

Estonia

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Ministry of Culture

A. Users and content

National portals for culture, networked digital repositories, digitisation projects (Competence centres)

Art Museum of Estonia
<<http://www.ekm.ee>>

- Digital Art Museum provides access to the works in the collection of Art Museum of Estonia to both Estonian and international contemporary art public and researchers.
<<http://www.digikogu.ekm.ee/>>

State Conservation Centre "Kanut"
<<http://www.kanut.ee>>

- Virtual exhibition "Modernism in Estonian Art at the beginning of the 20th century" – a pilot project for the software solution "Virtual Exhibitions System" (See also sections 2. and 3.2.1)
<<http://www.virtuaalmuuseum.ee/>>
- The Red Book of Estonian Museums – project started in 2000. Objective: to save Estonian museum objects on the basis of a single system and to store them in digital form in one place. To make archived materials accessible for scientific and educational purposes in Estonia via Internet.

National Library of Estonia
<<http://www.nlib.ee>>

- ESTER – Electronic catalogue of Estonian libraries
<<http://ester.nlib.ee>>
- Catalogue of e-magazines of the Estonian National Library
<<http://atoz.ebsco.com/home.asp?Id=natlie>>
- Theme gate of the Estonian National Library
<<http://pang.nlib.ee:1083/lingid>>

- ERB – Database of Estonian national bibliography
<<http://erb.nlib.ee>>
- ISE – Central bibliographical database of articles in the humanitarian and social field
<<http://ise.nlib.ee>>
- BIE (*Bibliographia Iuridica Estonica*) – Juridical bibliography database
<<http://bie.nlib.ee>>
- DEA – Digitised Estonian newspapers; a selection of papers from 1821 to 1944
<<http://dea.nlib.ee>>
- Digital collections – Digitised materials from the collection of the Estonian National Library (old city plans, book illustrations etc)
<<http://www.nlib.ee/132>>
- On-line publications of the Estonian National Library
<<http://www.nlib.ee/135>>
- E-exhibitions of the Estonian National Library
<<http://www.nlib.ee/136>>
- EU questions and answers
<<http://elik.nlib.ee/?id=32>>
- DIGAR – DIGital Archive has been developed with the support of the EU e-Content programme project reUSE. Idea is preserving digital copies of publications and making them available to the public.
<<http://digar.nlib.ee>>
- The Red Book of Estonian Publications lists Estonian national imprint from the very first copies up to the year 1850, constituting the first part of the complete list of national publications, which are significant in the context of Estonian culture.
<<http://www.nlib.ee/PunaneRaamat/>>
- DIGMAP – Digitisation old maps
<<http://www.nlib.ee/67195>>
- ERIK@ – Estonian Resources on the Internet: Cataloguing and Archiving. The aim of the project is to work out methods and means of collecting, registering, archiving and providing access to Estonian on-line publications.

Estonian Literary Museum

<<http://www.kirmus.ee>>

- BIBIS – Database of the analytical bibliography of Estonian media
<<http://www2.kirmus.ee/biblioserver/>>
- ISIK – Estonian biographic database
<<http://www2.kirmus.ee/biblioserver/isik/>>
- ELLEN – Manuscripts database
<<http://www2.kirmus.ee:8080/ellen/avalik.do>>
- ERNI – Estonian cultural and literary history in texts
<<http://www.kirmus.ee/erni>>
- Databases of Estonian folklore (proverbs, sayings, puzzles, wordplay, conundrums, riddles, Web humour, ethno astronomy in Estonian and in English)
<<http://haldjas.folklore.ee/ebaas/>>:
 - ESTONIAN DROODLES – Digital copy of the card catalogue that was compiled on the basis of manuscript collections of droodles stored in Estonian Folklore Archives
<<http://www.folklore.ee/Droodles/>>
 - JUSTKUI – Database of sayings and phraseology
<<http://www.folklore.ee/justkui/>>
 - LEPP – portal of South Estonian tradition
<<http://www.folklore.ee/lepp/>>
 - E-collection: queries of the folklorists' internal server Klaabu (electronic publications, digitised manuscripts etc)
<<http://www.folklore.ee/cgi-bin/ekogud>>
 - Sugrimaa – website of Fenno-Ugric nations
<<http://www.folklore.ee/r1/folkte/sugri/>>
 - *Estonische Sprichwörter mit der buchstäblichen Übersetzung in die deutsche Sprache*. (12,700 Estonian proverbs with translations into German; searchable by keyword and type number either among Estonian or German texts)
<<http://www.folklore.ee/r1/date/saksa/>>
- RADAR project about local traditions (including also folklore and monuments) connected to GIS (geographical information system): a CD was produced for the purpose of tourism and education. A further development of RADAR is foreseen by means of mobile phones.
<<http://www.folklore.ee/radar/>>
- BERTA – Database about important days in the folk calendar of the past and the present + CD version

of the folk calendar: digital presentation of special days connected with traditions.

<<http://www.folklore.ee/Berta/>>

- Digitisation of folk music recordings: modern recordings of folk songs ("Anthology of Estonian traditional music" 3 records, first recording in 2003, re-issue in 2004).
- Digitisation of video collection: recording the traditions of Finno-Ugric nations on DVDs.
- Digitisation of exhibition materials: a portal "Kreutzwald's century" is being compiled, that gives an overview about the development of Estonian culture during the 19th and 20th centuries as compared to the development of Western Europe and Russia. (Fr. R. Kreutzwald compiled Estonian national epos "Kalevipoeg").
<<http://kreutzwald.kirmus.ee/>>
- A portal of the Estonians in the East is being compiled: depicts information regarding the people who moved from Estonia to the East.

Estonian National Museum

<<http://www.erm.ee>>

- Presentations of museums' collections with samples (photo collection, objects collection, library, archive, film archive)
<<http://www.erm.ee/?lang=ENG&node=1>>
- Exhibitions and events, including electronic exhibitions
<<http://www.erm.ee/?lang=ENG&node=54>>
- Estonian folk culture – Overview of Estonian traditions, customs, lifestyle, work, items etc
<<http://www.erm.ee/?lang=ENG&node=11>>
- For children – Games, events, educational programmes
<<http://www.erm.ee/?lang=ENG&node=9>>

National Archives of Estonia

<<http://www.ra.ee>>

- AIS – Database that allows users to search for documents preserved in the National Archives of Estonia. Ca 3 million archival records of the total 8 million records are available via AIS.
<<http://ais.ra.ee/ais/>>

The Estonian Historical Archives

<<http://www.eha.ee>>

- URRAM – Electronic catalogue of the library of the Estonian Historical Archives (URRAM is an Internet-based library management software for Estonian libraries, system development was co-ordinated by the Ministry of Culture of Estonia) <<http://www.ra.ee/urram>>
- 17th century publications (until 1710) in the fund of the Estonian Historical Archives <<http://www.eha.ee/plakatid/>>
- Album Academicum Universitatis Tartuensis 1918-1944 – Database of the study certificates of the University of Tartu supplemented with bibliographical data, located at the Estonian Historical Archives
- Archival records in the archives of the Estonian Evangelist Luther Church that include bibliographical data
- Tartu projects – Collection of blueprints of the buildings in Tartu approved by the Tartu City Government during 1871-1918
- Fellows of the George medal in Estonia <<http://www.eha.ee/georgi/index.htm>>
- Register of the maps of the Estonian Historical Archives
- Register of the manors on the Estonian territory
- Register of the communes in Estonia from 1866 to 1917

Emerging initiatives:

- SAAGA – Digitalised Family History Sources. Contains parish registers, parish member lists of the Estonian Evangelical Lutheran Church (EELK) and the Estonian Apostolic Orthodox Church (EAÕK), tax revision lists and lists of commune members. About 4000 microfilm shots are scanned in a day, the capacity of the whole project is appraised to 3 millions pages of scanned text, which should be accessible to the users by the year 2008. By now, about 750 000 shots have been scanned and the cost of the whole project is approximately 3 million Estonian crowns (one half of this is planned for hardware and another half for carrying out the scanning). <<http://www.eha.ee/saaga>>
- KUPITS – Map server of the administrative borders in Estonia 19th – 20th Century <<http://www.eha.ee/kupits/>>

Estonian National Television

<<http://www.etv.ee>>

- From the year 2004 the news and sports programmes of the Estonian Public Service National Television are operated and stored in digital format
- Digitised materials of the photo archive of the Estonian Public Service National Television

Estonian National Radio

<<http://www.er.ee>>

- Cultural and historical sound-documents <http://www.er.ee/index.php?lang=est&main_id=225>

Estonian Institute

<<http://www.einst.ee>>

- Calendar of cultural events in Estonia <<http://kultuur.info/>>
- Web encyclopaedia *Estonica* – bilingual Web publication, compiled by the Estonian Institute, with the aim of offering a compact and systematic overview of Estonian society, culture, history, nature, education, science, state administration and economy, and of the connections between these fields <<http://www.estonica.org/>>
- Electronic versions of publications about Estonia <<http://www.einst.ee/publications.html>>
- Digital album "Empty Space" – Works by 12 Estonian artists and photographers <<http://www.einst.ee/tyhiruum/>>

B. Technologies for digitisation

The collaborative effort in developing strategies and standards has generated wider discussions of digital cultural heritage issues, has given an opportunity to practically all stakeholders to participate, has been mutually instructive and has spurred further co-operation between institutions involved. The Ministry of Culture formed special working groups to deal with the needs of the users, standards and formation of digital archives. The metadata standards for the digitisation process, administrative, technical and access control were developed on the basis of international standards. National Library is developing its projects

in co-operation with the researchers of Tallinn University of Technology. Collections management software for museums has also been designed in co-operation with Tallinn University of Technology. Virtual exhibitions system <<http://www.kanut.ee/vns/index.php>>, established by the State Conservation Centre “Kanut”, is the special software for museums, enabling to provide also in-depth data in addition to images, or interconnect a number of images to one record. The new system grants better access to museum collections, it can be adjusted according to the needs and use different languages. National Library of Estonia launched a project ERIC@ (Estonian Resources on the Internet: Cataloguing and Archiving) in 2000, its objective is to elaborate an archival system for Web publications and establish the functioning archives.

C. Sustainability of content

Funding models

For implementation of the development plan in the institutions dealing with digitalization the necessary financial instruments proceeding from the state budget recourses will be planned to the institutions budget through the relevant ministry or the State Chancellery. From the budget of the Ministry of Culture over institutional activities are being financed (for example the creation of Cultural Heritage portal and digital archives, working out standards etc.).

When implementing the development plan foreign financing, EU cultural heritage programs and EU structure funds financing possibilities will be used as effectively as possible. The assistance of EU structure funds is seen primarily in the case of financing the creation of digital storage.

Competence centres for digitisation

One of the priorities of the digital strategy is establishment of competence centres.

- Estonian National Library: consulting, collection management, metadata ontology - planning strategy for national digital heritage preservation, including best practice guidelines and metadata set. Digitisation of photographs, maps, books and newspaper microfilms.

- Estonian Historical Archives: digitisation of microfilms and archive objects.
- Estonian Public Service National Radio: sound digitisation (phonodocuments).
- State Conservation Centre “Kanut”: consulting, collection management, metadata ontology; archiving digital objects. Digitisation of museum collections – (including: art objects, manuscripts, newspapers, photographic objects), digitalisation guidelines. Digitisation of research materials – micro and macro digital pictures for scientific research.

D. Digital preservation

Development of digital preservation of cultural heritage started in Estonia in 2002. In October 2002 a letter was sent to the Minister of Culture, several meetings took place and in January 2003 the working group was formed to work out a strategy for digital preservation of Estonian cultural heritage. With his directive No. 31 from the 13th of February 2004 the Minister of Culture affirmed “The National Strategy for the Digital Preservation of Estonian cultural heritage 2004-2007”. Along with the strategy “The Action Plan 2004-2007” was affirmed. The action plan of the strategy has today received specialised funding for promotion of digital preservation, digitisation and access to digital cultural heritage, as well as training activities. Competence centres for digitisation are being established to help the memory institutions in achieving and implementing common standards for the digitisation and description of cultural heritage. At the end of 2005, work with the new National Digitisation strategy started. With his directive No. 19 from the 24th of January 2007 the Minister of Culture affirmed National strategy “Digital cultural heritage 2007-2010”.

<http://www.kul.ee/webeditor/files/Digi_Kult_AK_loplik.pdf>

A number of developments for common digital preservation infrastructure have been started, taking into account the developed standards:

- the development of the digital archives system at the National Archives, based on the national digital archiving strategy
- setting up a digital repository system DIGAR at the National Library
- guidelines for the public sector for the preservation

of digital material, published by the National Archives

- metadata standards: metadata for the digitisation process, administrative, technical and access control metadata (co-ordinated by the Ministry of Culture of Estonia)
- the national strategy for the digital preservation of cultural heritage materials also includes plans for common digital storage infrastructure for all memory institutions (feasibility study completed in the autumn 2006, co-ordinated by the Ministry of Culture of Estonia).

Collaborative effort to develop standards, guidelines and best practice as part of the work towards achieving the aims of national strategies has been a success in Estonia.

E. Monitoring progress

The Ministry of Culture of Estonia is co-ordinating the work of libraries, museums, broadcasting and the national heritage. The Ministry of Education and Science governs

universities and research institutions. Responsibility for records management and archiving is shared between the State Chancellery and the National Archives of Estonia. Currently only the National Library and National Archives have a legal obligation to collect and preserve digital materials. Attempts to deal with an increasing volume of digital cultural heritage material are also made by museums, research institutes, in the National Heritage Board and other stakeholders. The Council for Digital Preservation of Cultural Heritage – a council affiliated to the Ministry of Culture of Estonia – is co-ordinating digitisation and digital preservation of cultural heritage in Estonia. The Council consists of representatives from the State Chancellery, Ministry of Culture of Estonia, Ministry of Education and Science, Estonian National Library, State Conservation Centre “Kanut”, National Archives of Estonia, Estonian Literary Museum, Institute of History, Foundation “Estonian Film”, Estonian National Radio and Estonian National Television.

Input/output indicators

Input	MEUR / Posts	Comment
Funding allocated to support digitisation - government	1,2	Financing from Ministry of Culture
Funding allocated from within existing institutional budgets*	N/A	
Size of work-force (full-time equivalent posts)	62	20 institutions
*Combined total, including personnel costs.		
Output	Number of collections / items	Comment
Number of digitised collections		
- museums	30	
- libraries	14	
- archives	11	
Number of digitised collections recorded in a national inventory		
- museums	23	
- libraries	14	
- archives	6	
Number of digitised items per collection type		
- object entries (m/i)	6 000 000/6 000 000	
- text documents (m/i)	4 000 000/4 000 000	
- images (m/i)	2 000 000/2 000 000	
- audio (m/i)	50 000 / 50 000	
- moving images (m/i)	N/A / 150	

Use indicators

Use	Amount	Comment
Use of web-sites distributing digitised heritage content		
- user sessions	5 000 000	per year
- average duration of user sessions	20 minutes	
- average page impressions per user session	N/A	
Purchase or distribution of CDs / DVD s	9 000	
Audiences for streaming, video-casting or broadcasting	300 000	