

Seminar

**Sharing information and resources:  
cooperation of museums, archives  
and libraries in the field of  
standardization**

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# Standards for the preservation and exchange of e-documents in archives



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# Background (1)

- About 900 various types of state and municipal services have been made available to the inhabitants of Latvia
- 2006 these services were used by approximately 80% of the population
- Government new initiative “Information Society Development Guidelines 2006-2013 – The Road to Growth, Competitiveness and Welfare”
- National programme “Development and improvement of the infrastructural foundation for electronic governance” elaborated by The Secretariat of Electronic Government Affairs



# Backgruond (2)

- The main policy of National programme is
  - to improve and develop the existing state information systems by integrating their in unified state system,
  - to ensure the online availability to public and public services,
    - to facilitate the implementation of e-government and the optimization of state and local governments' work.



# Background (3)

- National Programme include nineteen several projects.
- These different systems are producing electronic records, which are in part worth of archiving.
- They contain data from databases, graphical data, soon textual records from word processing system with electronic signature, an image as result of a scanning system and so on.
- These different kind of data are summarized under the term “electronic records”.
- The Directorate General of Latvia State Archives are responsible for the appraisal, availability (id est, description) and long-term preservation of electronic records.



# Measures for long term-preservation (1)

- Storage is often described as a passive stage in the life cycle of the records (archival documents and data),
- Storage media and formats of our digital era have changed so frequently
- There are three possibilities of archiving the electronic records ;
  - Archiving of *native* formats,
  - Archiving of *proprietary* formats,
  - Archiving of open standard – de Jure formats.



## Measures for long term-preservation (2)

- A key preservation issue - the format in which the archival version of the records should be stored.
- Three main categories of file formats:
  - *de Facto* or driven by market,
  - *Mandated* or stated by regulations and controlled by authorities ,
  - *de Jure* or developed by industry.



# Measures for long term-preservation (3)

- Three main elements of our actual preservation strategy:
  - storage of records off-line,
  - specific solutions concerning preservation formats,
  - securing a precise documentation about the electronic records and the systems.



# Measures for long term-preservation (4)

- Storage of records off-line:
  - two different storage media,
  - standardized storage media:

compact disc-recordable (CD-ROM) format, which complies with the requirements specified by ISO 9660 or ISO 10149 standards

or magnetic tape format, which complies with the requirements specified by ISO/IEC 15895 or ISO/IEC 16382 standards.



# Measures for long term-preservation (5)

- Specific solutions concerning preservation formats:
  - for structured text - *SGML (XML)*,
  - for graphical information – *JPEG* or *TIFF*,
  - for vector graphics – *CGM*,
  - for audio information and video information – *MPEG II*.
- New de Jure standards for archiving - PDF/A (ISO PDF/A 19005-1 published Sept 2005) -open file format standard based on PDF 1.4 and support reliable rendering of archived electronic records.
- Office Open XML (commonly abbreviated as OOXML) file format developed by Microsoft for its Microsoft Office product suite standardized by Ecma International as Ecma 376 in December 2006.



## Measures for long term-preservation (6)

- Securing a precise documentation about the electronic records and the systems they come from:
  - without documentation of the data the long-term preservation and description is not possible,
  - The documentation has to comprise information about files, technical details, concerning media and so on.



## Measures for description (1)

- The technical documentation is to be completed by further information
  - about origin and context of electronic records,
  - the agency they come from,
  - legal background,
  - aim or function of the IT-system,
  - date of existence,
  - quantity et cetera.



## Measures for description (2)

- Latvian standard LVS 369:2004 "Arhīviskais apraksts. Vispārīgie principi: aa(vp)" based on International Council on Archives/Committee on Descriptive Standards: ICA/CDS) accepted standard ISAD (G): General International Standard Archival Description.
- Standard provides general guidance for the preparation of archival description – to explain the content and context of archival material in order to promote its accessibility.



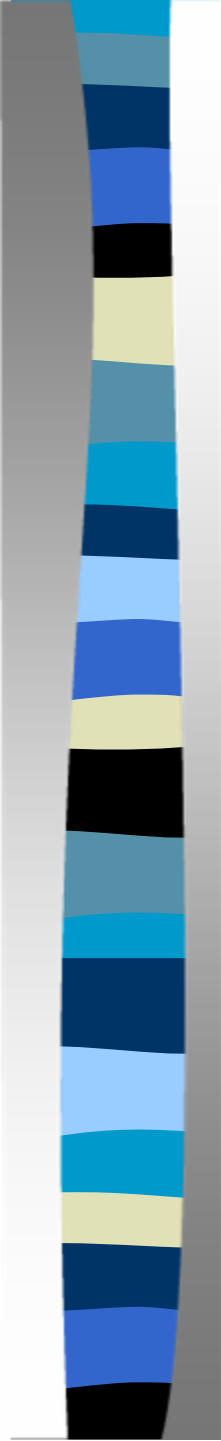
## Measures for description (3)

- The Latvian professional standard based on International standard ISAAR (CPF) International Standard Archival Authority Record for Corporate Bodies, Persons, Persons and Families is now translated.
- Standard is so important for all public collective memory institutions, because it deliver common access point for searching in Latvian Library Information System, National Comprehensive Museum Artefacts Catalogue, and Unified Latvian State Archives information system.



## Measures for description (4)

- For developing of the archives information system important tool is the EAD Document Type Definition (DTD).
- EAD DTD is a standard for encoding archival finding aids using Extensible Markup Language (XML).
- The maintenance agency for the EAD DTD - The Society of American Archivists (SAA) with the Library of Congress.



# Measures for efficient and inexpensive management of electronic records

- ISO/TR 15489-: 2001(E) Information and documentation- Records management,
- MoReg specification (Model Requirements for the management electronic records),
- OAI-PMH [Open Archives Initiative Protocol for metadata Harvesting],
- METS (Metadata Encoding and Transmission Standard).



# Conclusion

- Accessibility of the information is one of the general human rights and our main task.
- Long-term preservation of authentic electronic records depends not only on our will to do it but also on the available information resources and knowledge.