Second progress report

on the digitisation and online accessibility of cultural material

and on digital preservation in the European Union

Working document
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Context

This report reviews and assesses the overall progress achieved in the European Union in implementing the Commission Recommendation of 24 August 2006 on the digitisation and online accessibility of cultural material and digital preservation (2006/585/EC), as well as the related Council Conclusions of 13 November 2006 (2006/C 297/01).


The Recommendation covers the 27 EU Member States as well as the 3 non-EU European Economic Area countries (Norway, Iceland, Liechtenstein) and Switzerland, a total of 31 countries. This report is based on the second set of national reports submitted in 2010. All reports received are available online on the Digital Libraries Initiative website:


While these national reports are the main source of the information obtained, this overall assessment also makes use of the findings of the NUMERIC study\(^1\), launched by the Commission to measure progress in digitisation, as well as other sources at national and EU level. It combines a quantitative overview of the situation in all countries with more qualitative assessments based on examples from national reports (in italics).

The structure of the report follows that of the Commission Recommendation and Council Conclusions, focusing on three main areas: a) digitisation; b) online access; c) digital preservation.

\(^1\) NUMERIC Study: Developing a statistical framework for measuring the progress made in the digitisation of cultural materials and content, Chartered Institute of Public Finance and Accountancy (CIPFA), 2009 (http://www.numeric.ws/).
1. **Digitisation: Overview of current and planned activities**

Since the publication of the Commission Recommendation in 2006, the digitisation of cultural materials has increased significantly. For example, according to the Finnish national overview, the number of digital objects has more than doubled in the period 2008-2010 (from 4 to 10 million). Nevertheless, cultural institutions of all kinds are still a long way from completing this work, which is still in its initial stages. Empirical evidence such as the NUMERIC study (2009) indicates that the vast majority of cultural objects worth digitising are not yet digitised. For national libraries, only 3.5% of relevant cultural objects have been digitised. In this context, the existence of national digitisation overviews may play a crucial role in improving effectiveness, and Member States are progressively putting in place such overviews. The Recommendation calls on Member States to gather information about current and planned digitisation of cultural material, and to create overviews in order to prevent duplication of efforts and to promote collaboration and synergies at European level. The national reports clearly indicate that inventories, overviews and databases are increasingly being set up and integrated to ensure a cross-sectoral and national dimension.

**Czech Republic:** In 2009, the Ministry of Culture carried out for the first time in history an extensive questionnaire survey among national cultural organisations (institutions receiving contributions from the state budget) concerning digitisation. The survey addressed 31 cultural organisations with a national dimension.

**Germany:** The survey ‘Inventory on the digitisation of cultural artefacts and fields of action’ was carried out on behalf of the Federal Government Commissioner for Culture and the Media and the Federal Ministry of Education and Research in the course of planning the German Digital Library (DDB). It is available online: [http://www.deutsche-digitale-bibliothek.de/pdf/bkm_end_01.pdf](http://www.deutsche-digitale-bibliothek.de/pdf/bkm_end_01.pdf)

**Sweden:** The Swedish Arts Council has gathered and consolidated information concerning the digitisation activities of 26 state archives, libraries and museums, as well as many other cultural institutions at regional level.

The National Archival Database, NAD, comprises information on archives and collections kept by Swedish public and private archive institutions. In the library sector, the National Library’s database LIBRIS ([http://libris.kb.se](http://libris.kb.se)), comprises information mainly on books and periodicals held by Swedish research libraries. The National Library also has responsibility for the Swedish Media Database, SMDB ([http://smdb.kb.se](http://smdb.kb.se)), which holds information on music, radio, TV, film, video and multimedia broadcast or published in Sweden. Since April 2009, these three databases have been combined to provide a cross-sectoral inventory on the internet called Sondera ([www.sondera.kb.se](http://www.sondera.kb.se)). In Sondera, it is possible to search simultaneously in NAD, LIBRIS and SMDB to find how a person or event is documented in TV, radio, writing and original documents.
In general, 15 countries state that they have national overviews or registers in place for systematically collecting information on the progress, content, number and accessibility of digitised items. In contrast, 11 countries still have not developed any national overviews of digitised collections. Some countries, although they have no national overviews with cross-sectoral coverage, indicate they have sector-specific (or institution- or project-specific) overviews or are in the process of developing national strategies.

The development of national digitisation overviews is often coupled with the creation of national aggregators and portals for online access to cultural heritage.

**Spain** has recently created Hispana, the Directory and Harvester of Digital Resources, promoted by the Ministry of Culture at national level. It currently includes 120 digital repositories and 439 projects. The previous report sent to the European Commission in February 2008 noted that 157 digital collections were included in DRRD, the precursor to Hispana. There has thus been an increase of around 300% over the past 2 years.

In **Lithuania**, cultural and scientific heritage is held on a virtual information system for digital cultural heritage ‘epaveldas’ (e-heritage). It became a national system in 2009. The system comprises a database of digital objects with at present 3 million pages (archive files, manuscripts, books, posters, paintings and graphics, photographs and other objects) and a portal: [http://www.epaveldas.lt](http://www.epaveldas.lt).

**Austria:** The Austrian cultural heritage institutions have created a central online portal for digitised assets — ‘Kulturpool’. It aims to stimulate closer cooperation between the arts, culture, education and science sectors, offering cross-disciplinary access and contextual information. It will also serve as a national cross-domain aggregator for Europeana. At present, it gives access to more than 85,000 digital objects provided by major Austrian cultural institutions at federal and regional level. The number of participating cultural institutions and digitally available objects is growing rapidly.

The 2008 implementation report had highlighted that only a proportion of all digitised items are actually accessible on the web. This fact is confirmed by the 2010 national
reports of several Member States, such as Portugal, Poland and Sweden. Moreover, the number of digitised museum items accessible online tends to be lower than for libraries and archives.

In Poland at the end of 2009:
- Libraries had around 500,000 digital objects (over 400,000 accessible via the internet), with a large number (approx. 350,000) searchable in the database run by the Digital Libraries Federation - http://fbc.pionier.net.pl/owoc.
- Archives contained around 1,000,000 digital objects (approx. 200,000 accessible via the internet).
- Museums had around 300,000 digital objects (mainly for own needs, 1-2% accessible via the internet in the form of virtual exhibitions)

As digitisation is a vast, expensive, time-consuming and long-term activity within a rapidly changing environment, national overviews of the ongoing and planned digitisation of a wide range of cultural items are turning out to be not only useful but necessary. They help to determine what remains to be digitised and what are the best ways to do it, but also help to prevent duplication of effort, decrease costs, and encourage cooperation between cultural bodies within Member States and at European level.

**Digitisation — national coordination mechanism for digitisation activities**

According to the national reports, 17 Member States have national coordination mechanisms for digitisation activities, bringing together representatives from public authorities, cultural heritage institutions and other organisations active in the field. 11 countries stated they had no such mechanisms, although some either have them on a sector-specific-basis, or have started developing them.

The structure of the coordination mechanisms for digitisation activities vary between countries. Most come under the ministries of culture and/or education (Czech Republic, Denmark, Finland, Greece, Italy, Latvia, Lithuania, Slovakia). Others function as working groups (Bulgaria, Luxembourg, Slovenia), foundations (Netherlands), councils and committees for digitisation (France, Spain, Estonia), state agencies (Latvia), or
competence centres (Poland). Their competences include drawing up national digitisation strategies, implementing digitisation polices and projects, coordinating digitisation activities through dialogue with the main heritage institutions, developing a common infrastructure and services, preparing quality guidelines, and, finally, monitoring the digitisation process.

In Italy, the Directorate-General for organisation, general affairs, innovation, budget and staff of MIBAC (Ministry of Cultural Heritage and Activities), together with the Ministry of Public Administration and Innovation, has prepared a specific plan for the digitisation of cultural heritage for inclusion in the e-gov 2012 national plan. The ongoing strategy for the digitisation of cultural heritage ‘Sistema Cultura’ comprises 4 action lines, including the Italian culture portal, CulturalItalia, and MuseiD-Italia.

These projects aim to serve users by providing advanced e-services and quality digital cultural content, in particular museum content.

Monitoring the usage of digital cultural heritage

Statistical data on the usage of digital cultural heritage available on the internet are gathered in most of the countries surveyed. However, comprehensive national statistics are available only in Latvia, Lithuania and Luxembourg. In the other cases, the data are either collected episodically or only by individual institutions. Another problem is the reliability and difficulty of comparing and interpreting the statistics due to the lack of benchmarks and standardisation at national and European level. The issue of developing reliable statistics on the digitisation of cultural heritage and its usage was first addressed by the NUMERIC study launched in 2007 by the European Commission. The study, concluded in 2009, constitutes the starting point for follow-up activities with the involvement of all EU Member States and the Member States’ Expert Group on Digitisation and Digital Preservation.

Studies on the economic value and impact of digital cultural heritage

There are almost no recent studies on digitisation projects and their economic, social and environmental impact. In some countries, cultural institutions have performed them on an individual basis, looking at the impact on the cultural organisation itself rather than at the macro-impacts on society, the economy and the environment. A few Member States refer to previous studies from the period 2003-2006 (Austria, Belgium, Ireland, Italy). In Latvia, studies have been conducted to investigate the social and economic impact of cultural institutions as such. The Commission is currently endeavouring to overcome the knowledge gap by obtaining empirical evidence of the actual long-term effects of the digitisation of cultural heritage.
The establishment of quantitative targets is important as it helps to better focus on current and planned activities, increases efficiency and effectiveness, and improves the predictability of the required resources. The Recommendation calls on Member States to develop quantitative targets for the digitisation of analogue material and indicate the budgets to be allocated by public authorities.

Although quantitative targets exist in most Member States, they are rarely aggregated at national level in a comprehensive planning document. They usually concern a specific domain (libraries, archives, museums or audiovisual archives), and are established ‘bottom-up’ by the individual institutions themselves. Quite often they are presented just qualitatively, and with a few exceptions lack precise operational definitions.

In Norway, the National Library has both quantitative and qualitative targets. The objective is to digitise 245 000 objects in 2010, which will bring the total number of digitised objects in the National Library to 1 400 000. As of January 2009, the National Archives had digitised 2 000 shelf metres out of a total of 209 000 shelf metres. The plan is to digitise 10% of the total, equal to 20 000 shelf metres. In view of the expected growth in the physical archives in coming years, the target may extend to 60 000 shelf meters. A plan for digitisation of museum resources will be presented at national level by ABM-utvikling during 2010. Criteria have been established for digitisation in each sector, but will be subject to inter-sectoral discussions in the Council for Digitisation. For the National Library, the budget is approximately EUR 2.6 m per year. The investment by the National Archives in digitisation equipment is calculated to be EUR 500 000.
**Netherlands**: The Royal Library’s strategic plan for 2010-2013 encompasses 10% of all Dutch books, 50% of all Dutch born-digital publications, and 600,000 images. The Images for the Future project will digitise 137,200 hours of video, 22,510 hours of film, 123,900 audio recordings and 2 million photographs. Under the strategic plan of the National Archives for 2010-2013, between 5% and 10% of the total collection is to be digitised and available online by 2015-2020. This translates into approximately 63 million pages of manuscripts, 25,000 maps and 1.3 million photographs.

Compared with the previous report from 2008, a number of countries now realise that qualitative targets also play an important role in enhancing the digitisation of cultural material in terms of data reliability, accessibility and cost-effectiveness. However, these targets differ widely across countries, sectors and institutions.

![Q. 2 b) Are qualitative targets in place?](image)

**In Belgium**, the French Community has defined three criteria for digitisation activities on an OAI-protocol-based portal: quality, sustainability and interoperability.

**In Finland**, the institutions take into account the quality of metadata, the digitisation process and the transparency of selection criteria.

**Netherlands**: digitisation activities are based on the minimum quality requirements set for the creation, description, preservation and presentation of digital heritage and facilitated search. Institutions are expected to comply with these national quality criteria (known as DE BASIS / THE BASICS). If they choose to implement other quality criteria they will need to explain why. DE BASIS can be seen as a trial run for the national infrastructure for digital heritage, which will allow institutions to set the standard for more specialised digitisation activities.
Progress in the digitisation of cultural heritage depends on the long-term financing. However, in many countries there is no national budget assigned to such activities. Digitisation is still mainly financed from the institutions’ own resources, while project-based financing through national and EU funds (e.g. EU Structural Funds) is a second source.

Some countries report the sum of public budgets aggregate at national level specifically devoted to the digitisation of cultural heritage on an annual basis. This is the case with France (over €30 million), Spain (€8.7 million) and Finland (€6.2 million). Other countries indicate such budgets on a multiannual basis, e.g. the Czech Republic with €34 million and Belgium with €27 million over a period of 5 years.
3. **DIGITISATION: PUBLIC-PRIVATE PARTNERSHIPS**

The Recommendation calls on Member States to encourage partnerships between cultural institutions and the private sector in order to create new ways of funding the digitisation of cultural material. About half the countries surveyed report the existence of public-private partnerships (PPP) for digitisation or other tasks related to the development, access, preservation and maintenance of digital libraries.

From a qualitative analysis of the replies, however, it emerges that standard service contracts are often reported as PPPs. This is probably due to a semantic and legal uncertainty about the exact distinction between a normal service contract (e.g. a cultural institution buys a digitisation service from a private company) and a proper PPP for digitisation, where the private partner should bring substantial investment, often with the involvement of a certain financial risk. Due to this ambiguity, PPPs are probably over-reported.

![Pie chart showing the distribution of responses to Q. 3 a) Are Public Private Partnerships for digitisation or access in place?](image)

Moreover, Member States replying ‘yes’ to the question ‘Are public-private partnerships in place?’, often mention just one or a few cases of PPP in the whole country. The overall picture emerging from national reports is rather that genuine PPPs are not yet a widespread method for financing digitisation by cultural institutions in Europe.

Large-scale PPPs, where both the public and private partner are big organisations, although limited in number, are proving viable, while PPPs involving medium- and small-scale cultural organisations have difficulties in emerging. A tentative explanation is provided by the United Kingdom report, suggesting that what would attract private investment is not content as such, but rather 'attention and authority', i.e. the throughput in users that a cultural institution can generate.
A few countries have been developing PPPs more than others: this is the case, for example, with the United Kingdom (British Library-Microsoft; Oxford University Library-Google and Proquest) and Spain (National Library-Telefonica; Library of Catalonia-Google; Complutense University of Madrid – Google; The Cervantes Virtual Library).

**United Kingdom:** There are two main examples of digitisation funded and delivered through public-private partnership in the UK. The first is the British Library (BL), which has achieved significant advances in the digitisation and online accessibility of its collections through a number of medium- to large-scale partnerships. The first of these, a partnership between the BL and Microsoft, was announced in 2005. It aimed to digitise 25 million pages from more than 100,000 out-of-copyright books. The partnership came to an end in 2008, having successfully digitised some 60,000 books, and the resulting digital material continues to be available from the British Library. The initial partnership also appears to have borne further fruit with the recent announcement of a joint British Library/Microsoft platform called the Research Information Centre (RIC). Essentially an online collaborative environment, the RIC enables teams of researchers to collaborate via the internet using a common set of digital research resources.

The second significant example is the Bodleian Library at Oxford, which is currently engaged in two successful public-private partnership initiatives to digitise their collections. The first of these is with ProQuest, to digitise some 65,000 items from the John Johnston archive of printed ephemera. The second Bodleian initiative is a partnership with Google to digitise the majority of its out-of-copyright works (i.e. those published before 1885).

**Spain:** At the beginning of 2008, the National Library (BNE) obtained sponsorship from Telefonica of €10m over 5 years for the digitisation of over 200,000 digital objects. Sponsorship by a leading technological partner is enabling the Hispanic Digital Library, part of the BNE, to gain access to the latest technologies in the digital field.

The Library of Catalonia, in collaboration with the libraries of the Monastery of Montserrat, the Episcopal Public Library of the Barcelona Seminary and the Library of the Barcelona Athenaeum, participates in the Google Books project, which plans to digitise over 100,000 documents in the public domain, some of which are already accessible. The Complutense University of Madrid was the first non-English-language library to sign an agreement with Google to participate in the Google Books project. It currently has over 70,000 digitised documents. The Cervantes Virtual Library continues to support the digitisation of fundamental elements of Spanish culture.

In France, the issue of public-private partnerships, namely the relationship between French cultural institutions and Google, has assumed a relatively high profile in the political debate. This discussion has led to the Task Force on the Digitisation of Written
Heritage (‘Tessier report’\(^2\)), which proposes a set of possible solutions at both national and European level.

**France** - PPPs reported by national organisations include:

- an agreement between the National Library (BnF) and the National Publishers Association (SNE) to pilot a common access solution through Gallica for both copyright works and works in the public domain.

- an agreement between the National Audiovisual Institute (INA) and the television channel TF1 to commercially exploit its news archives under a world exclusivity clause for professional use.

The position of **Google** as the main private actor in digitisation PPPs in Europe has further strengthened compared with 2008: as part of its Google Books project, Google currently has agreements with libraries in the United Kingdom (Bodleian Library at Oxford), Germany (Bavarian State Library), Spain (Complutense University of Madrid, Library of Catalonia), Belgium (Ghent University), Switzerland (University Library of Lausanne), France (Lyon Library), Italy (Culture Ministry), Austria (National Library) and the Netherlands (Royal Library). Certain Member States have reported on the issues tackled during negotiations with Google: as compared with the first agreements to become public, the most recent seem to take better account of the issues identified, among others, by the High Level Expert Group on Digital Libraries\(^3\): access and reuse by end-users and other search engines, exclusivity avoidance, and transparency. Google also indicated its willingness to make digital public-domain content available through Europeana. This took concrete shape in September 2010, when about 100 000 books scanned by Google from the Ghent University Library were made available through Europeana.

On a smaller scale, a few other private actors are reported as participants in digitisation projects with libraries in different European countries: this is the case with the US company Proquest, which entered into partnerships for the digitisation of early books with the Bodleian Library of Oxford and the Royal Danish Library. Beyond private commercial partners, other US organisations, such as foundations (Bill and Melinda Gates Foundation in Latvia) and public agencies (e.g. USAID in Bulgaria, an interesting example although not a PPP), are currently financing small-scale digitisation projects, in particular in new Member States. More countries have reported digitisation partnerships, in particular in archives, with the Genealogical Society of Utah.

**Bulgaria** — Since November 2006, the regional library ‘Stoyan Chilingirov’ in Shumen has had a ‘Digital studio’ division, developed as part of a project, ‘Preservation of historical documents’, financed by the US Agency for International Development.


Other examples of PPPs are reported in non-EU countries, in particular in Norway and Switzerland. These concern in particular the digitisation of newspapers, alongside other types of cultural content (books, radio broadcasts).

**Norway:** The National Library collaborates with several other institutions on the digitisation of cultural material. Over the last three years the newspaper Aftenposten and the National Library have collaborated on the digitisation of the complete history of the newspaper. Aftenposten and the National Library have split the costs of the work 50/50, while the National Library has defined the standards for image quality and identification of newspapers and single pages. The National Library plans similar collaboration projects with other Norwegian newspapers.

Also, the National Library collaborates with the Norwegian Broadcast Corporation (NRK) on the digitisation of Norwegian radio history. Here too, the costs have been split 50/50. In this project, the National Library runs the digital archive service for the NRK.

In the Bokhylla project, the National Library is digitising 50000 books from the period 1990–1999. Publishers may download their own books in full preservation quality.

**Switzerland:** The Swiss National Library has PPPs with the newspaper publisher Le Temps SA to digitise the Journal de Genève (in cooperation with the Bibliothèque publique de Genève), Gazette de Lausanne (in cooperation with the Bibliothèque cantonale et universitaire de Lausanne) and the Nouveau Quotidien. The Swiss National Library also has an agreement with the Société neuchâteloise de presse, the Bibliothèque publique et universitaire de Neuchâtel, and the Bibliothèque de la Ville de La Chaux-de-Fonds to digitise the newspapers L’Express and L’Impartial. An agreement has been signed between the Swiss National Library, the publishers Meier&Cie, the Stadtbibliothek Schaffhausen and the Canton of Schaffhausen to digitise the newspaper Schaffhauser Nachrichten from 2010.

To conclude, digitisation costs in Europe are still by and large funded by public budgets: according to the NUMERIC study, the cultural institutions’ own resources are the main source of funding for digitisation with 62%, followed by other public funding through project-based grants (30%). The private sector therefore contributes less than 10% of the total, including donations, contributions in kind, other revenues from commercial arrangements and PPPs.

Public loan schemes with the involvement of private partners to fund digitisation and generate an actual return on investment in the medium term are another solution, where a few but significant cases are reported:

**France:** The ‘Grand Emprunt national’ (great national loan) will provide hundreds of thousands of twentieth-century works that are no longer commercially available (estimate: between 500000 and 1 million works). The project is based on four principles: 1) complete digitisation of the corpus by the state through the Grand Emprunt; 2) a bulk agreement for all the works, bypassing title-by-title negotiation, with soft opt-in and opt-out mechanisms; 3) a legally safe agreement between the three parties: Culture and Communication Ministry, authors and publishers; 4) a business model with a revenue sharing mechanism, yet to be defined.
The Netherlands: The Digital Facts survey showed that the private sector funds an average of 6% of the Netherlands’ entire digitisation budget. Libraries and museums seem to have more success in attracting external funding than archives. Images for the Future (audiovisual) works with a number of private partners which acquire contracts for preserving and/or digitising parts of collections. One of the conditions for receiving public funding is the requirement to generate income through added-value user services for digitised content. Between 2014 and 2025 €64 million is to be generated and returned to the public purse. This type of public funding is experimental and is currently being evaluated.
4. LARGE-SCALE DIGITISATION FACILITIES

Under the fourth point of the Recommendation, large-scale digitisation facilities are to be set up and run as part of, or in close collaboration with, competence centres for digitisation in Europe. The rationale behind the establishment of large-scale digitisation facilities is to accelerate and standardise the digitisation process, to reduce its costs and to grant broad and fast access for smaller cultural institutions. Many of the countries have already created such entities as part of the structure of university, national or other major libraries (Austria, Finland, Germany, Lithuania, Netherlands, and Norway), or national archives (Germany, Hungary, Spain, and Sweden). Other countries tend to prefer outsourcing digitisation activities to private service providers through public procurement (France, Greece, Latvia, Romania, Czech Republic Slovakia).

**Slovakia:** the construction of the Slovak Digital Library in Vrútky, as a branch of the Slovak National Library, has been suspended by the Ministry of Culture, also due to the Ministry’s intention to outsource digitisation to a private company, for which a public procurement procedure was announced before approval of the relevant feasibility study for the Information Society Operational Programme (Structural Funds).

The **UK** model has tended in general to move away from the development of large-scale mass-digitisation facilities and towards boutique digitisation and digitisation-on-demand either in-house or on a smaller scale with a local digitisation partner, such as an academic institution. Hence, the only large-scale facilities tend to be found in institutions such as the British Library, which have a commitment to ongoing mass digitisation, or in academic or publishing institutions with a clear commercial case for maintaining local digitisation infrastructure. The UK also has a small but growing market of commercial digitisation service providers.

**Q. 4) Large scaled digitisation facilities: are they part of European efforts?**

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<th>YES</th>
<th>NO</th>
<th>N.A.</th>
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<tr>
<td>Answer</td>
<td>12</td>
<td>14</td>
<td>5</td>
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Twelve countries state that their large-scale digitisation facilities form part of European networks and collaborative efforts. On the basis of an in-depth analysis of the reports, this overall picture should be interpreted cautiously. In certain cases, responders reply to
the question in the affirmative by giving an overview of generic cooperation between cultural heritage institutions at European level, mainly through participation in EU-funded projects not always focused on setting up large-scale digitisation facilities: the European Library, MICHAEL, ATHENA, TELPlus, etc.

The European Commission has also developed an approach to promote digitisation competence centres under the Seventh Framework Programme for Research and Technological Development. The IMPACT project brings together centres of competence in large-scale text digitisation with the focus on early printed text. PRESTOPRIME is following on from PRESTOSPACE in the area of tools and services to support audiovisual archives in the digitisation of analogue content. The 3DCOFORM project includes a competence centre for the digitisation of cultural objects and artefacts for museums and archaeological sites. Three different types of cultural objects are thus covered: text, audiovisual and ‘physical’ artefacts.
5. **Online accessibility: Access to content through Europeana**

The Recommendation invites Member States to promote Europeana, in particular by encouraging their cultural institutions and other private content- and right-holders to make their digitised material searchable through the European digital library. A simple indicator for the implementation of this specific point is the actual number of digital objects accessible through Europeana. From about 2 million at the launch of the portal in November 2008, it has steadily grown to reach and significantly exceed the original target of 10 million by 2010: currently more than 14 million items, including 5 million text items, are accessible through Europeana. Although the overall balance in terms of country contribution has improved, the table below clearly shows that it is still rather uneven. The Commission, following a suggestion by the Council, has asked each country to contribute to a roadmap to fill the main quantitative and qualitative content gaps, by contributing to Europeana a diversified and balanced set of cultural objects, in particular masterpieces and classics, to properly represent each national cultural heritage in the various media (text, images, videos and sound). As clearly indicated by the following chart and table, the country balance has improved as compared with 2008, but too many Member States are not yet contributing a sufficient amount of content: about half the Member States contribute less than 1% of the total number of objects. The use of this quantitative indicator should be qualified in that a digital object can be a single image (e.g. a photograph, or a digital reproduction of a museum object) or a more complex item, such as a book or a video. Therefore, the following chart and table provide quantitative information about country contributions, but do not imply any qualitative judgment.

**Country contributions to Europeana in number of digital objects, only > 1%**

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<thead>
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<th>Contribution by Country</th>
<th>Percentage</th>
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<td>France</td>
<td>17,98%</td>
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<td>Germany</td>
<td>17,1%</td>
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<td>Sweden</td>
<td>9,69%</td>
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<td>Spain</td>
<td>8,85%</td>
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<td>Netherlands</td>
<td>7,89%</td>
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<td>Italy</td>
<td>7,03%</td>
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<td>Poland</td>
<td>2,81%</td>
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<tr>
<td>Belgium</td>
<td>1,45%</td>
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<td>United Kingdom</td>
<td>6,14%</td>
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<tr>
<td>Ireland</td>
<td>6,47%</td>
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<tr>
<td>Greece</td>
<td>1,4%</td>
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<tr>
<td>Norway</td>
<td>5,76%</td>
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<tr>
<td>Others &lt; 1%</td>
<td>3,31%</td>
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<tr>
<td>European Collections</td>
<td>2,91%</td>
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Source: Europeana Office, November 2010
Table: **Europeana content by country** (percentage of the total number of objects in Europeana contributed by the different Member States)

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<thead>
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</tr>
<tr>
<td>Germany</td>
<td>17,10%</td>
</tr>
<tr>
<td>Sweden</td>
<td>9,69%</td>
</tr>
<tr>
<td>Spain</td>
<td>8,85%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>7,89%</td>
</tr>
<tr>
<td>Italy</td>
<td>7,03%</td>
</tr>
<tr>
<td>Ireland</td>
<td>6,47%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6,14%</td>
</tr>
<tr>
<td>Poland</td>
<td>2,81%</td>
</tr>
<tr>
<td>Belgium</td>
<td>1,45%</td>
</tr>
<tr>
<td>Greece</td>
<td>1,40%</td>
</tr>
<tr>
<td>Finland</td>
<td>1,31%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0,98%</td>
</tr>
<tr>
<td>Austria</td>
<td>0,32%</td>
</tr>
<tr>
<td>Estonia</td>
<td>0,27%</td>
</tr>
<tr>
<td>Romania</td>
<td>0,17%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0,15%</td>
</tr>
<tr>
<td>Denmark</td>
<td>0,11%</td>
</tr>
<tr>
<td>Portugal</td>
<td>0,11%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>0,08%</td>
</tr>
<tr>
<td>Czech republic</td>
<td>0,08%</td>
</tr>
<tr>
<td>Hungary</td>
<td>0,07%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0,05%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0,04%</td>
</tr>
</tbody>
</table>
Another question put to Member States in the questionnaire concerned the existence of national aggregators to consolidate national content from different sectors and to make it available for easy delivery and integrated access via Europeana.

More than half the national reports mention the existence or forthcoming introduction of national access portals, such as Kulturpool (Austria), Culturaitalia (Italy), Culture.fr (France), Culture Grid (United Kingdom), Gallica (France), Hispana (Spain), Letonica (Latvia), Czechiana (Czech Republic), Slovakiana (Slovakia), Deutsche Digitale Bibliothek (Germany), Epaveldas (Lithuania).

There are signs of progress, as the number of national aggregators has increased as compared with 2008.

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4 Collections without an attribution per MS, e.g. from European projects
Q. 5) Is a national aggregator in place to make your country's content available to Europeana?

- **YES**: 17
- **NO**: 10
- **N.A.**: 4
6. **ONLINE ACCESSIBILITY: ORPHAN AND OUT-OF-PRINT WORKS; PUBLIC DOMA IN**

Point 6 of the Recommendation invites Member States to improve conditions for the digitisation of cultural material and for its online accessibility by:

(a) creating mechanisms to facilitate the use of orphan works;
(b) establishing or promoting mechanisms to facilitate the use of works that are out of print or out of distribution;
(c) promoting the publication of lists of known orphan works and works in the public domain,
(d) identifying barriers in national legislation to the online accessibility and subsequent use of cultural material in the public domain and taking steps to remove them.

6.1. **Online accessibility: mechanisms for orphan works**

Four years after adoption of the Commission Recommendation, the majority of Member States do not have mechanisms making it easier for cultural institutions to digitise orphan works and make them accessible online. Only four countries said they had such mechanisms: Denmark, Hungary, Czech Republic and Romania. In addition, extended collective licensing systems are also used in Finland, Sweden and Norway. This means that a total of 7 countries possess some mechanisms for orphan works. Nevertheless, according to some replies, extended collective licensing does not always allow cultural institutions to handle orphan works in a satisfactory way.

The Nordic countries (extended collective licensing systems) and Hungary (administrative authorisation system issuing a non-exclusive licence) already had mechanisms in 2008, while the Czech Republic and Romania have changed their legislation more recently.

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5 The following reports on the issue of orphan works in the EU provide further information:


Anna Vuopala, Assessment of the Orphan works issue and Costs for Rights Clearance, European Commission (2010):

The **Czech Republic** already has a system of extended collective licensing in place and is planning an amendment to national copyright law to improve the handling of all types of orphan works. However, there are concerns that such a mechanism is not particularly suited to mass digitisation.

Many Member States have also remarked that a Europe-wide solution would be desirable, and stated that they would wait for the announced proposal for a Directive before taking action at national level.

**United Kingdom:** A proposed clause within the Digital Economy Bill (now the Digital Economy Act) would have provided for the use of orphan works, but was removed by the government. There continues to be no primary legislation (other than the limited provisions for fair dealing under the Copyright, Design and Patents Act) permitting the digitisation and accessibility of orphan works in public collections.
6.2. Online accessibility: mechanisms for out-of-print works

As for orphan works, only a minority of countries (8) state they have mechanisms for out-of-print works. Again, they are based on extended collective licensing, or voluntary agreements (such as in the Netherlands and Norway), or specific provisions in copyright legislation for preservation and on-site consultation (Austria, Slovenia).

<table>
<thead>
<tr>
<th>Q. 6 b) Are mechanisms for out-of-print / out-of-distribution works in place?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES: 8 DK, HU, NL, PT, SI, SK, CH, NO</td>
</tr>
<tr>
<td>NO: 19</td>
</tr>
<tr>
<td>N.A. : 4</td>
</tr>
</tbody>
</table>

**Slovenia:** The Slovenian law on authors’ rights and similar rights (Article 92) clearly defines out-of-print works (less than 5%, or less than 100 copies), and allows public institutions to reproduce such works only for their own needs and not for public use.

Progress could be observed in Article 20 of the Legal Deposit Act (Official Gazette 69/2006): if a publication has not been available on the market for at least two years, and if lost or damaged, a depositary organisation can reproduce one copy of the publication stored by some other depositary organisation to ensure preservation and accessibility and to allow its use within on the premises of the organisation.

**Austria:** Article 42, section 7, of the Austrian Copyright Law (Urheberrechtsgesetz) contains an exemption giving the right to reproduce out-of-print works and works published but not distributed in sufficient numbers, which allows these works to be reproduced by public institutions for non-commercial purposes. This enables the digitisation of these works, but not their online distribution. It allows on-site access only.
6.3. Online accessibility: lists of orphan works and works in the public domain

Only three countries (Germany, Hungary and Lithuania) indicate they have such lists or databases. However, many countries mention their involvement in the EU-funded ARROW project ‘Accessible Registries of Rights Information and Orphan Works towards Europeana’, involving national libraries, publishers and collective management organisations. ARROW is expected to contribute to finding ways of identifying rightholders, rights and clarifying the rights status of a work, including whether it is an orphan work or out of print.

Q. 6 c) Are lists / databases of Orphan and Public Domain Works in place?

**Hungary:** Article 8 of the Government Decree provides for a register of orphan works. It is to be kept by the Hungarian Patent Office, but will include only orphan works for which licences have been granted for their use. It will be a publicly available administrative register that can be consulted by anyone. It is to be electronically accessible (online).
6.4. **Online accessibility: barriers to the accessibility and use of public domain works**

The Recommendation invites Member States to identify barriers in their legislation to the online accessibility and subsequent use of cultural material that is in the public domain, and to take steps to remove them.

Only four countries admit that they have identified legal barriers to the accessibility and use of public domain material.

The types of legal barriers mentioned include: copyright and neighbouring rights’ legislation; personal data protection legislation; legislation concerning databases. The complex issue of creating a new layer of rights through the digitisation of public domain works is also mentioned. In general, the replies indicate that the protection of public domain works in the digital environment is an issue requiring better understanding and further attention.
7. DIGITAL PRESERVATION: NATIONAL STRATEGIES AND PLANS

This point in the Recommendation asks Member States to establish national strategies for the long-term preservation of digital material, indicating the organisational approach, roles, responsibilities, resources, plans and objectives.

The preservation of digital information for the future is and will remain a significant challenge. This is particularly true for ‘born-digital’ data. The situation remains substantially unchanged from the previous report: digital information is threatened by deterioration of the medium carrying it, or by the obsolescence of the technology on which it depends. There is a growing recognition by Member States of the costs of losing digital data, and almost half have already adopted a strategy for digital preservation. These national strategies are quite diverse, ranging from a preliminary feasibility study to a much more advanced and comprehensive digital preservation infrastructure with processes already up and running. These countries are gradually, albeit slowly, developing their national preservation policies, mainly with their national libraries or national archives as focal organisations.

In Poland, the Committee for Digitisation published in 2009 a programme for the digitalisation of cultural goods and collections and the storage and availability of digital items in Poland (2009-2020).

**Poland:** The programme provides a framework for the cooperation of all institutions responsible for cultural heritage and consists of recommendations concerning common criteria for the selection of material, technical standards for scanning and processing material, metadata, online access, and long-term preservation.
The Netherlands: in 2008 the Netherlands Coalition for Digital Preservation (NCDD) was established with the specific aim of building a national infrastructure for digital preservation. To underpin its strategy, in 2009 the NCDD carried out a national digital preservation survey, funded by the Ministry of Education, Culture and Science. The resulting report, ‘A future for our digital memory’, identified major gaps in the long-term management of digital information resources and concluded that efforts to improve collaboration between stakeholders within information chains should be prioritised to secure the type of cradle-to-grave care digital data require. In response, the NCDD is developing a strategy whereby four prime-mover organisations will identify and implement infrastructure measures within their sector. These are: the Royal Library — KB (scholarly publications), the National Archives (public records), Data Archiving and Networked Services (research data) and the Netherlands Institute for Sound and Vision (audiovisual and dynamic content). A prime mover has yet to be assigned for the cultural heritage sector (museums). The NCDD itself will concentrate its efforts on knowledge sharing between sectors.

In France, the national archive has put in place a new digital preservation platform, PILAE, to run from 2008 until 2012. Based on the OAIS standard, the platform will handle the storage and preservation of born-digital documents produced by the national central service and provide access to them.

Austria: The Österreichisches Staatsarchiv (Austrian State Archives) is currently implementing a long-term preservation project. This project is carried out in cooperation between the Austrian Federal Chancellery, Siemens IT Solutions and Services and Tessella plc (an international technology and consultancy firm for software science and engineering). The project includes the conception and implementation of a software solution for the long-term digital preservation of administration information. It is to be developed by Siemens IT Solutions and Services and Tessella plc and will be hosted at the BRZ (Austrian Federal Computing Centre).

The project is based on an interesting scalable business model.

8. Digital preservation: Exchange of information at European level

Under the Recommendation, Member States are also to exchange information on their digital preservation strategies and action plans.

Most countries (21) indicate that they do this. EU research projects, in particular those co-funded under the Sixth and Seventh R&D Programmes, are often mentioned by Member States as platforms for exchanging information and experience at European level. Projects such as PLANETS, CASPAR, KEEP, DPE have brought together experts and practitioners in digital preservation from museums, archives, national libraries and research institutions all over Europe. Also, the Conference of European National Librarians (CENL), Europeana and Europeana-related projects (such as the Archives Portal Europe — APEnet) are often mentioned as important platforms for the exchange of information on digital preservation policies and practices.
PLANETS — Preservation and Long-term Access through Networked Services — is a four-year project (2006-2010) coordinated by the British Library and co-funded by the European Union under the Sixth Framework Programme to address core digital preservation challenges. The consortium brought together expertise across Europe from national libraries and archives, leading research universities and technology companies. The primary goal for PLANETS was to build practical services and tools to help ensure long-term access to digital cultural and scientific assets. PLANETS also included an extensive outreach and training programme, involving around 500 practitioners aiming to preserve digital collections, researchers, and developers of preservation tools and services. The results of PLANETS are now being maintained and developed by a follow-on organisation called the Open Planets Foundation (OPF). OPF is a not-for-profit company, registered in the UK: www.openplanetsfoundation.org.

9. DIGITAL PRESERVATION: MULTIPLE COPYING AND MIGRATION FOR PRESERVATION PURPOSES

In the Recommendation, Member States are invited to provide in their legislation for multiple copying and migration of digital cultural material by public institutions for preservation purposes, while fully respecting EU and international legislation on intellectual property rights.

This point in the Recommendation has the best implementation record, as 22 countries state they have put it into practice. Although in some cases there is no explicit provision in copyright legislation, most Member States do not consider copying and migration for preservation purposes to be problematic.
Q. 9) Are multiple copying and migration of digital cultural material allowed in your legal system for preservation purposes by public institutions?

United Kingdom: the Gowers Review identified several improvements that could be made to the current copyright regime for the benefit of libraries and archives. Following that review, proposals have been made to extend the current provisions for preservation to allow format shifting, multiple copying, and the copying of all types of copyright works in libraries and archives. The proposals also include extending these provisions to other cultural domains, specifically museums and galleries.
10. DIGITAL PRESERVATION: DIGITAL LEGAL DEPOSIT

Member States were invited to establish policies and procedures for the deposit of material originally created in digital format (‘Digital Legal Deposit’), taking into account developments in other EU countries to prevent a wide divergence in depositing arrangements.

Most Member States have legal deposit policies in place for born-digital material. The number has increased since 2008, and is expected to increase further as some countries have legislation in preparation. However, certain countries that already have legislation in place are reporting that actual implementation of the digital legal deposit scheme has not yet started, or has just started, so the number of deposited items is very small. Moreover, the deposit arrangements and types of material covered vary considerably. For example, audiovisual and cinematographic material is currently excluded in Austria and Belgium.

**Q.10) Are digital legal deposit provisions in place in your country?**

![Pie chart showing responses: 17 YES, 10 NO, 4 N.A.]

**Austria:** The new Austrian Media Law came into force in March 2009, with a new amendment on online publications, which forms the legal basis for web archiving and governs the collection of online publications. It covers all types of material except objects that consist mainly of audio or video files. Before the new Media Law, the Österreichische Nationalbibliothek had voluntary agreements with publishing houses and non-profit organisations. The collected online publications currently number 6480 objects, comprising approximately 48 750 files (approx. 400 GB disk space).
11. DIGITAL PRESERVATION: WEB HARVESTING

Point 11 of the Recommendation invites EU member States to provide in their legislation for the preservation of web content by mandated institutions using techniques for collecting material from the internet such as web harvesting.

14 countries replied that their legislation already provides for web harvesting, normally as part of digital legal deposit arrangements. Here too, the actual nature (scope, depth, frequency) of harvesting varies widely. Moreover, access policy regarding the harvested material is also rather diverse, normally due to personal data and copyright protection concerns: many countries (e.g. Spain, France and the Czech Republic) report that access to harvested material is possible exclusively within library premises. Examples of full online access for archived websites of public institutions are reported by Germany, while in Slovenia access is currently possible only on-site for library staff.

Q. 11) Is web harvesting provided for by legislation?

![Pie chart showing the breakdown of responses to Q. 11]

- YES: 14
- NO: 14
- N.A.: 3

Slovenia: The new Legal Deposit Act also regulates the preservation of web content. The mandated institution is the National and University Library. At present, the number of publications stored is low because work since 2007 has mainly focused on the preparation of rules, establishing the infrastructure for loading web-based publications, and prototype capturing of case internet domains. The websites harvested are those of government, higher education institutions, research institutions, other public sector institutions, and other miscellaneous sites in accordance with the criteria defined by the ‘Regulations on type and selection criteria for legal deposit of electronic publications’. Access regime: the web archive is currently accessible to National Library employees only, but will be publicly accessible (as defined in the Legal Deposit Act) when a substantial amount of material is harvested.
CONCLUSIONS

In its first report in 2008, the Commission had indicated that Member States had made significant efforts, but much more needed to be done to ensure a critical mass of digital content available to all. In particular, the Commission had identified key areas for attention:

- Financial resources and quantitative targets for digitisation.
- Solid support from the Member States for Europeana, ranging from criteria for financing digitisation to setting up national aggregators and work on standardisation.
- Legislative and practical mechanisms facilitating the digitisation and accessibility of orphan works, and measures to encourage voluntary agreements on works that are out of print or out of distribution, taking into account cross-border aspects.
- Financial and organisational aspects of digital preservation.

The second reporting exercise conducted in 2010 indicates that overall there is evidence of further progress compared with the 2008 report, although it is slow and does not cover all points of the Recommendation.

Delays are evident in many areas in terms of the target years, between 2007 and 2009, set in the Council Conclusions of 7 December 2006 (2006/C 297/01). The implementation gap is still high for orphan, out-of-print and public domain works (point 6 of the Recommendation). The new Digital Agenda for Europe\(^6\) states that the Commission will propose a Directive on orphan works by 2010, and will conduct a dialogue with stakeholders with a view to further measures on out-of-print works, complemented by rights information databases. The Digital Agenda for Europe also states that by 2012 the Commission will propose a sustainable model for financing Europeana and the digitisation of cultural content.

The forthcoming report of the ‘Comité des Sages’ on ‘Bringing our Cultural Heritage Online’ will provide guidance on various issues concerning the digitisation and accessibility of cultural heritage, such as the involvement of private partners and sponsors.

Point 12 of the Recommendation calls on the Commission to launch the third implementation reporting exercise at the end of 2011.