

# Widening access to historical documents

Digitisation of CERN's archival records



### Some issues for the CERN Archive

- How to give the best service to our users?
- Increasing expectations, insufficient resources
- Digitisation what, why and how











Version française

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#### Overview



- CERN
- The CERN Archive
- Digitisation and other priorities
- Some of our digitisation projects
  - Theoretical Physics Department reports
  - CERN Council documents
  - The Pauli Archive

## CERN - The European Organization for Nuclear Research





- Created in 1954
- The world's largest particle physics laboratory
- Run by 20 European Member States
- Facilities include the 27km circular accelerator



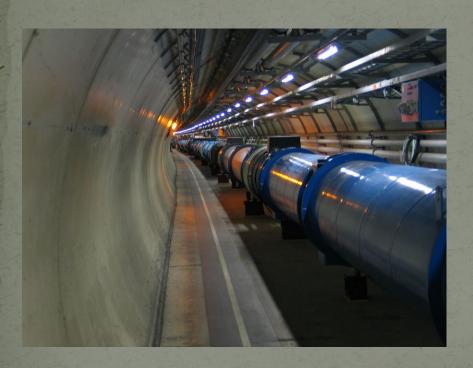
#### CERN

- Employs around 2,250 people
- 10,000 visiting scientists use CERN's facilities each year
- Education and outreach
- Official languages
   French and English





#### CERN



"The Organization shall have no concern with work for military requirements and the results of its experimental and theoretical work shall be published or otherwise made generally available."

(Convention for the establishment of a European Organization for Nuclear Research, 1953)



#### The CERN Archive

- 1 linear km of documents
- Recording all aspects of CERN's history
- Archives section of the Scientific Information Service (with Library and OA sections)
- 2 staff members (1.6 fte)



## The CERN Archive = The Memory of CERN



- Main functions
  - To select and obtain records of long-term historical interest
  - To keep the records safe (protect their long-term evidential integrity)
  - To make the records available for research





### Digitisation and other priorities

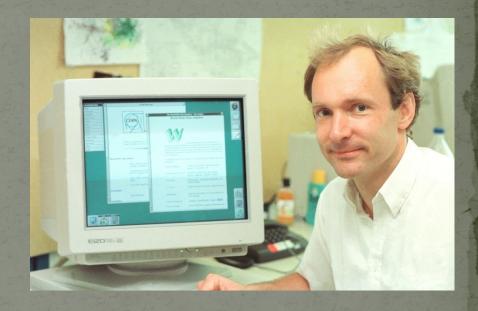


- Digitisation contributes to the protection of documents and to making them available
- But is it more important to digitise records than to treat the backlog of uncatalogued material?
- Is it more important to digitise records than to be more proactive in obtaining historical material?



### Changing expectations

- Increasing demand for online access
- Advocacy issues
  - Securing continued support for the Archive
  - Profile raising
  - Tangible products



Tim Berners-Lee (CERN) - inventor of the WWW

## Three of our digitisation projects – mixed motivation



- Theoretical Physics Department reports
  - Widening access, support for OA
- CERN Council documents
  - Widening access, support for greater openness by CERN's governing body
- The Pauli Archive
  - Widening access, conservation, collaboration

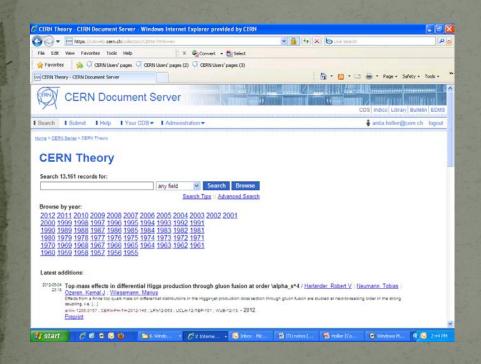


#### 1. Theoretical Physics Department reports

- Objectives and scope
  - Working with the Library to complete their online full-text collections (the 'green road' to Open Access)
  - Access to one of the oldest departmental series
  - Around 12,000 records
- Workflow
  - Identify missing documents (inconsistent numbering systems)
  - Check for electronic versions held elsewhere
  - Find and scan paper copies (over 2,500 documents; work carried out in-house)
  - Update database (new cataloguing and standardisation of old cataloguing) with open access to full texts
  - QA (scans and originals)



#### Results



#### Results

- All full texts scanned & OCR'd
- Available in Library database
- Browsable by year



#### 2. CERN Council documents

• In September 2008 CERN's governing body, the CERN Council: "approved the President's proposal to have all paper copies of past Council documents scanned with a view to making them available electronically".





### Objectives and scope

- Approximately 21,000 records held in the Archive
- Improve access to the documents by providing online full texts in the Library database
- Opportunity to streamline and reorganise the database collections and standardise catalogue records
- Need to respect closure periods (30 or 5 years)
- Extra resources: one person working 50% for one year plus scanning/OCR expenses (c. 82 KCHF; 0.43 CHF per page)
- Project took around 30 months to complete (approx. one person full time)



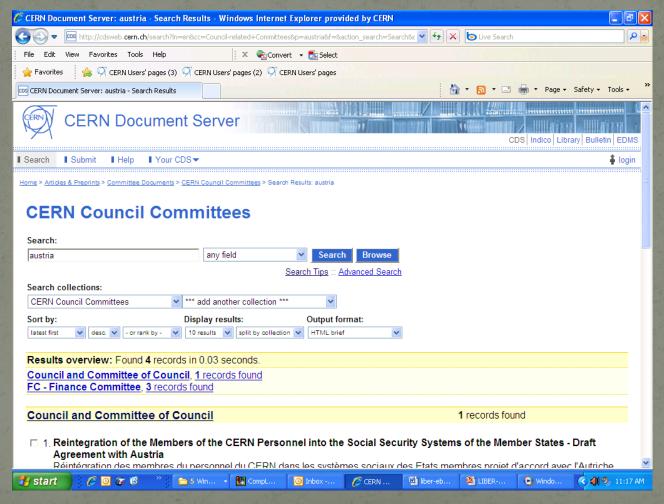
#### Workflow

- Identify all documents from each meeting
- Scan and OCR (initially inhouse, later outsourced; controlled using barcodes)
- Edit existing catalogue records or create new ones, combining French and English versions
- Apply access control
- QA (scans and originals)



## Results - looking for 'Austria' in metadata finds only four records...



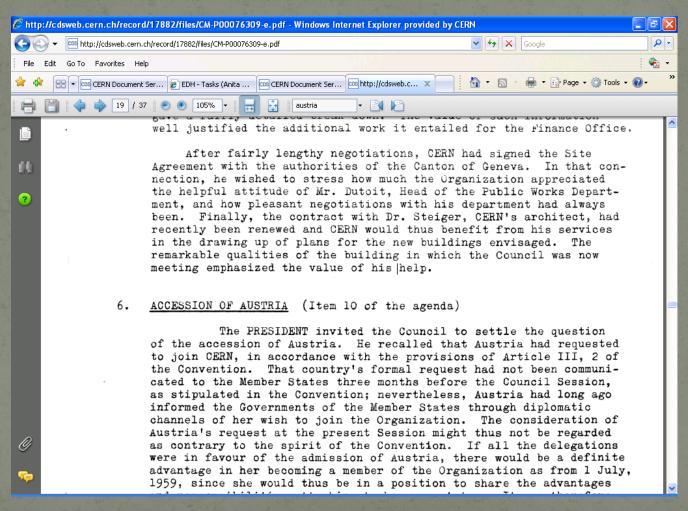


#### Searching the full texts finds 3,320 records



## Combine search terms to find the information you want





#### 3. The Wolfgang Pauli Archive





1900 - birth, Vienna

1924 – postulates the exclusion principle

1928 – professor at the ETH Zürich, CH

1930 – postulates the existence of the neutrino

1940-45 – professor at the Institute for Advanced Study, Princeton, USA

1945 – Nobel Prize for his exclusion principle 1958 – death, Zürich



## Pauli's scientific legacy

- Archive includes
   correspondence,
   manuscripts and notes,
   photographs, books,
   certificates, prizes and
   other objects
- Donated to CERN by his widow, Franca Pauli



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### Objectives and scope

- Protect paper originals
- Improve access
- Collaboration with ETH Archive
- Around 3,800 items
- Diverse formats, some fragile





#### Workflow

- Cataloguing
- Scanning (in-house, or by local specialist firm); no OCR
- Cross-reference to published volumes of correspondence
- Copyright issues (letters, photos)

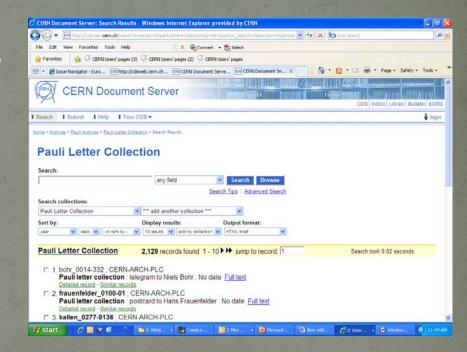


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#### Results

• Over 2,000 letters, 200 photos, and 1,400 other documents scanned and made available online





## Comparison of projects

	Scope	Special issues	Approach	Main motivation
Theoretical Physics Dept. reports	2,500 documents scanned (from total of 12,000)	Historic series Hunting for e- versions and missing items	In-house OCR Library DB	Wider access (support of OA)
CERN Council documents	21,000 documents scanned (EN & FR)	Key records Access restrictions Extra funding	Mostly outsourced OCR Library DB	Wider access (part of Council's push for openness)
Wolfgang Pauli archives	3,600 documents and 200 photos scanned	Diverse formats Fragile Copyright Wide interest	In-house and outsourced No OCR Archive DB	Conservation Wider access (popular) Collaboration with ETH



### Thank you for your attention!

