Outline

» Introduction
» Goals
» Key features
» EQB Metadata Schema
» Modular Architecture
» EQB Prototype
» EQB Deliverables
Euro Question Bank Partners

- GESIS
- DEAP
- DDA
- DANS
- FORS
- FSD
- TARKI
- NSD
- SND
Cooperation of Euro Question Bank

CEEDSA

CMM

EQB

CDC

cessda eric
Goals of EQB

- Study and Variable information
- Compare Questions, build Questionnaires
- Filters: Language, Country, Collection Mode, ...
- CESSDA Service Providers
- Central Search Facility for Survey Questions
- International Project

EQB

CESSDA

Service

Providers
Key Features of EQB

- Metadata model includes XPath mappings from DDI-C to DDI-L
- Multilingual thesaurus (ELSST)
- UI allows to search for question texts, response alternatives and keywords
- Access to CESSDA resources without switching systems
# EQB Metadata Schema: Questions

<table>
<thead>
<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Questions</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Question Item</td>
<td>0-n</td>
</tr>
<tr>
<td>1.2 Question Grid</td>
<td>0-n</td>
</tr>
</tbody>
</table>

0-n → Optional and repeatable
0-1 → Optional, but not repeatable
1-n → Mandatory and repeatable
1 → Mandatory, but not repeatable
## EQB Metadata Schema: Responses

<table>
<thead>
<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Response Domain Type</td>
<td>0-1</td>
</tr>
<tr>
<td>2.1 Code Domain</td>
<td>0-1</td>
</tr>
<tr>
<td>2.2 Scale Domain</td>
<td>0-1</td>
</tr>
<tr>
<td>2.3 Numeric Domain</td>
<td>0-1</td>
</tr>
<tr>
<td>2.4 Text Domain</td>
<td>0-1</td>
</tr>
<tr>
<td>2.5 Missing Domain</td>
<td>0-1</td>
</tr>
</tbody>
</table>

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## EQB Metadata Schema: Dataset/Variable

<table>
<thead>
<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Datasets</td>
<td>0-1</td>
</tr>
<tr>
<td>3.1 PID Dataset</td>
<td>0-n</td>
</tr>
<tr>
<td>3.2 Dataset Title</td>
<td>1-n</td>
</tr>
<tr>
<td>3.3 Reference Dataset to Study</td>
<td>1</td>
</tr>
<tr>
<td>3.4 Variable</td>
<td>1-n</td>
</tr>
</tbody>
</table>

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## EQB Metadata Schema: Instrument

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<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Instrument</td>
<td>0-1</td>
</tr>
<tr>
<td>4.1 Instrument Name</td>
<td>1</td>
</tr>
<tr>
<td>4.2 Instrument Language</td>
<td>1</td>
</tr>
<tr>
<td>4.3 Reference to Question</td>
<td>1</td>
</tr>
</tbody>
</table>

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# EQB Metadata Schema: Study

<table>
<thead>
<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Study</td>
<td>1</td>
</tr>
<tr>
<td>5.1 PID</td>
<td>1</td>
</tr>
<tr>
<td>5.2 Number</td>
<td>1-n</td>
</tr>
<tr>
<td>5.3 Title</td>
<td>1-n</td>
</tr>
<tr>
<td>5.4 Publisher</td>
<td>1-n</td>
</tr>
<tr>
<td>5.5 Year of publication</td>
<td>1-1</td>
</tr>
<tr>
<td>5.6 Time Method</td>
<td>0-n</td>
</tr>
<tr>
<td>5.7 Country</td>
<td>0-n</td>
</tr>
<tr>
<td>5.8 Topic Classification</td>
<td>1-n</td>
</tr>
</tbody>
</table>

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### EQB Metadata Schema: Study Group

<table>
<thead>
<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Study Group</td>
<td>0-1</td>
</tr>
<tr>
<td>6.1 Study Group ID</td>
<td>0-n</td>
</tr>
<tr>
<td>6.2 Study Group Title</td>
<td>1</td>
</tr>
<tr>
<td>6.3 Study Group Description</td>
<td>0-1</td>
</tr>
<tr>
<td>6.4 Study Group URL</td>
<td>0-n</td>
</tr>
<tr>
<td>6.5 Reference of Study Group to Study</td>
<td>1-n</td>
</tr>
</tbody>
</table>

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## EQB Metadata Schema: Person

<table>
<thead>
<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Person</td>
<td>0-1</td>
</tr>
<tr>
<td>7.1 Person Name</td>
<td>1</td>
</tr>
<tr>
<td>7.2 Affiliation</td>
<td>0-1</td>
</tr>
</tbody>
</table>

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# EQB Metadata Schema: Institution

<table>
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<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Institution</td>
<td>0-1</td>
</tr>
<tr>
<td>8.1 Institution Name</td>
<td>1</td>
</tr>
<tr>
<td>8.2 Institution Abbreviation</td>
<td>0-1</td>
</tr>
</tbody>
</table>

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### EQB Metadata Schema: Meta-metadata

<table>
<thead>
<tr>
<th>Element</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Reference to Institution</td>
<td>1</td>
</tr>
</tbody>
</table>

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Elasticsearch Configuration

Defined Elasticsearch Mapping according EQB Metadata Model

First-Level validation with JSON-Schema for „Question“ documents
Modular Software Deployment

» CESSDA Technical Framework as foundation

» All services are encapsulated as Docker Images

» All services are deployed as Docker Containers

» All services are orchestrated by executable configuration

```yaml
search-engine:
  image: docker.elastic.co/elasticsearch/elasticsearch:6.2.2
  container_name: search-engine
  restart: always
  ports:
    - 9200:9200
    - 9300:9300
  networks:
    - cessda-eqb

search-app:
  image: docker-private.gesis.intra/cessda/cessda-eqb.search.app:0.4.0-SNAPSHOT
  container_name: search-app
  restart: always
  ports:
    - 2001:8080
  depends_on:
    - search-engine
  networks:
    - cessda-eqb
```
Docker Component Deployment
# Past and future deliverables of EQB

<table>
<thead>
<tr>
<th>Year</th>
<th>Deliverables</th>
</tr>
</thead>
</table>
| 2015 | • Created an idea and wrote a proposal  
      • Included partners |
| 2016 | • Started the project  
      • Developed first draft of use cases  
      • Designed first version of Moqups |
| 2017 | • Built advanced use cases  
      • Improved Moqups  
      • Implemented first EQB prototype |
| 2018 | • Productive Search application  
      • Extend Metadata and UIs  
      • Integrate with CDC (CESSDA Data Catalogue) |
| 2019 | • Build a stable and user-friendly search application  
      • Develop a strategy and evaluate  
      • Analyse and provide information |
Conclusion

EQB...

➢ is an international project

➢ found a solution to search survey questions in different languages

➢ covers useful features: searching/comparing questions, building questionnaires and finding additional study and variable information,...

➢ develops and implements different services and components with new technologies (like Docker)

➢ integrates different technologies and formats from all CESSDA SP and beyond

➢ cooperates with CMM and CDC
ENJOY IASSIST 2018!

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