHEUS will procure **evidence based analysis** to support policy makers in their key-role as crucial agent in supporting CCIs strategy assessment; a broad awareness on the sector specified market will allow a wider learning and capacity building as well efficiently.

This will generate:

- increased capacity of experts and policy makers in assessing strategies to support the development of the sector, as well as the economic potential within the different sectors of the market;
- increased mutual and consistent feedback between institutions, big owners and the basin of active
 users/re-users.
- CCIs, creatives, startups, practitioners as beneficiaries: PROMETHEUS will offer advanced experimental environment, through web/mobile services and innovative technological tools to explore cultural content, paving the way to new experimentation manners and new creative processes. For the startups, the project will provide trusted, free and efficient mentorship and tutoring services, thus increasing their skills; new concrete business opportunities will arise by the CREALbas competitions, increasing jobs creations within the creative sector field. A new tool for the dissemination of ethical principles and best practices in the re-use and interchange of digital cultural files will be realized in the "Be Creative" Suite, which includes the "Code of Ethics", 5 Syllabi and the case-uses handbook of best practices.

This will lead to:

- a growing involvement of users to start with the experimentation in the market dedicated to the re-use of digital content in the creative industry;
- increased awareness by potential entrepreneurs, start-up and/or spin-offs on the potential impact that the use of digital creative content make on own activities;
- growing of firms in the sector of the creative industries able to propose creative solutions based on
 the re-use of Europeana cultural contents as well as to make this sector a strong industry in the
 real market;
- increased respect for ethical principles of the exchange of digital cultural resources;
- rising qualified jobs within the creative industry with particular reference to firms that act in the reuse of digital content;

- rising new jobs in the industrial supply-chain resulted from the creative industries, as direct, indirect or induced market, ie tourism, education, product placement, tertiary services;
- increased number of kernel functions and features in the EUROPEANA digital infrastructure, due to the enhanced crowdsource practice procured by "Be Creative" console;
- new mobile technological framework, steadily enriched with apps, tools, libraries, to allow CCIs a
 free and engaging experimentation;
- improved capacity by the experts in the cultural sector [professors, critics, directors of institutions] in the use of processes and technological tools, including social sharing, online ranking, cataloguing, disseminating;

— General public, EU citizens as beneficiaries: the project will determine social happenings (CREAFest!) connected to creativity, spreading out the social positive value of Creativity and Culture, and of to "Be Creative" — as a pay-off the European identity. As a result, Culture will be brought at the highest levels of European identity, becoming a acknowledged propellent factor, recognized also in the internal metrics of financial analysis.

This will lead to a:

- social inclusion and an effective participation to the creative process;
- renewed interest in creativity, feeding the process in a positive loop;
- more systemic initiatives by governments in the field of economic development, with any new support to the creative industries.

IMPACT AREA 2: SECTOR MARKET FIELDS

On AUDIOVISUAL Sector:

The expected impacts resulting from the PROMETHEUS activities are:

- 1. increase and improvement within the professional level of creative firms operating in the audiovisual field applied to digital content;
- 2. rise of quality related services responding to the demanding needs of the market, both at national and European level.

On ARCHITECTURE Sector:

The project impacts, both at a national and European level, are:

- 3. an increase in the offer of specialized services dedicated to the search of creative and innovative ideas for the development of the physical, social and intellectual capital of the SmartCity. This will contribute to the Europeana [content discovery] related to the market field and, as a result, an increase in the re-use of Europeana contents;
- 4. the provision of innovative applications, providing information on What to find? Where to find? How to adopt? As a consequence, new ways of engaging with the city will arise, its physical and social space, applying new materials, tools and reach other professionals and suppliers;
- 5. a diffuse cross-fertilization approach towards the creative process, innovation, entrepreneurship.

PROMETHEUS will work towards the concept of the Smart City and/or Intelligent City, integrating in its actions three dimensions of the urban space (physical, social, and digital) in order to achieve intelligent environments with embedded information and communication technologies, creating interactive spaces that bring computation into the physical world, but also logging the city's endowment of hard

infrastructure (physical capital), social innovative practices and intellectual capital into online specialized search/research database, as an example.

On ADVERTISING Sector:

As a direct results of PROMETHEUS activities, the advertising market field will benefit from the following impacts:

- 6. increased spill-overs and cross fertilization through an improved open network of stakeholders;
- 7. a decisive contribution to the Europeana [content discovery] related to the market field and, as a result, an increase in the re-use of Europeana contents;
- 8. a boost in creativity and innovation as well as cross-fertilization between culture and creativity (bidirectional influence):
- 9. the creation of transnational value chains and transnational (inter)-sectoral business ideas and exchange of experience;
- 10.a positive stimulus to the competitiveness in the advertising sector at European level.

On PHOTOGRAPHY & FASHION Sector:

The fashion sector has a relevant and wide tradition in the use of media for their activities. The use of media, traditional, digital and social, is usually related to the business, promotion, marketing and communication activities. As a result, the PROMETHEUS activities will enable the access to a large amount of digital images, so the fashion sector will benefit from the following impacts:

- 11. the creation of innovative channel of promotion/advertising;
- 12.a new kind of specialized services dedicated to the search of creative ideas for the design of fashion collections:
- 13. a new inspiration directly connected with [content discovery], ie adoption of new ways of apply materials, tools and suppliers;
- 14. contamination attitude in the creative process, which is a relevant step in the fashion concept process.
- 15. The photography market sector has also a relevant role in the use of media and creativity fields.

The impacts resulting from PROMETHEUS activities can be trace as follow:

- > enabling the access to a quality and mostly unique set of digital images, so as a consequence:
 - the creation of innovative channel of content distribution;
 - a new kind of specialized services dedicated to the search of creative ideas for photographic artists, creative directors and content suppliers;
 - a new inspiration directly connected with contents discovery and due to the engaging experimentation tools provided by Prometheus, ie adoption of new ways of using photography on different scopes/situations.

On BOOK & PRESS Sector:

The impact resulting from the activities are:

- > enable a wider access to a large amount of digital books, newspapers and journals, so the books & press sector:
- > an added measurable contribution to the sharing of knowledge; as a result:
 - 16. the rising and spreading out of different models for licensing contents;
 - 17. a brand new approaches to copyright interpretation;
 - 18. a broader awareness of the available digital content and its possible use;a boost within the development of the functional environment for creative entrepreneurship by the provision of new services and tools.

IMPACT AREA 3: STRATEGIC, ECONOMIC AND LEGAL FRAMEWORK

Strategic Impacts.

Starting from the relevant point assuming that "ICTs can also be useful for reaching out to new audiences and improving access to culture either as marketing and information tools (online trailers, online ticketing, online sales etc.) or — more importantly — as a dissemination tool offering inter alia new opportunities in financing content production through micropayments and donations", on a strategic point of view, to provide the creative and cultural industries powerful crowdfunding tools and advanced web/mobile services and tools represent a concrete feedback to their needs in finding new forms of financing, marketing and information.

Crowdfunding, in particular, " is a young and dynamically evolving form of financing. Hundreds of crowdfunding platforms have been established worldwide already. Crowdfunding is not only a new source of financing but an almost philosophical approach applying the Web 2.0 paradigms of transparency and participation. Furthermore, it makes use of the communicative aspects of social networks e.g. viral marketing. Most of the crowdfunded projects and crowdfunding platforms of the past, especially in the cultural sector, had no or little entrepreneurial ambition. Offering financial rewards and financing start-ups via crowdfunding is an even newer phenomenon" [...]

This mean that the "Atlas" crowdfunding platform deployed by the PROMETHEUS project, will base on the following schemes:

- donation without rewards
- crowdsponsoring (in-kind rewards)

Topic here is creativity while the focus is on creative and cultural industries: so the legal framework adopted will basicly concern **the use of copyrights and the further use of immaterial goods.** The establishment of a crowdfunding environment within PROMETHEUS project, providing mentorship and tutorship services as well new forms of financing, marketing and information, will generate the following impacts:

- a democratisation of cultural patronage and establishing new business opportunities for the creative industries:
- a concrete support in the field of innovation applied to creativity, providing on time solutions
 and allowing the traditional mediators to find talents among artists and creatives;
- an increased transparency and legitimacy for public funding of the creative industries;
- an expanded paradigm of ethics in the use and in the exchange of digital cultural files.

Economic impacts.

Added **economic sets of impact** will derive from the deployment and delivery of the **sector specified Syllabi, Handbook** and the **mobile toolkit of "omnichannel" apps**, as follow:

- on an individual base:

- a regulatory framework of policies and guidelines ad hoc for each market field selected for assessing CCIs strategies;
- a pragmatic new approach to entrepreneurship, individually focused and business-results oriented;

 the provision of a blueprint modelling to easily identify potentials within the creative market field:

— on a geographical economic level:

- an increased number in the jobs creation in the related market field as well as in the country/ region/city;
- **a growth in the turnover** or in the profitability of the country/region/city;
- the rise of new creative businesses in the country/region/city;

— on user experience:

- a boost in the quality of the experimentation process, fulfilling the need according to which "content experience is king";
- tighter integration between Europeana as culture contents provider and the technology
 platforms CCIs or creatives might be working on;
- a smart multi-tasking and cross-disciplinary approach/experience;
- increased ergonomy in the creative process as well as a better cooperation between the CCIs, their market fields, researchers and innovators or makers
- a boost in the market dynamics, offering new and innovative services starting from the reuse of the cultural resources:
- · growth of digital literacy for cultural sector traditional experts.

Legal Impacts.

As regard the **licensing mechanisms** around Europe's cultural heritage (both within and beyond Europeana), PROMETHEUS will have a **qualitative impact** in that it will provide:

- actual test runs of entirely new licensing models as well as closely monitored applications of
 already existing schemes. These will span the whole range of content types, digitized works
 themselves as well as metadata, and will include the assessment of business processes tested in
 practical application settings.
- valuable data for case studies, best practice strategies some of which will be produced as part
 of the project and policies.

The best practice strategies will have - without any doubt - **further second stage impact,** because they will be compiled in a way that allows institutions, commercial companies, individuals and even EU Member States to **instantly implement them or adapt them to their needs** [loose-coupling mechanism, adaptive rapid iterations, genetic learning are the three paradigmatic models we are going to use for PROMETHEUS, aspiring to consistent kinds of phenomenal results].

The project's impact will thus be a **sustainable one** and will become **visible on various levels.**

Furthermore the project will give a clear assessment of the state of the art of IPR licensing in Europe which will in turn:

- expose flaws of the current implementations of IP law,
- highlight the advantages compared to other legal systems, and
- help identify areas of lawmaking that require the immediate attention of Europe's legislators.

The deliverables will include documents that represent versatile tools for other transnational projects dealing with Private Order Licensing, dissemination of digital assets, large-scale access to cultural heritage and many other IP-related topics.

The impact will be prolonged by the fact that the deliverable documents will themselves be a *commodity or raw material* on which later projects can build upon.

The overall goal is to create **a set of documents** — partially enclosed in the Syllabi edition of the "Be Creative" Suite, partly in the "Code of Ethics", still partially released as project final outputs — that can form part of a **blueprint** for the most well-balanced and advanced legal systems Europe has seen to date. This will help with **keeping Europe's citizens in close touch with the vast Cultural Heritage of the continent,** while at the same time fostering the creative production of today and tomorrow.

The metrics and quantitative data ensuring these outcomes and related impacts can be achieved and assessed could be investigate in section B3.4. While a detailed list of possible risks and relative contingency plan could be checked in Table 5.

5. Long term viability

As mentioned in the Project Profile, there will be 4 key objectives from PROMETHEUS:

- to foster engagement and participation in the creative process
- · to provide broad capacity building to CCIs
- to stimulate and facilitate the re-use of Europeana by CCIs
- to support and sustain innovative, creative and cultural entrepreneurship

To ensure that these outcomes can be achieved as well as to ensure sustainability and project scaling-up, consensus building, **high quality knowledge and training** as well as a proper **infrastructure** are key points for the success of the project. In this sense, the very advantage of PROMETHEUS is to offer a rich landscape for experimenting with the re-use of the cultural resources, thus bringing added value to Europeana itself, strengthening its network and reinforcing its primary role in front of the creative community, standing as a referent point where creativity meets Culture.

Europeana "Be Creative" Suite, providing both applicative and regulatory means for CCIs capacity building, upskilling of creative competences, and in particular by offering an environment where CCIs could find a toolkit of free mobile apps for experimentation and in progress aggregating process, open to the creative community, is the keystone for the success and duration of the initiative.

Work Packages 2, 4 and 5 are essential in this sense. The "Europeana Be Creative" Suite it's a mix of policies and guidelines, practical business tools and technological apps fostering creative sector specified experimentation. WP2 and 4 are devoted to meet this goals and to forge carefully all the tools included in Suite responding to the needs of the target audience. Target and market segmentation analysis will determine the assessment of Europeana "Be Creative" Suite and its content creations, while an in progress aggregation of contributes open to community source will ensure:

- a rapid iteration between creators, contributors and users, through a mechanism of rapid prototyping, fast feedback and immediate adaptation to the new requirements;
- a short, medium and long-term requirements, not only by the participant partners but also by the Europeana broad network.

PROMETHEUS will in fact benefit from the support and cooperation of **Europeana Foundation**, **Europeana Fashion**, **Europeana Photography**, **Europeana Newspaper and Europeana Creative**, thanks to the presence in the Consortium of a few partners directly involved in these projects but also to a concrete support, demonstrated by letter, so bringing in their expertises, knowledge and high quality process as well as their broad network to further support and sustain the project.

6. Wider deployment and use

Target audience identification and segmentation.

Archetype Personas (Target groups)	WHO (they are)	WHAT (they need and do)	WHERE (they move and apply business
Potential Target Audience (addressable target audience)			
Existing CCIs	Approx. 280K across Europe. They represent the engine moving the European DGP, in particular within the single digital market. Through their access and use of the cultural resources, they could determine the growth of the creative and cultural market by introducing innovative products, services and tools for the general public and their clients.	- To discover the access to the cultural resources and how to turn this "fuel" into new services and products, thus stimulating business growth and dynamics; - an easy access to well documented API's; - high quality up-skill in terms of business modeling and licensing policies; - proper tech tools for experimentation; - easy and open access to vibrant Open Living Labs (CREALabs) for networking, sharing, competing in challenges; - a real opportunity to access funds and to turn their idea into business (or to internationalization, if they are already existing companies)	All Europe
New CCIS: "Born global" companies, potential entrepreneurs, startups or spinoffs	They are young and small, fast internationalized after their establishment, prevalent in new CCI businesses such as micro-enterprises, they are able to defy conventional categories, rapid-prototyping, playing a new paradigm in the media-design-music-fashion fields by introducing new products-services division.	They are linked to mobility, social media connectivity and usually start as seeds from diverse art and design institutes. This makes them really different from the other CCIs in terms of potential growth, so they require a different range of support in terms of skills and economic resources;	Al Europe
Policy Makers	A primary audience in order to support creative industries in assessing their strategies and economic impact in reuse.	Need to refer to a common set of policies and guidelines to support the CCIs in terms of infrastructure&networking, Competences&Skills, access to finance. They play a key-role as crucial agent in supporting CCIs strategy assessment; a broad awareness on the sector specified market will allow a wider learning and capacity building as well efficiency	All Europe
Stakeholders	They are companies leader in the collection/management of digital contents; policy makers such as institutions, ministries, national, regional, local development agencies, Chamber of Commerce; Universities and their specialized courses, VET schools, private cultural heritage owners; funding bodies	They are interested in facilitating the content discovery as first step in experimentation; they are interested in getting appropriate and sector specified regulatory guidelines and policies, in particular as regard business modeling, access to finance; interested to offer easy access to content to foster experimentation and market growth; interested in evaluating new business models and innovative products/services to finance and to introduce in the real market, na and the wider network	All Europe

Archetype Personas (Target groups)	WHO (they are)	WHAT (they need and do)	WHERE (they move & apply)
Effective Target Audience			
CCIs: Fashion& Photography	potential entrepreneurs, start up and/or spin-offs with particular attention to creatives interested in the development of innovative service on fashion based on digital media (online specialized search database, ontological repositories, portal and networks for the promotion and dissemination of fashion products and services. Creativity, contamination, inspiration, innovation are key factor within the fashion market field. Content discovery and experimentation stand as a crucial process to turn ideas into business.	- search of creative ideas for the design of fashion collections, eg textile patterns, 3D printed objects; - inspiration directly connected with "contents discovery", ie - adoption of new ways of apply materials, tools and suppliers; - tools to experiment new solutions - up-skill from experts in business modeling and licensing; - contamination, networking and sharing, also with the commercial value chain players; - access to finance to turn startup ideas into real business.	Primarily Italy, Austria, Germany, Belgium, then Europe
CCIs: audiovisual	a)potential entrepreneurs, start-up and/or spinoffs: in particular young creatives involved in projects of development of digital media online portals involved in the distribution of audiovisual and multimedia contents and networks for the promotion and dissemination of cultural products; b) firms that are leaders in the collection and management of audiovisual contents: video on demand services operated by telecommunications operators and broadcasters without exclusion of independent subjects just entered in the market and characterized by a high rate of innovation in relation to business models and organizational ones; representatives and new entrepreneurs who have just completed training courses related to the management and distribution of digital contents.	- highly active in innovative production areas: design and creative development; audiovisual formats, audio-visual technologies, mobile applications, international co-productions, collaborative European digital networks; - tools to experiment new solutions; - up-skill from experts in business modeling and licensing; - contamination, networking and sharing, also with the commercial value chain players; - access to finance to turn startup twd real business.	Primarly France, Italy UK, then Europe
CCIs: Architecture& Smart City	1. Architecture and urban design students, Architecture, urban design Faculties, architecture investigation and interpretation academic centers: they develop studies on the concept of the Smart City/ and or Intelligent city 2. Young architecture studios, entrepreneurial architects and urban designers, start-up and /or Spin-offs: they are young creative involved in projects of social and cultural innovative service on architecture/urban design, based mainly on digital media resources	- search of creative and innovative ideas for the development of the physical, social and intellectual capital of the SmartCity; - innovative applications, providing information on What to find? Where to find? How to adopt?; - tools to experiment new solutions; - upskill from experts in business modelling and licensing; - contamination, networking and sharing, also with the commercial value chain players; - access to finance to turn startup ideas into real business;	Primarily Portugal an Bulgaria, then Europe

CCIs: Advertising	1. potential entrepreneurs, start-up and/or spin- offs: in particular students, young graphic designer, adv studios, professionals, start-ups and /or Spin-offs: they are interested in all the disciplines related to graphic and advertising, contents 4.0, in particular to social media products and services and digital marketing tools and services	- tools to experiment new solutions; - up-skill from experts in business modeling and licensing; - contamination, networking and sharing, also with the commercial value chain players; - access to finance to turn startup ideas into real business;	Primarily Spain and Bulgaria, then Europe
CCIs: Book&Press	Students, potential entrepreneurs, startups and/ or spinoffs: they are active in the disciplines of journalism, history and literature - having linking to digitised books and press as source material as well as in the development of innovative digital services to either businesses and/or to the general public, genealogists or interest groups (motor enthusiasts, railroad enthusiasts etc.)	- new models for licensing contents - new approaches to copyright interpretation; - tools to experiment new solutions in the publishing market, in particular e- publishing; - up-skill from experts in business modeling and licensing; - contamination, networking and sharing, also with the commercial value chain players; - access to finance to turn startup ideas into real business;	Primarily Finland and Nordic Countries, UK, then Europe
Developer Communities	They are very specialized communities who play the key-role of contributing to the development of innovative multichannel apps for experimentation.	Access to reliable IT services. This community will be encouraged to participate in the challenges. They will be approached through the labs that already exist and brought together in the consortium;	All Europe
Stakeholders	They are companies leader in the collection/ management of digital contents; policy makers such as institutions, ministries, national, regional, local development agencies, Chamber of Commerce; Universities and their specialized courses, VET schools, private cultural heritage owners; funding bodies. For Audiovisual: political and decision makers, potential public/private stakeholders such as ministries and relevant government agencies, regional and local Film Commission, regional inspection and monitoring bodies of the media, Universities and their Faculty with specific courses related to the creative and cultural industries, audiovisual training centers, associations and network of local business, foundations, Festivals, Audiovisual and Creativity Districts; For Architecture&Smart City: policy makers at regional, municipal and local level; public/ private stakeholders, interested in supporting and integrating a multifunctional architectural community, based in complementary units of study, design and research; companies dedicated to applying digital technology into the field of architecture and urban design, through the development of digital software, mobile applications, collaborative European digital networks, (etc.).	They are interested in facilitating the content discovery as first step in experimentation; in getting appropriate and sector specified regulatory guidelines and policies, in particular as regard business modeling, access to finance; to offer easy access to content to foster experimentation and market growth; in evaluating new business models and innovative products / services to finance, introduce in the real market	All Europe

- For Advertising: universities, public authorities and entrepreneurs regularly participating in sectoral and inter-sectoral networking activities in order to promote the emergence of possible spill-overs and cross fertilization.
- For Fashion: potential public or private stakeholders such as Ministries and relevant government agencies (regional depts of Economic Developments, local Chambers of Commerce, Fashion Associations, Universities and their Faculties, fashion schools and/or training centers).
- For Photography: Students, professors, teachers, the e-learning and education sectors, including historians, researchers, archivists, galleries, state institutions, museum and art lovers.
- For Book&Press: potential public or private stakeholders such as relevant government agencies, organisations or companies in the publishing sector (the governmental programmes for improving the business and entrepreneurship in the creative sector, Universities and their Faculties for journalism, history and literature, as well as language technology, training centers, publishing houses, copyright organisations, publishing joint organisations, organisations for agents in the CCI sector, free lance journalists, libraries, archives and museums etc.).

All Europe

PROMETHEUS target audience can be identified as follow:

- **potential** target audience (or addressable target audience)
- effective target audience

The two target audiences are formed each by the following target groups:

- a. existing general CCIs; sector specified CCIs belonging 5 fields of Creativity and Culture (fashion&photography, audiovisual, architecture, advertising, booke&press), and the induced markets (Tourism, Education, etc.). They are pprox 280K across Europe representing the engine moving the European DGP, in particular whithin the single digital market. By facilitating their access and use of the cultural resources, they could determine the growth of the creative and cultural market by introducing innovative products, services and tools for the general public and their clients.
- b. companies belonging to the so-called 'Born global' phenomenon: young and small, fast internationalised after their establishment, prevalent in new CCI businesses such as microenterprises, they are able to defy conventional categories, rapid-prototyping, playing a new paradigm in the media-design-music-fashion fields by introducing new products-services division. They are linked to mobility, social media connectivity and usually start as seeds from diverse art and design institutes. This makes them really different from the other CCIs in terms of potential growth, so they require a different range of support in terms of skills and economic resources; potential entrepreneurs, start-up and/or spin-offs (innovation centers, incubator managers, professionals);
- c. **policy and decision makers:** A primary audience in order to support creative industries in assessing their strategies and economic impact in re-use;
- d. **developers communities:** They are very specialized communities who play the key-role of contributing to the development of innovative multichannel apps for experimentation.
- e. stakeholders: companies who are leaders in the collection and management of digital contents (producers, aggregators and distributors), institutions and big owners; experts, professionals and academics in their respective sectors; funding bodies.

As regard the pilot experiences, PROMETHEUS will start in the second half of the project duration, target groups 1 (sector specified CCIs), 2 and 3 will play a crucial role in the exploitation process. They will represent the effective target audience participating to the online challenges and to the mentorship and tutorship web services; the "beta tester" for the application of the Europeana Be Creative Syllabi and Handbook as well as for the experimental use of the Toolkit of multichannel mobile apps, deployed by PROMETHEUS but in progress implementation by target group 4.

A detailed market potential target audience could be find in Appendix II.

A wider, general and induced target audience could be traced in the "general public": PROMETHEUS will engage also European citizens through outreach activities and in particular through the so-called CREAFest, on topic happenings open to the general public, spreading out the positive value of creativity not only in terms of business determining a positive impact on the welfare, but also as an attitude with a positive impact in the person daylife.

A path to the wider deployment and use of PROMETHEUS.

By focusing on the 5 most growing and promising market fields of the (digital) creative economy, PROMETHEUS will be able to wide exponentially the creative use of the cultural resources coming from Europeana portal. This goal will be achieved through a growing (genetic) path at first aiming to the "content discovery", ie allowing the CCIs to discover a huge amount of cultural resources almost unknown to them that could be really valuable for their value-chain and, definitively for their business development; then passing through capacity building and upskilling, by supporting CCIs in their strategies as well as in their tactic actions by providing them proper tools for facilitating experimentation; finally, to engage all target groups in a real physical network of open living labs - the CREALabs - highly topic and market oriented, where they could exploit all the knowledge and capacity building gained along the path, compete in engaging 2f2 competitions in front of investors who could really turn their ideas into a business. For this reason, the CREALabs will be established in 5 key-countries responding to a precise geographical coverage strategy and yet designed for an ideal integration with the 4 existing Living Labs coming from Europeana Creative experience.

PROMETHEUS will thus stand as a creative melting pot, including creatives, developers, students, practitioners, makers, influencers, researchers & academics, innovators, content providers, service providers coming from all Europe, determining an extraordinary networking capability, a high powered network of networks (NNs) enabling wider deployment, use, dissemination of the Europeana cultural resources and contents.

Due to the multi-disciplinary composition of the Consortium and its broad network of contacts, relations and existing CCIs and developers communities (but also to the wide support of relevant Associated Partners, thus extending the potential engagement rate), PROMETHEUS will involve an effective/realistic target audience in the pilot experiences, specific for each market field detected. This will ensure a fruitful participation and a true test and evaluation of the activities, services, tools and applications provided, these very last to be potentially and further developed or implemented. The developers communities will contribute to keep all the creative/innovative activities in loop, so that the target groups could benefit from an in-progress refresh offer of new apps and innovative services for to the best use of the cultural resources. Stakeholders will contribute to the process by providing experts inputs in each market field, in particular in workshops, events, conferences organized by the CREALabs, so ensuring a mutual cooperation and effectiveness, in particular regarding business modeling mentorship and access to funding.

In this sense, the contributions of the most relevant European creative clusters will stand as the ground base for a wider deployment and use of PROMETHEUS: their deep knowledge about the creative industries, their value chain and supply chain, weaknesses and strengths in the production process, barriers to the market, gaps needed to be bridged in skills and competences, all this underpin the strategy to drive the deployment and use by the target groups as well as stakeholders. By a roadmap of ad-hoc milestones (content discovery, building capacity, experimentation and resulting best practices), a realistic application process will come, allowing its wider adoption by the wider creative community as well as by digital creative market.

A relevant step in the path for the wider deployment and use will be represented by the dissemination of the results achieved during the training, the mentorship and tutorship services, the online challenges, the live experiences in the CREALabs. The dissemination activities and related results will benefit from the cooperation of all the Consortium partners, some of them already well-known and trusted members of the Europeana Network and yet intrinsically linked to the market sector fields selected, such as FDR as coordinator of Europeana Fashion, Alinari Foundation as member and co-coordinator of Europeana Photography, The National Library of Finland, member of Europeana Newspaper, EBN and MFG as

member of Europeana Creative, the European Association for Jewish Culture as coordinator of Europeana Judaica. This will ensure a large geographical coverage as well as an high impact on the Europeana Network

CREALabs expansion plan for a wider European coverage.

The CREALabs are the ideal prosecution and implementation of the existing Open Living Labs established by Europeana Creative. The strategy for their creation and setting follows an ideal integration not only on a geographical level but also in term of market fields: the aim is to generate an in-progress membership process from other countries/regions/cities as well as from new added market fields of the creative economy. At present time, the CREALabs will be based in the following countries:

- Italy, for the CREALab_Fashion&Photograpy. The CREALab will be host by FRD and Alinari, an ideal combination of content providers, service providers and industry representatives and yet prestigious entities both in the field of fashion and photography;
- Spain, for the CREALab_Advertising, hosted by The Madrid Graphic and Communication Cluster. Their extensive background in the market field and the vibrant presence of a huge amount of adv creative industries within the country, put them best in place for hosting the CREALab.
- Portugal, for the CREALab_Architecture&Smart Cities. Hosted by the famous Lisbon Triennale, the CREALab will benefit from an existing active architecture cluster, engaging a smart community dealing with smart city concepts and ideas.
- France, for the CREALab_Audiovisual. The CREALab will be hosted by the most relevant and
 known audiovisual creative cluster: Capdigital. Their extensive background and expertise in
 digital creative industries as well as European project will ensure the best local and glocal
 coverage.
- Finland, for the CREALab_Book&Press. Hosted by the University of Helsinki and the National Library of Finland, the CREALab will benefit from the high innovation of the nordic countries in the field of book&press.

All the countries and the Consortium partners hosting the CREALabs was chosen basing on the relevance of the market field within the country and the skills and expertise of the owner.

In order to ensure sustainability within the expansion plan, PROMETHEUS will benefit from the relevant support of the European Network of Living Lab (ENoLL) who will cooperate in identifying the existing living labs to be the best applicants to host a CREALab. The Digital Space Living Lab, an active member of the Consortium, is also an existing member of the ENoLL, thus representing a living "replicable" model for the new ones to come.

A contribution to the wider deployment and use through dissemination and awareness activities.

PROMETHEUS project and related activities will be disseminated through a set of on topic activities representing the ground base for the building consensus, awareness, stimulate participation and engagement as well as the supporting tools for networking, promotion and to ensure the project sustainability.

As the virtual experience play a key-role in the project, where upskill and experimentation happens, a project website will be created at the very beginning of the project; here project partners could find a referent point for networking activities and an efficient tool to make communication as fluid as possible.

By the project website, all target groups could find an easy access to the Atlas environment (delivering the mentorship and tutorship web services, hosting the online challenges and allowing crowdfunding) and to the Europeana Be Creative Console, where to find innovative multichannel apps ad hoc for each market field to engage CCIs in the experimental process and where the developer communities could participate to further implement and deploy new apps according to an in-progress process.

Visual Identity and dissemination and Communication tools.

To enable efficient communication to all stakeholders and the public at large, to build PROMETHEUS awareness and gain consensus, a visual identity will be designed, suited for the various channels in which the Consortium will communicate. The communication style guide will take into account the variety of channels and formats of the project communication. A combination of tools will be developed and adopted to communicate the project activities and results externally. A mix of a blog, twitter feeds, newsletters and a specific integration of social media tools (Facebook, Google+, Linkedin, YouTube), will be used to create awareness within specialised communities as well as with the Creative Industries at large, integrating also procedures to capture external feedbacks and contributions in order to enrich the project results.

Clustering activities.

A special attention will be given to:

- engage the Creative Industry sector, the GLAM (Galleries, Libraries, Archives, Museums)
 community and the Europeana Network, disseminating project results and activities, with the a
 particular emphasis on the CREALabs activities and products:
- produce and coordinate press releases and online dissemination materials;
- organize major dissemination and networking events (2 international conferences in M12 and M36 and 1 final competition event - the CREAFest!) open to all interested stakeholders, GLAMs and Creative Industries;
- promote and disseminate the CREALabs activities, with a special attention to all the events (competitions, challenges, etc.) organized in the WP5 framework;
- promote cooperation and clustering activities with relevant EU co-funded projects in the Europeana Network (e.g. Europeana Creative, Europeana Cloud).

Promotion activities/materials.

Social media activities as well as a consistent use of web 2.0 tools will be carried out: an ad-hoc PROMETHEUS account on Twitter, Linkedin, Facebook, Vimeo, YouTube will be created in order to spread out the project activities and initiatives and for the best outreach. A **blogging activity**, within the project website will be ensured, thus allowing partners and users to bind with the project, stimulating the participation in the blog, and it will deliver a constant flow of news and comments. The blog will be structured in thematic areas (one for each market fields) and will engage the contribution of relevant guests (experts and influencers) coming from the related domains. The blog will also provide a constant up to date unfiltered feedback from our user base, which will allow us to improve our services and usability.

A series of **email marketing campaigns** will be set up and delivered to promote the online challenges as well as the international conferences and the CREAFest!.

A special attention will be given to the preparation and distribution of **promotional materials:** flyers, posters and multimedia presentations to be realized in English language and to eventually be translated by the participant partners. The promotional materials will be circulated by the CREALabs and through the project website in digital format.

Press and Public Relations activities will allow the project to reach out to potential target audience and stakeholders in a cost effective way. This channel will be exploited targeting media and other stakeholders, and delivering to them promotional material, informing about the initiatives of PROMETHEUS, and about the added-value that it could offer to the media and the creative industry, disseminating also in this community awareness about the Europeana portal and its "ecosystem" of projects.

Training materials.

A relevant role will be played by the **EUROPEANA "Be Creative" Suite** as training tool to be used by CCIs. The Be Creative Suite will include the following volumes:

- (A) **5 Syllabi / 1 for each market fields,** comprising a set of regulatory guidelines and policies on licensing, business modeling, supporting the CCIs in their strategy assessment.
- (B) 1 Handbook, a practical tool to support CCIs in identifying the best roadmap to turn a business idea into a real business, a unique volume comprising all the 5 market fields. The handbook will include the following contents: strategy assessment (hints and tips on how to assess the launch of a creative business; the best type of company for each creative market field; use cases to refer to); business facts (IP matters, business models, values&impacts); project design modeling (target segmentation, archetype personas, customer development, key-relations); key-activities (customer relationships, marketing mix, marketing plan, financial planning); worksheets based on the "Lean-startup methodologies".
- (C) 1 Case Histories Book, including all the best practices resulting from the live experiences.
- (D) a Toolkit of mobile sector specified apps.

The Europeana Be Creative Suite will be realized in digital as well as traditional format, available to the community through the project website as well as in the CREALabs.

This effective tools will also represent a key-element in the sustainability strategy as the Suite could be offered to the creative community at an affordable price, both for the digital release and the traditional one.

Dissemination materials.

The dissemination material will consist of:

- printed project brochure informing on the potential of creative reuse of cultural heritage content coming from Europeana, to be distributed during the various events also of third parties;
- project webzine (quarterly), to which all users of the PROMETHEUS and Europeana Network
 portal may subscribe to. This webzine shall constantly inform about new contents and initiatives
 on the site, and new events related to the project and to the creative community at large, also

contributing to the dissemination of all the Europeana related initiatives. The newsletter will also be available via RSS and Twitter feeds.

- posters introducing the project concepts and results to be used in various events throughout the project duration;
- digital invitation for all the project events, conferences, seminars, workshops, contests or competition challenges.



Events.

A series of collateral physical workshops will be organized, in the form of the "ideas' worth spreading" to be hosted in the CREALabs (at least one during the pilot experiences; 5 in total) and open to the creative community as well as to the general public.

Web conferences, webinars on business modeling and experimentation will be organized throughout the project duration, in order to ensure a constant assistance and support to the CCIs (at least 10 during the pilot experiences).

- 5 thematic online challenges will be organized to select the ideas/project to be incubated in the CREAlabs and widely promoted throughout the network.
- 5 f2f competitions will be organized by the CREALab network (1 for each CREALab).
- A final f2f competition event the CREAFest! will be organized and promoted throughout the network as the relevant occasion for identifying the 5 disruptive winning projects.
- A final international conference will be organized to present the final results of the project.

Template – Risk assessment

Description of possible risk	Impact	Probability of occurrence (low, medium, high)	Remedial Actions
Associated to general matters			
Competition between the Creative Suite and other already established technologies, leading to lack of uptake, compatibility problems in the production process and more.	Low	Low	Consequently rely on FOSS components and open formats, get and stay in touch with the relevant communities of developers and users at a very early stage.
Complexity of Usability Evaluations to consumptive of time and resources.	Medium	Low	Clarify with each Pilot task leader the preferred method and adjust it according to its feasibility within the project.
Lack of quality of Europeana content leading to lack of interest regarding re-use.	Medium	Low	Evaluate very soon which parts of the (aggregated) Europeana Content are suitable for the project and verify that with the targeted user communities.
Building of prototypes requires interdisciplinary teams of software engineers, and creative industries, two communities that do not know each other much	Medium	Low	Special events (meet-ups) will be organized to provide the opportunity for the two communities to get to know each other and exchange experiences
Lack of internal and external participation in the evaluation cycles.	High	Low	Ensure in the beginning of the project a high number of external participants and define an internal evaluation group who has to attend mandatory.
Access and use of APIs	High	Medium	Exemplary Web and Mobile applications will be produced; detailed documentation will be provided; support and training of how to use the APIs will be provided in the CREALabs
Associated with management of the project			
A partner leaves the consortium	Low	Low	Set-up a Backup Procedure to replace any leaving partner. Sign a Project Consortium Agreement (PCA) that foresees such an event and poses very strict deadlines for delivering formal notices in advance of leaving the consortium. To this end, the project coordinator will have the time to find a replacement
Disputes between partners over specific implementation choices	Low	Low	It will be established a conflict resolution procedure lead by the project coordinator. The consortium is new in this constellation, but there have been professional contacts between many of the partners in the past. We view this risk as low, because the collaboration developed from a genuine interest in bringing the vision together in this manner.

Low involvement of partners in the Tasks they have been assigned	Medium	Low	PROMETHEUS includes a well-charted management structure and procedures plan. Each key element in the structure is expected, within his/her own duties, to issue early warnings and mitigate any risk related to the unlikely event of a partner not performing up to the standards and according to his contractual obligations. Such elements include the Steering Committee and Quality Control Board, backed up by the Advisory Board, and with additional continuous collaboration with Work Package Leaders and CREALabs and Communication Staff.
Coordinator organisation cannot carry on managing the project	High	Low	Although this case is unlikely, the consortium has at least three further partners which are capable of taking the role and have also proven track records.
Associated with the exploitation objectives			
Lack of capacity by individual CREALabs in supporting their target audience, for technical, staff or cultural sector reasons	Low	Low	Clearly specify during the dissemination the sectoral specificities of each CREALab. Promote Calls and local initiatives with strong ties to the each specific creative and cultural sector. Make very efficient operations of interlinkage in the network of CreaLabs, so that they support one another even in remote-cooperation. Built a very efficient technology infrastructure. Educate staff and select experts in order to increase their adaptive capacity.
Low involvement of target audience	Medium	Low	Involvement of end-users in the context of WP5, WP7 and throughout the project is achieved through various modes, and in this way mitigating the corresponding risk: dedicated stakeholder workshops, social networking tools, special physical and virtual competitions. With this multi-channel methodology we expect to come around any unexpected difficulties that may arise with target audience collaboration
Insufficient market impact	Medium	Low	With a balanced international consortium focused on the 5 market fields including a large number of end users, the consortium will have direct access to market impact.
Insufficient re-use of the cultural resources	High	Low	PROMETHEUS aims at the creation of a toolkit supporting creative re-use or Europeana content. App "Be Creative Suite" will be developed to be installed into the Smartphone. This is a winner technology approach because Smartphone is a largely diffused device. Therefore, the use of Europeana's contents will be facilitated in a manner as acceptable and friendly as possible.
The proposed standard and developed system do not get adoption by CCIs	High	Low	PROMETHEUS activities will try to propose an online ATLAS crowdfunding environment and a physical network of living labs (CREALabs) involving as much as possible CCIs in joining our initiative. Furthermore online and physical mentorship and coaching services will be developed for start-ups and new entrepreneurs. So we consider this risk to remain low.

Unethical and/or improper use of digital cultural resources, and propagation of a bad practice in the exchange and/or reuse of digital resources, in violation of rules, policies and rights	High	Medium	Create a strong mechanism for the dissemination of Codes of Ethics for each creative and cultural sector, where the rules are clear and highly accessible. Show rules in a clear and easy to handle support, delivering different use cases. Highlight the success of those who have already used the mechanism proposed by PROMETHEUS adhering to the rules. Connect the experimental framework of the "Be Creative" Suite to the licenses regulation one [EUROPEANA Content Re-use Licencing Framework]. Penalize any misuse, giving them a strong emphasis through the communication systems of the network, and CreaLabs.
Associated with the Sustainability			
Risks pertaining to unstable staff resources	Low	Low	In the case of funding, partners will have to commit contractually, to supplying and maintaining, adequately skilled resources to this project. In any case, all organisations have outstanding experiences with R&D projects, therefore we consider this risk as low.
Risks related to the economic capacity of each partner	Medium	Low	We have a strong consortium, which consists of fairly stable, public and large organizations and smaller private, but stable ones. Also, there are interested organisations who expressed their interest through LOS. Therefore, we believe this risk to be low.
Risks related to a very unexpected impact on the target-audience, such as with an excess of access / demands, or a mess in the access / demands distribution for sector-specificities along the nodes of the network [i.e. CreaLabs with excess of not compatible access / demands with their core creative sector]	Medium	Low	Put up a mechanism made of concentric functional modules, so that each one drains access and applications, filtering them, and dispatching to the next module only a manageable portion. Create a strong attraction around the Virtual network, on the Web and the Mobile environments, because they are much less vulnerable to a critical mass of accesses and traffic. Clarify carefully the core-activity which each CREALab is able to support; but also make very interconnected all the nodes of the network of CreaLabs, so that they could support each others, even in remote-cooperation.
Risks of non-sustainability of the project	High	Low	Produce a highly accurate financial statement, and distribute in a diligent relations between activities, costs and benefits. Adopt an adaptive loose-coupling mechanism, formed by an hybrid of taxonomic rules and flexible components. Adopt a mechanism with strong focus on sustainability [PRISM®], both for project management and impacts.
Risks associated with the low rate of participation of the CCIs in online competitions.	High	Medium	Strong dissemination activities of each CREALab leader to attract the CCIs to participate in online competitions.
Risks associated with the establishment of the local business juries for the physical competitions. Difficulties to hire the potential members of jury.	High	Medium	Each CREALab leader will strongly disseminate the information and communicate about physical competitions localy. Besides the consortium comprises on the one hand business clusters with strong ties with local investors and on the other hand such institutions as European Business Angels Network and European Business and Innovation Center Network which will contribute in the searching and convincing the business jury members to participate.

Risks associated with low success of CCIs [startups] assisted by CreaLabs when they come to market, and risks of failure in the search for funds	High	Medium	Make a strong selection of business ideas of aspiring candidates, basing on their quality. Accompany them with a very thorough due-diligence. Make a strong dissemination, to create fertile surroundings, both cultural and social, that enhances the reputation of the CCIs coming out from the coaching / mentoring paths managed by the CreaLabs network of Prometheus. Endeavor in a very intense way the mechanism of crowd-funding. Carefully and urgently Involve the funding-bodies, both institutional and private, with appropriate and differentiated policies. Do not lose sight of the CCIs that were grown in the network of PROMETHEUS CreaLabs, and follow them for an appropriate time to ensure their survival, keeping them in your network. Involve the 5 best CCIs selected by the jury, celebrating their success, and disseminate their case-histories during the Festival "CREAFest!".
Associated with the Crowd funding mechanism			
Risk of economic-financial nature in the contractual relationship [equity, profit- sharing, venture] agreed between the CCIs and donors.	Low	Low	Here
Risk of techno-legal nature coming from the application of crowd funding mechanism and resulting from the regulatory of the geographical areas pertaining to, impacting both on the project and on the CREALab hosting it.	Medium	Medium	and here
Risk of infringement of intellectual property for projects and / or ideas entered in ATLAS crowdfunding platform	High	Medium	Adopt an appropriate standardized system for the protection of Intellectual Property of ideas, applied to the platforms that expose them to crowdfunding, such as "Creative Barcode" [http://www.creativebarcode.com/, http://services.parliament_uk/bills/2013-14/intellectualproperty.html]

Indicators

Indicator n.	Relating to which project objective/ expected result	Indicator	Method of measurement	Year1	Year 2	Year 3
#1	WP6 - Evaluation on Experimental Hub	Gathering Feedback on provided software tools (e.g. "Be Creative" tool kit) and Coaching/ Networking Services	Usability Evaluation, Focus Groups		3	5
#2	WP6 - Evaluation of Pilots	Number of realized feedback sessions to foster a staged improvement	Usability Evaluation, Focus Groups	1	5	10
#3	WP6 - CREALab Evaluation	Measuring stakeholder satisfaction and uptake success	Online Surveys, User Data	1	5	10
#4	WP4 - Experimental Hub: Europeana Be Creative Console and mobile Suite of applicative tools	Number of APIs working with Europeana Content Re-use Framework	Count	4	8	>8
xx	WP4 - Experimental Hub: Europeana Be Creative Console and mobile Suite of applicative tools	Number of regulatory tools	Count	4	12	16
#5	WP4 - Experimental Hub: Europeana Be Creative Console and mobile Suite of applicative tools	Number of application services in the Web Apps	Count	5	25	>50
#6	WP4 - Experimental Hub: Europeana Be Creative Console and mobile Suite of applicative tools	Number of application services in the Mobile Apps	Count	5	25	>50

#7	WP5 - Pilot Experiences	Number of Creative Ideas Tested Prototypes	Count	0	60	120
#8	WP5 - Pilot Experiences	Number of Creative Ideas Tested Prototypes Supported by the CreaLAB and the consortium partners	Count	0	15	45
#9	WP5 - Pilot Experiences	Number of challenges carried out	Count	0	5	10
#10	WP5 - Pilot Experiences	Number of visits to the CreaLAB	Count	70	210	420
#11	WP5 - Pilot Experiences	Number of registered participants to the challenges	Count	50	250	750

7. Security, Privacy, Inclusiveness, Interoperability; Standards & Open-Source

PROMETHEUS project builds on Europeana Creative Re-Use Platform which is in turn very closely coupled with Europeana infrastructure. It intends to develop a series of middleware services for the Creative Suite, which will enable end-users from the creative industries and the public to benefit from the variety of resources available for the realization of their creative ideas. The produced services will also provide APIs to ensure server-side accessibility. These technical aspects of standard software development processes imply the consideration of security, privacy and interoperability requirements. PROMETHEUS development strategy will be comprised in the attempt to use open standards and re-use existing tools and application as much as possible. This will reduce the risks of technology deployment and integration with Europeana Re-Use Platform. However, WP4 and WP5 intend to build additional service layers, and encourage idea incubation and realization in 5 prominent for the European economy domains, and this requires to pay close attention to the security and privacy concerns raised by these new functional capabilities.

Security and Privacy.

The new services and extensions to Europeana Creative Re-Use Platform and its APIs will be built according to the standard "AAA" Security Architecture for distributed systems.

- Authentication services will identify the users (human or system accounts), and will be used to store and check user accounts. This is part of the standard Europeana infrastructure.
- Authorization services will account for the granting of access rights to different categories of users, based on their authentication and profile. This authorization will pertain to the Europeana Creative Re-Use Platform, as well as to the services built on top of it with the purpose to serve the generation and realization of creative ideas in the CREALabs.
- Accounting services will track the usage of resources from the infrastructure by the users. They will
 be very beneficial for future analytics services and for leading to business opportunities based on the
 usage of the orchestrated by PROMETHEUS data and services.

Except for these software-level security and privacy measures, hardware network-level security will be applied to prevent unauthorized access to PROMETHEUS infrastructure and services. Additionally, Secure Sockets Layer certificates and protocols will be used for encryption and thus keep the contents of user-to-server and server-to-server communications safe from harmful interventions, such as impersonation, unauthorized access or core injection.

With respect to Data protection PROMETHEUS will comply with the European Data Protection Directive [95/46/EC], e.g. only personally identifiable data necessary for granting user access to content or functionalities that require registration will be collected. The same holds for the participants in the competitions and pilots of the CREALab during the course of the project. All such user data will be stored in a secure way, employing industry standard procedures, and will not be provided to third parties for any reason before the prior consent of the concerned individual. These privacy policies will be published on all public channels available to PROMETHEUS, such as the project website, and the initial pages of all middleware services developed during the project.

Inclusiveness and Accessibility.

Europeana provides a very open access to a broad collection of European cultural heritage. The WWW in general is a vehicle for a free and large access to a wealth of information in any domain. The produced in

PROMETHEUS new services will leverage and enhance the possibility of benefitting from these vast amounts of data, and knowledge by making them readily available and more easily accessible regardless geographical, linguistic, compentency, social status or age constraints. Building on top of Europeana Creative platform which is based on Semantic Web concepts and principles guarantees the better synergy between the knowledge needs of the users and the knowledge provided by the computer algorithms. PROMETHEUS will contribute to this community by supporting the Linked Open Data access models and their future extensions. The project website will be accessible to the widest possible audience by complying with level AA of the W3C Web content accessibility Guidelines 2.0^[2], which will ensure the reach to the website and to all end-user facing services by all people. All end-user facing websites will be built according to W3C standards from HTML and CSS, which will guarantee that the websites display correctly in all currently known and future browsers as well as on all second screen devices and other assistive technologies.

The inclusiveness and accessibility will be ensured also by several project specific activities, such as:

- CREALabs, which will provide the scene to creative professionals and the public, interested in
 cultural heritage, to experiment, be mentored and coached, produce prototypes, have then
 evaluated and compared to other creative works, be advised about how to turn the appealing idea
 into a successful business venture in one of the five PROMETHEUS domains, e.g. fashion/
 photography, advertising, book&press, architecture, audiovisual, etc.
- The built in WP4 services will provide enhanced ways to access and make use of Europeana data, giving tools to links, explore them creatively, discover and build relations between cultural objects, let the data tell stories by themselves. The planned within the CREALabs workshops, events and competitions with the participation of all stakeholders of the cultural heritage scene also imply increased inclusiveness and accessibility not only to the data and technology, but also to the vibrant community of engaged individuals contributing new ideas, business models, applications domains, use cases.
- WP2 and WP6 dedicated to requirement gathering, evaluation metrics specification and
 evaluation conducting are straightforward contributors to the inclusiveness and accessibility of the
 project outcomes. They will build on discussions and interviews with a broad segment of the
 society, which represents the stakeholders of the cultural heritage, Europeana, and CCIs causes.
 This fact provides the basis for including the vast majority of people involved in the creativity
 generating platform of PROMETHEUS and European culture in general.

Interoperability between products and services.

Building on Europeana Creative Re-use Platform, the issue of obtaining greater interoperability between products and services is a central concern for PROMETHEUS project. The adoption of open standards, web services, standard RESTFul APIs and Semantic Web technologies, the most powerful integration standards and tools, guarantee the reach of high levels of interoperability for the services to be developed within the project, but also for future use. The interoperability between components inside PROMETHEUS will be ensured by the following guiding principles:

- Access to Europeana Creative Re-use Platform will be done via standard Web service protocols
 that can be part of any contemporary web application. Vendor-specific interfaces will avoided to
 the maximum preferring open source components.
- The middleware services provided in WP4, as far as they are application level software will make
 use of Application Programming Interfaces, coordinated by the project Technical Lead, and in
 close communication with Europeana and Europeana Creative technical staff. The service layer

- will be kept up to date with the evolution of Europeana Creative Re-use Platform and Europeana Search APIs to allow adding of new capabilities over time.
- All data will be defined in W3C compliant models, such as EDM (Europeana Data Model), the
 official metadata language for defining, ingesting and enriching metadata in the Europeana
 Repository. It is based on RDF, OAI-ORE, Dublin Core, which are well established
 interoperability enabling standards.
- Changes in the interoperability framework and models will be advertised on the project website, and through PREMETHEUS and Europeana Network channels. The Europeana Professional website will also be used to coordinate and disseminate any standards changes.
- The activities in WP4 and WP5 will foster best practices of interoperability through staged development projects, and the competitions to be carried out within CREALab. This now how will be made available and disseminated in the CREALab (WP5) coaching and mentoring sessions. The developed in the CREALab prototypes and project ideas will also abide interoperability principles, which will guarantee, that the produced inside PROMETHEUS project service level infrastructure will be highly interoperable with Europeana infrastructure and WWW open standards and easily extendible with further functionalities based on the same state of the art and future oriented interoperability standards.

Technical standards in use.

To our knowledge the following are the standards used by the Europeana core software service environment. PROMETHEUS technological proposition will comply with these standards too.

Data representation standards:

- EDM Europeana data model, the Europeana standard for representing and aggregating metadata
- RDF Resource Description Framework, W3C standard for semantic representation of data over open internet protocols
- OWL Web Ontology Language, W3C standard for complex semantic representation of Web resources involving reasoning
- SKOS Simple Knowledge Organization System, W3C standard for representing taxonomies and thesauri in hierarchical structure
- XML Extensible Markup Language, data representation schema for Web services
- JSON JavaScript Object Notation, data representation standards for Web services and client applications
- ORE Open Archive Initiative, representing provenance information
- Content encoding standards:
- JPEG, GIF, PNG image content for Web applications
- MPEG7 Multimedia Content Description Interface standards for image similarity feature extraction and indexing
- MP3 audio content representation
- FLV, H2.64/MPEG4 (ISO/IEC 14496-10 MPEG-4 Part 10, Advanced Video Coding) for support of pseudo-streeming

Service development:

- JAX-RS JAVA API for RESTFul Web Services
- JPA Java Persistence APIS
- SPARQL RDF query language and access protocol
- XSLT Extensible Stylesheet Language transformation, used to support data transformations

Runtime environment:

- Apache Tomcat for deployment of Web Services
- PostGres (SQL), MongoDB (NoSQL) for data persistence layer, if applicable
- Hadoop Distributed File System for Cloud-compatible storage

Open Source.

The goal of PROMETHEUS project is to use and develop open-source software as much as possible. While it will abide to open standards and protocols in some cases proprietary software and methods will likely have to be employed in cases where no viable open source alternative exists. For example, with respect to reasoning and retrieval the proprietary semantic web solutions considerably outperform the open source ones. The selection of proprietary software will take place after a thorough evaluation of the performance, functional and technical requirements for the services to be developed in WP4, and the available open source and proprietary offerings for the given feature.

APPENDIX I

Sector Market: sizing the market and segmenting the target audience

On AUDIOVISUAL Sector, 3 different types of users/beneficiaries will be investigated by the proposal:

- potential entrepreneurs, start-up and/or spin-offs with particular attention to young creatives involved in projects of development of digital media online portals involved in the distribution of audiovisual and multimedia contents and networks for the promotion and dissemination of cultural products;
- political and decision makers, potential public/private stakeholders interested to the project
 objectives such as ministries and relevant government agencies (Ministry of Culture, Mise,
 Agendia Digital), Film Commission, regional and local, regional inspection and monitoring
 bodies of the media Universities and their Faculty with specific courses related to the creative and
 cultural industries, audiovisual training centers, associations and network of local business,
 foundations, Festivals, Audiovisual and Creativity Districts;
- firms that are leaders in the collection and management of audiovisual contents (producers, aggregators and distributors).

Particular attention will be given to video on demand services operated by telecommunications operators and broadcasters without exclusion of independent subjects just entered in the market and characterized by a high rate of innovation in relation to business models and organizational ones. Within this group will be involved representatives and new entrepreneurs who have just completed training courses related to the management and distribution of digital contents.

Specific attention will be given to the docks of new job while activities will be addressed towards highly innovative production areas: design and creative development; audiovisual formats, audio-visual technologies, mobile applications, international co-productions, collaborative European digital networks. Such productive areas are particularly vulnerable, despite the strong focus on innovation and medium and long term employment potential; this is because of both too low financial and profitability ratios and fragile business models. These items in association with other risk factors such as undersize and underfunding prevent to the creative enterprises to insert themselves in the processes of innovation and internationalization of the digital market of audiovisual contents.

On ARCHITECTURE Sector, 3 main categories of target audience will be involved:

- Architecture and urban design students, Architecture, urban design Faculties, architecture investigation and interpretation academic centers developing studies on the concept of the Smart City/ and or Intelligent city;
- Young architecture studios, entrepreneurial architects and urban designers, start-up and /or Spinoffs with particular consideration to young creative involved in projects of social and cultural
 innovative service on architecture/urban design, based mainly on digital media resources (online
 specialized search database, knowledge archives, portal and networks for the advancement and
 dissemination of architecture contents and services);

 Policy makers at regional, municipal and local level, public/private stakeholders, interested in supporting and integrating a multifunctional architectural community, based in complementary units of study, design and research; companies dedicated to applying digital technology into the field of architecture and urban design, through the development of digital software, mobile applications, collaborative European digital networks, (etc.).

PROMETHEUS will work towards the concept of the Smart City and/or Intelligent City, integrating in its actions three dimensions of the urban space (physical, social, and digital) in order to achieve intelligent environments with embedded information and communication technologies, creating interactive spaces that bring computation into the physical world, but also logging the city's endowment of hard infrastructure (physical capital), social innovative practices and intellectual capital into online specialized search/research database, as an example.

ADVERTISING Sector

In 2006, 210.100 enterprises were classified to advertising activities (NACE Group 74.4) in the EU and employed an estimated 882.000 persons generating 38.6 billion Euro of value added (Eurostat). The advertising sector is characterized by a strong geographical concentration. In Spain, Madrid Region is one of the most important centers for the advertising sector comprising 37,9% of the existing advertising companies of Spain. Moreover, 8 of the 10 main advertising agencies at international level are located in Madrid. Equally, 97.3% of investments come from the 30 largest advertising sector agencies, all of them disposing of an office in Madrid. Relevant stakeholders of the advertising sector are united by Madrid Graphics and Communication Cluster.

Together with universities, public authorities and entrepreneurs, these stakeholders regularly participate in sectoral and inter-sectoral networking activities organised by Madrid Graphics and Communication Cluster together with related Clusters of Madrid region (such as Madrid ICT Audiovisual cluster) in order to promote the emergence of possible spill-overs and cross fertilization.

In the advertising sector, expenditures tend to rapidly decrease when the economic climate is not favourable and to increase faster than the economy in general when an up come is foreseen. In times of the economic crisis, innovation and support to businesses and entrepreneurs is needed to boost competitiveness. Creativity and Innovation are key drivers for competitiveness and are most likely to happen at the borderlines of related sectors (e.g. between the sectors of advertising, books& press and audiovisual).

PHOTOGRAPHY & FASHION Sector

Fashion:

2 types of users/beneficiaries will be investigated in the proposal:

potential entrepreneurs, start up and/or spin-offs with particular attention to creatives interested
in the development of innovative service on fashion based on digital media (online specialized
search database, ontological repositories, portal and networks for the promotion and
dissemination of fashion products and services);

potential public or private stakeholders interested to the project objectives such as Ministries and
relevant government agencies (ministry of Economic Development, regional departments of
Economic Developments, local Chambers of Commerce, Fashion Associations, Universities and
their Faculties with specific courses on the fashion sector, fashion schools and/or training centers).

The fashion sector has a relevant and wide tradition in the use of media for their activities. The use of media, traditional, digital and social, is usually related to the business, promotion, marketing and communication activities.

The **photography** market sector has also a relevant role in the use of media and creativity fields. Characterized by a diverse provider base, the commercial photography industry is expanding due to digital technologies. After suffering drastic declines during the economic downturn, commercial photographers are seeing a rising market. The industry is large and highly fragmented with a mix individual free-lance photographers and larger service firms. Commercial photography has undergone major transformation with the advent of digital photo technology. With the time and cost savings digital technologies allow, photography companies can focus on business development and exploring new online revenue streams. Current stock photography and royalty free are the 2 most common solutions to generate considerable business in the field. In the field of photography, there are 2 types of users/beneficiaries:

- Students, professors, teachers, the e-learning and education sectors, including historians, researchers, archivists, galleries, state institutions, museum and art lovers (this is referred mostly to non-profit and non commercial usage).
- Desk top publishers, photographers, graphic and web designers, editors, commercial companies, architects, interior decorators, journalists, press, content providers (this is referred mostly to fullprofit and commercial/private content suppliers/users).

BOOK & PRESS Sector

On a general basis, the book&press market is intrinsically international, strictly bound to the copyrights and to translation. The most vibrant and growing market is e-publishing, where online sales overturnes the traditional ones. State funded bodies as well as international publishers associations play a relevant role in the promotion process, though there is a kind of competition/cooperation relationship between the two parties (ie between cultural and commercial objectives), thus decreasing the penetration into the global market.

The market comprise 219K publishing enterprises, employ 1,8 MLN people, 1,4% non-financial workforce in Europe, European Writer's Council: 60 European associations 140K individual authors, from 34 countries in 40 languages; OPA (online publisher's association) of Europe more than 100 organizations, and 5 partner associations, e.g. UK OPA, US OPA, and three more ... a bit more than 12K students in humanities in 2010 through Europe.

In the field of books&press, 2 are the types of users/beneficiaries:

 Students e.g. in the disciplines of journalism, history and literature - having linking to digitised books and press as source material. The potential entrepreneurs, start up and/or spin-offs with particular attention to creatives interested in the development of innovative digital services to

- either businesses and/or to the general public, genealogists or interest groups (motor enthusiasts, railroad enthusiasts etc.);
- potential public or private stakeholders interested in the project objectives such as relevant
 government agencies, organisations or companies in the publishing sector (the governmental
 programmes for improving the business and entrepreneurship in the creative sector, Universities
 and their Faculties for journalism, history and literature, as well as language technology, training
 centers, publishing houses, copyright organisations, publishing joint organisations, organisations
 for agents in the CCI sector, free lance journalists, libraries, archives and museums etc.).
- [1] http://www.w3.org/WAI/WCAG2AA-Conformance
- [2] http://www.w3.org/TR/WCAG20/

References.

- Radin, Beryl A., and Louise K. Comfort. "Management and Culture in an Enlarged European Commission: From Diversity to Unity?." (2013)
- · Alvesson, Mats. Understanding organizational culture. Sage, 2012
- Dill, David D. "The management of academic culture revisited: integrating universities in an entrepreneurial age." Managing Reform in Universities: The Dynamics of Culture, Identity and Organisational Change (2012): 222
- Del Giudice, Manlio, Elias G. Carayannis, and Maria Rosaria Della Peruta. "Culture and Cooperative Strategies: Knowledge Management Perspectives." Cross-Cultural Knowledge Management. Springer New York, 2012. 49-62
- Henderson, Amanda, et al. "Impact of engaging middle management in practice interventions on staff support and learning culture: a quasi-experimental design." Journal of nursing management (2013)
- Auernhammer, Jan M., and Hazel Hall. "Organisational culture in knowledge creation, creativity and innovation: towards the Freiraum model." Journal of Information Science (2013): 1-14
- Brunetto, Yvonne, Matthew Xerri, and Silvia Nelson. "Building a proactive, engagement culture in asset management organizations." Journal of Management in Engineering (2013)
- Barile, Sergio, and Marialuisa Saviano. "Dalla Gestione del Patrimonio di Beni Culturali al Governo del Sistema dei Beni Culturali (From the Management of Cultural Heritage to the Governance of Cultural Heritage System)." Golinelli, GM,(a cura di), Patrimonio culturale e creazione di valore, Verso nuovi percorsi, Cedam, Padova (2012): 97-148
- Rizzo, Ilde, and Anna Mignosa, eds. Handbook on the Economics of Cultural Heritage. Edward Elgar Publishing, 2013
- Zimmer, Jessica. "Cultural Heritage Management: A Global Perspective (Messenger and Smith, eds.)." Museum Anthropology Review 6.2 (2012): 108-110
- Rodzi, Nur Izzati Mohd, Saniah Ahmad Zaki, and Syed Mohd Hassan Syed Subli. "Between Tourism and Intangible Cultural Heritage." Procedia-Social and Behavioral Sciences 85 (2013): 411-420

- Lai, Junyong, Jing Luo, and Mu Zhang. "Design and Realization of the Intangible Cultural Heritage Information Management System Based on Web Map Service." Advances in Information Technology and Industry Applications. Springer Berlin Heidelberg, 2012. 605-612
- Lindqvist, Katja. "Effects of Public Sector Reforms on the Management of Cultural Organizations in Europe." International Studies of Management and Organization 42.2 (2012): 9-28
- Zhou, Mingquan, Guohua Geng, and Zhongke Wu. Digital preservation technology for cultural heritage. Springer, 2012
- Dai, Minli, et al. "Research on the Knowledge Character and Classification of Intangible Cultural Heritage." Advanced Science Letters 5.1 (2012): 367-370
- da Silva, Ana Claudia Costa, Tatiana Aires Tavares, and Valeria Goncalves Soares. "Management of intagible cultural heritage in digital media using pamin." Multimedia and Expo Workshops (ICMEW), 2013 IEEE International Conference on. IEEE, 2013
- Petrelli, Daniela, et al. "Integrating material and digital: a new way for cultural heritage." interactions 20.4 (2013): 58-63