



Content Conversion Specialists

# CCS & Goobi

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Director Strategic Initiatives

# About CCS | Some facts

- CCS - Content Conversion Specialists is a privately owned company with headquarters in Hamburg, Germany
- Technology company developing market-leading software and hardware for the creation and display of digital collections
- Founded in 1976 , 50+ employees (Germany, Romania, US)
- Participating in US research project:
  - Library of Congress (2004), NDNF specification
- Participating in European research projects:
  - METAe – The Metadata Engine (2000 – 2003)
  - ENP – Europeana Newspapers Project (2012 – 2015)
- Mass digitisation projects:
  - The British Library (books, 2007 – 2008)
  - Dutch National Library (newspapers, 2008 – 2012)

# Portfolio

## Consulting

Successful projects start with careful listening.

CCS has one of the best expertise in digitisation programs and project management.

We analyze your requirements and offer a customized workflow design based on your architecture and standards.

## Technology

Providing cutting-edge technology to meet the requirements of the market.

nW

newsWorks

dW

docWorks

iT

itemTracking

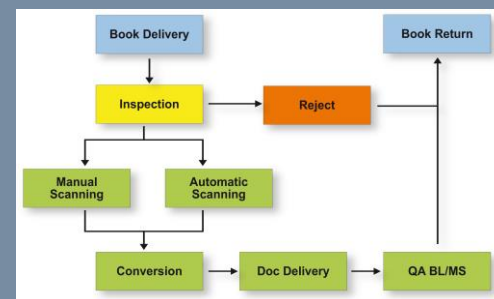
Content  
Experience  
Solutions

## Digitisation Services

Processing more than 2 million pages every month in the lead libraries of the world.

Best expertise in applied integrated digitisation workflow. Dealing with most valuable items.

Newspapers / Books  
Journals / Magazines



# docWorks | Selected References

## docWorks I

National Library of Norway  
National Library of Finland  
National Library of Luxemburg  
National Library of Latvia  
National Library of Estonia  
National Library of Slovakia  
National Library of Poland

National Library of Vietnam  
National Library of Australia

University of California, Riverside  
University of Texas, Austin  
Library of Congress, Washington DC  
Harvard University, Cambridge  
Princeton University, Princeton  
National Library of Medicine, Bethesda  
Washington State Library, Olympia  
Library of Virginia, Richmond  
Queens Library, New York  
Cleveland Public Library  
Indiana State Library, Indianapolis  
J. Paul Getty Trust, Los Angeles  
National Library of Trinidad & Tobago

## docWorks II

Digital Divide Data, USA  
Backstage Library Works, USA  
Hudson Microimaging, USA  
brightsolid., UK  
LETA, Latvia  
CD Imaging, Singapore  
Contentra Technologies, India

More than 100 million book pages  
More than 20 million newspaper pages

## digitizationServices

**British Library, London**  
**Royal Library of the Netherlands**  
National Library of Luxemburg  
National Library of Finland  
National Library of Norway  
Royal Library of Denmark  
National Library of Latvia  
National Library of Austria  
Wellcome Library, London

FAZ, Germany  
Axel Springer Verlag, Germany

Library of Congress, Washington DC  
Washington State Library, Olympia  
University of California, Riverside  
University of Minnesota, Minneapolis  
Michigan State University, East Lansing  
National Library of Australia  
National Library of Singapore  
National Library of New Zealand

More than 25 million book pages  
More than 15 million newspaper pages

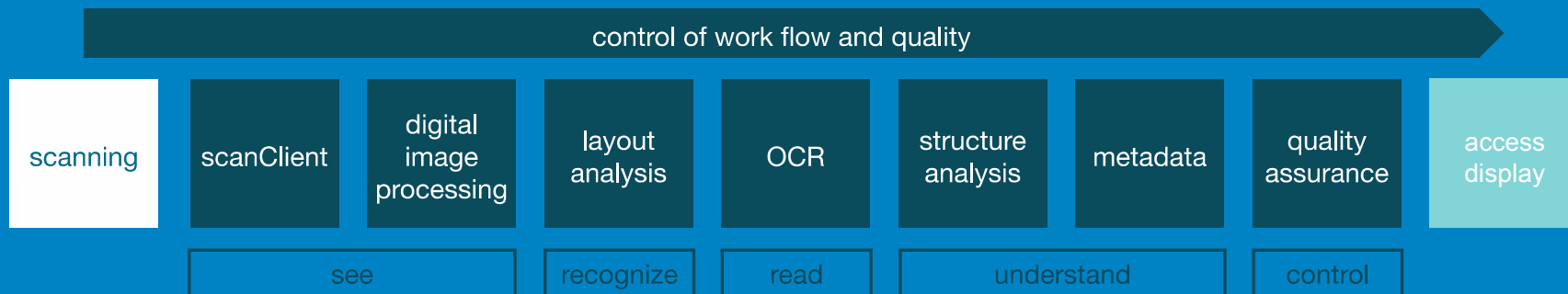
# ENP – Europeana Newspapers Project

- CCS, as technical project partner, provided its expertise and docWorks technology to set up and operate a mass digitization workflow for creating high quality structured content from 2 million scanned newspaper pages provided by 5 library partners
- Page volume:  
BNF=1.000 k, NLE=500 k , SUB HH=480 k, NLF=90 k, SBB=10 k
- The distributed OLR workflow enabled the contribution of project partners (content providers) to the integrated quality assurance process
- CCS has also contributed to the specification of the ENMAP\* metadata model

\* ENMAP = Europeana Newspapers Mets Alto Profile

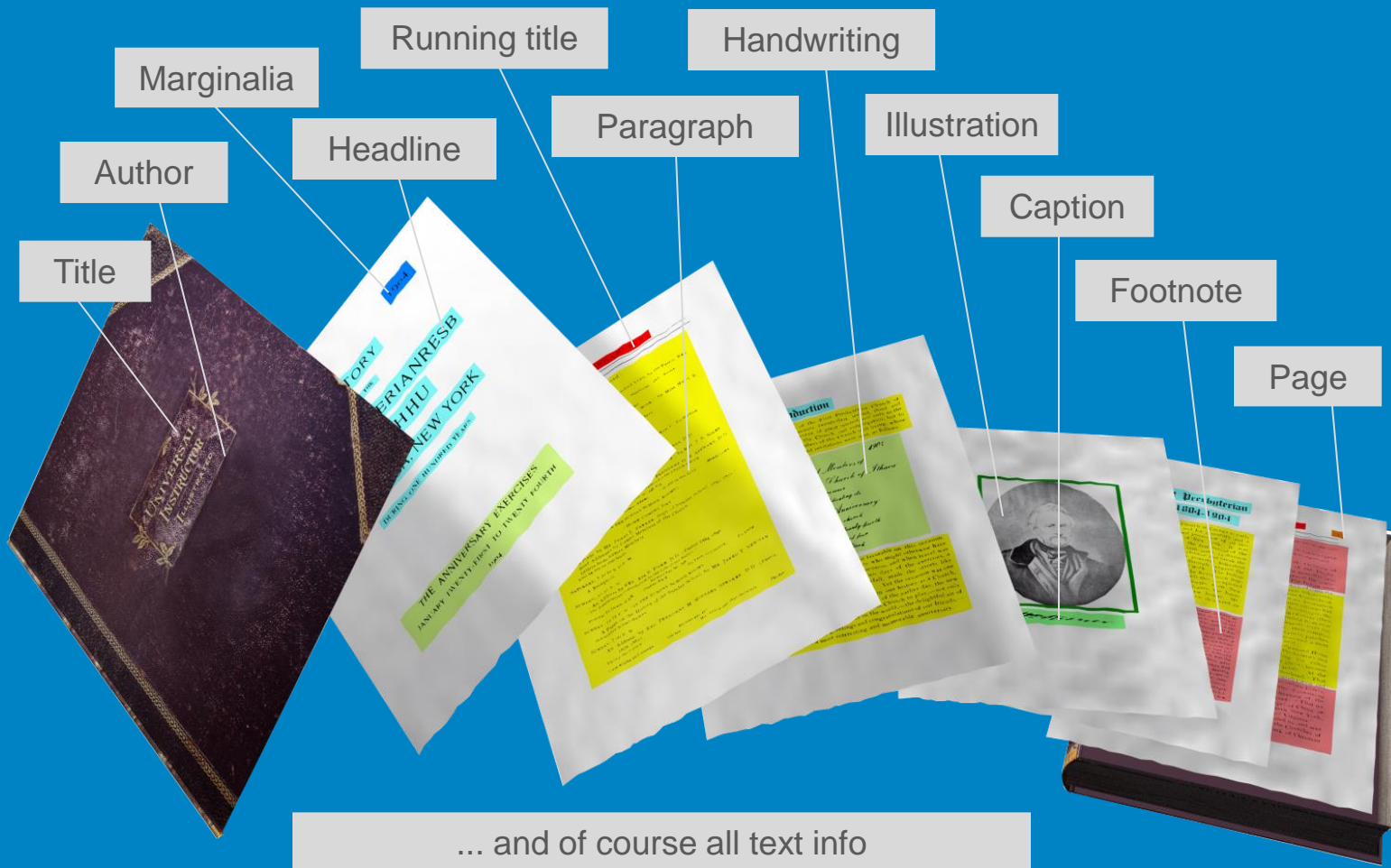
# What is docWorks

- docWorks is a continuous digitisation workflow software including automated and interactive quality assurance options for every processing step.
- It's a highly scalable solution serving small, medium and large scale digitisation projects.



- According to the required output features processing steps can be activated and deactivated.

# Structure Analysis | Monograph





# Structure Analysis | Newspaper

- General rule system enables recognition of words, text lines, text blocks, columns and classification of text blocks, illustrations, advertisements, tables and the following page types:
  - title page (the title page of an issue)
  - content page (a page that consists of content/text only)
  - illustration page (a page that has at least one illustration)
  - advertisement page (a page that contains adverts only)
- Structure analysis through classification of headlines and grouping of zones into articles (incl. article continuation)



# CCS & Goobi – Overview

- Goal: enhance quality for Goobi users by integrating docWorks features “Image pre-processing”, “Layout analysis”, “OCR” and “Structure Analysis” into the Goobi workflow
- 1-year development project with Saxon State Library Dresden
- Beside newspapers also other document types like magazines and books will be supported
- Automated server-based processing
- Decision on re-use scenario by the end of 2016

# docWorks & Goobi – Roadmap

- Q1/2016
  - kick-off, start of specification
- Q2/2016
  - finalize specification
  - set-up docWorks test system on SLUB server
- Q3/2016
  - implement data exchange, develop missing components,
  - proof of concept with monograph processing
- Q4/2016
  - integrated OCR and layout/structure recognition of docWorks proves to be robust and allows high volume processing
  - support for magazines and newspapers
  - beta version and first official release

# Thank you!

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