Introduction to the Curation Costs Exchange (CCEx)
The 4C Project

• Our vision is to create a better understanding of digital curation costs through collaboration.
• Our mission is to provide useful, useable resources which support the process of cost management in digital curation.

The CCEx is one of these resources.
What is the CCEx?

CCEx will provide a means through which interested parties will be able to access information on the costs of curation, in exchange for a little information about the cost of their own digital curation activities.
What does CCEx mean to you?

As a ...

*Please indicate your professional area (researchers, administrator, librarian, etc.)*

I would expect to find ...

*What information would you expect to see here?*

I’d like to ...

*What functionality would you like to see in CCEx?*

So I can ...

*What could the information you’d aim to get out of CCEx help you to do?*

I’d be prepared to share...

*What data would you be willing to share with others via CCEx? Under what conditions (anonymity?)*
How will it work?

1. Submission/Input

Submission Template will determine what information the CCEx will collect about our users:

- User type: lurker, registered user, member, partner, administrator
  - Which will enable access to different information
- Stakeholder type: funder, data collector, SME...
  - Based on various use cases
- Cost type: any/activity based/ financial reporting
- How the data is to be shared: all, nothing, anonymous
How does it work?

2. Output

• Cost information based on user profiles and use cases
  – Cost models and user guidance
  – User reviews
  – Related articles, blogs, fora

• Cost data
  – Normalised/aggregated cost data based on profiles and bands of similar size/type organisations and volumes of data
  – Confidential
  – Anonymous

http://www.digitalbevaring.dk/
So what does it look like...at the moment?
Welcome to CCEx


What the CCEx can do for you

- Define your organization profile
- Compare your costs by activity
- Compare your costs by capital and labour
- Browse through cost models descriptions and comparisons
- Know what cost models you should use
- Know about other’s risks and benefits
- Connect with others with the same motivations
- Stay informed about all news and events
- Know about suppliers and their services
Define your organization profile

**Organization**
- **Organization name**: 
- **Organization description, purpose and mission**: 

**Cost determinants**
- **Data volume in TB**: 
- **Organization staff size**: 
  - Less than 10 people
  - Less than 100 people
  - Less than 500 people
  - Less than 1000 people
  - Less than 10000 people
  - More than 10000 people
- **Number of copies policy**: 
  - No replicas
  - One replica
  - Two replicas
  - Three replicas
  - More than three replicas
- **Country**
  - (where most of staff lives)
  - Afghanistan
  - Albania
  - Algeria

**Core business**
- Digital curation
- Other

**Organization type**
- Research funder
- Other

**Other organization type**: 

**Other settings**
- **Privacy definitions**: 
  - Don't share anything
  - List my organization but don't share costs
  - Share costs in anonymity
  - Share cost information only with other registered partners
  - Share cost information with everyone
Collaboration to Clarify the Costs of Curation

Compare costs by activity

Define your curation costs by activity and compare it with other users of the same type.

⚠️ You must define your organization profile before being able to compare costs. You still haven’t? Go there now!

Did you know that you can compare the costs by capital and labour instead than by activity? If you have your costs organized that way this will be a better option, but if you already have costs divided by activity then you are in the right place!

My costs by activity

Please add to the list below the costs of all activities that relate to digital curation within your organization. You can create the activities you want, as defined on your currently cost method, and then relate to our defined cost categories. After that you can compare your costs with other institutions that have done the same process.

<table>
<thead>
<tr>
<th>Activity name</th>
<th>Cost</th>
<th>Normalized activities mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digitalization</td>
<td>14000 €</td>
<td>Ingest 90%, Archival Storage 10%</td>
</tr>
<tr>
<td>Format migration</td>
<td>2200 €</td>
<td>Archival Storage 50%, Access 50%</td>
</tr>
</tbody>
</table>

Sum 16200 €

My normalized costs by activity

Below you can find your cost information normalized to a general set of activities that can be compared with others.

<table>
<thead>
<tr>
<th>Normalized activity</th>
<th>Cost</th>
<th>% of total cost</th>
<th>Cost per TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingest</td>
<td>12600 €</td>
<td>78 %</td>
<td>2520 €/TB</td>
</tr>
<tr>
<td>Archival storage</td>
<td>2500 €</td>
<td>15 %</td>
<td>500 €/TB</td>
</tr>
<tr>
<td>Access</td>
<td>1100 €</td>
<td>7 %</td>
<td>220 €/TB</td>
</tr>
</tbody>
</table>

Sum 16200 €  Sum 3240 €/TB

You defined that your organization has around 5 TB of data.

Compare my costs with others
Collaboration to Clarify the Costs of Curation

Cost activity

Name* [ ]

Description

Cost* 14000 €

Mapping to normalized activities (for comparison with others)

Ingest 10% (1400 €)
Provides functions for Pre-Ingest and Ingest: Appraisal, submission agreement. Functions to accept digital assets SIPs from producers (validation, metadata enrichment), preparation of them for storage and management within the archive (creation of storage versions (AIPs))

Archival Storage 10% (1400 €)
Functions for storage, maintenance and retrieval of the stored digital assets (AIPs). Includes media migration, storage hierarchy management, routine error checking and providing disaster recovery capabilities.

Access 10% (1400 €)
Functions that support Consumers in determining the existence, description, location and availability of digital assets. Allows consumers to request and receive the digital assets

Unmapped 70% (9800 €)
Beware that unmapped costs will not show on the cost comparison with others.

Save
Comparison of costs by activity with others

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Comparison with all other users

<table>
<thead>
<tr>
<th>Activity</th>
<th>Average (€/TB)</th>
<th>Yours (€/TB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingest</td>
<td>2400</td>
<td>2520</td>
</tr>
<tr>
<td>Archival Storage</td>
<td>450</td>
<td>500</td>
</tr>
<tr>
<td>Access</td>
<td>260</td>
<td>220</td>
</tr>
</tbody>
</table>

Segmented comparison

See the comparison of your costs with other users:
- Of the same organization type as yours
- That have data volumes of the same scale as your organization
- That have the same policy for number of copies
Collaboration to Clarify the Costs of Curation

Compare costs by capital and labour

Define your curation costs by capital and labour and compare it with other users of the same type.

⚠️ You must define your organization profile before being able to compare costs.
You still haven’t? Go there now!

Did you know that you can compare the costs by activity instead than by capital and labour? If you have your costs organized that way this will be a better option, but if you already have costs divided by capital and labour then you are in the right place!

My costs by capital and labour

Please add to the list below all capital and labour costs that relate to digital curation within your organization. You can create the cost categories you want, as defined on your currently cost method, and then relate to our defined categories. After that you can compare your costs with other institutions that have done the same process.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Cost</th>
<th>Cost categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digitalization staff</td>
<td>Labour</td>
<td>10000 €</td>
<td>Support/operations 40%, Manager 10%</td>
</tr>
<tr>
<td>Digitalization machine</td>
<td>Capital</td>
<td>100000 €</td>
<td>Hardware 90%, Software 10%</td>
</tr>
</tbody>
</table>

Sum 100000 €

My normalized costs by financial cost category

Below you can find your cost information normalized to a general set of labour and capital cost categories that can be compared with others.

<table>
<thead>
<tr>
<th>Labour category</th>
<th>Cost</th>
<th>% of total cost</th>
<th>Cost per TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT-developer</td>
<td>0 €</td>
<td>0 %</td>
<td>0 €/TB</td>
</tr>
<tr>
<td>Support/operations</td>
<td>9000 €</td>
<td>9 %</td>
<td>1800 €/TB</td>
</tr>
<tr>
<td>Records manager</td>
<td>0 €</td>
<td>0 %</td>
<td>0 €/TB</td>
</tr>
<tr>
<td>Manager</td>
<td>1000 €</td>
<td>1 %</td>
<td>200 €/TB</td>
</tr>
</tbody>
</table>

Sum 10000 € Sum 10 % Sum 2000 €/TB

<table>
<thead>
<tr>
<th>Capital category</th>
<th>Cost</th>
<th>% of total cost</th>
<th>Cost per TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>81000 €</td>
<td>81 %</td>
<td>16200 €/TB</td>
</tr>
<tr>
<td>Software</td>
<td>9000 €</td>
<td>9 %</td>
<td>1800 €/TB</td>
</tr>
<tr>
<td>External services</td>
<td>0 €</td>
<td>0 %</td>
<td>0 €/TB</td>
</tr>
<tr>
<td>Building costs</td>
<td>0 €</td>
<td>0 %</td>
<td>0 €/TB</td>
</tr>
</tbody>
</table>

Sum 91000 € Sum 90 % Sum 18000 €/TB

You defined that your organization has around 5 TB of data.
Collaboration to Clarify the Costs of Curation

Financial cost

Name*

Description

Cost* 14000 €

Type* Labour Capital

Mapping labour to standard staff roles (for comparison with others)

IT-developer 10% (1400 €)
Staff that develops software. Software engineers, programmers, IT-developers, coders.

Support/operations 10% (1400 €)
Staff that executes technical tasks, for example testing digital material at ingest, operating the computers when migrations occur, burning optical disks, setting up robots, etc.

Records manager 10% (1400 €)
Staff that contributes to and executes the preservation planning of the managers; develop the organisation, appraise at pre-ingest; consultants at access; administrative tasks.

Manager 10% (1400 €)
Staff that organise and plan the work of digital curation in the organisations. Make tactical and strategic decisions, have staff responsibility, budget mandate and administrative tasks.

Unmapped 60% (8400 €)
Beware that unmapped costs will not show on the cost comparison with others.

Save
Collaboration to Clarify the Costs of Curation

Comparison of labour and capital costs with others

Comparison of labour costs with all other users

<table>
<thead>
<tr>
<th>Role</th>
<th>Average (€/TB)</th>
<th>Yours (€/TB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT-developer</td>
<td>Average (2,600 €/TB)</td>
<td>Yours (2,520 €/TB)</td>
</tr>
<tr>
<td>Support/operations</td>
<td>Average (450 €/TB)</td>
<td>Yours (500 €/TB)</td>
</tr>
<tr>
<td>Records manager</td>
<td>Average (450 €/TB)</td>
<td>Yours (500 €/TB)</td>
</tr>
<tr>
<td>Manager</td>
<td>Average (2,500 €/TB)</td>
<td>Yours (2,200 €/TB)</td>
</tr>
</tbody>
</table>

Comparison of capital costs with all other users

<table>
<thead>
<tr>
<th>Category</th>
<th>Average (€/TB)</th>
<th>Yours (€/TB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>Average (2,600 €/TB)</td>
<td>Yours (2,520 €/TB)</td>
</tr>
<tr>
<td>Software</td>
<td>Average (450 €/TB)</td>
<td>Yours (500 €/TB)</td>
</tr>
<tr>
<td>External services</td>
<td>Average (450 €/TB)</td>
<td>Yours (500 €/TB)</td>
</tr>
<tr>
<td>Building costs</td>
<td>Average (250 €/TB)</td>
<td>Yours (220 €/TB)</td>
</tr>
</tbody>
</table>

Segmented comparison

See the comparison of your costs with other users:
- Of the same organisation type as yours
- That have the same policy for number of copies

Comparison by activity

Want to compare your costs with others based on activity? Then start mapping your costs to activities and access more fine-grain cost comparisons!
Collaboration to Clarify the Costs of Curation

We found the following resources for you!
Based on your preferences, we recommend the following information.

Cost models

The LIFE cost model
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more information

The KIDS cost model
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more information

Literature

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Events

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more information

Other resources
- Blog X
- Forum Y
- Website Z
Collaboration to Clarify the Costs of Curation

Organization type

Research funder
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Memory institution
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Preferred tool type

Analysis
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Estimation
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Feedback as we progress with CCEx is welcomed!