



Europeana Space – Spaces of possibility for the creative reuse of Europeana’s content

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1 EXECUTIVE SUMMARY

This document is the second release of the Europeana Space Sustainability Plan. Its aim is to identify strategies that guarantee the maintenance of the project's knowledge, outputs and services beyond the end of the EC funding period. Through this Plan, project partners wish to foster the enlargement of the E-Space Best Practice Network and to support the replication of the best practice methods developed.

During the course of the E-Space project the following outputs, services, and structures are considered to be worth maintaining and exploiting:

- E-Space Portal as a tool for engagement with digital cultural heritage;
- E-Space Website and blog as a central hub to E-Space outcomes and services;
- IPR resources;
- Innovation Space knowledge base and process;
- E-Space hackathons concept
- Educational Resources (MOOC and Demonstrators)
- E-Space Pilots products;
- Incubated Projects;
- Pop-Up Museum;
- Best-practices and Lessons Learnt.

The sustainability of the E-Space project's outcomes and services is based largely on the commitment and endeavour of the partners, who have a direct interest in exploiting the work undertaken during the project. In some cases, a business plan has already been developed, e.g. for the Pilots and for the incubated projects in the framework of their incubation period, as well as for the E-Space Portal where a business model canvas was also drafted and is presented in this document.

In addition to this, a Memorandum of Understanding (MoU) was distributed during the final phase of the E-Space project among partners and stakeholders. The MoU for the E-Space initiative "E-Space: Where Culture meets Creativity" concerns the implementation of an informal partnership that aims to carry on the legacy of the Europeana Space project beyond the end of the EC Grant. Parties to this MoU declare their common intention to participate in the partnership by:

- Maintaining the E-Space knowledge base and networks;
- Realising E-Space branded events;
- Maintaining and enhancing the E-Space Portal;
- Planning business models for the E-Space Portal and hackathon.

Another objective of the MoU is to continue to monitor the impact of E-Space and to assess the relevance and sustainability of the partnership for a period of 18 months from the end of the E-Space project (1 February 2017 to 31 July 2018). After this period, it can be renewed upon agreement of the parties or alternatively, other forms of association can be implemented.

The MoU is not solely aimed at E-Space partners, as other interested organisations and individuals from the wider project networks are also invited to sign up for and benefit from further collaboration.

The Sustainability Plan n°2 derives from an iterative process: in year 3 of the E-Space project a Sustainability Task Force was established that discussed strategies and plans on a regular basis and developed a roadmap for sustaining E-Space outcomes, best-practices, and networks. Moreover, all project partners were invited to reflect upon the assessment of project's outputs on a national/ regional/ local level, as well as to identify target groups and markets for these services and products. In the final phase of the project, a qualitative questionnaire about the individual exploitation of E-Space outputs was sent to project partners. Apart from looking at possible sustainability strategies from an inside perspective, opinions and views were also taken into consideration from users/target groups/ stakeholders in order to adapt the sustainability of E-Space outputs to their needs. In this way, the sustainability strategy of E-Space rests upon five strong pillars that are:

- Project partner commitment (MoU);
- Knowledge of target groups and markets;
- Established networks;
- Use case scenarios;
- Business and exploitation plans.

In the process of development of the plan, Europeana Foundation was also involved for maintaining the cooperation and Europeana's participation to E-Space activities.

This deliverable reflects on the work undertaken within the E-Space project; both at the impact of the work undertaken and also how it, and the lessons that have arisen from it, can be sustained in the future.

2 INTRODUCTION

In our fast-paced, fast-changing society it has become more and more important to save strong values and positive results from oblivion. A well-thought-out sustainability plan that is based upon a strong fundament of commitment, knowledge of target audiences, and markets, as well as potential use-case scenarios and business strategies, is an effective instrument to secure created tangible and intangible value.

The E-Space Sustainability Plan n°2 describes the pillars of a roadmap for the maintenance, of project outcomes and aims to enlarge, exploit and replicate the best-practices and networks developed by the E-Space project consortium across European. It is related to Task 6.8 - *Impact, assessment and sustainability* - and draws useful data from the experience and the assessment of the various activities that E-Space carried out during the lifetime of the project.

The following audiences and markets of international, national, regional and local level were identified as being key users of E-Space outputs and services:

- the wider educational sector;
- creative industries;
- tourism;
- GLAMs;
- small- and medium-sized enterprises;
- Europeana ecosystem projects;
- citizens.

These audiences build upon the core target groups first identified within D6.1 - *Communication, dissemination plan and stakeholder building strategy and dissemination material* - during the opening months of the project.

E-Space outcomes and services are designed to be impactful on two levels. On the one hand E-Space makes tools, prototypes and best-practice guidelines freely available to users/citizens worldwide, on the other hand E-Space also offers teaching and learning material for different needs and target markets, as well as an extensive library full of useful knowledge and know-how. Users are free to access, reuse and experiment with all the tools and ideas offered via the E-Space website, the E-Space MOOC, the Innovation Space and the E-Space Portal. The E-Space network offers an additional supportive system that can help to foster and boost learning and creativity even further so that like-minded people can engage, share ideas and concepts, develop new products for education, edutainment, tourism and leisure with the final aim to create new business opportunities.

All strategies presented in D6.6 are laid out to be achievable with a minimum of financial effort and labour input. E-Space tools and services were designed from their inception to be easily maintained with little commitment.

For some of the outcomes, a relevant partner is committed to its sustainability. This is the case of specific outputs such as the Pilots, Demonstrators and the 7 incubated projects. Other project outputs are identified for a joint action where a group of willing partners continue working together. Thus, tasks and responsibilities have been taken voluntarily, and are allocated amongst partners as follows:

E-Space product / service	Project partner
E-Space Website and blog	Promoter with the help of willing partners
E-Space Portal	NTUA Promoter and KU Leuven for the Photography/Photoconsortium space Dance Pilot team for the Dance Gateway
Pilots and Educational Demonstrators	The relevant partner or group of partners involved during the project
MOOC	KU Leuven
IPR Toolkit	COVUNI IP team
Innovation Space	NISV and Remix
Pop-Up Museum	Noterik and NISV for technology Relevant partner for each of the exhibitions

Particularly of note is the Pop-Up Museum. This was initially referred to as a “Super Pilot”: a development fostered by the Technical Reviewers’ recommendation to integrate the knowledge and expertise from the original Pilots with the objective of a non-sectorial demonstration of possibilities for reusing digital cultural heritage. As this activity was not foreseen by the DoW, it was necessary to move resources and provide reallocation of tasks among partners. The result was very successful and this application was appreciated and welcomed by partners and interested stakeholders. Details of the Pop-Up Museum are also provided in the dissemination report D6.4 - *Communication, dissemination and network enlargement report No. 3*.

A Memorandum of Understanding was signed on a voluntary basis by most of the project’s partners to formalise their willingness to cooperate, for a period of at least 18 months. The MoU establishes the fundament for the maintenance and enhancement of E-Space outputs and structures, and particularly focuses on the development of E-Space Portal and on the realisation of new hackathons and E-Space branded events. Throughout the period, the partners will evaluate the progress and development of the MoU activities and assess their impact for evaluating future steps. When the 18 months’ end, partners will decide whether to renew the agreement or to move to another form of network (e.g. establishment of a new association, or joining an existing one) or, unlikely and certainly undesirably at this stage, to pass to other activities.

The general methodology based on D6.5 (the first iteration of this report), T6.8 (the associated Task), D4.4 – D4.9 (the Outcomes of each Pilot) and the considerations of the project's Sustainability Task Force includes:

Step 1: Evaluation of impact (outputs, services, tools, prototypes)

Step 2: Use-case analysis (perception of outputs)

Step 3: Lessons learnt for future projects

Step 4: Sustainability scenarios for future exploitation

Step 5: Additional outcomes and ideas

2.1 BACKGROUND

Initial discussions have taken place since the early stages of the project for the analysis of the most important outputs and outcomes of E-Space and the subsequent benefits E-Space could provide to stakeholders. This preliminary analysis, captured also via an evaluation questionnaire that was submitted to the partners in July 2015, is a direct reflection of the benefits that E-Space would bring to the project participants and the impact that was expected on their own activity.

Along the course of the project, unexpected and exciting developments enabled partners to add to their work, as expressed by the DoW, and new outcomes and new opportunities came to light. In particular, the work on the Technical Space produced an online platform, easy to access and work with, but based on a complex and multifaceted architecture, that immediately attracted attention from other projects, thus becoming a real portal to the reuse of digital cultural heritage.

As explained above, an extra Pilot was created following the recommendations of the 2016 Technical Review, which became the flagship example of integration and access to different kinds of digital cultural heritage in an engaging way. This tool, the Pop-Up Museum, was presented for the first time at the project's 3rd International Conference in Berlin (November 2016), and immediately showed its potential to reach different audiences.

2.2 ROLE OF THIS DELIVERABLE IN THE PROJECT

This document presents the final plan for the sustainability of E-Space outcomes, platforms and services.

It is a well-considered strategy that aims at:

- 1) forming a partnership of the common intention to sustain E-Space outcomes for at least 18 months after the EC funding period, via the establishment of a Memorandum of Understanding (MoU)
- 2) providing a sustainable plan and exploitation strategy for:
 - maintaining E-Space network including its relations to the Europeana ecosystem;
 - leveraging on services and products created in the frame of the Pilots;
 - maintaining E-Space educational outputs (demonstrators, learning and teaching materials);
 - maintaining, enlarging and disseminating E-Space Portal and Pop-Up Museum
 - developing and implementing further the E-Space hackathon concept

→ sharing best-practices guidelines, publications and material on IPR and knowledge developed during the innovation process.

This deliverable is also the basis for maintaining a close collaboration with the Europeana ecosystem in the light of sustainable and integrated continuation of the E-Space network and services.

2.3 APPROACH

As explained above, discussions and strategic planning on sustainability have taken place since year 1 of the project. Developing tools and prototypes that are sustainable to a certain level was always a main objective of E-Space. Partners' opinions, as well as reactions of users and testers, were gathered and evaluated throughout the project in order to, not only adapt and improve E-Space services, but also to outline tailored strategies for each service and product. At the final stage of the E-Space project, partners were again interviewed on lessons learnt, exploitation scenarios and benefits. E-Space external events and business workshops were used to collect personal viewpoints and opinions of users and testers. Such feedback, and a specific investigation of the impact the project had to relevant stakeholders, were also used in this deliverable to underline the likeability of the success of the specific outcomes after the end of the funding period. The Sustainability Task force formed in year 2 and particularly active in the final year brought together all these considerations and findings into one Sustainability Plan.

2.4 STRUCTURE OF THE DOCUMENT

Following this introduction and an overview on the development of the sustainability strategy (chapter 2 and 3) the Deliverable 6.6 is composed of two main sections that focus 1) on the outcomes of the E-Space project, sustainability strategies, and individual exploitation plans (chapter 4 and 5); and 2) on future prospects, including E-Space hackathon events, E-Space branded events, the IPR toolkit, the E-Space Portal, and cooperation with Europeana (chapter 6). Additionally, this document contains a chapter about the MoU (chapter 7); best-practices and their expected impact, lessons learnt from the E-Space project and an extensive analysis for impact assessment follow on chapter 8 and 9, and a conclusion closes the document (chapter 10).

3 A SUSTAINABILITY ROADMAP WITHIN E-SPACE

3.1 Sustainability Plan No. 1

The Sustainability Plan no. 1, corresponding to deliverable 6.5, was issued in Month 18 (July 2015) of the Europeana Space project. This document was an initial analysis for identifying potential strategies that guarantee the maintenance of the project's knowledge, outputs, and services beyond the end of the EC funding period. At an early stage of the project, consortium members were constantly encouraged to think about possible sustainability concepts for the tools, products, and services they were developing. In year 2 of the Europeana Space project a sustainability roadmap was drafted. In D6.5, not only a methodology for impact assessment and sustainability was outlined, but also a quantitative analysis was undertaken to identify products and services worth boosting and sustaining.

Based on the questionnaire developed for the Sustainability Plan no.1 that was sent to project partners in order to collect data, a second qualitative questionnaire was created. Instead of asking partners to rank E-Space tools and services according to the likeliness they would use these tools, the second questionnaire asks for individual sustainability scenarios. D6.5 identified key tasks and activities highly relevant for the final year of the project. The following points are of particular significance:

- development of better mechanisms to assess the evaluation of E-Space outcomes;
- finding a dedicated space for sustainability discussions;
- enhanced liaison with the Europeana Foundation to explore common strategies and synergies.

In D6.5, it was stressed that the discussion in the final phase of the E-Space project should focus on the following topics:

- better assessment/definition of the outputs of the project that are considered worth sustaining;
- discussion on the user interface of E-Space Portal as a single access point to E-Space services and outcomes;
- identification of markets and target groups;
- identification of business models for the Pilots individually and for the project in general;
- identification of sustainability models to maintain the Best Practice Network of E-Space and to enlarge it for the replication of E-Space process.

In the second half of the E-Space project additional services, tools, and products were selected as being worth sustaining and enhancing after the end of the EC funding period.

M1-18: E-Space services, tools, and products identified as being worth sustaining
The E-Space network
Pilots
Educational Demonstrators

Hackathons
Incubated projects
IPR materials
E-Space library and knowledge base
Technical platform
M19 - 36: Additional E-Space services, tools, and products identified as being worth sustaining
E-Space website
MOOC
Pop-Up-Museum
Best-Practices and Lessons Learnt, e.g. guide documents and booklets

D6.6 will provide a detailed overview of all the actions implemented to fulfil the assigned tasks of D6.5 and present new strategies outlined for the sustainability of E-Space outcomes for a period of at least 18 month.

3.2 PROGRESS OF DISCUSSIONS DURING THE LAST YEAR OF THE PROJECT

A Sustainability Task Force was formed in order to address and tackle tasks related to the project's sustainability. Skype calls, emails, General Assembly meetings (Tallinn, Brussels and Berlin), and meetings (Venice and Coventry) were used intensively to exchange ideas on how to implement strategies outlined in D6.5.

Therefore, in Month 27 (April 2016) a Sustainability position paper was drafted and circulated among project partners. This paper was designed to give consortium partners an overview of all the measures and actions planned in the final phase of the project in order to sustain the project's outcomes and structures accordingly.

The project consortium came to the following agreements (documented in the Sustainability position paper) that they would:

- review of the work undertaken on sustainability planning during the lifetime of the project;
- analyse issues related to the maintenance and availability of products and outcomes generated by the project;
- maintain platforms and websites that serve as hubs to E-Space knowledge and tools;
- update of the Content Space with IP products provided by network partners;
- maintain and enhance the E-Space Portal (Technical Space): the sustainability and development of the E-Space Portal is of central importance to project partner NTUA and the basis for several EU co-funded projects that have built their own collections;

- develop individual exploitation strategies for E-Space products, tools, and services on the basis of a qualitative questionnaire circulated among project partners;
- implement specific sustainability concepts developed by the E-Space Pilots on the basis of research and interviews conducted by the Pilots' teams;
- compile lessons learnt from the experiences in the E-Space project and formulate best-practice guidelines;
- secure E-Space networks of followers and affiliates;
- reconceptualise the E-Space hackathon approach in a replicable format (branding, funding and networking);
- identify possibilities of organising E-Space hackathons in 2017;
- identify possibilities of organising E-Space-branded events;
- identify possibilities of organising E-Space networking events.

During these discussions, it became obvious that certain strategies from D6.5 needed to be modified or amended. What is more, especially in year 3 of the project, new products, tools, and services were developed or finalised that asked for a refined sustainability strategy. Particularly the Coventry meeting (September 2016) was used to analyse the developments of the Technical Space and the Pop-Up Museum, to analyse their potential and market scenarios, and to outline the next steps for promoting the two.

In the following chapter, the project's main outcomes are described. This will be useful to give context to the relevant chapter 5, presenting the results of the sustainability questionnaires and analysis of individual exploitation plans of the partners. An overview of the project outcomes is also useful for chapter 6, illustrating the future prospects of E-Space partners in the framework of the MoU and their commitment to continue working together.

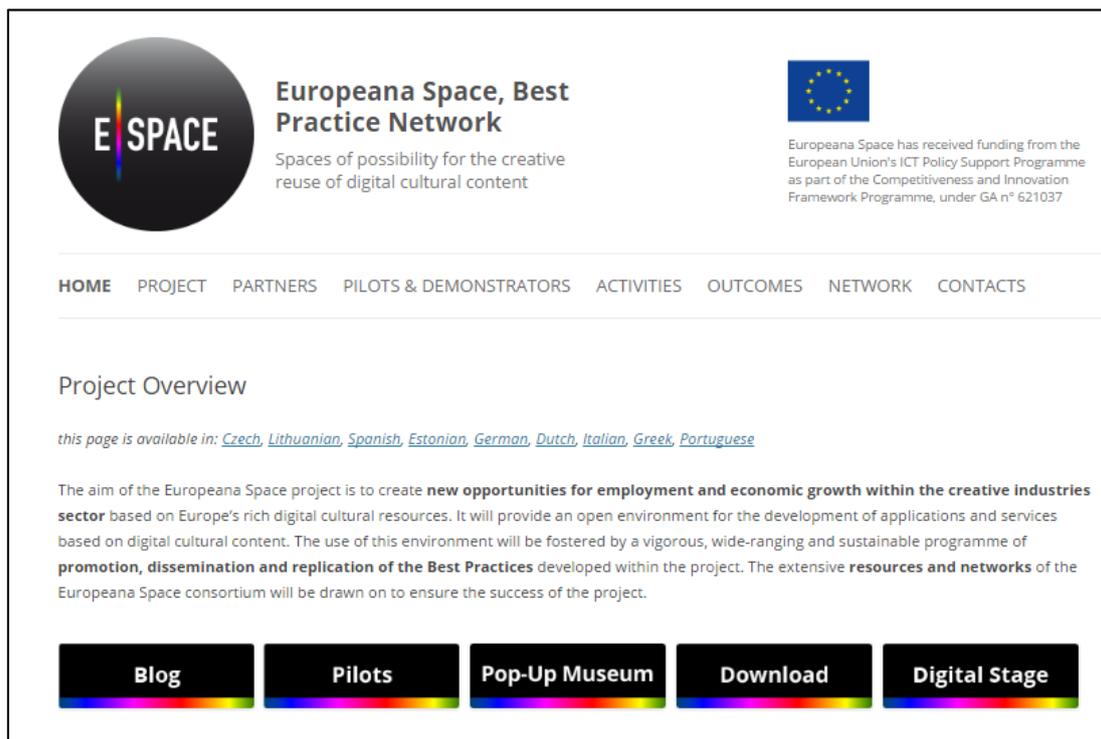
4 OUTCOMES OF THE PROJECT

4.1 E-SPACE ONLINE PLATFORM: WEBSITE AND BLOG

The project website is a large and varied online resource, which collects all the knowledge of the project. It includes different sub-sites, which relate to specific themes (e.g. education, hackathons and the project blog..) and of course it hosts downloadable materials such as the deliverables, factsheets, and the dissemination tools. All of the areas of the project have their section: the Pilots, the IPR work and resources, the market analysis, the Technical Space (now E-Space Portal), the incubated projects and the events etc.

The project blog is hosted in the online magazine digitalmeetsculture.net, which serves to expose the project information and news/events to a wider public, thus redirecting traffic to the project website. The blog will be useful also in the future, to showcase the activities undertaken by the partners and the group in the framework of the Memorandum of Understanding.

All of this wealth of information will be maintained beyond the end of the project, although a reorganisation of the content may take place in order to make it more easily retrievable from external users. The content will also be integrated onto the E-Space Portal.



The screenshot shows the Europeana Space website. At the top left is the E-SPACE logo. To its right is the text "Europeana Space, Best Practice Network" and "Spaces of possibility for the creative reuse of digital cultural content". On the top right is the European Union flag and a text box stating: "Europeana Space has received funding from the European Union's ICT Policy Support Programme as part of the Competitiveness and Innovation Framework Programme, under GA n° 621037". Below this is a navigation menu with links: HOME, PROJECT, PARTNERS, PILOTS & DEMONSTRATORS, ACTIVITIES, OUTCOMES, NETWORK, CONTACTS. The main content area is titled "Project Overview" and includes a link: "this page is available in: [Czech](#), [Lithuanian](#), [Spanish](#), [Estonian](#), [German](#), [Dutch](#), [Italian](#), [Greek](#), [Portuguese](#)". Below this is a paragraph: "The aim of the Europeana Space project is to create **new opportunities for employment and economic growth within the creative industries sector** based on Europe's rich digital cultural resources. It will provide an open environment for the development of applications and services based on digital cultural content. The use of this environment will be fostered by a vigorous, wide-ranging and sustainable programme of **promotion, dissemination and replication of the Best Practices** developed within the project. The extensive **resources and networks** of the Europeana Space consortium will be drawn on to ensure the success of the project." At the bottom are five buttons: Blog, Pilots, Pop-Up Museum, Download, and Digital Stage, each with a rainbow-colored underline.

www.europeana-space.eu

4.2 LIBRARY AND KNOWLEDGE OF THE INNOVATION SPACE

The main outcomes of the Innovation Space, i.e. the E-Space activity undertaken to engage creative individuals and organisations in reusing digital cultural heritage, with a business-oriented approach, are the following:

- the market analysis in 6 sectors which supports business planning
- the process of hackathons and Business Modelling Workshops to select innovative ideas with a market potential
- the experience of the 7 incubated projects which are have a clearly defined vision and are approaching the real market

The complete market analysis, which has a chapter relating to each of the 6 thematic Pilot areas, is contained in the project website and openly accessible for consultation. It is a valuable resource which has been utilised on a number of occasions, most recently for the development of the business plan for the Europeana Photography Collection in the framework of the DS12 project.

The process of hackathons and Business Modelling Workshops proved to be extremely valuable in selecting people and projects which have potential to be successful with a business start-up. As explained above, the E-Space hackathons are not very typical “all coding and nerd” events as may have been perceived, but instead offered participants the opportunity to create synergies around certain ideas, and then progress with concept development, knowledge-sharing and business modelling, to define a marketable product which will reuse digital cultural heritage. As the hackathons were so successful, they are an important part of the Memorandum of Understanding, with partners willing to organise other “E-Space branded” events in the future. Partners have been excited about the potential and results of hackathons that a number have integrated them into their own organisational planning.

From the 6 hackathons of E-Space and subsequent Business Modelling Workshops, 7 projects were selected to receive Incubation support. Relevant deliverables (D5.2 – *Hackathons Report*, 5.3 – *Monetisation Workshops* and 5.5 – *Enterprise Development Report*) contain details on the process, and therefore, only a brief summary is provided here. Partner Remix coordinated this activity and helped each team to shape their business development plan. The development of each team is at a different stage, with some more advanced than others.

- NOUS: the prototype captures brainwaves and processes the data in a Machine Learning environment. The result is the emotional state of the user. The future product will be an API with a simple interface which reports the state of the user emotion and can also be combined with a Virtual Reality device for a total immersive experience.
- Vivil.io: the scope is to reinvent and rediscover the classics of literature: by creating the best digital edition available; by offering them a cosy online home that combines a clean and seamless reading experience with unique contextual information; by putting together fine and well-crafted print editions, with attractive new covers and outstanding typography.
- StoryPix: the technology is designed for showing artworks on billboards or on large outdoor screens that are becoming more available in beautiful, high quality resolution. It allows art institutions to present their collections in a meaningful way in large public spaces, on large screens that shows the artwork and can be

controlled by anyone with a smartphone, for getting detailed information and audio messages.

- Picasso's Cat: this project combines people's devotion to cats into an educational game about art that takes few minutes to play, fun, visual and entertaining, allowing users to learn about art history and famous paintings.
- WeMakeKnown: the semantic search engine which provides easy and inspiring access to digitised archives; both an interface for users to explore archives beyond their existing knowledge in an intuitive and fun way, and a service for the archive holders enabling promotion, analysis and optimisation of their archives with little effort, cost or technical know-how.
- PostArt: a web curated gallery store offers users the chance to send high-end art images to anyone that they want to in the form of a postcard. It offers an easy and nicely designed way for creating a unique postcard, and the service is also addressed to art galleries, museums and other content holders for staying in touch with their audience in a new and engaging way.
- Nora: a new publication that presents cultural heritage in the language of a young urban female. This new form of presenting heritage and culture allows museums and archives to engage and converse with audiences that otherwise wouldn't set foot near their institute.

All the knowledge from the Innovation Space will be maintained on the project website.

The E-Space hackathon concept will be further explored and implemented in the framework of the MoU (cfr). Par. 6.1).

The 7 incubated projects will maintain an informal relationship with partner Remix, but will take responsibility for implementing their business plans, which were developed during their period of E-Space incubation support.

4.3 E-SPACE AND IP

The so-called "Content Space" contains copyright tools developed by the E-Space IPR Team: information about licensing, rights labelling, guidelines for identification of reusable content, and legal advice and tools for the lawful re-use of digital content.

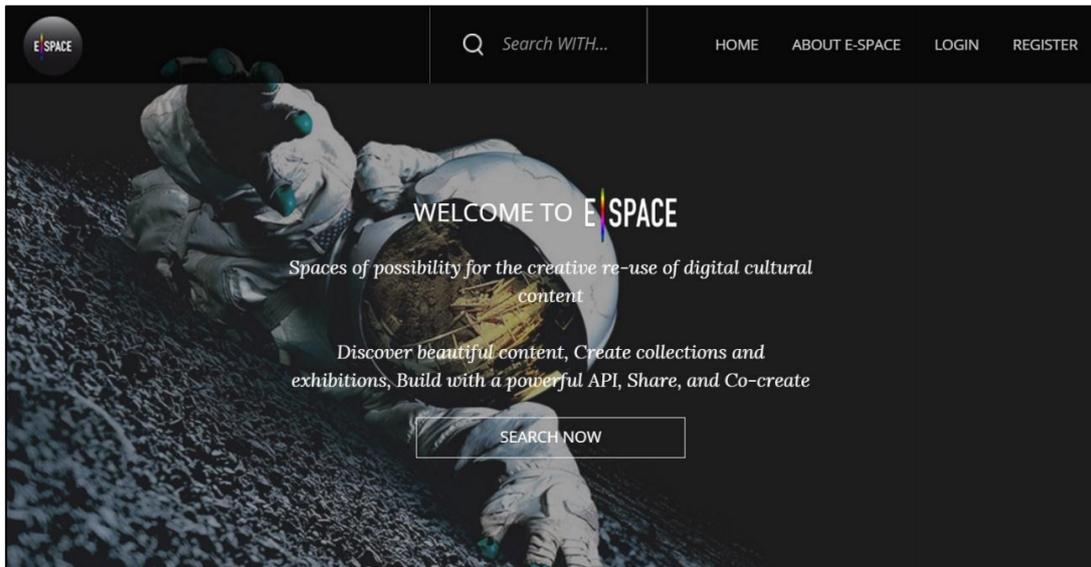
The tools were developed by January 2015, then trialled with the E-Space scenarios and hackathons, refined and released under open source and open access licences. The tools include rights management, clearance and licensing guidelines, IP strategies for hackathons, guidelines on the sourcing and reuse of open and proprietary content and links to Internet resources. They enable users to form optimal strategies that maximize possibilities for innovation and minimise risks of failure at the business modelling stage due to disputes over ownership, or shortfalls in the funding necessary to clear rights in the tools and content required for a prototype.

It is a wealth of very useful material, offered to users in a very digestible form: factsheets, case studies, a tutorial video and a web platform to gather knowledge about, and access, open content. The IP knowledge of the project also constitutes a module of the E-Space MOOC, perhaps extendable in a self-standing new MOOC.

All the knowledge of the Content Space will be maintained in the project website and shared to other networks (also with support from Europeana, cfr. par 6.4).

4.4 THE E-SPACE PORTAL (TECHNICAL SPACE)

The E-Space Portal, previously known as Technical Space, provides services for content aggregation, management, interoperability, visualisation, publication and reuse. The platform streamlines existing workflows and introduces creative new uses for digital cultural heritage.



www.espaceportal.eu

For Aggregators, it uses the metadata interoperability platform MINT that fully implements workflows for the ingestion, formal mapping, and transformation of metadata records. Services include validation, quality checking, data cleaning & normalisation, and previews, while the platform can implement a variety of publication approaches (such as OAI-PMH, SPARQL endpoint, and REST API) for the resulting repository.

For Content Holders, it offers an easy to use content & metadata repository and management system that can ensure interoperability with standards, best practices and aggregator guidelines. The platform includes a customisable Portal for the visualisation of digital collections, exhibitions and stories, while facilitating the public's access to content available for creative reuse.

Cultural Heritage Professionals are offered the tools to compose and contextualise eclectic collections, contributing to the promotion, improvement, and evolution of digital CH knowledge. The Creative Industry is using the platform as a back-end to build applications that reuse digital heritage.

The E-Space Portal is a great starting point for Users to discover cultural heritage resources that reside in distributed repositories. They can combine different sources with their own material, allowing them to offer new interesting narratives for the appreciation and communication of culture.

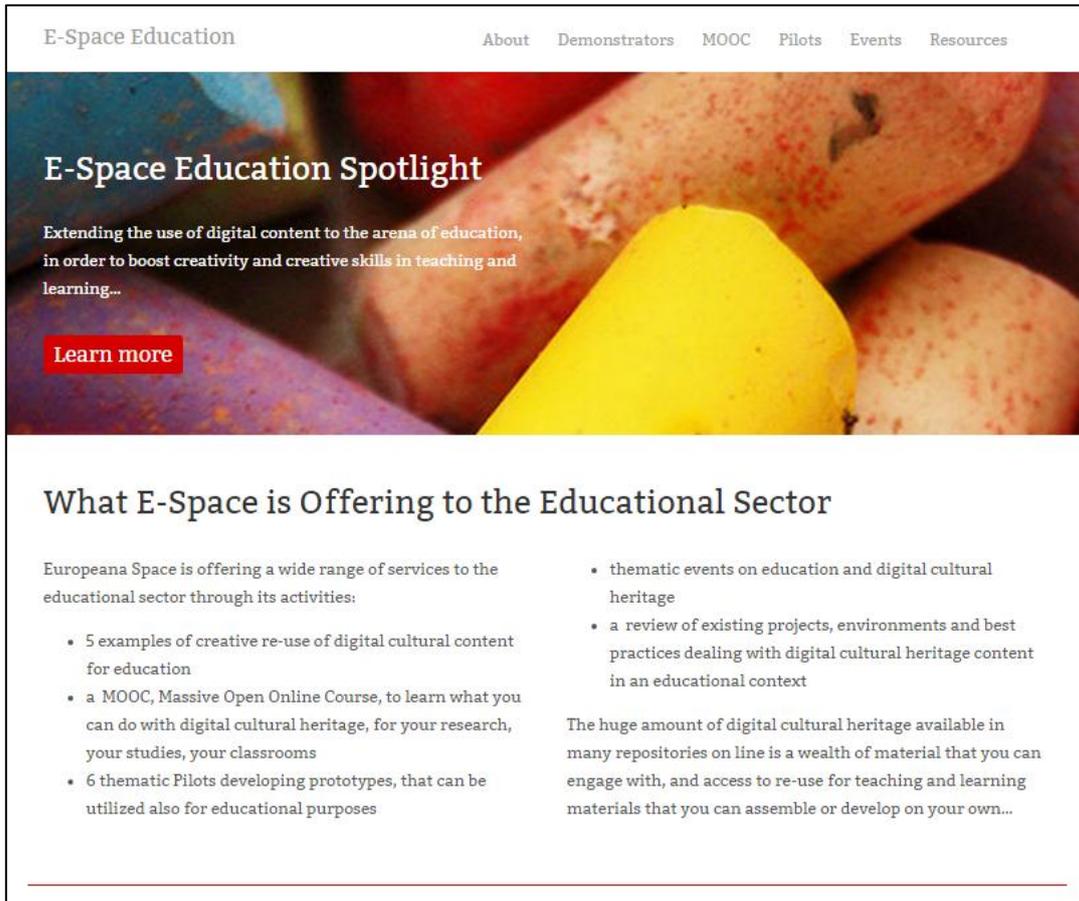
Several other EU projects have already started to use the E-Space Portal to showcase their collections and outcomes and to interact with the communities of their interest, such as Europeana Food&Drink, Europeana Sounds and EUScreen.

The backend technical infrastructure of the Portal will be maintained by partner NTUA.

A sustainability strategy and a business canvas for the E-Space Portal are provided in the dedicated par. 6.3). also, a dissemination basic plan that was presented in D6.4.

4.5 EDUCATIONAL RESOURCES

Out of the work completed by E-Space project in the sector of education, the major dedicated outcomes are the 5 Demonstrators and the MOOC. All the resources developed in this sector are available in the Education mini-website, which gives access to the Demonstrators, the MOOC and other resources such as the report of the education events held by the project and a relevant deliverable. In addition, each of the Pilots' products has potential application within the educational sector. All of this activity is further detailed within D5.6 – *Innovative access to content in education*. The mini-website will be kept online beyond the end of the project.



The screenshot shows the 'E-Space Education' website. At the top, there is a navigation menu with links for 'About', 'Demonstrators', 'MOOC', 'Pilots', 'Events', and 'Resources'. The main header features the text 'E-Space Education Spotlight' and a sub-header: 'Extending the use of digital content to the arena of education, in order to boost creativity and creative skills in teaching and learning...'. A red button labeled 'Learn more' is positioned below the sub-header. The background image shows hands holding colorful objects. Below the header, the section is titled 'What E-Space is Offering to the Educational Sector'. It lists services offered by Europeana Space, including examples of creative re-use of digital cultural content, a MOOC, and thematic Pilots. It also lists thematic events and a review of existing projects. A concluding paragraph states that the huge amount of digital cultural heritage available in many repositories is a wealth of material that can be engaged with and accessed for re-use for teaching and learning materials.

<http://www.europeana-space.eu/education/>

4.5.1 MOOC

Coordinated by KU Leuven, the MOOC has been a very successful aspect of the project with 983 enrolments and a high percentage of students who completed their chosen course. The course feeds into the experiences of the E-Space Pilots, (IP and Creative Marketing) and brings the results of their researches, analyses and test cases. The E-Space MOOC intends to lower barriers to the access and reuse of digitised cultural heritage content available via Europeana and similar sources, providing tutorials and trial versions of applications and tools alongside with reading materials and useful tips and best practices gathered during the course of the project.

The course is hosted at KU Leuven channel on the renowned EDX platform, and will be maintained as an archive for consultation for those users who enrolled.

The course will be repeated on an annual basis, including appropriate tutoring, quizzes and assignments. As KU Leuven is a relevant actor in the community of distance learning and online courses, it can act as a facilitator for other academic partners to join this community and for example expand the course with new or larger modules: for example, the module on IPR could be detailed further.

Due to its relevance, the IP module is also offered in a different format, so that it is continuously available: its content was extracted from the MOOC and transformed in an open access PDF, which will be available shortly on the E-Space website (Content Space and Education).

4.5.2: Educational Demonstrators

The 5 Educational Demonstrators will be maintained by the relevant partners, who are willing to utilise them in their channels.

The Rode Altarpiece is developed by EVK: using very high resolution digital images of the works of Herman Rode, the demonstrator combines visual and research information to take a closer look to the oeuvre and the techniques, making it possible to compare the painted layers and underdrawings, revealing differences between the original and the executed painting compositions.

The Irish Folktales demonstrator is developed by LGMA and aims to promote the richness of Ireland's storytelling tradition in an online educational context, particularly in primary schools.

Cavafy Poems is a digital application developed by partner OCC comprising multiple thematic layers, showcasing the work of seminal Greek poet C. P. Cavafy, and including digitised manuscripts along with audio and video recordings of said poems and audio-visual commentary by leading scholars.

Photography investigation of artworks is developed by imec and based on the high-resolution digitisation of an important Altarpiece in Ghent, available online. The demonstrator is an interactive presentation that simplifies the access to the Ghent Altarpiece website during e.g. a talk or a lecture, allowing navigation between the various views via the mouse click.

Finally, the demonstrator for **Archaeology in Cyprus** is developed by partner CUT and is a completed system of digital information, education and entertainment (edutainment) for adults, adolescents and teenagers concerning the most representative monuments and landmarks of Cyprus, reusing existing data from Europeana.

The Education mini-website will be kept online.

The MOOC will be maintained and the course will be repeated by partner KU Leuven.

The 5 Educational Demonstrators are maintained by the relevant partner.

4.6 PILOTS

4.6.1 Europeana TV

The E-Space TV Pilot exploited the opportunities of reusing Europeana and other digital cultural content in SmartTV applications to create new TV experiences. A technical framework provided an environment to analyse, personalise and present this content. The Pilot supported and evaluated two scenarios in which video material was brought out of the archive and onto the viewer's screen.

The broadcast scenario developed an HbbTV (Hybrid Broadcast Broadband TV) application based on the Berlin Wall. The SmartTV application, targeted a social community, and was based on archive videos about the building of the Berlin Wall in 1961 up to German reunification in 1990.

The local community scenario focused on applications such as the ReWind App for an immersive user experience in the living or class room. It investigated use cases such as the elderly re-living personal memories through TV content or pupils learning about historic events. The content included different themes such as: Arts and Culture, Education, Politics, Religion, Society, Sport and History.

Next to the work done for the scenarios, a Multiscreen Toolkit with tools, workshop methods and proof of concepts was developed by the Pilot, and made available on the occasion of the hackathon in April 2015.

The idea of prototypes and demonstrators developed in this Pilot is to allow an easy flow of elements into future versions of an application.

For instance, the 'Fall of the Berlin Wall' HbbTV app is a starting point for a 'white label' application which could be used for other content in a new thematic context.

The ReWind prototype permits that content provision can securely extend via flexible application frameworks, such as stand-alone, native, mirrored apps or TV apps, via a unified Content Management System.

The partners of this Pilot are committed to leverage further on the prototypes. Also, the Pop-Up Museum (cfr. par. 4.7) is a derivation of the Multiscreen Toolkit.

4.6.2 Photography

The E-Space Photography Pilot set out to demonstrate a range of possibilities offered by apps, Europeana APIs, and a multitude of tools developed by the open source community, to come up with innovative models involving historical and present-day photography, with monetising potential and investment appeal. The featured applications were grouped around three ideas:

- Museum applications providing access to Europeana and similar resources which can yield new types of visitor-experiences;
- Storytelling web applications and apps allowing for users to create new stories by mixing historical images from Europeana and other public sources with user-generated content;
- Augmented reality applications enabling historical images to be layered with actual experiences and other material, such as maps and social user data.

The work of the Photography Pilot will continue in the light of demonstrating how digital applications that reuse open photographic content support sustainable new revenue streams and citizen engagement, which are important for public institutions and their mission as well as for private content holders whose business model is IPR-based.

Collaboration with the Leuven City Archive, which was started by partner KU Leuven in the context of the Pilot, will continue.

Also, the collaboration with affiliate partner Photoconsortium, an association for the promotion and enhancement of the culture of photography and the photographic heritage, will be maintained.

A Photography “space”, branded with Photoconsortium and thus maintained via that network, was created in the E-Space Portal.

One exhibition created for the Pop-Up Museum was developed by the Photography Pilot with photographic content, and it is planned to showcase it at relevant events such as the Photoconsortium general assembly in May and at the launch of the upcoming Europeana Photography Channel under development at Europeana.

4.6.3 Dance

The E-Space Dance Pilot brought together Coventry University, IN2 and the Universidade Nova de Lisboa (FCSH-UNL). Its aim was to create a general framework for working with dance content and the metadata accessible through Europeana, and to enable the production of two innovative models of content re-use: one for research purposes and one for leisure. Two applications were developed based on this framework:

- DANCESPACES for leisure, teaching and learning; to share and explore dance content;
- DANCEPRO for professionals and dance researchers; for multi-modal annotation of dance in real time.

The content of the Pilot was drawn from the regional, national and private archival collections of partners and from Europeana. This content embraced contemporary dance, classical ballet and other theatrical dance forms, as well as social and popular dance, folk, national and indigenous dance forms.

Sustainability and further extension of the Pilot activity is based as much on the networks created through the Pilot and supported by clear and robust IPR, as the tools themselves.

The partners are strongly committed to leverage on the prototypes and continue investing on them: for DanceSpaces, IN2, as an SME, is commercially active and will drive the launch and development of the tool. For DancePro, the New University of Lisbon will drive and support its exploitation and distribution also beyond the academic community. Coventry University’s Dance team is strongly committed to disseminate tools and lessons learnt in the field of digital technologies applied to dance teaching and dance archival practices. At the Digital Dance Day held in Coventry in March 2016, interested stakeholders listed many potential uses for these tools, which the developers will continue to explore.

The use of Pop-Up Museum and related tools to support performance is also explored, and the Dance Pilot is creating a “Dance Gateway” within the E-Space Portal.

4.6.4 Games

The aim of the Games Pilot has been to develop three game demonstrators, which draw upon content from Europeana, in order to meet two key aims:

- 1) show game developers and businesses the potential for using digital cultural heritage content with a view to inspiring new products.
- 2) demonstrate how the gamification and participation with cultural heritage content can cultivate new forms of interaction for a wide range of audiences.

The Games Pilot produced three game demonstrators:

- a casual game; simple and aimed at a mass audience;
- a creative game, designed to let users play and remix content;
- an educational game, providing additional value behind the fun of game play.

Each type of game is designed to appeal to a different user group, but still with the overall objective of showcasing digitised cultural heritage content (from Europeana) in a fun way.

More than the demonstrators, it is important to guarantee sustainability and appropriate dissemination of the lessons that have been learned in the Pilot and its hackathon. The knowledge that has been gained regarding the potentials of gamification in cultural heritage contexts will be disseminated in research contexts, and each of the Game demonstrators will be showcased by COVUNI and the Serious Games Institute, and also in collaboration with the Dance Pilot.

4.6.5 Open & Hybrid Publishing

The E-Space OHP Pilot brought together Goldsmiths and Coventry University. Its aim was to explore the possibilities of developing and embracing different forms and modes of publishing at a time when the traditional publishing model is being challenged by different ways of reading on portable reading devices such as Kindle and iPad, the wide digitisation of cultural resources, and the increased ease and speed of their electronic distribution.

The model for open and hybrid publishing was presented via two key outcomes:

- “Photomediations: An Open Book”, a creative online experience of a traditional coffee-table book, available in printed version as well as online;
- PDF brochure ‘A Guide to Open and Hybrid Publishing’, to outline possibilities and offer technical and business advice on how to put the model into practice.

Around these two outcomes, a series of educational activities were organised, ranging from university classes to an online contest and exhibition, and the Hack the Book festival-cum-hackathon. Another outcome of the Pilot is a virtual and physical exhibition for which a creative contest was carried out in 2016. The exhibition premiered at E-Space Berlin conference in November 2016.

Photomediations: An Open Book is expected to stay online for many years after the end of the project: the web domain has been secured until 2019 and its simple html design allows for the website to be easily maintained. The Book was also incorporated, via a tab, into the Photomediations Machine online project curated by Prof. Zylinska; it will continue to be promoted beyond the duration of the E Space grant in teaching and open access events and conferences. As demonstrated in 2016, the CREATIVE REMIX JAM workshop kit is also available for distribution to other interested institutions.

4.6.6 Museums

The E-Space Museums Pilot set out to create ready-to-use solutions for content and exhibition curators, but also for end users, that maximise results leveraging on the archive of multimedia contents available in Europeana combined with web-based and mobile solutions.

Two distinct products are the result:

- The Toolbox, a web-based application dedicated to museum curators, for the design of brand new educational videos and promotional worksheets blending the museums/memorials contents with the heritage of Europeana.
- The Blinkster mobile app enriches the exhibitions with Europeana contents, due to features such as augmented reality, object recognition and geolocalisation, for visitors' education and entertainment experiences.

The two solutions developed in this Pilot were tested in a diversified international scenario of museums and memorials from Germany, Lithuania and Estonia.

Museumsmedien is the SME that has developed the Toolbox in the E-Space framework and will continue to use it as the basis for media productions and services for its customers (mainly museums and memorials). The Blinkster app is also a product of an SME (partner Eureva) who will continue to explore custom-based developments and partnerships with cultural institutions.

Also, a new exhibition with museal content is under preparation for the Pop-Up Museum and will be set up at various locations in Germany, Estonia and Lithuania.

4.7 POP-UP MUSEUM: AN INTEGRATED EXTRA PILOT

Following the Technical Reviewer's recommendation of exploring the possibilities of integrating various Pilots' outcomes and research into a cross-domain new application, the E-Space consortium considered the concept of a flexible, interactive solution for temporary virtual exhibitions, an idea that was already being considered in the project. The prototype was expanded to make use of the knowledge and tools from various partners involved in the Pilots (WP4).

The idea is to combine all expertise and available technologies and create an editor environment that is used to build several local demonstrators, and undertake a real-life evaluation in the exhibition spaces available at E-Space partners. The original concept of the Pop-Up Museum started within the TV Pilot where several multiscreen applications have been prototyped and tested. Furthermore, the Multiscreen Toolkit has been developed and iterated during the test hackathon out of which the Fall of the Berlin Wall demo application has resulted, and several hackathon concepts were worked on during the TV, Photography and Museums hackathons using this technology.

Dance, Photography and Museums Pilots participated to the development of several exhibitions, providing content and narratives, and a collaboration with Europeana Fashion was established to create a "Beauty and Fashion" exhibition.



Demonstration of the Pop-Up Museum

The Pop-Up Museum concept is about people walking into a room and using their own mobile phone to interact with an exhibition that is displayed on big screens inside the room. The possible interaction includes (1) content selection (what do you want to see), (2) navigation with a chosen theme/subject, (3) interaction with a specific art-work (4) answering more education / triggering questions in relation to the art-work.

The technology behind the Pop-Up Museum will make it easy to build an interactive exhibition that can be placed anywhere, designed to offer engaging digital cultural experiences to visitors at museums and art galleries, but also at locations such as waiting rooms, entrance halls, offices and classrooms.

A Pop-Up Museum transforms a small portion of space into an island dedicated to art and culture, that visitors or passers-by can enjoy by using their mobile phones or tablets to bring the screen or screens to life. The application is very low-cost, uses web-standards and requires hardware (a smart screen) that is often already at hand or can be easily adapted.

Further information on the Pop-Up Museum and its exhibitions is included in D6.4 – *Communication, Dissemination and Networking Report* - together with planned events for showcasing the tool and its exhibitions.

The development for a sustainability strategy of the Pop-Up Museum is in a very early stage, but the tool demonstrates to be a joint action endorsed by a strong commitment from many partners for development and promotion.

Technical partners are already investing much on the Pop-Up Museum technology to improve the tool and its flexibility; while other partners are doing the same by developing exhibitions about content of their interest or belonging to their archives.

A dissemination action is undertaken for promoting the Pop-Up Museum and for raising awareness of the tool to the target audience. A basic dissemination plan was drafted in the final period of the project. Partners and external stakeholders see great potential in the tool; its impact will be measured in the framework of the MoU.



Beauty and Fashion exhibition on show in the Sound and Vision hall (12-19 January 2017)

5 SUSTAINABILITY QUESTIONNAIRES

5.1 THE QUESTIONNAIRE

In December 2016, a short qualitative questionnaire on individual exploitation strategies and project benefits was distributed among the consortium members with the aim of gathering feedback and good-news stories that sprang from the E-Space project. This chapter summarises the information collected from the questionnaire.

The questionnaire was composed of 4 questions. The first one, organised in a table, wanted to understand how partners planned to exploit E-Space outcomes of their interest. The second one invited partners to confirm whether they plan to join the E-Space MoU, and to explain what they plan to do within the partnership. If a partner is not inclined to join, he/she is asked to provide a motivation. The third section wanted partners to provide a description of the benefits that they have gained from the E-Space project experience. Finally, question four asked partner to send any feedback quotations received from people who have interacted with the project, e.g. who tested or used a Pilot product/demonstrator or have participated in a hackathon, workshop or conference etc.

5.2 INDIVIDUAL EXPLOITATION PLANS OF E-SPACE OUTCOMES

In the first part of the sustainability and impact questionnaire partners were asked to identify those resources of E-Space that they are planning to exploit in the future. For each E-Space tool, service or output project members laid out a short strategy of how they plan to exploit and implement these resources.

Table 1 gives an overview on the resources each partner institution identified to exploit/use after the end of the EC funding period.

	TV Pilot	Photo Pilot	Dance Pilot	Games Pilot	OHP Pilot	Museums Pilot	MuPop
COVUNI			x	x	x		x
EVK						x	x
Goldsmiths					x		
Imec		x					x
IN2			x				

	TV Pilot	Photo Pilot	Dance Pilot	Games Pilot	OHP Pilot	Museums Pilot	MuPop
KU Leuven	X	x			x	x	x
LAM	X				x	x	x
LGMA				x	x		
LUCE	X						x
Museumsmedien						x	x
NISV	X						x
NOTERIK	X						x
NTUA	X						x
OCC	X				x		
PACKED			x			x	x
PostScriptum						x	x
Promoter		x					x
Proton Labs	X						
SPK						x	x
RBB	X						

	Website	IPR	Innovation Space	E-Space Portal	MOOC	EDU Demos	Incubated Projects
COVUNI	x	x	x	x	x		
EVK	x	x	x	x		x	x
Goldsmiths	x	x		x	x		
Imec	x	x	x			x	
IN2	x	x	x				
KU Leuven	x	x	x	x	x		
LAM	x	x	x	x	x	x	
LGMA	x		x	x	x	x	
LUCE	x			x	x		
Museums medien	x	x			x	x	
NISV	x	x	x	x	x	x	x
NOTERIK	x	x		x			
NTUA	x	x	x	x			x
OCC	x	x		x	x	x	x
PACKED	x	x					x
PostScriptum	x	x	x		x	x	
Promoter	x	x		x			

	Website	IPR	Innovation Space	E-Space Portal	MOOC	EDU Demos	Incubated Projects
Proton Labs	x	x	x	x			
SPK	x	x	x	x	x		
RBB			x				
REMIX		x	x				x

Table 1a: Exploitation of “general” project outcomes

	TV Pilot	Photo Pilot	Dance Pilot	Games Pilot	OHP Pilot	Museums Pilot	MuPop
COVUNI			x	x	x		x
EVK						x	x
Goldsmiths					x		
Imec		x					x
IN2			x				
KU Leuven	x	x			x	x	x
LAM	x				x	x	x
LGMA				x	x		
LUCE	x						x
Museumsm Medien						x	x

	TV Pilot	Photo Pilot	Dance Pilot	Games Pilot	OHP Pilot	Museums Pilot	MuPop
NISV	x						x
NOTERIK	x						x
NTUA	x						x
OCC	x				x		
PACKED			x			x	x
PostScriptum						x	x
Promoter		x					x
Proton Labs	x						
SPK						x	x
RBB	x						

Table 1b: exploitation of Pilots

Table 2 lists the tools according to their popularity and likeliness to be integrated into the working environment of the partner institutions. It should be noted that this table does not reflect on the success of the tools and services produced by E-Space, but personal/individual preference. Some of the E-Space resources aim at very specialised sectors; other organisational prototypes are designed especially for entrepreneurs and creative industries to trigger innovative developments in the field of digital cultural heritage. The tools and services identified by the partners of the E-Space project will mainly be integrated into the working environment of memorial institutions, museums, universities and educational institutions, research institutions, product/ software laboratories and test-centres, and do thus not reflect the range of actual users of Europeana Space resources.

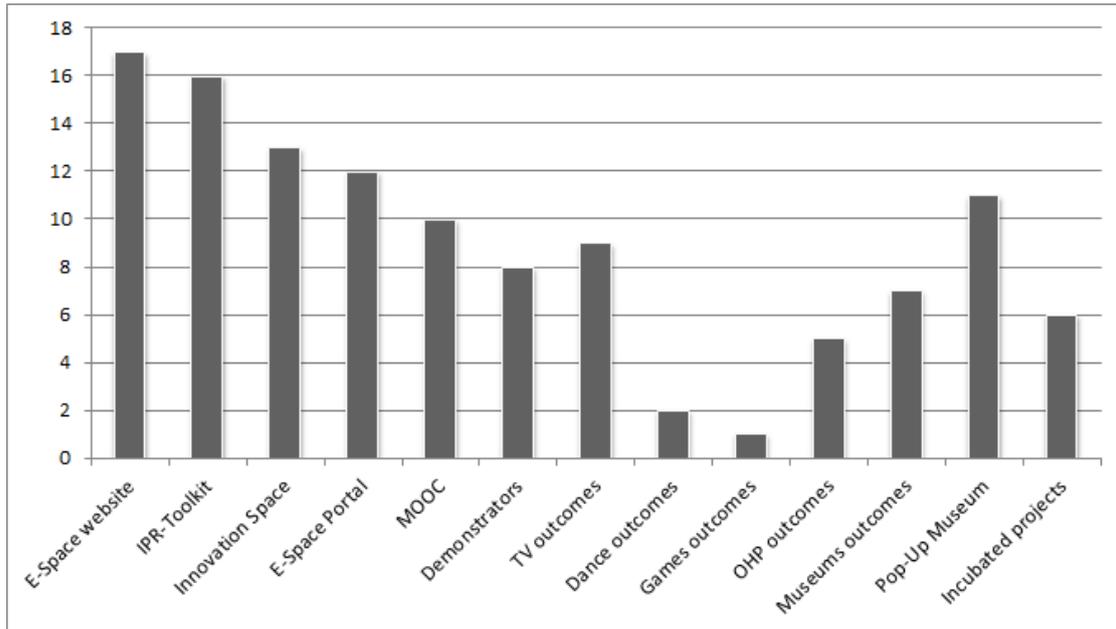


Table 2) Overview on the popularity of E-Space resources

Table 3 present a summary of the comments on exploitation plans sketched by all project partners for E-Space tools and services.

E-Space Website & Knowledge Base (deliverables, blogs, events, outcomes, presentations)	
COVUNI	The website contains lots of information about project activity and is therefore a valuable reference point. It is a starting point to access the tools, guide and best practice information created by partners.
EVK	There is a lot of information about the cultural heritage that means if I need some material about that topic it is good base where to get information.
Goldsmiths	Point of reference for illustration of what's been achieved, and as a template for future creative projects around digital heritage.
Imec	Some of the material might be useful as a showcase to partner institutions in the domain of art and culture looking for inspiration.
IN2	Reference point for those stakeholders to whom we talk and explain the E-Space project and work that we did there in the Dance Pilot.
KU Leuven	For preparation of new proposals, for documentation and when writing publications.

LAM	Promoting material inside organisation and externally. A lot of presentations are reusable. Deliverables present well partner capacities and lessons learned
LGMA	Services for content aggregation, management, interoperability, visualisation, publication and reuse, Copyright Tools for Cultural Heritage, E-Space for Education
LUCE	We will use it as a reference and source of useful information.
Museums- medien	To inform customers and potential customers about the project and the context of the Toolbox development.
NISV	Referencing old project documents and work accomplished.
Noterik	We will just refer to these when we want to show the origin of the products.
NTUA	As an information source and a dissemination channel.
OCC	The E-space is a treasure trove that will allow us to rethink our own objectives and how to use accumulated knowledge from the project to for managing our own archives.
PACKED	Links to blogposts, presentations,... in PACKED vzw's own communication (website, newsletter, direct questions from the cultural heritage sector)
PostScriptum	Learn on a national basis how to disseminate large scale projects.
Promoter	Of course, being the responsible for the E-Space web-presence we are going to maintain it and possibly enlarge with help from the partners (e.g. updates, news for blogs etc.)
ProtonLabs	For reference, applied R&D activities when my SME is selling enabling TV technologies to content owners/providers/rights holders.
SPK	Guideline for future projects in the field of CH, Reference, Information search, Dissemination, Networking

IPR Consulting Toolkit	
COVUNI	As the lead author of the Toolkit is based at Coventry University, we will continue to review its contents and promote it as a valuable tool to help anyone interested in the creative re-use of content.
EVK	It is useful toolkit what can be used in organising different kind events, hackathons etc. Also, it collects all the information in one place.
Goldsmiths	Future work with open repositories, future grant applications; MA teaching.
Imec	Reference for interested partner institutions in the domain of art and culture.
IN2	Know-how in future activities.
KU Leuven	This is a very important resource as we also represent Photoconsortium, most of the members have an IP-based business model. IPR expertise is one of the key assets of the KU Leuven CS Digital research group that we bring to Cultural Heritage institutions. We already use this resource also in our teaching at the university and for our Europeana activities.
LAM	LAM is going to use the toolkit and provide it to potential museum partners to select together the best IP licensing options for target joint development.
Museumsmedien	Very helpful information for several areas of our work.
NISV	For general IPR info and/or directing colleagues to IPR info.
Noterik	This will come in handy on several moments on that IPR gets into the discussion. It is good to show that there are models available.
NTUA	To identify requirements and functionality for IPR-related software services.
OCC	The toolkit will be a valuable resource as we embark on novel ways of making available our archives.

PACKED	Will be referred to in the rights clearing section of www.projectcest.be
PostScriptum	To help cultural institutions in Greece to promote open content.
Promoter	IP toolkit is very useful and helped us to gain more knowledge in this large topic.
ProtonLabs	For reference documents, relevant across Europe. It addresses a range of complex issues across Europe – rights management, copyright exploitation, and feeds into business models....
REMIX	As reference materials for creative entrepreneurs and businesses we support/mentor.
SPK	Point of reference for future work of SPK, future EU projects, Educational sector: Students/ library guests will be informed about IPR toolkit if relevant

The Innovation Space concept and process	
COVUNI	Hackathons have been a very important part of the project and we see them as a way to engage with new audiences.
EVK	It has been a good practice to see how the events have been organised and in future the best practices are good guidelines.
IMEC	Concept of the hackathons might be reused in context of new project calls.
IN2	Know-how in future activities.
KU Leuven	What we learned in the Business Modelling Workshops and the hackathons is now integrate in the course Cultural Policy of the MA Cultural Studies in Leuven. It has been the most important project when looking at outputs useful for our university teaching that I ever participated in.
LAM	Concept and process design as well as outcomes provide some valuable lessons and limited reuse. When launching new development initiatives, it is crucial to engage strong partners from field with access to end user audience. Both concept and process need further elaboration.

LGMA	As a resource suggested to library users.
NISV	Guiding any future innovation related projects.
NTUA	Apply the concept for co-creation & co-development events, examine mentoring and incubation services in the framework of student projects.
PostScriptum	Mentoring and Incubation, Stimulation of creative innovation and entrepreneurship.
ProtonLabs	Process would help to define Video as a Service model based on cloud-based infrastructure powering the TV apps done by Proton Labs.
RBB	The guideline for the hackathons is a good starting point if we would like to create a new way of aggregating ideas and to accompany this process. As we have limited experience in this area, it could be a new approach for us also for other projects.
REMIX	Since we've been directly involved in the creation of these, we'll continue to support creative entrepreneurs using some of the processes developed as part of E-Space, and drawing on the lessons learnt from the hackathons, Business Modelling Workshops and Incubation processes.
SPK	Point of reference for future projects, will be used when SPK organises hackathon events
The E-Space Portal (Technical Platform)	
COVUNI	Having worked in the Dance Pilot, we will use the E-Space Portal to further develop the Dance Gateway. We will also draw the attention of others to the power of this tool.
EVK	It is possible to use it creating my own exhibit or project.
Goldsmiths	As an archive of resources, to be used in teaching
KU Leuven	We will certainly continue to use the Technical platform, as we strongly believe in its further development, also in the context of Photoconsortium. It brings user authentication and stories to the Europeana world.

LAM	The concept of secure space to expose content and meet external creators is great. The usage of Portal will depend on further use case driven development.
LGMA	Experience from this in the development of other platforms.
LUCE	We plan to use the WITH platform to organise and showcase our content in collections and virtual exhibitions.
NISV	TV Pilot will host a collection of videos on the E-Space Portal.
Noterik	We like to keep a close line with the Pop-Up and Portal, but we did not get the design for the Portal yet, neither the weekly talks with the designer, so not sure how this link will evolve.
NTUA	As the lead partner, we will continue developing and using the services of the platform.
OCC	The technical platform gives us a model of thought and practice regarding the building of cultural legacy platforms.
Promoter	Certainly, we'll use it in the framework of our activities with Photoconsortium
ProtonLabs	Not sure but complementary technologies in the Portal might form a stronger end-to-end solution promoted by Proton Labs.
SPK	Research, future EU projects, developing exhibitions, SPK has set up thematic exhibitions within the E-Space Portal for reuse, recommendation to students and researchers

Educational Resources MOOC	
COVUNI	We would continue to support the three courses that relate to our project work: Dance, Open and Hybrid Publishing and IP/Copyright and interact with any students that wish to contact us.
EVK	It gives a great overview of the project and there are really interesting examples, for example a photography exhibition in Finland etc. It will be very useful if the course would be archived.

Goldsmiths	The OHP Pilot is included as one of the topics; we're interested in seeing how our ideas from the Pilot are taken up by learners worldwide.
KU Leuven	KU Leuven is committed to continue host the successful E-Space MOOC. Will also evaluate whether we can split the contents in more specialised courses, e.g. on Photography or on IPR. We currently include the MOOC in the course Online Publishing of the MA Cultural Studies and the MA Digital Humanities in Leuven, and made several presentations about it at international E-Learning conferences such as INTED, Edulearn, OOFHEC2016 and ICERI.
LAM	Educational resources will be promoted to those who want to enter Digital Cultural Heritage development and those who interested in Europeana Space project outcomes.
LGMA	To support development of creative skills in teaching and learning.
LUCE	We would like to use the MOOC as reference and as a tested to eventually develop other MOOCs on topic of interest for our audience.
Museumsmedien	Very helpful information and material that can be integrated into our work environment.
NISV	The MOOC will remain available and archived on EdX and we will continue to provide feedback to students if necessary.
OCC	We are currently considering possible uses of the MOOC platforms for our own educational programs.
PostScriptum	Adopt MOOCs as a best practice on national projects.
SPK	Will be recommended to students as an additional tool to gain qualifications.
Educational Resources Demonstrators	
EVK	Being part of the education demonstrates the materials created during project are shown at Niguliste Museum and also the educational materials are on the webpage where they are open for the public especially for the teachers.

Imec	The presentation tool as demonstrated for the “Photographic investigation of art works” demonstrator might be reused for seminars.
LAM	Case studies and contacts will be used for own development.
LGMA	To support development of creative skills in teaching and learning.
Museumsmedien	Museumsmedien’s educators will be informed about the demonstrators. They will serve as examples and inspiration for future projects.
NISV	Closer to van Eyck and Rode Altarpiece as references for close examination and web presentation of artworks.
OCC	The experience of developing our own demonstrator and seeing other partners’ Demonstrators has been invaluable: we are now aware of potential pitfalls when developing such applications but we can also see the potential in how cultural can be made available for reuse and appropriation.
PACKED	PACKED vzw shall suggest to the Flemish expert group for audience mediation, (of which it is a member) to invite imec for a demonstration of ‘Closer to Van Eyck’ and to explore the possibilities of such tool for audience mediation towards a general public (instead of researchers).
PostScriptum	Suggest to educational institutions new tools.

Photography Pilot outcomes and software	
IMEC	The software for the photography AR scenario and JPSearch API implementation might be further extended in context of other projects
KU Leuven	We will certainly continue to host and use the tellyourphotostory.be website, in our collaborations with a.o. the Leuven City Archive.
Promoter	We are happy to maintain links with Photography Pilot within our activities in Photoconsortium and with its exhibition All Our Yesterdays (that is supported by Blinkster app)

TV Pilot outcomes and software	
LAM	LAM will investigate the final solution and will look for reuse of software components.
LUCE	We would like to test internally the Rewind app and plan eventually to use it in a national trial.
NISV	The video repository Open Images EU will stay available.
Noterik	Just as reference cases, we don't really see commercial product coming out of here.
NTUA	Reuse the services of the Pilot in future development.
OCC	The TV Pilot has shown us novel ways of embracing the multiscreen paradigm and how it can be applied effectively in cultural heritage management.
ProtonLabs	TV apps have further been developed into commercial solutions locking down copyright content based on recording rights, viewing rights, and locations.
RBB	<p>RBB continues to offer the HbbTV Berlin Wall app as one of its HbbTV services. User statistics show that the app is still used by RBB viewers.</p> <p>Above and beyond this the application is a starting point for a "white label" application which could be used for other content in a new thematic context. We are following this idea in the EU project MPAT by providing the lessons learnt from ESpace and using them to define requirements for features in HbbTV applications. MPAT aims to deliver an extensive tool for the simple creation of interactive multimedia HbbTV applications.</p> <p>Based on the evaluation results we can improve the user interface design for future applications with a similar approach.</p>
Dance Pilot outcomes and software	
COVUNI	We will continue to work with IN2 and FCSH to develop and promote the use of the DanceSpaces and DancePro tools. The Digital Dance Day introduced them to interested stakeholders who suggested a number of varied applications for the tools.

IN2	Integrating DanceSpaces in the commercial offering.
PACKED	PACKED vzw shall examine if the annotation of dance video's is useful for TRACKS (Toolbox en Richtlijnen voor Archivering en conservering voor de Kunstensector) See www.projecttracks.be
Games Pilot outcomes and software	
COVUNI	The Coventry University Serious Games Institute would have these game demonstrators available to showcase within their portfolio.
LGMA	Use with groups of library users.

OHP Pilot outcomes and software	
COVUNI	We will continue to work with Goldsmiths to promote the Open Book and to integrate the Pilot's work into teaching, as well as sharing our knowledge with other institutions across Europe.
Goldsmiths	Our online <i>Photomediations: An Open Book</i> will be used in teaching and will still be freely available as a resource to the creative community, via our long-term securement of the url and our link with Open Humanities Press. Teaching activities will also be available to use beyond then duration of the project.
KU Leuven	We are very much inspired by this Pilot and already invited Joanna Zylinska to speak at our university. We will continue this scientific collaboration and plan to use the Photomediations concept to similar publications. We already introduced this idea in one PhD Proposal.
LAM	LAM will investigate the final solution and will look for reuse of software components.
LGMA	As additional resources for library users.

OCC	The OHP Pilot outcomes and resources have provided us with vital insights in how one can manage dissemination and distribution of cultural heritage material in a way that might have significant impact. The OHP Pilot showed us how we can manage our cultural heritage in an inclusive, challenging and creative manner.
Museums Pilot outcomes and software	
EVK	Blinkster application was a good demo for the participated museums also the lessons learned are excellent experience for the future. Examples how to choose the materials for app or how to test it.
KU Leuven	We will certainly point out, in our many contacts with musea that we have with CS Digital, to the outcomes of this Pilot as a best practice example.
LAM	<p>Cloud based artwork identification/recognition service Blinkster delivery business model got no elaboration during the project. Identification/recognition of artwork covers only part of end-user oriented value chain.</p> <p>Local Wi-Fi access points providing local web sites with panoramic pictures of rooms with clickable POIs (instead of computer vision recognition provided by Blinkster) leading to target audience relevant descriptions will be tested. The issue of complementary storytelling and reaching target audience requires involvement of business actors from creative industries. The LAM collection partially exposed at Vilnius Picture Gallery got more curated and LAM will continue attempts to engage creative industries for co-creation of new services.</p>
Museumsmedien	We developed the Toolbox and will use it in our institution.
PostScriptum	Provide cultural institutions new tools of interpretation.
SPK	Lessons learnt, Museum guide, educational tool
Pop-Up Museum idea and software	
COVUNI	The Dance Pilot has been involved in the Pop-Up Museums and we will continue to support it and maybe use it in other ways at future events.

EVK	It is an application what can be used in some museum or other institutions. At the moment, we will test it at Estonian National Library and at the Foundation of Haapsalu and Läänemaa Museums.
imec	Several partner institutions might be interested in the concept.
KU Leuven	This was an absolutely fantastic experience and we want to continue work with Noterik on this. We would like to use this tool for Photoconsortium and Europeana activities.
LAM	LAM will continue to examine the solution. Further investigation on cloud based service technical capabilities and delivery business model will be done.
LUCE	We would like to set-up internally in our premises the pop-up museum installations using our archival content.
NISV	The physical Pop-Up Museum installation will be available to E-Space partners free of cost (there might costs for transport). NISV is also available to help with content curation to promote our archive being used in exhibitions.
Noterik	This is a very strong product and will become an important development for Noterik in 2017. With the E-Space project we basically hope to get a nice portfolio of at least 8 real live pop-up exhibitions, which can also be showed at the review.
NTUA	Develop tools to promote and exploit the pop-up museum idea and software.
PACKED	PACKED vzw shall present it to the Flemish expert group for audience mediation, (of which it is a member). The Pop-Up Museum might be a good suggestion to some museums with interest in a more interactive audience engagement.
PostScriptum	Provide cultural institutions new tools of interpretation.
Promoter	We are interested in disseminating the Pop-Up exhibitions. Perhaps also useful in the context of Photoconsortium activities we're involved in.

SPK	Exhibition curation, dissemination and promotion, presentation of Blinkster to the department of museum education of SPK.
Incubated Projects	
EVK	There are some strong projects. In future, maybe with Nora where there can be interesting articles but also to promote the magazine. Picasso's Cat is also a cool application what can be used in promoting the interesting culture aspects.
NISV	We plan to assist and cooperate with the incubated projects as much as possible in whatever capacity is possible.
NTUA	Continue mentoring and examine possible development collaborations through the use of the Technical Space.
OCC	We might collaborate with one or two of the incubated projects but we are still considering the extent and nature of collaboration.
PACKED	PACKED vzw shall disseminate the results to relevant partners in Flanders, f.e. vivl.io to Letterenhuis, KBR, Vlaamse Erfgoedbibliotheek.
Promoter	Although not directly interested to leverage on incubated projects, we are happy to follow the web magazine of NORA for digitalmeetsculture.net (our online portal about digital culture and art)
REMIX	We'll continue to provide ad hoc business support to the projects as they progress towards stability and growth, and will facilitate introductions to both E-Space partners and our wider network as required.

Table 3. Comments by partners on exploitation plans

5.3 BENEFITS AND IMPACT

Question 3 of the questionnaire on exploitation plans and impact of the project distributed in December 2016 asked E-Space project partners to reflect on the benefits and impacts of the Europeana Space project. If possible, partners should report on the advantages that they have gained from participating in E-Space on an individual and institutional level. The results from the questionnaire can be summarised as follows:

Benefits and impacts of the Europeana Space project can roughly be divided in four categories:

1. knowledge, knowhow, and experiences;
2. networks and engagement;
3. institutional benefits;
4. future prospects.

1. With regard to knowledge, knowhow, and experiences gained by participating in E-Space, partners listed the expertise in the field of education, software and technology, intellectual property rights, business modelling and cultural management acquired as key aspects. Further valuable knowledge and hands-on experiences were gathered in the area of:

- applications and technologies for museums and memory institutions;
- educational research;
- needs, languages, and sensibility of stakeholders;
- wealth and possibilities of Europeana resources;
- objectives and missions of sister Europeana projects (Europeana Photography, Europeana Fashion);
- organisation and realisation of hackathons;
- feedback from users and target groups;
- usage of DCH and online content;
- event planning;
- customisation, adaptation and evaluation of content and tools;
- best-practices;
- awareness of issues around IPR status in the field of creative industries;
- prototyping skills;
- storytelling and use of multimedia tools in museum environment.

2. Establishing and expanding networks and the exchange and collaboration with partners from different backgrounds and countries were listed by all partners as one of the top benefits of participating in the Europeana Space project. A majority of partners stated that they will continue to use these new networks of expertise established. All partners found the teamwork very fruitful and inspiring, and are certain that after the end of the EC funding period exchange of ideas and knowhow will continue to be upheld. The following benefits springing from networking were specified in the questionnaires:

- exchange of knowledge and theoretical expertise;
- collaborating with partners from different sectors (GLAMs, technical partners, creative industries, TV broadcasters, universities) on a project and developing a multifaceted, marketable tool or prototype;
- participation in workshops and training sessions that expanded skills and knowledge;

- co-creative process;
- opportunity of engaging with stakeholders, users, creative industries, young entrepreneurs from across Europe;
- cooperation and exchange with Europeana and Europeana projects;
- enhancing the creative industry's use of digital cultural heritage content available on Europeana and other repositories;
- better visibility of small- and medium sized institutions in the cultural heritage sector.

3. On an institutional level project partners listed the following benefits:

- usage of E-Space tools and services (MOOC, IPR toolkit, Pop-Up Museum, Demonstrators, outcomes of the Pilots, Incubated Projects' outcomes)
- expanding the set of services that these institutions offer to national, regional and local users in the field of DCH;
- offering new solutions and services to potential customers;
- fine-tuning, enhancing and further developing institutional services and products;
- implementing lessons learnt in institutional work and research;
- implementing best-practices into the institutional workflow;
- enhancing visitor service in museum environment → multimedia approach, storytelling, apps;
- introducing new technologies to museum environment;
- opening up new markets and target audiences (junior entrepreneurs, creative industries, etc.)
- gaining better visibility in the EU CH sector;
- hire junior researchers.

4. Partners also identified long-term benefits of the Europeana Space project that will not only inspire others and create engaging environments for digital art and culture, but also help to build new business opportunities in the field of CH. E-Space open-access prototypes, services and tools are laid out to help entrepreneurs, small- and medium-sized enterprise, GLAMs, amateurs and users to materialise their ideas to prototypes and even if desired marketable products. E-Space offers users the possibility and freedom to become inspired by and experiment with digital cultural heritage (DCH) content. Further ideas for future prospects gathered from the questionnaires are:

- tools and results of E-Space will help to innovate education and knowledge transfer at universities, museums, and memory institutions;
- reimagining DCH services and the reuse of digital collections and repositories;
- bringing like-minded people together and inspiring co-creative processes.

5.4 FEEDBACK AND QUOTES

The fourth section of the questionnaire on sustainability and impact gave project partners the opportunity to share feedback and quotes gathered from stakeholders and users during the lifetime of the Europeana Space project.

As a Best Practice Network, Europeana Space always looked to disseminate outcomes and achievements to a wide range of users, collaborators and partners. Creative industries, cultural institutions, the education sector, thematic specialists, educators, researchers and the general public are the target groups for E-Space services, prototypes and tools. E-Space work was presented, demonstrated and shared with multiple target groups in a lively exchange not only online, but on numerous events, workshops, meetings, conferences and cultural performances.

In addition to interviews and videos taken during E-Space conferences and hackathons, project partners also collected feedback and quotes during national and local events organised by their institutions.

A selection of these quotes has been compiled in this chapter.

Feedback Europeana Space project (general)

It was very interesting to learn about the project and Europeana. These are huge new possibility for the museums' work.

This is a real support for small and medium museums without a big budget: the Pilots, the demonstrators and information overall. We need more of these well-planned and realized projects.

(Feedback collected by Museumsmedien)

Feedback E-Space Hackathon events

I feel very enthusiastic about the E-Space hackathons. Working together with other people from different backgrounds to the creation and materialization of an idea is an extraordinary experience that makes you aware of the huge creative potential the lies in cultural heritage institutions.

(Feedback collected by Istituto Luce Cinecittà)

[...] Throughout the hackathon I and my team learned new things pertaining to new applications and the opportunities they provide such us hardware tools, coding, open data and repositories and also some legal issues they pose (CC). At the same time the specs of the project dictated to focus also on the traditional idea of the book and not going completely digital by forgetting the physical element. This project was absolutely insightful, educating and helpful. We had to craft a real business plan and consider each and every challenge and opportunity. [...]

(Feedback collected by PostScriptum at the Hack the Book hackathon, January 2016 at the Onassis Cultural Centre, quote by DigitalHeritageGeeks(DHG))

Feedback MOOC

Loved the whole thing, especially how I was able to create a concept in a fast manner. Only the structure of the course could be more firm.

(Quote by user [zorzsilvana](#), MOOC course on Dance)

Great Section! The Photomediations project was engaging, educational and creative. I feel that I've learned a lot about the CC licensing system by actually using it in order to do something creative.

(Quote by user [annakart](#), MOOC course on Open and Hybrid Publishing)

I might be overstretching myself by stating this is the best thing I have EVER done in my life but I really loved this activity. These are exactly the skills I wished to acquire so I am thrilled to be on my way. I have chosen to post all of my remixes on a blog I started in 2012.

(Quote by user, MOOC course on Open and Hybrid Publishing)

We had fun as a family doing this activity, finally something from my courses that my kid really enjoyed! Remix is fun for all and accessible for all levels. The ease, especially with apps on phones and free downloads on websites make it easy to engage with historic and famous images, as well.

(Quote by user, MOOC course on Open and Hybrid Publishing)

Hi, first of all I want to say that I really liked this course (however as stated below, there was a lot of reading material which took a lot of time). I preferred watching the videos, I thought they were more entertaining and it was easier to be concentrated. [...] I learned a lot and thought this was a very interesting course and way to learn about new things. I recommended this to several friends who are eager to try this type of learning themselves.

(Quote by user [EmilyLaura](#), MOOC course on Photography)

Feedback Demonstrators

It would be great if with this presentation tool we could analyze other painting, not only those from Van Eyck.

The presentation was very clear and dynamic. It's great to compare details such as the eyes or the "brocade" on the paintings. Keep going and good luck!

(Feedback collected by IMEC)

Feedback TV Pilot/ Berlin Wall application

During the user tests of the Berlin Wall application the majority of the testers prefer a thematic cultural heritage video dossier to access content via one application directly on the TV. They additionally liked the navigation approach by using a timeline with years and decades to navigate through the large number of 250 videos.

We showed the application at the consumer electronics fair, IFA 2014. The application was well received, lots of booth visitors enjoyed clicking their way through the application and watching the archive videos. Older visitors in particular liked the application and commented that they would like to use it at home to talk to their grandchildren about the Berlin wall and what it was like living in a divided city.

Journalist colleagues appreciated the opportunity to curate and present archive content and information, packed in an easy to use app.

(Feedback compiled by RBB during the user tests of the Berlin Wall App)

Feedback Photomediation: A Reader

I would like to express you my gratitude for your book Photomediation: A Reader which was an effective source of insights for my research.

(Feedback collected by Goldsmiths University, quote by Gioele Pagotto, MA student University of Bradford about how Photomediations proved useful for her dissertation)

Feedback Toolbox

Great usability, perfect for non-technical users.

This supports our educators in the memorial.

Perfect way to create worksheets in a few seconds.

(Feedback collected by Museumsmedien)

Feedback Blinkster

It was fun to use Blinkster! Thanks to the app I was able to see some of the objects in a different light. Especially the "Gender-Queer" tour was very interesting. However, sometimes image recognition was a bit frustrating. There were many errors and wrong images.

Quite a novel way of navigating through an exhibition. I like the idea of Blinkster! But I think there is not enough content in the app yet. It would have been nice to get more context information, like images or sound. For instance, documentary photos of people in traditional costumes could be shown when the object in the exhibition is related to folk traditions and national dress.

I really liked all the additional information and links provided by the app. Museums should use new technologies way more often. I would definitely use the app again!

Our colleagues and museum curators at the Museum of European Cultures got really creative! After experimenting with content for the Blinkster application we came up with three thematic tours for our permanent exhibition "Cultural Contacts. Living in Europe". Staff from the Museum of European Cultures were given the possibility to present their favorite objects in one of the tours prepared for Blinkster. For a second thematic Blinkster story the very now-and-happening topic of Upcycling was chosen. We also collaborated with researches and students from the University of Wurzburg to create texts for the Blinkster tour on Gender-Queer. Altogether, I can really say that Blinkster introduced our team at the museum to a new way of presenting knowledge and storytelling. We have definitely learned a lot from this experience and plan to continue integrating innovating technologies into our exhibitions. (Léontine Meijer-van Mensch, 44, deputy director of the Museum of European Cultures, Berlin, September 2016).

(Feedback collected by SPK during user testing sessions at the Museum of European Cultures, Berlin)

Feedback Pop-Up Museum

A good thing. Art is brought to the people.

(Feedback collected by Sound and Vision)

Feedback IPR Toolkit

Detailed and understandable information about IPR, congratulations.

(Feedback collected by Museumsmedien)

Although only a selection of the feedback received by partners during the E-Space project, the comments are illustrative of how the project has engaged with a range of stakeholders and the positive responses received for that activity and the impact that it has had with target audiences.

Feedback quotes from participant relating to the hackathon, Business Modelling Workshops and Incubation process are available within the three associated WP5 deliverables.

6 FUTURE PROSPECTS

In addition to what is illustrated in the previous chapter about individual exploitation of the project results by the partners, this chapter focuses on 3 major areas where a joint effort of the partners will ensure sustainability of the project outcomes:

- E-Space hackathons (par. 6.1)
- “E-Space branded” events (par. 6.2)
- E-Space Portal (par. 6.3)

These areas are at the core of the E-Space MoU. Future work will also include continuous collaboration with Europeana Foundation to support dissemination and replication of E-Space best-practices (par. 6.4).

6.1 THE E-SPACE HACKATHON CONCEPT

What made E-Space hackathons very successful events was their approach to networking, sharing ideas and business-oriented plans. This was an unusual approach when compared with the traditional focus on coding. It seems that for creative reuse of digital cultural heritage it is of the utmost importance to talk with others, to maximise the potential of ideas, and to be guided into a business modelling process for shaping the approach to market.



The crowded room of the Hack the Book Festival (Athens, January 2016)

The format of E-Space hackathons includes:

- an analysis of the target communities and preferred communication channels
- a strong visual identity with key messages, personalised to the target community
- an endorsement campaign that is conducted on two levels: at a central level, via web-based communication tools (the website, newsletters, blogs, social networking etc) and at a local level, engaging with the target communities on site
- one or more pre-events finalised to illustrate the scope of the hackathon and the tools and facilities available, and to amalgamate the participants forming well-blended teams
- the main event that covers two days to three days, composed of inspiring presentations by relevant speakers, flexible working time, an intermediate round of pitches with preliminary feedback from the jury, and final pitches on the last day, after which the award ceremony takes place
- satellite entertainment, if desired, gadgets and presents for the winners.

According to E-Space experience, a timeframe of approximately 6 months is necessary to organise a successful event, from the scratch to a basic follow-up.

Each of the E-Space hackathons planned differently for their events, including the for the number of participants which ranged from a small group of participants to a large cohort, which in some cases had a pan-European dimension, with attendees coming from different states:

Event	Venue	Responsible partner	Attendees
Hacking Culture Bootcamp	Amsterdam	WAAG and NISV	51
Hack the [Dancing] Body	Prague	CIANT	22
Hack the Book Festival	Athens	OCC and PostScriptum, with Goldsmiths	64 (with the record of 230 applications!)
Hack your Photo Heritage	Heverlee	KU Leuven	21
The Future Museums Challenge	Venice	UNIVE, FST and the support of Promoter	75
ART//GAMES//CULTURE	Nottingham	COVUNI	19

A simple cost analysis for this kind of events, that of course excludes personnel costs for the organisation, was performed:

DESCRIPTION	COST
Room and facilities at location	Low or for free
Refreshments	Low
Speakers fees and/or travel reimbursement	Depending on possibilities, but can also be low or for free
Dissemination materials (banners, flyers, gadgets...)	Low
Staff at the hackathon venue	In kind
Staff curating organisation and communication of the event	In kind
Photographer/cameraman	In kind or low
Budget for awards and business modelling workshop / incubation process	High

The experience of the E-Space hackathons indicates that these events can be organised with a relatively small budget, particularly if hosted at partners' location and utilising partners' networks. Local sponsors can be involved, and agreements with speakers could be reached. Much of the work can be carried out by internal staff. Refreshments and dissemination materials are not usually major costs.

In the E-Space project budget, partners organising a hackathon were granted 5,000 Euro, which is an affordable budget, but can also be further reduced if the size and geographic dimension of the event is smaller. Although large international participation is welcomed, it would not necessarily be a target objective for future events.

This budget however did not include the organisation of the Business Modelling Workshop and the 3-months incubation support and in fact, the only aspect, in terms of costs, that could be critical for replication of the E-Space hackathon format, is an incentive for winning teams. In E-Space, partner Remix sustained the travel cost of the winning teams to London, for participating in the Business Modelling Workshop, which was a major incentive, together with the opportunity to access 3-months of incubation support.

Having partner Remix decided to join the MoU, and to continue supporting the incubated projects, it may be possible to agree with Remix a solution that would offer the hackathon winners access to a Business Modelling Workshop and a (smaller or bigger) incubation package. Regarding travel costs, perhaps it is less expensive than the BMW is hosted at the partner's location and it is Remix to travel. A form of incubation support can be provided with the help and contribution of other E-Space partners in the MoU (particularly, promotion and online visibility).

6.2 E-SPACE BRANDED EVENTS

As part of the activities foreseen in the E-Space MoU, partners have already planned some events where they will continue to disseminate E-Space outcomes. These include:

1 February 2017, Maastricht

Maastricht Innovation in Higher Education Days (MID2017) conference

Talk about the E-Space project and particularly the MOOC

Status: to be delivered by KU Leuven (Fred Truyen)

6 March 2017, Padua

Networking session of EU Projects and Innovation Workshop by project PREFORMA

Hosted by project PREFORMA, the 4th Networking session of EU project will take place in Padua, following the format and successful initiative launched in the framework of RICHES project and continued in E-Space (Berlin conference event on 22 November 2016). E-Space will be represented in the networking session with a presentation and participation to the discussion; moreover, several partners will participate to the workshop.

Status: participation by Promoter, Packed, NISV, LGMA, SPK, EVK

10 March 2017, Coventry

Digital Echoes

This is an annual event organised by the Centre for Dance Research of Coventry University. It is foreseen to include E-Space in the discussions and have poster and other dissemination materials. The Dance prototypes, particularly DancePro will be presented. The Pop-Up Museum will be presented as well, for discussing the interactive potential of the tool and how it might help performing, dance making and managing dance 'data' as 'exhibition'.

Status: coordinated by Dance Pilot and COVUNI

March 2017, Venice

Fashion exhibition in cooperation with Europeana Fashion

Pop-Up Museum installation

Status: Coordinated by Marco Rendina (partner LUCE and eFashion)

March 2017, The Hague

Exhibition together with Re:VIVE possibly during the Rewire electronic music festival

Pop-Up Museum installation

Status: Under discussion at NISV

April 2017, location to be confirmed

Europeana Aggregators Forum

Participation to the forum within Photoconsortium, to discuss best practice for aggregation of reusable content. Possibility to have a Pop-Up Museum installation?

Status: participation to the forum by Promoter and KU Leuven. Pop-Up Museum installation to be discussed.

Spring 2017, Germany

Pop-Up Museum with new exhibition on museal content

Status: under organization between Museumsmedien and affiliate partners The German Resistance Memorial Centre, The Silent Heroes Memorial and Otto Weidt's Workshop for the Blind.

20 May 2017, Antwerp

Annual event of Photoconsortium association

At this event, which includes the launch of the Europeana Photography thematic channel, it is possible to include dissemination of E-Space and possibly the installation of Pop-Up Museum exhibition of the Photography Pilot.

Status: Details under discussion at KU Leuven and with Photoconsortium

26-28 June 2017, Rotterdam - Museum Next international conference

Workshop: Creative re-use of digital cultural heritage and innovative tools

The workshop aims to present the results of Europeana Space and to propose an interactive session where the participants will be able to make use of tools and content delivered by the project.

E-Space tools and services will be presented during the workshop: IPR consultancy toolkit, hackathon, MOOC, Pilots, Demonstrators

Status: Proposal submitted

26-28 June 2017, Rotterdam - Museum Next international conference

Create your own Pop-Up exhibition and engage your visitors everywhere

Practical workshop dedicated to Pop-Up Museum: the presenters will give examples of existing Pop-Up exhibitions that took place in different settings and with different topics. Participants will be invited to create their own exhibitions with the tool, and NISV will bring a mobile installation so that the exhibitions created during the workshop can be showed.

Status: Proposal submitted

November 2017, Amsterdam

Hip hop exhibition to be held during the Dutch Championships Breakdancing

Pop-Up Museum installation

Status: Under discussion at NISV

6.3 E-SPACE PORTAL

There are two aspects to take into consideration while thinking about sustainability of the E-Space Portal: the infrastructure that backends it, and its services.

The backend infrastructure is the WITH tool, that is a software development designed and created by partner NTUA. This software is highly customisable and scalable and the proprietary NTUA intends to leverage on it for future exploitation.

Regarding the E-Space Portal, the services provided for different target users are the following:

- **Discover beautiful content** with the federated search
- **Create & curate collections and exhibitions** in your own “space”
- **Reuse** content and build nice apps with the powerful API
- **Aggregate** your datasets and metadata with the metadata processing unit
- **Participate** in this community of people, where culture meets creativity

In order to make the Portal popular and to attract users to register and create their own personal space and collections, it is necessary that the basic services of the Portal are for free:

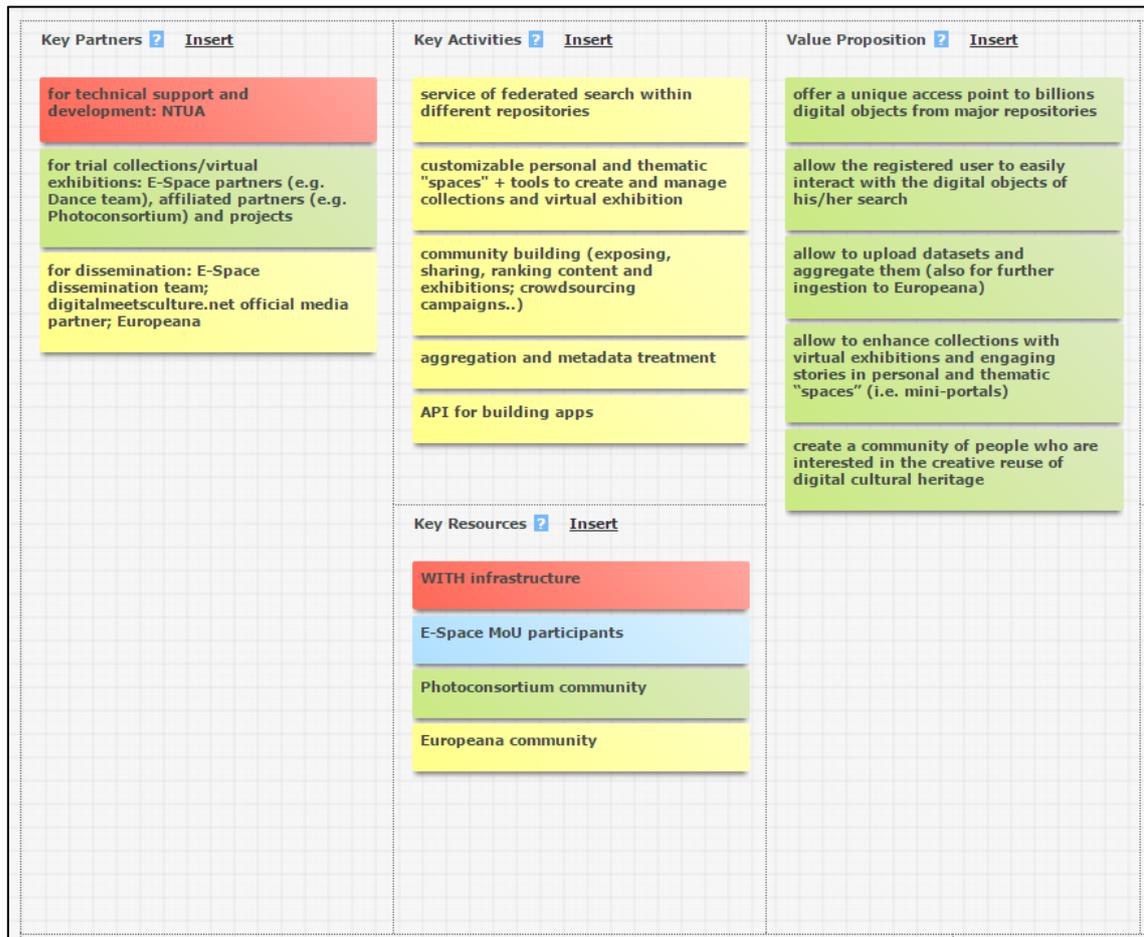
- registration
- creation of a basic personal space, with a basic editor that allows self-service small personalisation (e.g. colours, background image, fonts...)
- creation and publishing of collections and exhibitions, crowdsourcing campaigns etc
- uploading (= hosting) of personal content up to a certain amount of megabytes

Advanced services can instead be upon payment of a small fee or on quotation:

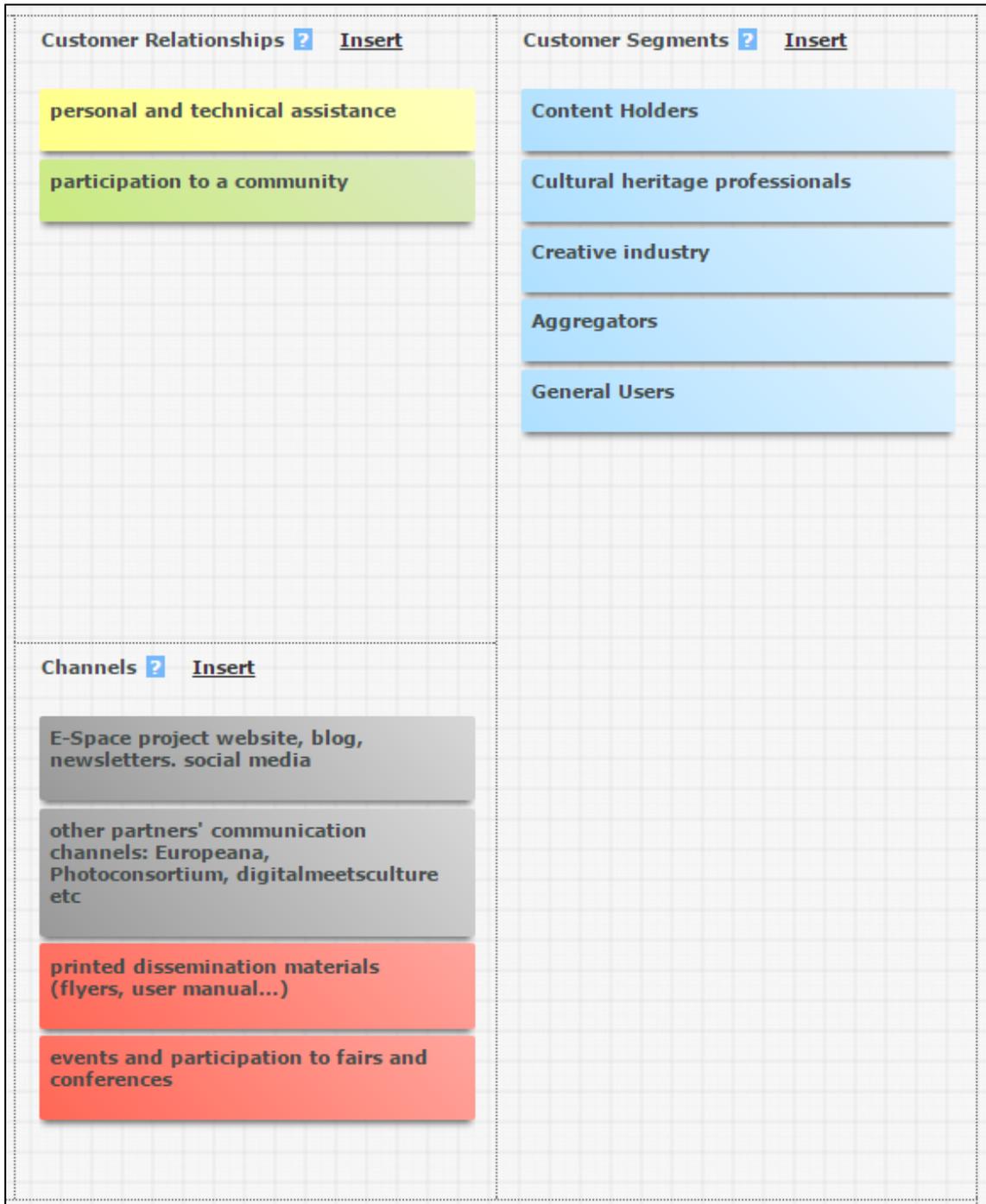
- creation of a mini-portal, with advanced personalisation and editing services
- hosting and technical support for the treatment of huge amounts of data and metadata
- procedural support and tutorial for the ingestion of datasets to Europeana portal
- customisation of APIs, support or joint development of creative apps or tools

It is envisaged that this will happen at a later stage: it goes without saying that the idea of “selling” mini-portals and their advanced services is feasible and will be successful only once the Portal has proven to be an effective channel for enhancing the visibility of digital content and collections.

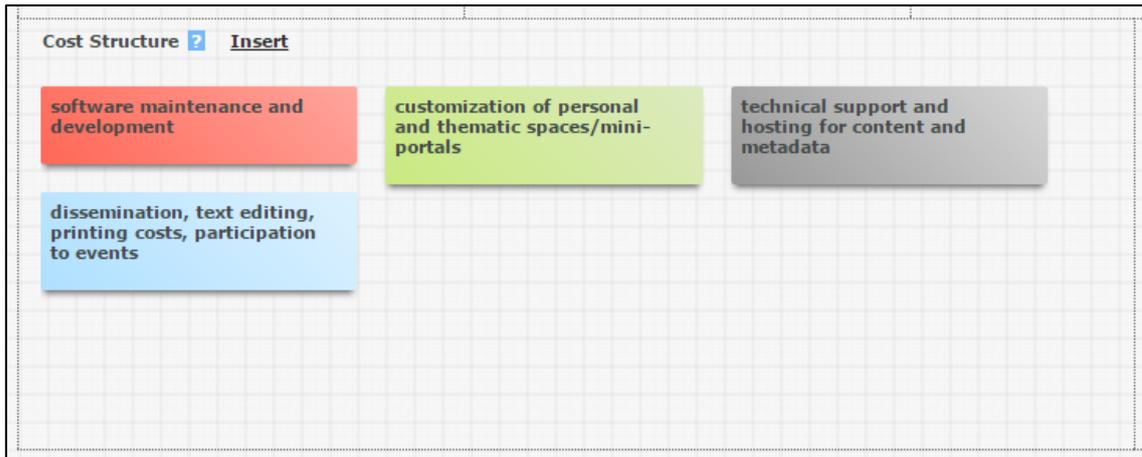
A business model canvas summarizes the ideas for sustainability of the E-Space Portal and its services:



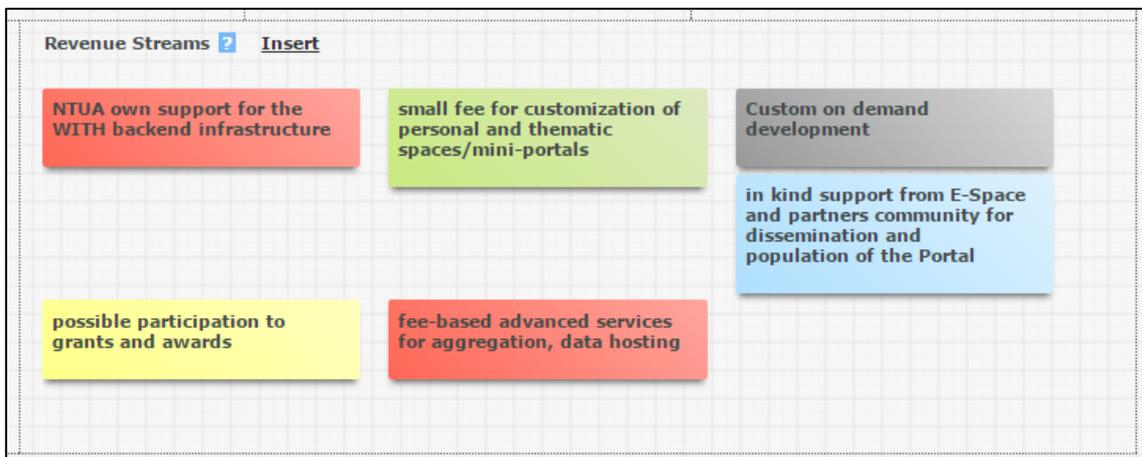
Business canvas: key partners, key activities, key resources and value proposition



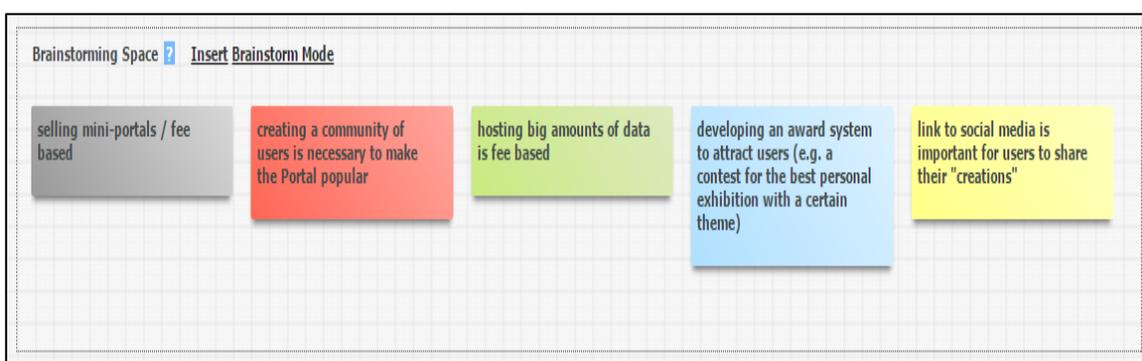
Business canvas: Customer relationships, Customer segments, channels



Business canvas: cost structure



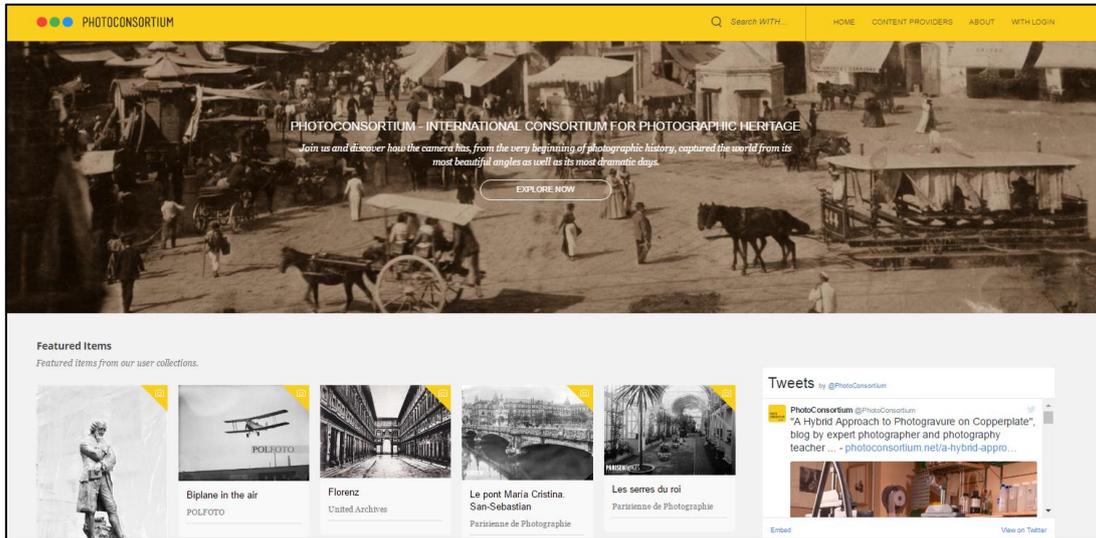
Business canvas: revenue streams



Open ideas and notes

The business canvas was created in Canvanizer and this is the link for an overview:
<https://canvanizer.com/canvas/wl0Z2sqV0nG16>

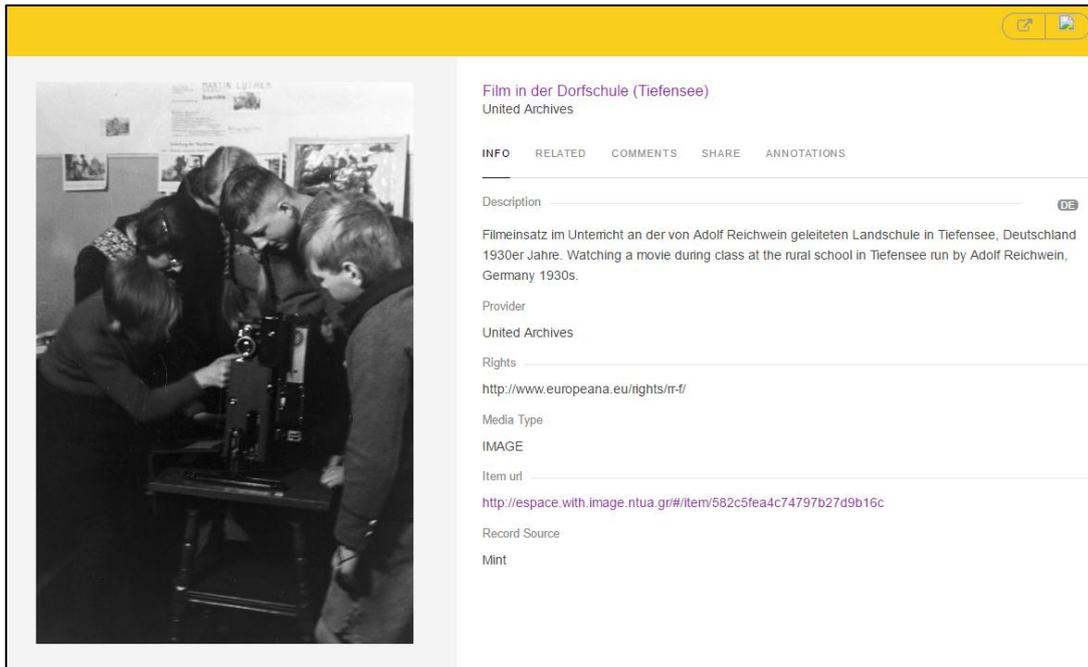
To populate the Portal and make it attractive, the Photography and the Dance Pilots agreed to create and maintain a thematic “space” (or mini-portal) each, for showcasing the potential of this service. The “spaces” are highly customisable and to showcase this flexibility, the two Pilots chose totally different visual identities.



The home page of the Photography/Photoconsortium space

The Photography Pilot leverages on the strong relationships with Photoconsortium (the legacy entity of the EuropeanaPhotography project), thus an agreement was made for the mini-portal to be branded with Photoconsortium and for guaranteeing sustainability, use and enlargement of the “space” in the longer term. It includes featured items and collections from Photoconsortium members, as well as from the Europeana photographic datasets. It also showcases the feeds from Photoconsortium website news and twitter channel.

Below, an example of a photograph from Photoconsortium member United Archives, with multilingual metadata, as it appears in the Photoconsortium thematic “space” in E-Space Portal.



The Dance Gateway created by the Dance Pilot is under preparation and will be launched at the Coventry University/C-DaRE event Digital Echoes in March 2017.

It is notable that other projects chose to take advantage of the E-Space Portal and to create their own spaces. This has a dual benefit, firstly of populating the Portal with interesting material and secondly, encouraging more people to access the tools.

Having the Portal in place with debugged and validated services, the first thing to do is to start building a community around the Portal, leveraging on, and enlarging, the E-Space community and Best Practice Network. The objective at this stage is to disseminate the URL and make as many people as possible aware of and using the Portal. At the same time, relationships with affiliate partners and colleague projects will be utilised to create personal and thematic spaces and to disseminate the “technical” services of the Portal. Greater details on the communication and dissemination plans are provided in D6.4.

The MoU that most partners in the project have signed, in order to continue some of the activities of the project, includes this Portal related activity. The appointed editorial team that was established in September 2016 will be maintained in order to progress with the development of the Portal, content enrichment, customised functionalities development, marketing for matching content providers with creative industries, education and tourism etc. Plans for the development of ‘thematic’ spaces will be proposed by the editorial team and further agreed with the concerned partners to assess their feasibility and sustainability.

6.4 COOPERATION WITH EUROPEANA

During the lifetime of the Europeana Space project, consortium members fostered a dynamic exchange with Europeana and the Europeana Foundation. Not only did project partners of E-Space attend Europeana events such as the Annual General Meeting, but also Europeana representatives were invited to attend E-Space International Conferences and to be members of the hackathon juries. Collaboration with the Europeana Foundation as well as exchange will continue after the end of the EC-funding period.

A special focus will be placed on the following areas of E-Space:

- A. E-Space hackathon;
- B. E-Space tools & apps developed within the Innovation Space and the Pilots;
- C. IPR consultancy toolkit.

The Europeana Space hackathon concept with its incubation and business modelling phases contains structural and organisational aspects that can be considered beneficial for hackathons organised by Europeana or future Europeana projects. E-Space consortium members made freely available lessons learnt and valuable best-practice guidelines for organising hackathons, incubation and Business Modelling Workshops via the E-Space website. After the conclusion of the Europeana Space project, collaboration with Europeana and the Europeana Foundation in the area of hackathon events is foreseen.

The Europeana Foundation is invited to attend and also promote these events. Representatives of Europeana are foreseen to be members of the hackathon jury. The support of Europeana and the Europeana Foundation will be of great benefit to the success of E-Space hackathons. Not only will Europeana help to draw greater attention to these events, also the hackathon winners can profit from Europeana's support. This collaboration between Europeana representatives, hackathon participants, and E-Space consortium members, adding knowledge, resources and tools to the hackathon events will guarantee the best-possible results springing from these hackathons. The services, applications and solutions drafted and developed in the frame of these hackathons will help to boost digital cultural heritage, make an impact on the way that CH is mediated consumed and ultimately create business opportunities for the creative sector and beyond. E-Space consortium members are very positive about the E-Space hackathon concept being of great value for Europe's digital cultural heritage landscape.

With regard to E-Space tools and applications developed within the Innovation Space and the six Pilots, project members are convinced that networks are critical to the success of these services and instruments. For example, the Photomediators app is made available via the Europeana Professional Portal and Europeana Labs, and so will be the IPR resources.

The range of impact of these tools will widen significantly once they are made available via Europeana Labs and Europeana Professional. In that way, a library of valuable CH tools will continue to grow. This library, as guaranteed by Europeana, is freely available to all citizens. It can thus stimulate the development of the creative heritage sector as well as the use and reuse of Europe's digital cultural heritage material available on Europeana and other associated platforms.

The IPR Consultancy Toolkit will be made available, not only on the E-Space website but, also on the Europeana Professional Platform. Europeana Professional with its networks, best-practices, guidelines, services and cases-studies is the ideal platform for promoting the E-Space IPR Toolkit and draw attention to this new collection of highly-relevant material. E-Space consortium members believed from day one of the project that it is of significant importance for everyone involved with digital cultural heritage to "think copyright!" Europeana Professional is the right environment to promote this way of approaching digital content. In particular, the IPR Case Studies booklet is shared in the Europeana Copyright Community.

7 E-SPACE MEMORANDUM OF UNDERSTANDING

7.1 CONCEPT

As described previously, a Memorandum of Understanding (MoU) was agreed, with an iterative process involving all the partners, for the creation a new partnership to maintain the network together for a further 18 months after the end of the project.

The activities of the partnership concern, but are not limited to, the following main areas of interest:

- a. maintenance of the E-Space knowledge base and network of followers
- b. realisation of “E-Space branded” events
- c. maintenance and further development of E-Space Portal
- d. business planning for E-Space Portal and E-Space hackathons, further exploring possibilities of valuable business models for exploitation of digital cultural heritage.

As no budget is available for partners, it was difficult to find a solution that formalised the bond and the common activities of the partners without being obligatory in terms of shared activities. The E-Space MoU is in fact more similar to a ‘gentleman agreement’, where each signatory expressed a will of being committed to some activities of his/her interest with their own resources.

As clearly stated in the introduction page of the MoU:

“The partnership’s main objective is to pave the way for the establishment of a sustainable initiative based on the results of the E-Space project, with a longer-term vision, and finalized to support the creative reuse and valorisation of digital cultural content available online.”

7.2 ITERATIVE PROCESS

The decision to propose a MoU to the consortium was taken at the sustainability discussion meeting held in Coventry in September 2016. The document was drafted at management level, by Promoter and COVUNI and including in the discussion all the partners that were present at that meeting.

A draft version of the document was circulated to the consortium and then widely discussed at the Berlin General Assembly meeting (23 November 2016).

The discussion in Berlin was very valuable, highlighting the constraints that some partners suffered, particularly in terms of committing to another joint action without resources allocated for it. In some cases, the problem was not the content of the document but the bureaucracy of the partner institutions, particularly the large ones (such as universities), where having such a document signed would certainly be time consuming, thus making the adhesion of little value.

The MoU does not pretend to have the status of a full project agreement, but is still a strong commitment for those partners (and individuals) who believe in the value of E-Space experience to maintain relationships and explore possibilities of very specific and circumscribed joint activities. This pledge helps to ensure that specific elements of the project do not disappear as soon as the project is finished, or to become disjointed from the whole and live a life on their own.

A further role of the MoU is to define a period during which the sustainability assumptions, considered and evaluated throughout the whole project, would be proven in a real environment and without any external financial support. The duration of 18 months is reasonable for a retrospective analysis of the success (or failure) of the E-Space initiative.

After such consideration, a second version of the MoU was circulated and discussed, and with few small amendments, the final text was agreed, just before Christmas break. During the month of January 2017, signatures from the partners were collected. The MoU will remain open to possible new signatories to join in the coming months.

7.3 DISSEMINATION OF THE MOU

The idea behind the MoU is that anybody willing to participate in activities related to the E-Space initiative can join. Thus, in addition to consortium partners, it was shared with other interested stakeholders and the community at large.

The Stakeholders Group created during the project will, in any case, be kept together and informed of the E-Space activities during the MoU period, via the communication channels, particularly via the website, blog and newsletters. The MoU is also proposed to the affiliate partners, sister projects and followers that have followed the work of the E-Space project, as the MoU replaces the Cooperation Agreements signed during the project, which expire at project's end.

A dedicated page was created in the project website:

<http://www.europeana-space.eu/network/e-space-initiative/>

And a launch blog was published:

<http://www.digitalmeetsculture.net/article/e-space-initiative-where-culture-meets-creativity/>

Finally, the MoU was included in the final newsletter of the project (end of January 2017).

Although the MOU start date is 1 February 2017, it is also possible to join later. In the coming months, as part of the MoU activities, the dissemination and affiliation campaign will continue.

At this stage, many partners have decided to join the MoU either as institutions or on a personal basis. Some signatories are already collected, others are processing the MoU via their institutional channels. Partner signatories received by the end of January are:

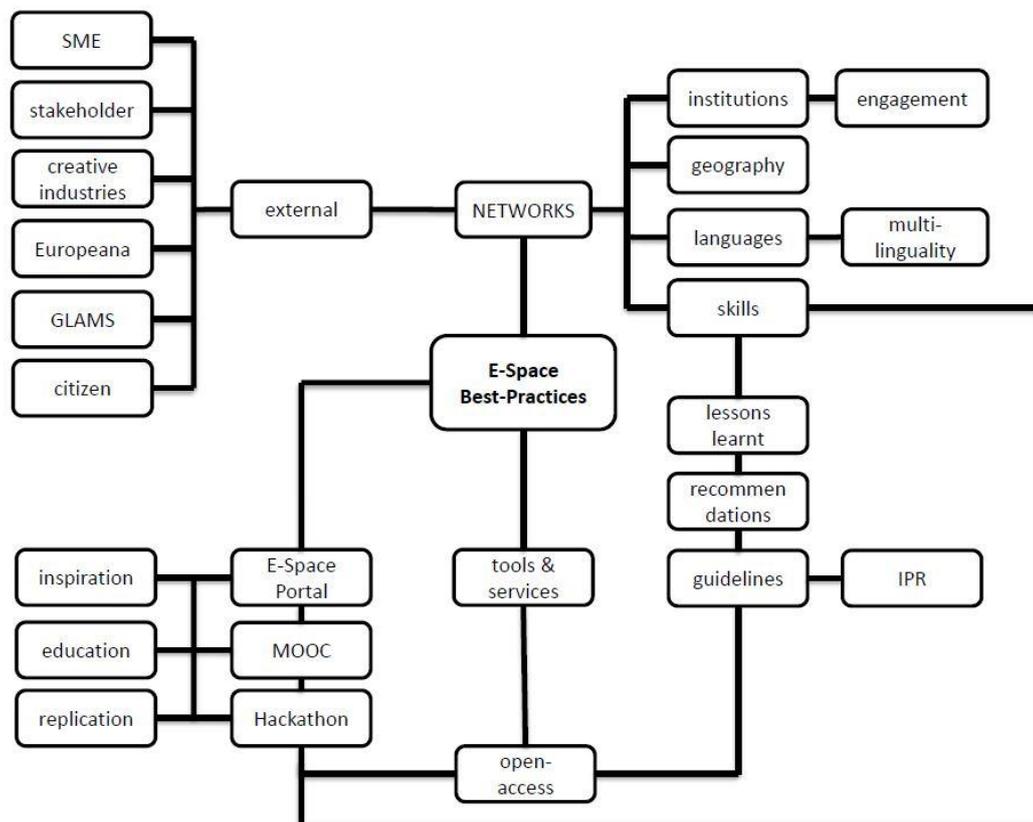
COVUNI (Centre for Dance Research)	Packed
Promoter	PostScriptum
NISV	Proton Labs
Remix	Noterik
Museumsmédien	Joanna Zylinska of Goldsmiths
Imec	Fred Truyen for KU Leuven
IN2	Carla Fernandes of UNL-FCSH
Marju Niinema of EVK	Fondazione Sistema Toscana
Mirjam Raabis of EVK	Tiziana Lombardo (Treeologic)
Andres Uueni of EVK	Hembo Pagi (Archeovision)

8 BEST PRACTICE AND LESSONS LEARNT

8.1 SHARING BEST PRACTICE

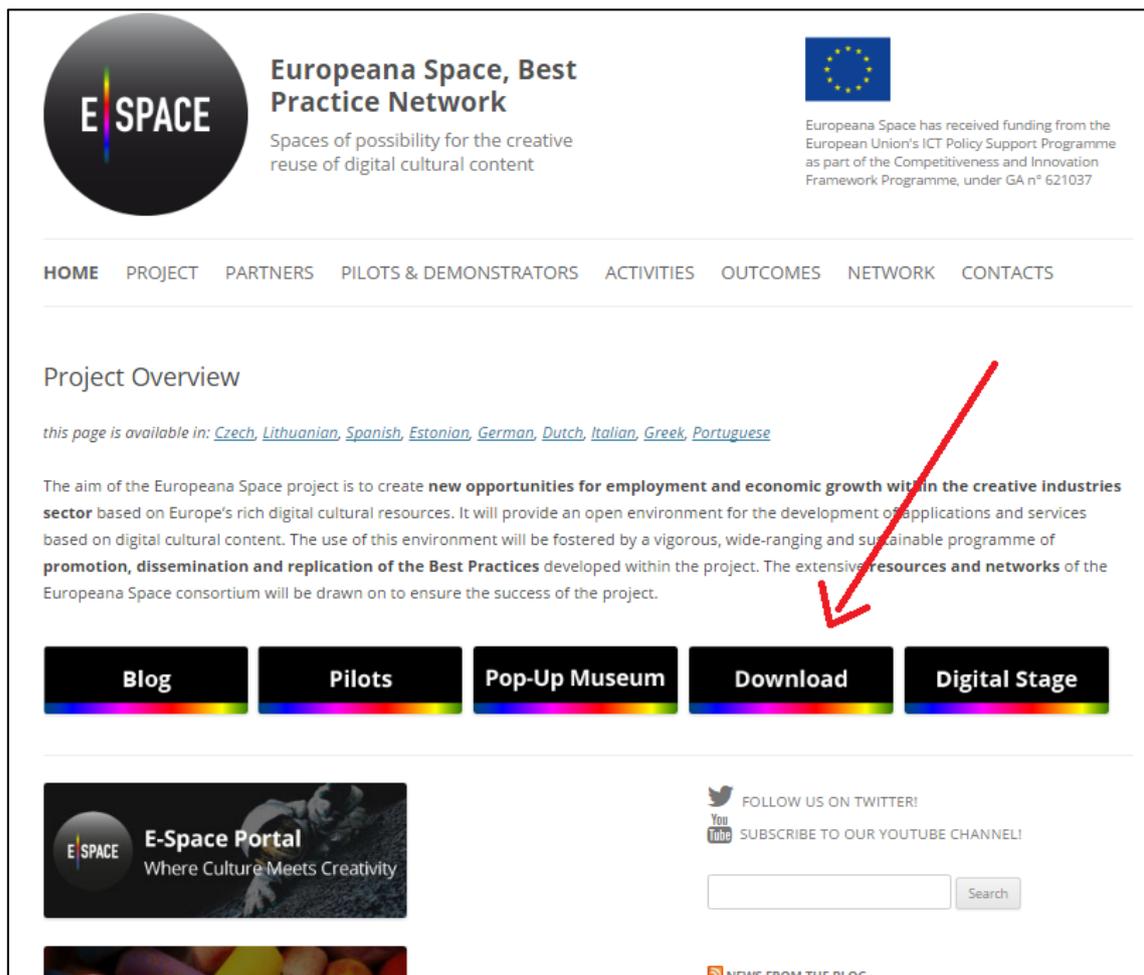
From the start, Europeana Space was designed to be a network of best-practices. Its consortium members, from European creative industries, technology-based enterprises, the cultural heritage sector and higher education, bring together high-key expertise and skills. This European network of partners made it possible to engage with potential stakeholders, SMEs, GLAMs, educational bodies and most importantly citizens on national, regional and local levels. It has involved liaison with the Europeana Foundation and other projects from the Europeana family, to enlarge the impact radius of Europeana Space tools and services even more. Guidelines and services of E-Space are offered in different languages, as multilingualism increases the accessibility of E-Space outcomes.

All E-Space tools and services are open-access and will stay available after the end of the funding period. This means that everyone, and especially small- and medium-sized enterprises, CH institutions, and individual creative business can profit from E-Space tools, prototypes, services and publications. It was always an objective of E-Space to engage users from all age groups, backgrounds and fields of interest. It is important that E-Space services turn passive consumers into proactive users. With the help of tools and instructions (MOOC, IPR ...) users are able to remix, remake and reimagine cultural heritage by realising their own ideas, incorporating their own content and thus creating new business opportunities.



The entry point to access all E-Space best-practice publications, guidelines, as well as the lessons learnt is the website www.europeana-space.eu which is licensed under a Creative Commons Attribution 4.0 (by) license. Following this licence, users are allowed to share (copy, distribute and transmit), remix (adapt) and make commercial use of the website and blog's editorial content with attribution only. These best practices are open to be used and replicated in the frame of other projects.

The "Download" page is easily accessible via a button on the Home Page of the website and provides a collection of the project's publications.



In the following table, the publications of the project are listed, together with a brief description.

E-Space News 1 (April 2016) and E-Space News 2 (November 2016)

In an informal and journalistic way, the publication tells the stories of the E-Space hackathons and other useful information on E-Space outcomes. The second issue is focused on the incubated projects and Educational Demonstrators.

<p>Culture Remixed. Examples of New Technologies for Cultural Engagement</p> <p>This is a 16-pages leaflet fully dedicated to the Pilots and prototypes</p>
<p>IP and E-Space project</p> <p>Introduction to the IP issues encountered within the project.</p>
<p>IPR Toolkit (16 documents)</p> <p>This is the collection of guidelines for lawful reuse of digital content.</p>
<p>Case Studies booklet</p> <p>A 98-page publication including the 6 case studies on IP in the thematic Pilots and hackathons, including introduction and conclusions.</p>
<p>E-Space IP Case Studies (6 documents)</p> <p>These are the case studies available for individual download.</p>
<p>Market analysis (6 thematic documents)</p> <p>These are the individual thematic factsheets extracted from the corresponding deliverable.</p>
<p>Incubation handbook</p> <p>24-pages publication on the strategy and content of the incubation package offered to the hackathons and BMW winners.</p>
<p>Hackathon how-to</p> <p>A booklet that shares the lessons learnt in E-Space (and more widely) for the realisation of a successful event, and to support the replication of best practices experimented in the E-Space hackathon experiences.</p>
<p>Deliverables</p> <p>All the public deliverables are available for download in PDF:</p> <p>D1.4 Quality Plan Quality Plan assuring the proper management and efficient project progression and workflow.</p> <p>D2.1 Requirements for the creative use of Digital Cultural Resources; progress on collaboration towards Europeana Labs This document reports on the collection and analysis of requirements with respect to content and metadata, formats, types of access and operational scenarios; and to further specify the functionalities of the APIs developed and to outline the architecture of the Technical Space. It shows the established and potential cooperation with other activities in the Europeana ecosystem and with Europeana Labs.</p> <p>D2.2 The metadata processing unit This document about the Europeana Space Metadata Processing Unit (MPU) reports on the requirements regarding the management and publication of metadata collections, the specification and functionalities of the MPU and its APIs and, the release and documentation of the MPU services.</p>

D2.3 The Europeana Space infrastructure

This document reports on the first official release of the Technical Space, describing its software components and services, the workflows and interfaces for engaging and interacting with the users and, the processes that drive its ongoing development and fine-tuning to align with emerging requirements.

D2.4 Access API

This report documents the E-Space platform's developed APIs and serves as a user manual for professional users and third party developers who intend to use them in order to consume cultural resources for the development of applications. It presents and discusses the platform's application data model and provides an overview and detailed documentation of all available API calls. Finally, it documents guidelines and actions taken to achieve interoperability of cultural heritage image repositories with the JPSearch framework, while describing an open source implementation of the JPSearch API that is provided as a reference.

D3.3/D3.1 Europeana Space IPR: First Report on Legal Aspects and the Content Space

This combined deliverable highlights the place of IP within the workflow of the 6 E-Space Pilots from Pilot planning, through to hackathon planning, and on into the incubation and business modelling phases. The document also explains the complexities of a contested space with regard to intellectual property rights attached to digital cultural content. It outlines general stakeholder interests (those within E-Space and beyond), and provides a forward-looking view at the trajectory towards greater openness and some of the challenges this presents for content providers and policy makers. Furthermore, the document highlights the tools, licences and strategies available for opening up content for use, re-use and commercial exploitation, providing useful information, therefore, on how the challenges may be met.

D3.2/3.4 Europeana Space IPR: Final Report on Legal Aspects and the Content Space

This deliverable updated the information within its predecessor, with a more external focus. While containing information and material for the Pilots and hackathons, it also contains advice, resources and guidelines for content owners and cultural entrepreneurs beyond the E-Space project. In particular, it includes a series of E-Space case studies narrating the process that each Pilot has undergone, moving through the hackathon and business modelling workshop to incubation.

D3.6 Europeana Space perspectives on creation and re-use of digital cultural heritage material

This deliverable looks at the way that making available content to Europeana is perceived by content providers, and how in turn the re-use of that content via the platform is evaluated by members of the E-Space consortium.

D4.1 Pilots methodology and content sourcing

This deliverable contains the terms of reference for the development of each Pilot.

D4.2 Pilots coordination – information on technical planning

This deliverable provides detailed information on the technical planning for each Pilot and the list of the content sources to be used in each Pilot.

D4.3 Pilot Prototypes

This deliverable presents the status of Europeana Space Pilot prototypes at M12 of the project.

D4.4 Outcome of the TV Pilot

This deliverable presents the development and outcomes of the TV Pilot at M24 of the project.

D4.5 Outcome of the Photography Pilot

This deliverable presents the development and outcomes of the Photography Pilot at M24 of the project.

D4.6 Outcome of the Dance Pilot

This deliverable presents the development and outcomes of the Dance Pilot at M24 of the project.

D4.7 Outcome of the Games Pilot

This deliverable presents the development and outcomes of the Games Pilot at M24 of the project.

D4.8 Outcome of the Open and Hybrid Pilot

This deliverable presents the development and outcomes of the Open and Hybrid Pilot at M24 of the project.

D4.9 Outcome of the Museums Pilot

This deliverable presents the development and outcomes of the Museums Pilot at M24 of the project.

D5.1 Market Analysis

This deliverable reports on the analysis of the business potential of the 6 thematic areas addressed by the Pilots.

D5.2 Hackathons report

This document reports on the six hackathons and the lessons learnt.

D5.3 Business Modelling Workshops

This document reports on the Business Modelling Workshops held in London with the winning teams of E-Space hackathons.

D5.4 Selection criteria and incubation planning

This deliverable constitutes the basis of the WP5 activity for the hackathon to Business Modelling to incubation phases of the project.

D5.5 Enterprise development report

This deliverable presents the outcomes of the incubation process for the selected projects resulting from the hackathons and BMW selection.

D5.6 Innovative access to content in education

This deliverable is a report to present an overview of current best practices for environments/applications to facilitate re-use of digital cultural heritage content in an educational context.

<p>D6.1 Communication and dissemination plan This deliverable illustrates the strategy and the actions for dissemination and communication of the project, the Pilots and the project’s activities, including identification of the target groups and the action plan for dissemination activities.</p> <p>D6.2 Communication, dissemination and network enlargement report No. 1 Dissemination report of activity undertaken during year 1 of Europeana Space project</p> <p>D6.3 Communication, dissemination and network enlargement report No. 2 Dissemination report of activity undertaken during year 2 of Europeana Space project</p> <p>D6.4 Communication, dissemination and network enlargement report No. 3 Dissemination report of activity undertaken during year 3 of Europeana Space project</p> <p>D6.5 Sustainability Plan no. 1 This is the first release of a roadmap for the maintenance, enlargement and cross-European replication of the Europeana Space network</p> <p>D6.6 Sustainability Plan no. 2 This is the final release of a roadmap for the maintenance, enlargement and cross-European replication of the Europeana Space network</p> <p>D6.7 Europeana Space portal online This deliverable describes the structure and rationale of the project’s portal/website.</p>
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In addition to these deliverables, the Download section also provides access to further dissemination materials such as the project factsheet, the booklet, posters and logo etc.

8.2 LESSONS LEARNT

During the lifetime of the Europeana Space project there were a series of challenges, which were always perceived as a possibility for growth, revaluation and improvement. Whenever project members concluded a task and saw an opportunity for doing things better, lessons learnt were implemented.

The following key points were extracted from discussions that took place during the project and are formulated here as recommendation that would be useful for future EU projects or activities:

Lesson learnt	Implementation
Cross-project integration of ideas, tools & outcomes	A regular exchange of ideas, as well as a cross-linked project infrastructure resulted in innovative problem solving methods. Tasks were dealt with from a multi-perspective approach. Especially in the third year of the project the cross-project integration of tools culminated in versatile outcomes such as the MOOC, the Pop-Up Museum and the Innovative Space that show the scope of Europeana Space’s outcomes.

<p>Targeting a broader demographic of users</p>	<p>Within the Europeana Space project applications were developed/ further developed that not only address working professionals, students and researchers but also focus on the younger and elderly generations (Pop-Up Museum, Photomediations: An Open Book, Blinkster, the casual/creative/educational games, broadcast scenarios). A range of the E-Space edutainment tools have been designed especially for citizens, offering services for a broader demographic of users. It became apparent that the richness of Europeana and other repositories has to be introduced to a wide range of users, and this can only be achieved by promoting Europe's digital cultural heritage by the help of diverse entertaining and educative applications that address young, middle-aged and old people alike.</p>
<p>Versatility of tools and services</p>	<p>To ensure a wide-ranging impact of project services and products it has shown to be of high relevance that these applications are very versatile. Europeana Space has therefore produced a variety of prototypes and products that can be enhanced and filled with content by users. The user is thus free to adapt the tools to his/her needs and get creative with DCH content from Europeana and other repositories.</p>
<p>Gamification</p>	<p>Adding game design elements and game principles to certain E-Space tools and apps made these services not only more engaging and fun, but also drew in a younger demographic of users. Use-case scenarios and interviews conducted by E-Space demonstrate that gaming aspects are much liked by the general user and resulted in a sustained use of the applications. However, within the project's educational research, there was a clear message that successful traditional methods of teaching should not be abandoned just because new technology is available; a blended approach is needed.</p>
<p>Continuous analysis of industries and their needs</p>	<p>It proved to be advisable to conduct ongoing analysis of target industries and their needs during the lifetime of a project and even beyond. Europeana Space consortium members examined target groups and markets during all project phases in order to adapt offers and tools to the fast-paced needs of the industries.</p>
<p>Proactivity of user/ user-generated content</p>	<p>A general feature of the E-Space project is the usability and reusability of tools, applications, prototypes and services. In the course of the project, tool design was pushed to maximise its potential for easy use and reuse. Services, such as the E-Space Portal, the Photography Pilot prototypes, or the ToolBox enable users to not only be very proactive in using these tools but also to incorporate their own, personal content. Testing scenarios showed that users were most engaged and likely to recommend tools when they were able to mix and remix existing content with their personal material.</p>

IPR	<p>The IPR-Toolkit was developed and enhanced during the lifetime of the E-Space project. Furthermore, IP guidelines were published in the form of a booklet and will be distributed by partners at relevant events. In order to make the E-Space tools and services effective, it is necessary that cultural heritage institutions and content providers think about IPR, as well as creative industries wishing to reuse such content. Accordingly, Europeana Space consortium members undertake a great effort in pitching IPR recommendations and advertising the IPR-Toolkit.</p>
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9 IMPACT ASSESSMENT

9.1 PROJECT STEPS TO IMPACT

In the Description of Work written in 2013, E-Space identifies 8 steps to impact, which were intended to be the parameters against which results of the project and impacts on stakeholders would be measured. The project's progress has been measured against them and detailed below.

A/ Significantly increased use of Europeana and other multimedia digital content

It is difficult to state that E-Space guaranteed a “significantly increased use of Europeana”, but an analysis was conducted within D3.6 - *Europeana Space perspectives on creation and re-use of digital cultural heritage material* - to understand the content sourcing by the Pilots. According to aggregated data, the Pilots sourced 56.30% content from Europeana and 43.70% from other digital repositories or other content sources (more analytic details on content sourcing is available in the abovementioned deliverable).

When understanding this figure, there are two important factors to consider. The project proactively experimented with a Protected Space, using closed content for experimentation, content that by its very nature would not be available to Europeana, which reduced this figure. It is also true that Pilots, such as the Museums Toolbox used specific content during the development of their tools, but intended to increase the proportion of Europeana content at a later stage. The exhibitions created for Pop-Up Museum also sourced content from Europeana, thus adding to the use of this repository. It is therefore highly likely that the project's final percentage is higher.

The features of E-Space Portal are also designed to foster reuse, find digital content from various repositories and indicate what kind of content is considered interesting and trustworthy.

B/ Critical mass of (open) digital content available for re-use

Not being a digitisation or aggregation project, E-Space cannot directly influence or have impact in regards to increasing the amount of digital content available. In any case the project played its part, with the Open Content Exchange Platform (that is a sub-site created in the context of WP3 for showcasing and providing information on available open content), and a certain amount of previously unreleased content that is available for Europeana to ingest and for being exposed (and reused) in the E-Space Portal.

When discussing areas of collaboration with the Europeana Foundation at the end of year 1, one idea was to provide a case study of a museum that has made its content available openly, in addition to the regularly cited case of the Rijksmuseum. In association with OpenGLAM, sub-contractor Open Knowledge provided that example of the York Trust <http://www.digitalmeetsculture.net/article/new-case-study-by-openglam-think-big-start-small-move-fast/>.

The general activities of the Pilots and hackathons, as well as the Protected Space concept, were opportunities for the project to demonstrate the potential for the creative reuse of content and make content holders aware of the benefits of making their content openly available.

C/ New opportunities for employment and economic growth

This is certainly one of the key focus of Europeana Space, with the 7 incubated projects acting as the flagship result in terms of creation of potential new businesses. However, the 7 are those selected for incubation, but each of the 6 hackathons generated 3 valuable concepts, and very often the choice of the winners was difficult. Beyond the 3 hackathon winners, other ideas were also ignited, and much knowledge was exchanged. It is difficult to track the destiny for all of the people who came together at E-Space hackathons, but with the quotes and appreciation that was received from them are encouraging that such experience made a difference and may lead some to follow a business idea.

A further consideration is the sustainability of the work undertaken within the Pilots. Each Pilot produced two or three products or app which will continue to have a life after the project has ended. Several partners are exploring commercial avenues for these tools, helped by the awareness gained from attending the Business Modelling Workshop held for partners in May 2016. There is certainly potential for employment and/or economic growth from this aspect of the project's work.

D/ Creative SMEs to develop new competitive products based on digital content in an open horizontal market supported by Europeana Space's accessible and non-discriminatory infrastructure

E/ Larger industries in the creative sector to vitalize their innovation potential through partnership with smaller-scale creative companies in the Innovation Space

F/ Individual creators and artists to market their creative skills and ideas through Europeana Space's networks

Within the project group, there are creative SMEs which developed new products and also individual creators working on innovative concepts, and again the experience of the hackathons engaged with professionals, small enterprises and big players. The project and its activities acted as a proof of concept and are useful inspiration for others. What is really important at this stage, and is in fact included in the MoU, is to maintain the results of the project available and shared to any interested user.

G/ The Education sector to create content-rich educational services inspired by the educational Pilots, using rights-secured cultural heritage content.

As described in the relevant paragraph of D6.4 - *Dissemination Report* - and above, the E-Space MOOC was a significant and successful element of the project within an educational context. The first delivery of this course served 983 people, a proportion of whom were GLAM professionals. Once the course began, numbers quickly increased, due to word of mouth; it will certainly be run again in the future to share lessons from the E-Space project another interested cohort of learners.

The MOOC was just a single strand of the project's work, which was designed to reach the wider educational sector. The 5 Educational Demonstrators have been demonstrated both locally and at 2 project workshops, in Athens in January 2016 and in Brussels in May 2016. The second of these workshops was additional to the programme outlined within the DoW and created, as the project needed an educational showcase to demonstrate the educational outcomes of the 6 Pilots. During the course of their development, each Pilot discussed the educational benefits of their products (that reused Europeana content) and it was important to provide them with a shop window to share with the educational sector.

A further important contribution was made in D5.6 - *Innovative access to content in education* – which considered the current use of technology within schools and the integration of cultural heritage content. Having considered the E-Space and Europeana Foundation’s approaches to education, it considered myths, trends and opportunities, before looking ahead and making recommendations for the use of content and technology within the educational sector.

H/ Cultural institutions to become both content providers and service providers and to explore new audiences and markets for cultural heritage bodies, promoting further investment in digitisation of cultural content

This achievement can be fostered by continuing the dissemination of the project results and best practices. It is a need that all the cultural institutions feel to enlarge their audience and to leverage on digitisation for modernizing the access and engagement with their collections. However, this process is very long and slow and requires significant efforts (also financial efforts), that for minor cultural institutions such as smaller archives and local museums, private collectors etc can be unaffordable. There is a need not only to share knowledge, but also to lower barriers for the achievement of such objectives.

The E-Space Portal offers to those institutions the possibility of creating a personalized mini-portal, showcasing their content and including an editor for virtual exhibitions and interactive features; it can be an opportunity for improving the visibility and relevance of for those cultural institutions that have no means or skills to create their own data management system and content management system.

9.2 PARTNER AND STAKEHOLDER PERCEPTION OF PROJECT IMPACT

During the final weeks of the project, coordinator COVUNI interviewed a number of partners, the incubated projects and external stakeholders to understand their feeling on the work of the project and the impact that it has had on them, the cultural heritage sector and the potential for creative reuse digitised CH content. The feedback was considered and summarised to provide a further level of insight into the work of the E-Space project.

Understanding the breadth and scope of impact in any project is vital to ensuring longevity and leading to real change in the sector. For the Europeana Space project, impact was considered throughout the three-year journey. There were many check-in points carved into the General Assembly meetings that asked the consortium to reflect on the impact it was creating and the direction it should take for the remainder of the project.

It is important to mention two larger trends that emerged/took place/happened in the wider world during the span of the project, to which E-Space contributed as well. Firstly, there has been a growing interest in open access. E-Space has made a significant contribution with regards to dealing with open access for images, which had until then not been given a lot of consideration. Secondly, the last few years saw technological advancement in areas of interactive TV, high definition video and 3D, as well as in the increased uptake of mobile devices and a discerning use of devices for different tasks (as one partner remarked: ‘mobiles for telephone calls and photos; tablet for “quick” work such as emails, web search; and laptops for “real” work’). Some technology (such as AHDC visors, oculus rift) was not yet widely available during the project, or only very expensively. As this will potentially ‘catch up’ soon, it may seemingly ‘reduce’ the impact from the project.

Having been part of E-Space has had numerous effects on the partners, both in terms of their individual as well as institutional work. It has offered the possibility of learning about new techniques and projects, in media but also in teaching. For each sector, there were minor and major changes that occurred in relation to impact. Having access to other E-Space materials and outcomes other than those that they were directly involved in was also highly appreciated.

Within the creative institutional sector there was a general feeling that connecting with such a diverse consortium was a productive and unique opportunity, which facilitated new working relationships, knowledge exchange, as well as creative outputs that were taken up by the various niche communities and sectors. For some there was a concern with the cultural impact rather than the 'industrial impact', where advancing the knowledge and mutual understanding of the sector is vital.

Partners mention concrete outputs such as influencing ideas on E-Learning internationally; becoming an 'expert hub' on a specific topic; the materials having been translated into other languages under the open licence (by other parties); ways of mixing digital and material objects, processes and technologies, and revisioning texts. A brief overview is provided of (other) areas of impact that E-Space has contributed towards.

Creating opportunities and growing insights

Eva del Rey of the British Library (and a member of the E-Space Advisory Board) has enjoyed the way that the project has unfolded. Observing how the six Pilots created and offered such a wide array of creative outputs and prototypes was inspiring and enriching to participate in the project conferences with so many guest speakers fuelling debates around cultural heritage, technologies and presentations on how to make projects attractive and interesting:

"In my line of work it is important to maintain awareness of innovative ways of promoting and presenting cultural heritage for research and dissemination, both physically and through digital platforms. This project has given me an insight into the interests of emerging audiences, and perspectives on re-imaging and re-using content through digital technologies. All this complements traditional practices of content use in the physical spaces of archives, museums and memory institutions. I was also impressed -not just with the content- but with the presentation artistry showcased at the conferences.

The British Library is aware of the importance of creativity and culture as contributors to economic growth and wellbeing. Facilitating access to collections is part of this remit and in this sense, I have been sharing what I have learnt from the project with colleagues at my institution and promoting the project through my network and social media channels."

Working with new domains allows for institutions to broaden their horizons and expand their understanding of thematic areas. Within the Pilots, there were varying degrees of impact on a variety of levels. For Dance partner IN2, participating in Europeana Space provided an opportunity to gather more know-how and hands-on experience on a number of issues such as IPR, hackathons, Europeana.

“The work in the Pilot extended our knowhow of dance as cultural heritage and dance research as a field. In more concrete terms it also allowed us to better understand the software tools requirements of dance professionals. This enabled us to iteratively customise, adapt and evaluate our content management and publishing tool, which eventually led to the DanceSpaces tool. Especially for software tools where the user interface and interaction plays a critical role (like DanceSpaces), being in close contact with the user (dancers, choreographer, dance researchers) has been essential for the success of the tool. Finally, thanks to the dissemination activities, the project helped IN2 gain more visibility in the European cultural heritage sector. “

The Open & Hybrid Publishing Pilot perceived a strong educational ‘side effect’ of the project, by ‘educating people in cultural heritage organisations about open images, showing what you can do, how you can publish, and showing them what is possible’, also on a low budget. It created a shift in understanding materials and images not as ‘sacred’ and ‘untouchable’ but as a source for further creativity during the virtual and real exhibitions. Goldsmiths College summarised:

‘There was a level of playing with images, not treating them as sacred entities that can’t be touched, can’t be broken. There is more and more need, we have noticed, for people to work with physical objects. During the cardboard pop-up exhibition, there was fascination about the mixing of the digital and more material objects and processes and technologies’.

As a project with objectives to promote the creative reuse of Europeana’s content, it was important to maintain a working relationship with the Europeana Foundation. Milena Popova’s first encounter with the project was as a jury member for the TV hackathon, which also happened to be the first hackathon of the project in May 2015; she also presented at two events, the 2nd International Conference in Estonia 2015 conference and the Educational workshop in Brussels during May 2016. She thought that Europeana Space was great in that it experimented with unique sectors, and observing this type of work from a distance was inspiring for Europeana.

“E-Space stimulated the re-use of cultural heritage content and did this through covering areas that were not covered by Europeana, such as Dance and TV. Through the hackathons stimulation took place and encouraged other people to re-use the content and helped produce creative projects in the area.”

“Witnessing all of the examples of what came out of the hackathons- a good example which highlights what can be done. And this supported our current thinking of how we should go about creative industries in the future.”

Collaboration across disciplines and cultures

The interdisciplinary character of Europeana Space has made it possible to bring together various sectors with different historical, intellectual and socio-political contexts from numerous mediums, disciplines and fields. It offered an opportunity to network and work closely together with a broad range of experts from cultural heritage, technology and creative industries. This interdisciplinary collaboration widened the horizon for all those involved. Although working with such a diverse consortium also had its challenges, for many of the consortium members this positively impacted the way they not only communicated but engaged with the various sectors.

“I think projects like Europeana Space are a great opportunity to communicate with other cultures as they provide a unique environment to test and develop relationships and professional understanding with a variety of partners that otherwise are mostly out of easy reach.

This collaborative approach is fundamental to the building of platforms and channels of reciprocity for collaboration, to encompass the challenges and move forward in the development of the digital and physical heritage sector.”

For another consortium partner, impact was not only built into their strategy of promoting the work or widening their network of collaborators, but impact was clearly tied to specific Pilots. For NTUA working alongside the Dance Pilot broadened their horizons. Even though they were involved with supporting Europeana and in particular the ECLAP collection (which was a performing arts collection available through the portal), they were able to revisit intangible cultural heritage content. Europeana Space broadened their working knowledge of the dance field as they were able to extract more requirements and the types of facilities needed by the community. Another partner, IN2 said “We have worked in the past with other cultural heritage institutions and we already learned then that there is a big “vocabulary gap” between those working in the IT sector and those in the CH sector. Moreover, each CH sector has its own special vocabulary. For us it was the first time that we worked in the performing arts / dance domain, and as such the work in the Dance Pilot was a great opportunity to learn how to communicate with researchers and professionals from this field. KU Leuven also enjoyed the collaboration with Dance – and is interested in continuing the collaboration after the project. It showed differences in university approaches, between those “more embedded in practice,” and “more traditional university with a strong focus on publishing.” The exchange between university and creative industries was considered very interesting and beneficial. Coventry University’s Centre for Dance Research is in the process of discussing with KU Leuven, the partners responsible for running the MOOC, a possible continuation of a few of the MOOC courses (e.g. Dance, Photography and IPR strands). Uptake of these courses is being considered and future directions are being mapped out.

Methodologies of learning and teaching

The Europeana Space project has informed how some archiving institutions and its curators think about the canon, through critical communicative methodologies to reinterpret and open collections and data in ways that reach and engage a wider range of audiences. More specifically, one individual said “Following the principle that ‘people get more engaged when given control’, the project has extensively explored potential ways for learning and developing new ways of storytelling tools and proposals, which allow users to create their own stories with a given content, and in the cases where there was copyright how to identify it and how to deal with it.”

KU Leuven introduced ‘a more practical, action-driven aspect to our teaching’, as well as incorporating methodologies from the business modelling, hackathons, and crowdsourcing activities. Finally, partners note the benefit of international exchange of information, the possibility to participate in conference and events that would perhaps been outside the (time and budgetary) limits of the individual organisation.

Reaching beneficiaries

“Impact translates in reaching audiences. You could try to reach new audiences and then measure if you have really reached those new audiences, maybe by doing a survey. Or you can try to attract more of an audience.”

Participating in the project enabled partners to offer new solutions to their existing or potential customers and their specific communities. Tools and outcomes were presented in a variety of settings, such as memorials, museums, educational contexts, artists, students and academics and citizen communities.

For example, Post Graduate Researchers (PGRs) were directly impacted through the work produced by the Pilots. One PhD student shared that the Open and Hybrid Publishing reader influenced her work at a graduate level, which led her to use the tool as a case study in her thesis.

It contributed to the growth of creative cultural industries and built or increased expertise with advisory roles towards other (non-academic) parts of the CH sector. This too stresses the interdisciplinary nature of some of the tools, and how they reach across disciplines.

Intellectual Property (Rights)

In a digital globalised world, it is quite easy to reproduce and re-use creative works. The need to consider IPR, especially in relation to the CH sector, is important and fundamental to ensuring that the works are protected and safeguarded. In today's knowledge based economies, returns on those investments are supported through IPR laws and cc licenses. Within E-Space, the project not only treated but ensured that IPR and open access in relation to images, was very carefully thought out and considered in the various Pilots and the tools each group were developing. When asked about IPR all of the partners and sectors were aware of the topic prior to the project, but the project allowed them to work with it again, more consciously, or explore territory previously left unattended. The support from the IPR team during the project, as well as the Online IPR Consulting Kit, has had significant impact. For example, the Dance Pilot, treating IPR was incredibly useful to the community and had a real impact on artists and PGR students. One Student highlighted that the conversations around IPR and cc licenses "changed my thinking and now I see it everywhere I go." Another partner was grateful that they were able to see how IPR affected each of the Pilots and in observing that relationship, learned a lot and now has a better understanding of the nuances for the various Pilots. Partner Museumsmedien also highlighted the importance of the IPR tools created, which as a small business they would not ordinarily have access to, as well as the support that they received when working with memorials to reuse their content.

Hackathons, Business Modelling and Incubation

Within the project there were six thematic Pilots that hosted a hackathon that brought together creatives, coders, artists, academics as well as members from each of those Pilots. The hackathons were creative spaces that encouraged participants and the consortium members to distil their visionary concepts down to actionable items that could have an impact in the real world. Tools that were developed during the Pilot were offered to the hackathon participants, whose feedback then informed adaptations of the tool, or the development of a new idea and tool. Three winners were selected from each hackathon to attend a Business Modelling Workshop (BMWs) to consider the business potential of their idea; one team was then selected to receive business incubation support from partner Remix. The incubation phase challenged them to refine their business ideas into firm concepts and develop a plan through which to progress their venture. A total of 7 teams received incubation support.

The individuals who attended the workshops were in many instances positively affected and excited about the opportunity they were given through the project. Participating in hackathons was recommended by all of the teams, who described the experience as life changing (Nora) and opening "a whole new world for me" (We Make Known). Vivl.io also recommends participating: "If there is a similar hackathon, definitely participate. We have learned a lot throughout this process. You might think you will be seeing the same things over and over again, but that's not the case.

Even engaging in these social activities, you get to meet other teams and might collaborate with them, which is great. You also get to travel abroad, and see how the whole foundation of the Europeana works. And when it comes to CH, and culture in general, it's a great place to be."

Technology is considered as an excellent way to disclose cultural heritage, bringing it out of its traditional contexts, onto streets and billboards and inspire people regarding "things in life such as love and loss, and all the things that have an influence on our daily lives" (StoryPix). It is considered timely to engage with cultural heritage and investigate "how to use it, how to innovate, and most importantly how to bring people to get to know these treasures and use them in an efficient and exciting way" (PostArt).

Over the course of the 3 years, 6 hackathons were carried out. Each Pilot had their own plan in leading up to the event. However, reflected NTUA, "each hackathon affected the next one. For example, Europeana TV really set the space of what to expect. The Dance one had a feeling of co-creating, very artistic, very nice set-up, and it had an atmosphere for working together, a co-partnership, was really productive. And the results were really good." Another partner said that from attending the six Pilots the approach that seemed to work best was the "inclusive approach, where everyone had a role and a space to share their expert knowledge and each partner was able to contribute to the final product, and communication flow was vital to this success." The partner suggested that maintaining a level of transparency allowed the hackathon participants to work alongside so many unique sectors, implying that this was fundamental to the success of the hackathons.

The 7 winning teams that were mentored during the incubation phase considered the hackathon to have been an intense, creative, fertile and rich experience of meeting and working with other talented people across disciplines (PostArt, StoryPix, We Make Known). General comments included "It was really amazing, with a lot of emotion and sensation" (Nora) and "judges were also giving very good advice" (Nous). For a group that already had a strong idea, the hackathon was a place where they learned to communicate their idea and 'how to reach the people and clarify' it (We Make Known).

The BMW offered a space to (further) clarify audience, product, and aim. It helped the creators to narrow down their idea into something manageable and achievable (Nora, Nous, Picasso's Cat, PostArt, StoryPix) or open up/widen the user segment (Vivl.io). It provided models of communication with other businesses, as well as looking at (different) users' perspectives (Picasso's Cat). It also encouraged creators to "draw out the storyline" of their product, engaging with the various stages necessary to build the final product, in order to "create something beautiful that can work and grow in the future" (StoryPix). The BMW provided an opportunity to "talk about the business model and transform the loose idea to something sustainable" (We Make Known).

The participating teams all describe the incubation period as an intense time full of learning, hard work and problem solving: "The process was very insightful to test the project and the flow with one idea. Now, if I could come up with another idea, I could try to emulate the process. To have learned all this in such a short time was very helpful" (Nous). It enabled creators to envisage the different contexts the product could be applied in (Picasso's Cat), think about design and branding (PostArt), "develop a valid proposition and a business plan" (Vivl.io, also We Make Known), and communication (We Make Known). The knowledgeable mentoring ensured that cultural heritage ideas could be linked "to real companies with real investments" (StoryPix), increasing the impact of the project. Vivl.io too commented on the process supporting the product to have "a chance out there in the market".

NTUA has over a decade of experience following trends and supporting the building of various platforms that are taken up by key CH sector experts. They highlighted that the hackathons were another important component that not only challenged their thinking but inspired them to think about the intangible cultural heritage sector in a different way. They considered that for future projects they would implement a similar “approach to what Europeana Space did and would rethink, in particular, the Pilot and hackathons events; this is something that we would replicate in future projects.” When probed further they highlighted that the inclusivity, freedom to be creative with various sectors and the permission for each hackathon to keep its own identity, was part of the success.

For other consortium partners, it emerged that a hackathon could (potentially) contribute to deeper currents in the field. One partner considered the hackathon as one of the most interesting events, despite initially being apprehensive about its apparently ‘rigid’ structure. However, “it turned out to be much more interesting, much more exciting”. The Onassis Cultural centre who organised the Hack the Book Festival, took the business agenda seriously while being aware of the difficult economic context of Greece. Hacking the book in a conceptual sense, meant getting deep into the code, into the medium itself. It unpacked “the very idea behind the book, behind the question of what it means to publish.” This event could be meaningful because both the creative and the conceptual were addressed, instead of only the business side. “This idea of the phygital, the mixture between the physical and the digital became very strong. Today we are talking about post-digital culture – that is precisely an incarnation of that.” “All these things showed me that a hackathon could be much more interesting than a standard academic conference, and much more than just an event to produce economic benefits. It did all of that together, and much more.” In summary, the hackathons were deeply embedded in the lessons learned for the project.

Website and Social Media

When consortium partners were asked about the role social media plays in relation to the sustainability plan, there were mixed answers. Social media does not seem to have played a huge role in impact, although half way through the project, as tangible results became available that were ready to be shared, there was a shift and a massive push to use social media through the integration of YouTube and other platforms. Websites were of course the ‘static’ places where people could find information about the project. For instance, Museumsmedien published two E-Space videos on YouTube, seeing this as an easy additional way to inform audiences.

KU Leuven considered the ‘digitalmeetsculture blog’ as an ‘extremely powerful medium’, promptly administered and with a very good audience. The Photography Pilot blog also worked very well, because it was regularly shared on Twitter, with a lot of followers.

For NTUA social media was (also) not a primary focus. It has its place and can showcase results to a wider audience but are in the process of using “educated” users, those that have an understanding of what they are looking for and why. Critical mass is not a target audience for some of the consortium partners but for others, there was a need to reach the recreational user through social media.

Sustainability

Europeana Space was a timely project as it encouraged a reuse of tangible and intangible cultural heritage content. Forming a Best Practice Network has had a series of positive effects on many consortium members. "It kept you engaged with challenges in the sector. It provided a forum for professional conversations, the exchange of experiences and the opportunity to explore collaborations with new partners. It is inspiring and helpful to be able to consolidate or reconsider visions, challenge the efficiency of practices and methodologies, and push participants to rethink and test new approaches to their professional ventures." Although there are lots of positive elements highlighted in this section, impact is not immediately measurable and the outcomes and consequences of the consortium will become more apparent over time.

Partners describe the importance of continuation with the results; keeping the network alive and staying in touch with the other partners but also look for new projects and partners following on from the current project. One partner summarises this enthusiasm for sustainability as follows "it's very much in my passion to make sure it survives, and doesn't come to an end."

Concrete steps are taken to this effect, such as securing hosting space and domain names for an additional ten years, making content accessible to students and lecturers, and the publication of a printed book based on the online version. Some of the Twitter accounts will be maintained. Results are integrated in the university courses (both KU, Goldsmith and COVUNI). Outputs have been designed in a simple way, ensuring that they are relatively unaffected by future technological changes.

Sustainability is clear for some project partners. For NTUA it was very clear and the main plan was to sustain the E-Space Portal to keep investing (in accordance with the MoU) and will keep updating it after the project's end date. Internal targets are part of the sustainability plan and for NTUA having a sustainability plan in place was common practice. Where for other consortium members this was not the norm and they struggled with thinking in these terms. In year 2, sustainability became an integral part of the project's plan and work packages. In order to have effective and efficient sustainability outcomes, listening to the needs of the community and interpreting each sector was also part of the success of the project. One partner highlighted that people are engaging more with cultural heritage and its tools and so it shows a need for there to be software tools to facilitate is present that can help the sectors grow.

"the era of re-use and in a general context combining materials that you wouldn't normally combine, this is happening more and more and the needs for domains that can host the cultural heritage content, is still in the beginning. This will stimulate the next few years and feed into the Calls for the European Union. Such as participatory research, cultural heritage there is a need to combine cultural heritage with Life in a general sense as well as with participatory research and socio-political areas. There is a need to re-use the content and a gap with the tools that make that process easy.... Intuitiveness is what we are trying to target without development."

For many, being part of or linked to a Best Practice Network was important to their own sustainability plans. Many consortium partners saw that through the building of the sustainability plan and thinking about the life after the project end-date had forced them to consider the challenges in the sector. Being part of the Best Practice Network "It provides a forum for professional conversations, the exchange of experiences and the opportunity to explore collaborations with new partners.

It is inspiring and helpful to be able to consolidate or reconsider visions, challenge the efficiency of practices and methodologies, and push participants to rethink and test new approaches to their professional ventures.”

For another member sustainability was linked with “collaborating with experts (‘serious heavyweights’) in the field, as well as non-academic partners was considered valuable and interesting. Being part of a best practice network emphasised concrete and project-driven approaches, contrasting the more theoretical (and sometimes ‘blue skies’) approaches of academia. The community and “‘immaterial’ networks that emerged from it” are thought to survive after the project.

10 CONCLUSION

The E-Space project has come to its end, with partners (and associated stakeholders) very happy with its achievements. This is demonstrated by the fact that many are willing to maintain contact and participate within joint actions beyond the end of the funding period. The project has created a very strong and committed partnership over the past 3 years, which has been both effective and build on warm personal relationships.

Discussions on aspects of project sustainability started during year 1, particularly focusing on the Pilots in the first instance, and then enlarging to cover other activities. Eventually, the chosen strategy was to leave responsibility in the hands of the related partners that had overseen the work during the project's lifetime e.g. Pilots and Demonstrators. In addition, a partnership for the sustainability of a selection of general project outcomes would be created; particular features would include the E-Space Portal, the hackathon concept and organisation of other E-Space branded events. In this respect, a plan for future E-Space Portal developments and a tentative schedule of E-Space branded events has been discussed by the partners.

The knowledge generated by E-Space will be kept available for others to learn from and to possibly replicate the best practices that the project partners were able to collect from their experiences. Partners have access to booklets and publicity material that will continue to be shared at local events and presentations. In the same way that E-Space was able to benefit from expertise from previous projects, the work undertaken here will be built upon by other projects in the future. A good collaboration with Europeana will help further dissemination and exploitation beyond the end and the scope of the project.

It should, of course, be remembered that the project has created beneficial impact during its lifetime; for partners, those who have interacted with Pilots, hackathon and event attendees, interested stakeholders within the project's target audience, as well as people that have downloaded guides and material from the website. The reception has been positive and the project has made and will continue to make a difference.

A MoU for future activities taking place in the next 18 months has been signed by many partners and shared through the network. The network of interested stakeholders is large and varied and by maintaining continuous dissemination action towards them it is hoped that they will be happy to join future activities.

By sustaining the E-Space outcomes, tools, services, best-practices, and networks, the aim is to add value to the cultural heritage sector, the creative industries as well as small- and medium-sized enterprises. For a period of at least 18 months from the end of the funding period, E-Space tools and prototypes will remain open-access and free. These tools are easy to use and reuse, they are adaptable, and extendable.

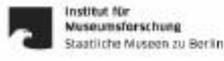
By providing educational programmes, teaching materials, and edutainment tools, as well as access to the library of E-Space resources, guidelines, and publications the idea is to stimulate growth. Users can access E-Space knowledge, acquire new skills and engage with like-minded specialists and amateurs.

In the long term, the ideal scenario would be that as a result of the commitment of the E-Space project partners, the free availability of content, tools and knowledge, others will be mobilising and inspired to follow in the footsteps of E-Space. In this way, the project will also cooperate to Europeana's mission *to transform the world with culture*.

ANNEX I – TEXT OF THE SUSTAINABILITY QUESTIONNAIRE

This is the text of the sustainability questionnaire circulated to partners in December 2016






E-SPACE D6.6 SUSTAINABILITY PLAN

QUESTIONNAIRE FOR THE PARTNERS

NAME OF THE PARTNER:

CONTACT PERSON: **E-MAIL:**

This short questionnaire is for collecting inputs from the partners about their possible individual exploitation plans of E-Space outcomes, and to reflect upon the impact of the project. The results of the questionnaire will be described in the D6.6 Sustainability Plan we are preparing.

DEADLINE: 9th December 2016

1/ Individual exploitation of E-Space resources

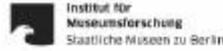
For each entry, please tick the box if you are inclined or plan to exploit/use somehow the resource.

For those ticked, please add a short explanation on your plans. Feel free to add text below the table if you need to extend your information.

Project resource	X	How you will use it?
E-Space Website and knowledge base (deliverables, blogs, events outcomes, presentations etc)	<input type="checkbox"/>	
IPR consulting toolkit	<input type="checkbox"/>	
The Innovation Space concept and process	<input type="checkbox"/>	
The E-Space Portal (Technical Platform)	<input type="checkbox"/>	
Educational Resources: MOOC	<input type="checkbox"/>	
Educational Resources: Demonstrators	<input type="checkbox"/>	
TV pilot outcomes and software	<input type="checkbox"/>	
Photography pilot outcomes and software	<input type="checkbox"/>	
Dance pilot outcomes and software	<input type="checkbox"/>	
Games pilot outcomes and software	<input type="checkbox"/>	
OHP pilot outcomes and web resources	<input type="checkbox"/>	
Museums pilot outcomes and software	<input type="checkbox"/>	
The Pop-Up Museum idea and software	<input type="checkbox"/>	
Incubated projects: do you plan to collaborate with any of them and how?	<input type="checkbox"/>	

Template v.2

1



2/ Do you plan to participate to the E-Space Memorandum of Understanding, running from 1 February 2017 to 31 July 2018?

Please confirm and tell what you plan/wish to do in the collaboration (e.g. organize an event, utilize the E-Space Portal for creating an exhibition, update the online project resources and blog...). If you don't think you will join, please explain your motivation.

3/ Benefits and Impact

How has being involved in E-Space made a difference in your work, and what sort of difference has it made? For the person/individual and then as an institution?

Please describe in 3 paragraphs why you have benefitted from being part of this project.

4/ Networking and feedback

As a Best Practice Network, it has been important for us to share our work with a range of stakeholders groups including the creative industries, cultural institutions, the education sector, thematic specialists and members of the public.

Please send any feedback quotations that you have received from people that have tested or used a pilot product/demonstrator or have participated in a hackathon, workshop or conference.

Quotations are a powerful way to show that we have reached our target audiences and how our work has and will continue to influence them.

ANNEX II – TEXT OF THE E-SPACE MOU



E-Space Initiative **Where Culture meets Creativity**

MEMORANDUM OF UNDERSTANDING

V. 1 dtd 20/12/2016

This Memorandum of Understanding (MoU) concerns the implementation of a partnership, denominated 'E-Space Initiative', aiming to carry on the legacy of Europeana Space project beyond the end of the EC Grant.

The Parties to this MoU, declaring their common intention to participate in the concerted partnership referred to above, have reached the following understanding:

As the project named Europeana Space (GA 621037) has established valuable expertise and a network of stakeholders in the field of creative reuse of digital cultural heritage, the Parties wish to take over the project legacy and maintain some of the project activities also after the end of the EC-funding period, by collaborating in their organization in a self-sustainable fashion.

The partnership will be carried out with mutual collaboration and will be focused on the following actions:

- a. maintenance of the E-Space knowledge base and network of followers
- b. realization of "E-Space branded" events: it is envisaged that a number of E-Space hackathons might take place after the project ends, with partners collaborating in the organisation of the events, possibly with local or wider dimension, open to sponsorship and other forms of collaboration with local institutions and other projects
- c. maintenance and further development of the technical infrastructure named "E-Space Portal"
- d. business planning for E-Space Portal and E-Space hackathons, further exploring possibilities of valuable business models for exploitation of digital cultural heritage.

The partnership's main objective is to pave the way for the establishment of a sustainable initiative based on the results of the E-Space project, with a longer term vision, and finalized to support the creative reuse and valorisation of digital cultural content available online. Both individuals and institutions can join the partnership providing their support to the 'E-Space initiative' according to their will and capacity.

The MoU will remain in force for a period of 18 months from the end of the Europeana Space project (i.e. from 1st February 2017 to 31st July 2019), and can be renewed upon agreement of the Parties.



Memorandum of Understanding

1. Objectives

1.1 Maintenance of the E-Space knowledge base and network of followers

It is agreed upon maintaining platforms and websites that serve as hubs to E-Space know-how and tools. Also the E-Space website as a central access point will stay on line. It will be updated with project related information and news on a regular basis. There is a commitment by the parties in maintaining the website, the blog, and the presence on the social media, keeping these channels updated with news and info.

The Content Space (IP resources and Online IPR Consulting Kit) will possibly be updated with new IP products provided by those parties for whom this topic is a research core.

The network of followers of the E-Space project (also known as Stakeholders Group) will be kept alive, involved, and informed, about the activities of the partnership and invited to the events organized by the participating organisations.

1.2 Realization of "E-Space branded" events

The holding of hackathons is a popular and already well-established activity that offers industries the possibility to gather people enthusiastic to develop new ideas. The E-Space project took up this concept and developed it even further, re-conceptualising the meaning of 'hackathon' in the cultural heritage sector. What makes E-Space hackathons so unique, successful and path breaking is the focus on concept development, knowledge-sharing and business modeling rather than pure coding. It was not the value of the prize that attracted participants: what was highly appreciated by the participants is the possibility of exchanging ideas, developing synergies around the concept of re-using digital cultural content. E-Space hackathons gave people opportunity to face the challenge of converting their ideas in sustainable business models with a possible market potential.

The main idea is to sustain a programme of E-Space branded events, located at different venues and coordinated by different partners, on a local, community-rooted level. The E-Space events will be possibly linked to already existing and established initiatives, drawing on the E-Space project's networks, skills and facilities. In this way, they can be planned on an economical basis such as for example:

- project partners or local public bodies (e.g. museums, municipality sites, cultural organizations) can provide rooms;
- dissemination can be realized via the existing communication channels (e.g. digitalmeetsculture.net for the EU visibility, together with the partners' website and social channels);
- further logistics can be provided low-cost, and possibly sponsored or even offered by local supporting partners

In order to stimulate the innovation process of the hackathons as well as to increase their impact on the cultural heritage sector, collaboration with the Europeana network is planned.



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Future hackathons and other dissemination events can possibly also benefit from cooperation with universities to attract experts and assemble a diverse group of interest with various skills. Such hackathons and events therefore have the potential to establish best-practice networks and encourage interaction of creative industries, cultural heritage institutions, and universities. For future, large-scale hackathons, the engagement with industry partners should also be considered.

1.3 Maintenance and further development of the technical infrastructure named "E-Space Portal"

An editorial team for the E-Space Portal has been established and will be maintained in order to progress with the development of the portal, content enrichment, customized functionalities development, marketing for matching content providers with creative industries, education, tourism etc.

Plans for the development of 'thematic' spaces will be proposed by the editorial team and further agreed with the concerned partners to assess their feasibility and sustainability.

1.4 Business planning

In order to develop a self-sustainable framework for the future E-Space Initiative, the partnership will investigate and discuss about the cost structure and the funding model, including exploration of possible revenue streams based on marketable services. The partnership could also opt for a non-commercial business plan and approach, but an analysis of the profile for the potential B2B market will be needed.

2. Strategic Partnership

The signing Parties acknowledge each other as strategic partners in paving the way for the establishment of the E-Space Initiative for the creative reuse and valorisation of digital cultural content available online.

They support each other in publicly emphasising the worthiness of this goal, and collaborate to the dissemination of the partnership's activities.

The Parties will keep each other informed about their respective strategic plans and decisions of fundamental impact as well as the progress in implementing these plans and decisions.

3. Impact

As another task of this MoU, parties are invited to revisit the work and outcomes of E-Space project, in order to properly be able to measure the impact of the project and to assess the benefit to user groups of the tools created during E-Space.

Such impact assessment will help understanding the difference that E-Space is making in the cultural heritage sector and the validity of the E-Space formula and approach. Such assessment and results would also be beneficial for parties fostering future collaborations.



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4. Confidentiality

In the case of confidential information, the concerned Party will need to inform the receivers in advance. The Parties agree not to disclose any confidential information to third parties, unless expressly agreed by the concerned Party in written. This article is agreed by the Parties to be legally binding.

5. Contributions

If a Party decide to involve any cost for carrying out its participation in these collaboration activities, the Party shall bear its own costs, unless other agreement is reached for a particular task. Each Party will maintain the full responsibility for its own activities, including the fulfilment of its obligations and provides no warranty, express or implied, in respect of its contribution to any activity agreed by the Parties under this MoU, including but not limited to those of fitness for a particular purpose and the infringement of third-party proprietary rights.

6. Rights of use

Any proprietary rights, relating to the results of activities undertaken jointly by the Parties under this MoU, shall be jointly held, and each Party herewith grants the other a free, irrevocable and perpetual license to use such rights.

7. Legal Nature

The Parties expressly affirm that this Memorandum of Understanding is not a legally binding contract, save for the article about confidentiality, but it is intended to confirm the basic settings agreed upon and the goodwill of the Parties to materialise a fruitful collaboration.

8. Duration

This MoU will terminate 18 months after the end of E-Space project (i.e. 31 July 2019). A review of the outcomes of this partnership will be done 3 months ahead the deadline, in order to decide whether the MoU is extended, renewed, or if another form of cooperation will be established.