Evaluation of the Systemic Project "National Center for Electronic Information Resources - CzechELib" co-funded from PA1 OP RDE

### **Interim Report for 2020**

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#### List of Abbreviations

CAS	CZECH ACADEMY OF SCIENCES
CAWI	COMPUTER ASSISTED WEB INTERVIEWING
CELUS	CZECHELIB USAGE STATISTICS
CRC	CZECH RECTORS CONFERENCE
EIR	ELECTRONIC INFORMATION RESOURCES
EQ	EVALUATION QUESTION
ERMS	ELECTRONIC RESOURCES MANAGEMENT SYSTEM
EY	ERNST & YOUNG, S.R.O.
FTE	FULL TIME EQUIVALENT
IER	INTERIM EVALUATION REPORT
ISP	INDIVIDUAL SYSTEMIC PROJECT
JŘBU (NPPP)	NEGOTIATED PROCEDURES WITHOUT PRIOR PUBLICATION
КА	KEY ACTIVITY
МА	MANAGING AUTHORITY
MŠMT (MEYS)	MINISTRY OF EDUCATION, YOUTH AND SPORTS
NA	NOT AVAILABLE
NCIP	NATIONAL CENTER FOR INFORMATION SUPPORT
NTK	CZECH NATIONAL LIBRARY OF TECHNOLOGY
OA	OPEN ACCESS
OP JAK	OPERATIONAL PROGRAMME JAN AMOS COMENIUS
OP VVV (OP RDE)	OPERATIONAL PROGRAMME RESEARCH, DEVELOPMENT AND EDUCATION
PRI	PUBLIC RESEARCH INSTITUTION
RDI	RESEARCH, DEVELOPMENT AND INNOVATION
RVŠ (HEC)	COUNCIL OF THE HIGHER EDUCATION
RVVI (RDI COUNCIL)	COUNCIL FOR RESEARCH, DEVELOPMENT AND INNOVATION
SB	STATE BUDGET
UX	USER EXPERIENCE
VaVal (RDI)	RESEARCH, DEVELOPMENT AND INNOVATION
VO (RO)	RESEARCH ORGANISATION
VZ (PP)	PUBLIC PROCUREMENT





#### Definitions

EIR Provider	For the purposes of simplifying and if not otherwise stated below the provider of electronic information resources shall be an entity, which is a publisher or exclusive supplier of electronic information resources.
Member Institution	If not stated otherwise member institutions in this text shall be, in addition to member institutions (institutions with a signed agreement for centralized procurement) also participating institutions (institutions that are interested in signing an agreement for centralized procurement with CzechElib, but the agreement has not been yet signed).





### 1. Executive summary

#### 1.1. Introduction

The third interim report has been prepared in compliance with the contract for work signed on October 18<sup>th</sup>, 2017 by and between the Ministry of Education, Youth and Sports (hereinafter the "MEYS" or the "Contracting Authority") and Ernst & Young, s.r.o. (hereinafter also "EY"). The contract has been signed under the criteria for awarding the procurement contract Evaluation of the Systemic Project "National Centre for Electronic Information Resources – CzechELib" (hereinafter also "Project") co-funded from Priority Axis 1 of the Operational Programme Research, Development and Education (also "PA1 OP RDE"). The report evaluates **the period June 2019-May 2020**.

The objectives of the evaluation are in accordance with the procurement documentation:

- To perform an ongoing qualitative and quantitative assessment of the project implementation and an indication of the extent to which the evaluated project achieves its objectives.
- To provide feedback to the Managing Authority of the OP RDE and the implementor of the Individual systemic project (ISP) together with recommendations concerning the CzechElib project implementation.

The inception report defines a total of fourteen evaluation questions, with this interim evaluation report (hereinafter also "3rd IER") focused on the three **evaluation questions** listed below (also "EQ").

- EQ1 How had the implementation of the project progressed?
- EQ6 Is the preparation and the implementation of internal evaluations, i.e. evaluations performed in the course of the project, effective?
- EQ8 To what extent is the electronic access (web interface) created by CzechELib userfriendly?





#### 1.2. Key Findings and Conclusions

In the evaluation period, **the key steps of the CzechELib project were implemented** according to schedule. All licensing agreements with EIR providers and agreements on securing and making EIR available to member institutions were signed. On 31 May 2020, the continuous and final financial milestones were met.

Moreover, the electronic tools ERMS (EIR administration) and CELUS (statistics on the use of EIR) were delivered, tested and launched during the evaluation period. According to the questionnaire survey, both tools are **mostly positively evaluated** by their users, i.e. as user-friendly and efficient. The communication to launch the tools and their modifications was also assessed by the representatives of the member institutions as high-quality and problem-free. In a few cases the interface terminology<sup>1</sup> and communication to settle member institutions' comments on the ERMS were viewed as slightly negative.

The internal evaluation will start to be **implemented in accordance with the plan in 2020** and the first evaluation outputs should be created by April 2021. With regard to external evaluation, the current internal evaluation proposal is suitably focused on evaluating the outputs by members of the CzechELib implementation team.

As a result of the crisis caused by COVID-19, the Czech koruna depreciated and the risk of exchange rate fluctuations above the so-called safe exchange rate (the CNB exchange rate increased by 5% to cover exchange rate risks) materialized. In case of exceeding the safe rate, member institutions would have to pay EIR in addition to the advances already paid. The risk was identified and CzechELib proposed to cover this difference (actual costs of EIR and advances paid by member institutions) from financial reserves. This measure was approved by the Steering Committee of the Project and the MA of the OP RDE and thus the risk was eliminated.

In the area of publicity, **the position of expert guarantor of publicity** 1 FTE was filled (occupation of this position by two people) and as of May 2020, a planned adjustment of the communication strategy is being prepared.

Steps to ensure the sustainability of the CzechELib project have been implemented in several areas.

According to the current state of negotiations, financing of the EIR for the period after 2020, specifically the part paid by CzechELib, will be provided from the state budget through the project called National Center for Information Support for Research, Development and Innovation ("NCIP"). From 2023, the NCIP project will also cover the operation of the CzechELib consortium. The project was approved by the MEYS management on June 2020 and will be submitted to the RVVI.

<sup>&</sup>lt;sup>1</sup> The terminology should be addressed as part of the further development of the system, as at the time the ERMS was created, the terminology was not uniformly anchored.





- NTK will support the implementation of the Action Plan for the Implementation of the National Strategy of the Czech Republic's Open Access to Scientific Information for 2017-2020.
- Over the course of 2020 the project plan (ISP) is under negotiation. The project is funded by operational programme OP JAK and should focus on the implementation of a tool for making all types of information resources accessible (the foundations created within the CzechELib project will be used). Additionally, partial activities of the project should focus on the topic of Open Access (e.g. education, methodological support or publicity).

#### 1.3. Recommendations

- 1. Within the internal evaluation, focus on the evaluation of outputs that will help to improve the further course of the Project implementation (i.e. put more emphasis on the process function of the evaluation, rather than the impact function). and also use **qualitative methods of data collection**. According to the internal evaluation proposal (part of KA7), all outputs should be evaluated. The external evaluator recommends selecting a lower number of project outputs, where the evaluation of their strengths and weaknesses will allow to improve the further course of the Project. These are, for example, the topics of the functionality of the CzechELib department within the NTK structure (internal communication processes) or ensuring quality relationship between CzechELib and users (external communication processes, support of member institutions). In addition to the use of a questionnaire survey, the external evaluator also recommends including the method of semi-structured interviews so that the findings of the internal evaluation are not only quantitative but also qualitative (i.e. evaluate in more depth).).
  - Reason Feedback on project outputs should be collected from the entire Project implementation team. Given the number of members of the implementation team, it is appropriate to use not only quantitative methods (a questionnaire survey is planned) but also qualitative methods (e.g. semi-structured interviews). The current proposal of internal evaluation is focused on all project outputs (according to monitoring indicators) and finding feedback on all outputs can lead to the detail and depth of findings not being high (compared to selecting a smaller number of key outputs and evaluating them in greater detail).
- 2. In case of further comments on electronic interfaces (or other key output of the project), put more emphasis on clear communication about resolving comments. The time spent by the representatives of the member institutions on commenting can be perceived as inefficient, which may lead to decreased motivation for further involvement in the process.
  - Reason Some respondents (qualitative interviews) stated that the method of settling the comments was not communicated sufficiently clearly and intelligibly. The representatives of the member institutions were not sufficiently informed about the way the comments will be settled. Given the number of comments, it would be inefficient to settle them individually, however the respondents were not provided enough comprehensive information about the settlement of comments.





# 2. Summary of the existing evaluation activities and activity plan for future period

#### 2.1. Description of undertaken activities

The evaluation activities in the third interim report were mainly focused on the evaluation of two running electronic interfaces intended for users from member institutions. Specifically, these are the **ERMS interface**, which is used to manage EIR, and the **CELUS interface**, which is focused on providing statistics on EIR use. In addition to the interface, the **course of the project**, **communication with member institutions and internal evaluation** were also assessed. Compared to the previous evaluation report, this report is more narrowly focused, as it contains an evaluation of three evaluation questions (the previous report evaluated eight evaluation questions - see 2nd IER). The necessary data were obtained from the implementation team of the Project, representatives of member institutions and partly also from representatives of public administration. An **UX expert evaluation** was also used to assess the electronic interfaces. As part of the expert evaluation, standard parameters for the evaluation of user friendliness were evaluated. Precisely, it was about accessibility, navigation, design, footer and content.

During February and March 2020, there was an **expert evaluation** of electronic interfaces and **qualitative semi-structured interviews** with representatives of member institutions. These activities served as a starting point for the creation of a **questionnaire survey** for representatives of member institutions, which took place in April. In the beginning of April, a pilot version was conducted on a limited number of respondents in order to verify the relevance and focus of the questionnaire. The form of the questionnaire was also consulted with representatives of the Contracting Authority and the CzechELib implementation team.

The questionnaire survey was followed by **the second phase of semi-structured interviews** with representatives of member institutions, including representatives of public administration. The purpose of the interviews was to further explain the findings of the questionnaire survey.

In the months of November 2019, February and April 2020, three meetings of the Supplier and representatives of the CzechELib implementation team took place. Especially the **following topics were discussed:** 

- > The course of Project implementation (acquisition of EIR, announcement of PP, etc.),
- Web interfaces for representatives of ERMS and CELUS member institutions,
- Project risks,
- Sustainability of the Project and financing of EIR after 2020, transition to Open Access,
- Internal evaluation.





#### 2.2. Work Plan

Activities in the next period will be based on the relevant evaluation questions for the 2021 Interim Report (EQ1 to EQ7 and EQ9). **The topics addressed in the next interim evaluation report** will be mainly the following:

- > Satisfying the demand of member institutions for EIR and perceived benefits,
- > The course of project implementation and planned activities,
- Setting up an internal evaluation system,
- Communication and PR,
- Sustainability of the Project (financing of EIR, Open Access etc.).

#### 2.3. EY Approach to Evaluation

The evaluation methodology was based on the setting of previous evaluation activities and relied mainly on desk-research, a questionnaire survey and semi-structured interviews with representatives of member institutions and the Project implementation team. EQ1 and EQ6 were evaluated on the basis of data from the Project implementer, the meeting on the course of the Project was also attended by a representative of the grant provider. The evaluation of EQ8 was mainly based on information from representatives of member institutions (PRI, universities, MA, professional public, libraries). Data for the evaluation of EQ8 were also obtained from representatives of public administration, who work with both mentioned systems, and members of the Project implementation team. Data for EQ8 were not obtained from university students, as this target group does not work with the ERMS and CELUS systems (this fact was communicated with the Contracting Authority).

#### Questionnaire survey among member institutions

The aim of the questionnaire survey was to find out **the feedback from the representatives of the member institutions on the ERMS and CELUS interfaces usage**. There was also an evaluation of the current benefits of the Project in order to compare the level of satisfaction of target groups (the evaluation of benefits takes place annually).

The questionnaire survey was conducted online using Supplier's internal tool called eSurvey for data collection. The Project implementation team provided the Supplier with a list of contacts, which contained **121 contacts for representatives of 120 member institutions**. One contact was removed from the list of contacts due to consistency (one respondent per institution) and overlapping roles (one respondent is part of the Project implementation team). Three respondents of semi-structured interviews were also removed from the list, and the sample for sending the questionnaire thus had a total of 116 people. Prior to the launch of the main phase of the questionnaire survey, the questionnaire was piloted (13 respondents were addressed, 10 answers were obtained) and these people were again not included in the main phase of the survey.





A total of 116 persons were contacted, 70 persons completed the questionnaire completely, while one person did not consent to the processing of data. The evaluation is based on 69 completely completed questionnaires. The return was 59.5 % (for comparison: the return of CAWI 2019 was 83 %, for 2018 it was 55 %). Given that only partial adjustments were made on the basis of piloting, we present the return of the questionnaire in general, i.e. for piloting and the main phase of the survey.

However, due to the focus of the questionnaire survey, it is necessary to state that **not all respondents worked with both evaluated interfaces**. 40 respondents worked with the ERMS system (out of a total of 69), 40 respondents worked with the CELUS interface, while both groups of respondents differed in part, because some respondents worked with only one system. A total of **20 respondents did not work with any of the systems**, and their answers thus only served to evaluate the cooperation with the CzechELib implementation team and the current benefits of the Project. The evaluation of the system by 40 representatives of member institutions is sufficient with regard to the total number (120 member institutions) for the generalization of results.

Representatives of RDI had the largest representation among the respondents. Representation according to individual types of organizations is given in the following table:

Type of organization	Representation in CAWI (%)
Public Research Institutions (PRI)	30 (43,5 %)
Universities	21 (30,4 %)
Hospitals (including university hospitals)	4 (5,8 %)
Other research organisations (RO)	5 (7,2 %)
Libraries outside the aforementioned organisations	8 (11,6 %)
Other <sup>2</sup>	1 (1,4 %)

Table 1 Structure of CAWI respondents as per type of an organization (N=69)

We determined their size at universities, RDIs and libraries (according to the classification of universities, the number of scientific researchers and the number of registered readers at libraries). Information on the representation of individual subgroups is given in the Technical Report (Appendix No. 1).

Respondents were further asked about their role in the organization. The questionnaire included a key evaluation of web interfaces. For this reason, it was possible to forward the email to another, more suitable person who may work with the ERMS and CELUS more than the addressed representative of the member institution.

<sup>&</sup>lt;sup>2</sup> Respondents mentioned the type of institution s.r.o. as "Other"





In the sample of respondents, there are two people who stated that they are only users of EIR and do not participate in the administration or purchase of EIR. From the overall point of view, however, this is a negligible part of the respondents. The detailed structure of respondents according to the type of their involvement in the purchase and administration of EIR is shown in Table  $2.^{3}$ 

Table 2 Structure of CAWI respondents as per their role within an organisation (N=69)

Role of a respondent in relation to EIR	Representation in CAWI (%)
Person responsible for acquisition of EIR in organisation	62 %
Person responsible for EIR administration in organisation	42 %
Person participating in acquisition of EIR in organisation	13 %
Person participating in EIR administration in organisation	13 %
EIR user (exclusively)	3 %
Another role <sup>4</sup>	1 %

The main representation was therefore the respondents responsible for the purchase and administration of EIR, and partly the subjects involved in the administration and purchase of EIR. Representation of roles as user or another role was minimal.

More detailed information from the questionnaire survey is provided in the technical report and in the appendix containing the anonymized CAWI results.

#### Structured interviews with representatives of the member institutions

Semi-structured telephone interviews were **conducted in two waves**. The purpose of the first wave of interviews was to obtain a **more detailed evaluation of the ERMS and CELUS interfaces** from representatives of member institutions. Based on the information from the first wave interviews, a form of questionnaire survey was subsequently proposed.

<sup>&</sup>lt;sup>3</sup> It was possible to mark more than one answer and the sum is not equal to 100 %. Given the results, it can be stated that the respondents often have overlapping roles in the purchase and administration of EIR in the organization.

<sup>&</sup>lt;sup>4</sup> The role of librarian was mentioned as another role.





After the implementation of the questionnaire survey, a second wave of qualitative semistructured interviews took place, which had the purpose to deepen the findings from the data of the questionnaire survey. The focus of the interviews was **based on evaluation questions** relevant to this interim report. The interviews were primarily focused on the evaluation of both interfaces, and we also partially surveyed the respondents' opinions on the current course of the project, communication with the implementation team of the CzechELib project and their expectations associated with the further course of the project. The scenario of a semi-structured interview is given in the annex to the report.

A total of five interviews were conducted. The source was the contacts provided by the respondents to the questionnaire survey and contacts to representatives of member institutions handed over by the project implementation team. Two out of five interviews were conducted with representatives of the public administration, who are also users of both evaluated electronic interfaces.





### 3.Assessment of Evaluation Questions

The following evaluation questions were assessed within the third interim report:

- EQ1 How had the implementation of the project progressed?
- EQ6 Is the preparation and performance of internal evaluations, i.e. evaluations performed in the course of the project, effective?
- EQ8 To what extent is the electronic access (web interface) created by CzechELib userfriendly?

#### 3.1. Evaluation of EQ1

#### Evaluation of EQ1 – How had the implementation of the project progressed?

The implementation of the Project **corresponds to the schedule** and the key elements planned for the evaluation period **were implemented according to the plan**. Licensing agreements with EIR providers were concluded by the end of 2019 (with the exception of one agreement, which was finished in January 2020). Contracts with member institutions for securing and making EIR available for the years 2020–2022 were concluded in February and March 2020. At the end of May 2020, the continuous and final financial milestones were met.

**Two web interfaces** were launched during the evaluation period. In the spring of 2019, member institutions were provided with a test version of **the ERMS**, which is used to manage EIR. In the autumn of 2019, the final production version of the system was launched. In the months of November 2019 to January 2020, it was tested **the CELUS**, which enables member institutions to monitor the use of EIR and work with statistics from EIR providers. In January 2020, the system was implemented for the full operation. According to the questionnaire survey, both systems are evaluated positively by the representatives of the member institutions (the evaluation of web interfaces in detail contains EQ8 below).

In the evaluation period, **negotiations on EIR financing** took place after 2020. In the years 2021 to 2022, EIR co-financing should be paid from the state budget and the amount of co-financing should be in the same amount as within the CzechELib project. From 2023, there will be a decrease in support, and thus an increase in the share of participation of member institutions. Negotiations are underway with the MEYS on a new ISP project, which should be focused on making information sources accessible and searchable. Partial activities of this project will also address the topic of OA (e.g. education or methodological support).

As a result of the change in the exchange rate of the Czech koruna, there was a risk of increased prices acquired by EIR beyond advance payments and exceeding the so-called safe exchange rate, according to which advance payments of member institutions were calculated (CNB exchange rate + 5 % reserve). Due to the financial reserve created during the implementation of the Project, part of the financial reserves was released on the basis of approval by the Managing Authority and the Steering Committee in order to finance the difference between the advances and the actual prices. Thus, member institutions will not have to pay EIR beyond the advances paid in the event of exceeding the safe rate.





The following table shows the progress of the project as scheduled in the Project Charter (version valid in January 2020).

 Table 3 Fulfilment of the Project schedule

Activity	Schedule	Current status
Project launch.	Q1 2017	Done
Development of systems for the commission, procurement, administration and evaluation of EIR.	Q4 2018	<b>Done</b> . A system for administration and evaluation was created in the evaluation period.
Development of methodologies for administration, workflow, financial flow, negotiation strategies for EIR purchase and others.	2017 a 2018	<b>Done.</b> Procedures for the selection and acquisition of EIR have been established.
Web development and implementation of functionalities.	Q2-3 2017	<b>Done.</b> Creation of the website that contains information about the project and the EIR offered.
Signing contracts with local and international EIR providers.	2018, 2019, 2020	<b>Done.</b> By the end of 2019, all planned licensing agreements were signed between NTK and EIR providers (with the exception of one agreement, which was signed in January 2020) for access to EIR for the period 2020–2022.
Purchase / Provision of EIR for project users.	2017, 2018, 2019	<b>Done.</b> For 2020, all agreements were signed between NTK and member institutions on securing and making EIR available.
Contract terms negotiation for the commission of EIR in the future, possible gradual transition to OA.	2020	<b>In progress.</b> Negotiations on the conditions for the purchase of EIR for the next period are ongoing. EIR funding after 2020 will be provided from the state budget (through the so-called shared activities project).





Operation of the center, possible further transitions to OA, evaluations, recommendations for the future operation of the center.	2021–2022	NA
Negotiations of the EIR purchase conditions for the following period.	2022	NA
Project completion.	Q4 2022	NA
Evaluation of CzechELib's benefits and operation.	Q1 2022 – until completion of programme OP RDE	NA

In the evaluation period, the activities were implemented according to the schedule and the processes are already stable and functional (especially in comparison with the first year of project implementation, in which part of the activities and setting of project processes were delayed). Representatives of member institutions stated in the interviews that the Project is progressing well from their point of view and that the established cooperation is working. The smooth course of the Project in the evaluation period is also contributed by the fact that the largest part of EIR in terms of funds volume was negotiated and contracted in the initial years of implementation (2018 and 2019) and in 2020 less key EIR are negotiated and made available from the point of view of member institutions.

### Evaluation of partial evaluation question - How are the project key activities implemented?

All key activities took place in the evaluation period, with the exception of KA7 (Final evaluation and recommendations), which is planned mainly for the final phase of the Project.<sup>5</sup>

**KA1** (Project Management) took place in the evaluation period according to the schedule, when there were no delays in the planned activities. In May 2020, the continuous (CZK 345 million) and final (CZK 752 million) financial milestones of the Project were met. The budget execution is successful mainly due to the fact that the largest volume of EIR was contracted in 2018 and 2019, and in 2020 there occurs more of a purchase of branch or less key EIR. In the area of personnel, we managed to fill the position of publicity guarantor responsible for the implementation of KA6. In December 2019, this position was filled by two persons who have a total workload of 1.0 within the Project. Part-time work (0.8 and 0.2) is supplemented by work within the NTK. Guarantor KA5 was not filled in the period from October 2019 to February 2020. Other key positions (director of CzechELib, chief project economist, etc.) are filled. In the medium term, there will probably be partial personnel changes in the area of IT and in the economic area, but given the scope, these

<sup>&</sup>lt;sup>5</sup> Partial implementation of this KA in the form of internal evaluation will be implemented from the second half of 2020.





planned changes can be considered as standard fluctuations, which should not significantly affect the implementation of the Project.

**KA2** (Creation, operation and evaluation of CzechELib) is proceeding according to plan. The National Licensing Center fulfils its role and communication and cooperation with this center is evaluated exclusively positively by the respondents. This key activity will be the subject of an internal evaluation in the next evaluation period, which is planned for the second half of 2020. Within this KA, the Project is presented at domestic and foreign events. In November 2019, a conference on the topic of OA - KRECon took place on the premises of the NTK.

Within **KA3** (Setting of system rules, tenders for securing licenses for EIR and evaluations), EIR is provided for member institutions. In September 2019, the Czech government took note of public contracts for the acquisition of EIR for the period 2020 to 2022. All contracts with EIR providers for the period 2020–2022 were concluded by the end of 2019, with the exception of one contract, which was finished in January 2020. In February and March 2020, all agreements on securing and making EIR available to member institutions for the period 2020–2022 were signed. Subsequently, in April 2020, all advance certificates were paid by member institutions, which for 2020 exceeded CZK 346 million (including VAT).

In Q1, new nominations for EIR for the period 2021+ took place, while all proposed EIR were recommended by the Expert Council of the Project. In the next phase, the member institutions will be acquainted with the prices and during September and October it is planned to announce public contracts for these EIR.

**KA4** (Administration and management of the operation of the EIR access system and its evaluation) was implemented according to plan in the evaluation period. Within this KA, the EIR approach is ensured and member institutions are supported. As mentioned in KA2, the cooperation and communication of the CzechELib implementation team was evaluated mostly positively by the representatives of the member institutions.

The main activity within **KA5** (Technological provision of the centre's administration) within the evaluation period was the provision and launch of electronic tools for the management of EIR (ERMS) and monitoring the use of EIR (CELUS). The topic of ERMS and CELUS is discussed in more detail in subchapter 3.3. The internal evaluation of this KA has not yet taken place, according to the plan it will take place in the second half of 2020 and during 2021. Within the activity, the implementation team (in the area of software and hardware) was technically supported.

The implementation of **KA6** (Publicity of the project, promotion of EIR and support of EIR users) was affected by the vacancy of the position of guarantor of publicity for a part of the evaluation period, which was filled in December 2019. Two persons with a total working time of 1.0 started working as a guarantor. In the evaluation period, there was a restart of the creation of newsletters for member institutions, the preparation of a public contract for PR (promotion of the Project on the websites of member institutions), the continuous updating of websites and communication with member institutions. Furthermore, the budget for the area of publicity should be strengthened and therefore change sheets intended for the MA are prepared. Concerning the recent filling of this position, the planned adjustment of the communication strategy of the Project has not yet taken place and the evaluation of this KA will be the subject of another interim evaluation report.

**KA7** The final evaluation and recommendations are not yet formally in progress. As of May 2020, only external evaluation is underway, and a formal internal evaluation is planned for the second half of 2020. However, as part of the Project Management, the project manager collects





suggestions and evaluates them during external meetings of the implementation team. We deal with the evaluation in more detail in subchapter 3.2.

### Evaluation of partial evaluation question - Do the implementation of key activities and outputs of the timetable correspond to actual needs?

The implementation of the Project **corresponds to the schedule and current needs** of member institutions. Compared to the first two years of implementation, there is **no delay** in project activities. Signatures of licensing agreements and agreements on securing and making EIR available to member institutions **were signed according to plan**. The key outputs of the Project in the evaluation period, i.e. the ERMS and CELUS interfaces, are largely used by member institutions and **are evaluated as beneficial**. The ERMS facilitates the administration of EIR for the representatives of member institutions (overview of acquired EIR, license agreements and other documentation), some member institutions plan to use the ERMS also for EIR acquired outside CzechELib. The CELUS tool makes it easier for representatives of member institutions to work with statistics on the use of EIR, and both tools thus **respond appropriately to the needs of member institutions**.

### Evaluation of partial evaluation question – Are there any risks that threaten the project implementation and the achievement of its goals?

The stated risks result from the current Project Charter (January 2020 version). These are the risks that were identified at the time the aid application was approved. In addition to these risks, we list the risk identified outside the risks in the Project Charter. As part of the external evaluation, they are continuously evaluated in terms of relevance, degree of probability and possible impact on the course of the Project.

		<b>Title –</b> Description – Measures	EY risk evaluation in evaluation period
1.	Title	Time-consuming administration of public procurement according to regulations of MEYS within MEYS departments.	The risk is lower than in the previous evaluation period but is still relevant.
	Description	A number of smaller and larger public procurement tenders will be conducted in 2017 that, if delayed or not completed, could impact the project schedule and delivery of individual project stages.	With regard to the lower amount of PP, the time requirement is lower than in the first years of project implementation, nevertheless, the implementation of PP
	Measure	Adoption of such exceptional measures at MEYS that will enable initiation of the tenders within the required deadlines. Flawlessly prepared tenders' documentation.	through NPPP is still time- consuming. The time- consuming nature results from the inspections of the PP and the approval of the MA and other entities (the government of the Czech

Table 4 Risk assessment from the Project Charter





		<b>Title –</b> Description – Measures	EY risk evaluation in evaluation period
			Republic, the meeting of the MEYS).
2.	Title	Complexity of public procurement (PP)	The risk is still up to date. Legal oversight is ensured by
	Description	As the experience from the previous programming period shows, the public procurement agenda is known to be complicated and problematic. The risk of incorrect procedure during the procurement process taken by the contractor is relatively high. In the case of tenders with such specific focus as is in this project (for most EIR there is only one supplier that is their publisher) the risk is even higher. It is possible to significantly decrease the risk by provision of external legal supervision over the entire process and the relevant documentation.	an external contractor and existing checks of PP for EIR by the subsidy provider were made without financial impact, according to the project implementer. The project has had an external law firm since 2019, which is responsible for the course of the PP, with the work of which the implementer of the Project is
	Measure	Securing external service (legal supervision) providing oversight of the entire process, advance planning for sufficient funds for this service, perfectly prepared tender documentation.	satisfied. The current contract with the law firm is almost exhausted and a new PP for legal services will be announced (the MA has given its consent to the announcement).
3.	Title	Delayed start of project implementation	
	Description	A significant majority of licenses for access to EIR contracted under the current decentralized model are only valid until the end of 2017. It is therefore necessary to secure new licenses during 2017. For that, not only does the functional national licensing centre CzechELib needs to be established but also new licenses from publishers have to be acquired in the course of the year 2017.	The risk is not up to date. In the course of the evaluation period, there was an elimination of delays in the
	Measure	The maximum possible shortening of deadlines for communication with the community, intensive involvement of the expert group. Direct accelerated appointment of the Expert Council by its chairman for the first phase of the project. Possible launch of some activities that do not explicitly require costs prior to the project commencement.	area of EIR.





		<b>Title –</b> Description – Measures	EY risk evaluation in evaluation period
4.	Title	Failure to meet the objectives of the project by the end date of its implementation	
	Description	It is not possible to rule out a situation in the course of the project in which the necessary changes to the project will not be compatible with its approved version. An important factor could be a transformation of the business model for e-journals to Gold Open Access.	The risk is still partly up to date, the project setup allows only partial inclusion of the OA topic. Higher probability of risk would be significantly affected by the non-approval of the NCIP project (National
	Measure	The risk is partially eliminated by shortening of the OP RDE-subsidized period to three years (a shorter timeframe allows greater flexibility to respond to the situation).	Center for Information Support of RDI).
5.	Title	Sustainability of the project after the end of the funding period from OP RDE	With regard to the method of creating the state budget and the current situation
	Description	There is a risk that the MEYS will not ensure sufficient number of staff with appropriate salary funds for a part of employees operating the CzechELib.	(increasing the deficit), this risk is still relevant. Future possibilities are the subject of negotiations within Section III of the MEYS and also between
	Measure	At the end of the support from the OP RDE, the aid will continue to be provided at least for the national centre, alternatively for the purchase of EIR from national sources.	Section III and the MA of the OP RDE. However, according to current negotiations, the means to ensure sustainability should be available in the state budget. For 2021 and 2022, there are sufficient resources in the medium-term budget perspective. For 2023, part of the funds is missing and the solution to this situation is the subject of negotiations. The approval of the NCIP project is key to eliminating the risk.
6.	Title	Decision by the government not to provide support from the state budget after the end of the support from OP RDE	See risk No. 5
	Description	There is a risk that the concerted efforts of the MEYS, CRC, CHEI and CAS fail to persuade	





		Title – Description – Measures	EY risk evaluation in evaluation period
		CRDI to renew the support of EIR from the RDI budget as of the beginning of 2020. <sup>6</sup> There is a danger of a major exodus of the CzechELib users if funding is not provided for the purchase of EIR, after the end of support from OP RDE.	
		1. CzechELib will provide materials for intensive lobbying at the government level.	
	Measure	<ol> <li>The quality of its services will persuade the CzechELib users to remain even under these conditions.</li> </ol>	
7.	Title	A closure of the software supplier	
	Description	It is not possible to rule out that the company producing and maintaining the ordered software will not close.	Risk is not up to date, NTK is the owner of source codes
	Measure	The software will be mandatorily produced as open and documented code; functionality will be divided into separate, independent applications.	
8.	Title	Housing of CzechELib in NTK	
	Description	There is currently no space available in NTK for about 20 employees of the CzechELib center.	
	Measure	The situation could improve through integration of the Central Library of CTU in the same way as the UCTP and IOCB libraries. Recruitment of a significant number of experts from the beneficiary's current staff (who already have their own space), alternatively, recruitment of staff already located in the Dejvice campus (who have their own space, within walking distance to the team meetings). Use of teleconferencing for communicating with distant team members.	The risk was not confirmed. Conversely, the risk would be transferring the CzechELib under another institution.

<sup>&</sup>lt;sup>6</sup> The Project Charter states "beginning of 2020", but 2020 is still covered by the OP RDE project and the provision of EIR from the budget for RDI support is thus relevant from 2021.



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		<b>Title –</b> Description – Measures	EY risk evaluation in evaluation period
9.	Title	Funding of the purchase of EIR at the national level from the state budget will not be secured or will be provided to a limited extent.	
	Description	There is a risk that the state budget will not allocate sufficient funds for the purchase of EIR.	
	Measure	CzechELib will ask the MEYS to request from CRDI a renewal of support for EIR acquisition from 2021 (see risk No. 6) in preparing the medium-term budget outlook for 2017. At the same time CzechELib will ask the representative bodies of universities (CRC, CHEI) and the representation of AS CR for support of this request.	See risk No. 5
10.	Title	Staffing of the licensing centre - project management	The risk is lower than in the previous evaluation period.
	Description	Taking into account the need for a specific qualification of the chief project manager and the project team members, it is possible that they will not be recruited in time.	The position of the guarantor was filled, in the medium term there are planned only small personnel changes. In the years 2021 to 2022, it
	Measure	Identification of potential expert employees and their contacting began in Q3 2016. An adequate amount of planned salaries costs will increase recruitment success.	will be necessary to renew the contracts from 2018 to 2022 (or their transfer under OA), which will require staff reinforcement and may therefore increase the risk.
11.	Title	Staffing of the licencing centre – experts	
	Description	With regard to the need for high-level and specific qualification of the experts of the national licensing centre CzechELib, it is possible that they will not be recruited in time and in sufficient numbers.	See risk No. 10
	Measure	Identification of potential expert employees and their contacting began in Q3 2016. An adequate amount of planned salary costs will increase recruitment success.	
12.	Title	Failure to ensure transition of current experts who already have experience negotiating	See risk No. 10





		<b>Title –</b> Description – Measures	EY risk evaluation in evaluation period	
		licensing and pricing of EIR to the central organization.		
	Description	There is a risk that experts in negotiating licenses and prices of EIR (especially leaders of consortia within the implementation of MEYS support programs) will not be interested in working within the central organization or that these experts will not be addressed.		
	Measure	Identification of potential expert employees and their contacting began in Q3 2016. An adequate amount of planned salary costs will increase recruitment success.		
13.	Title	Hardware failure during the project implementation.	The rick remains minimal the	
	Description	Failure of common hardware cannot be ruled out.	The risk remains minimal, the acquired hardware ensures	
	Measure	Sufficient resources for replacement of consumer hardware will be allocated. Contractual security guarantees will be secured for so called enterprise hardware for the duration of the project sustainability period	sufficient capacity, in case of an outage, it is possible to use the NTK reserves beyond the project.	
14.	Title	Sustainability and security of data		
	Description	Given that the data will contain sensitive information such as pricing and contract terms it is essential to ensure their security and prevention of theft.	The risk is minimal, there was no change in severity of the risk in the course of the evaluation period.	
	Measure	The risk is eliminated by the fact that the software will run in a local installation, not as SaaS.		
15.	Title	Lack of willingness of the EIR users to use the licensing centre CzechELib.	As in the previous evaluation period, the risk is minimal, but still relevant. Part of EIR is acquired outside the CzechELib project. However, this is a significant minority of EIR (branch specific EIR) and	
	Description	There is a risk that the potential participants will purchase EIR independently or will seek other financial sources for EIR purchases. This would subsequently lead to fragmentation EIR portfolio.		





		Title – Description – Measures	EY risk evaluation in evaluation period	
		The amount of support funds is a magnet for institutions. The risk is significantly reduced by the shortening of the pilot period - a reasonably low cost of participation. During the period of	the risk has not yet had a significant impact on the course of the project. The risk is likely to increase from 2023, when the support will decrease (the source of support from the state budget will be lower than the subsidy from the OP RDE).	
	Measure	funding of EIR from the SB their willingness to participate will depend on the amount of support. The quality of CzechELib services will convince users to participate in the project, and to continue during the sustainability period and after.		
16.	Title	Hardware will not cope with the traffic		
	Description	Hardware is designed for high utilization, but in the case of an over-achievement of the project objectives, its capacity could be temporarily exceeded.	The risk is minimal, there was no change in severity of the risk in the evaluation period.	
	Measure	Hardware solution will take into account the peak utilization. Appropriately substantial hardware will be purchased.		
17.	Title	Establishment of an alternative institution aimed at central purchase of EIR in the Czech Republic, decentralization of the system.	There may be a decentralisation of funds intended to purchase EIR, the	
	Description	There is a risk that some organizations might establish an alternative association to purchase EIR.	potential risk of increased administrative burden on EIR purchases for member institutions. The existence of	
	Measure	The amount of funding is a key for attraction of institutions. An alternative association without the support does not make sense and is not appealing. Quality of CzechELib services will convince users to participate in the project.	an action plan for the implementation of the National strategy for open access to scientific information 2017 – 2020 should minimise the risk assessed.	

According to the evaluator, other risks, beyond the risks identified in the Charter, are the following:

The situation regarding COVID may lead to a reduction in the budgets of member institutions, which may result in lower interest of member institutions in EIR. This risk is external and can only be partially eliminated by maintaining a similar co-financing rate in the coming years. Elimination of this risk was solved by co-financing the purchase of EIR by member institutions beyond the safe exchange rate by CzechELib, which was approved by the Managing Authority and the Steering Committee at the turn of March and April





2020. The project team is trying to negotiate amendments to license agreements from 2021 and stop the price increase for at least year 2021.

The 2019 report cited a lower perceived benefit of the project among large institutions as a risk. This phenomenon was only partially repeated in the questionnaire survey in 2020. The worse evaluation of the project's benefits for the larger institutions was reflected in particular in the benefits of "lower EIR costs" and "faster EIR acquisitions". Partly with the benefit of reducing administration and increasing user comfort. Other benefits were assessed similarly by respondents across institutions of different sizes. Respondents' evaluation of the benefits of the Project has improved compared to the previous report. The evaluation of the benefits of the Project by the member institutions will be one of the subjects of the next evaluation report for the period June 2020 to May 2021.

#### 3.2. Evaluation of EQ6

Evaluation of EQ6 – Is the preparation and performance of internal evaluations, i.e. evaluations performed in the course of the project, effective?

There was no systematic internal evaluation in the evaluation period. At the end of the evaluation period, the project implementation team created an internal evaluation proposal, which will be further developed by the implementation team with the internal evaluator, and then finalized. Concerning the focus of external evaluation, the currently proposed internal evaluation is suitably focused primarily on the feedback of a wide implementation team.

As part of the Project management, risks are managed and the fulfilment of the plan is evaluated; the feedback from the members of the Project implementation team is addressed at regular external meetings, which take place twice a year. The above activities represent feedback on the implementation of the Project and as such they can be perceived as implicitly implemented elements of process evaluation.

The implementation team created a proposal for internal evaluation, which will be further developed, and an internal evaluator will be involved in its creation. In terms of implementation of external evaluation, we assume partial involvement and consultation of the internal evaluation proposal, so that both activities (internal and external evaluation) complement each other appropriately without any duplication.

With regard to the deadline for submitting the output of the internal evaluation in April 2021 and December 2022, the current schedule of internal evaluation is set appropriately.

Evaluation of partial evaluation question – Is the evaluation methodology and the scope of collection of input data sufficient to evaluate the results and implications of the subsidized project?





The methodological setting of internal evaluation is **suitably focused concerning the focus and scope of external evaluation**. The collection of external evaluation data is focused mainly on representatives of member institutions and data are also collected from the closer implementation team of the Project. According to the current plan, the internal evaluation is focused primarily on the **ongoing evaluation of the processes and results** of the Project, while data are to be collected mainly from a wide implementation team. Part of the subject of internal evaluation is also the subject of external evaluation, such as the ERMS and CELUS,<sup>7</sup> the methodology for selecting EIR or external communication with member institutions. At these points, the perspective of the implementation team can contribute to the validation of the findings of the external evaluation.

Most of the outputs to be subject to internal evaluation are not covered by external evaluation (i.e. they are not subject to evaluation questions). These include, for example, internal communication, staffing, methodology for evaluating user statistics or the inclusion of the CzechELib department under the NTK. The above-mentioned elements of the Project can be considered important from the point of view of the processes within the Project and their evaluation should thus provide the implementation team with useful feedback on the current implementation of the Project and the created outputs.

The selection of evaluated outputs results from monitoring indicators. Given that the MA does not explicitly specify the form of internal evaluation, the evaluator recommends not to focus on indicators given by project documentation, but to prioritize the focus of internal evaluation especially on outputs for which the results of internal evaluation can bring higher added value. Prioritization of internal evaluation should make it possible to evaluate a **smaller number of topics in greater depth** compared to the partial coverage of all 20 proposed topics. Topics such as internal communication or the organizational structure of NTK and CzechELib are complex and their evaluation can serve to improve processes in the further course of project implementation.

According to the current proposal, the implementation of a questionnaire survey among the members of the Project implementation team is expected. The external evaluator recommends **including semi-structured interviews** or other qualitative method of data collection. Given the number of respondents it would be appropriate to process some of the complex topics not only quantitatively but also qualitatively and gain deeper insight into the topics.

<sup>&</sup>lt;sup>7</sup> As part of the internal evaluation, both systems should be evaluated from the point of view of administrative tasks (data entry, linking to other library systems or the possibility of editing non-standard processes).





### Evaluation of partial evaluation question – Does the beneficiary implement the findings and recommendations resulting from the evaluations?

As of the date of submission of this interim evaluation report, **no formal outputs of the internal evaluation had been created**. The evaluation outputs are planned for April 2021. During the external meetings, the implementation team discusses suggestions, which serve as the provision of feedback within the implementation team.

Formally, so far there are **outputs only within the external evaluation** carried out by the Supplier, which contains findings and recommendations for the implementation of the Project. Representatives of the Project are informed about the opinions and attitudes of the target group of member institutions through ongoing evaluation reports.

#### Evaluation of partial evaluation question – Does the beneficiary perceive the evaluation - as performed – as a useful tool for project management?

The internal evaluation is perceived by the implementation team as a **tool for providing feedback** to the implementation team and the NTK director with a focus on the current outputs of the Project and their internal evaluation. Regarding the focus of internal evaluation, it can be expected **to obtain usable information** for a possible change in the processes within the Project.





#### 3.3. Evaluation of EQ8

#### To what extent is the electronic access (web interface) created by CzechELib userfriendly?

Both evaluated tools - ERMS and CELUS - are **perceived as useful** by representatives of member institutions. Their use makes it easier for most respondents to manage and acquire EIR and using CELUS makes it possible to obtain statistics in a much simpler and faster way than before. The user-friendliness of both interfaces and communication with CzechELib representatives is perceived mostly positively; partial shortcomings were identified by the respondents in the communication of the comment procedure to the ERMS.

The evaluation of this question is based on **three sources of data**: a questionnaire survey, telephone qualitative interviews and evaluation by a UX expert of the Supplier. As part of this evaluation question, we evaluated **two web interfaces** that serve member institutions to improve their work with EIR. Below is a brief description of both interfaces:

Table 5	Description	of	evaluated	interfaces
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Web interface	Description
ERMS	The ERMS (Electronic Resources Management System) web interface is used by representatives of member institutions to manage the agenda associated with the acquisition and access to EIR. Representatives of the member institutions can monitor the individual phases (workflow) of the acquired EIR and through the ERMS have access to the records of contracts, budget and overview of resources and consortia.
	Member institutions can also use the ERMS for EIR acquired outside CzechELib, and the web interface thus allows them to manage all acquired EIR in one tool. The ERMS was prepared during 2019 and piloted and launched in a sharp version during the autumn of 2019.
CELUS	The CELUS interface is used by member institutions to obtain statistics on the use of EIR. Authorized persons in member institutions have the opportunity to monitor at any time statistics on the use of not only their own EIR, but also the use of EIR in other (anonymised) institutions or to monitor rejected access to EIR within their institution.
	As in the case of the ERMS, representatives of member institutions can find out statistics for EIR compiled outside CzechELib. The CELUS interface was developed during the autumn of 2019, in the period from November 2019 to January 2020 it was tested and at the end of January it was officially announced its launch.





When evaluating both interfaces, we focused mainly on the **following parameters**, according to which we further structure the evaluation of the evaluation question:

- **Frequency of interface use** how often users visit the interface,
- Interface functions what the interface is used for by users,
- **User friendliness (UX)** clarity, control, etc.,
- Awareness from CzechELib and communication providing information to member institutions on launching interfaces and system changes, resolving errors and requirements,
- > **Opportunities for improvement** from the users' point of view,
- **Benefits of the interface** what are the benefits of the interface for their users.

#### Frequency of interface use

Approximately **two thirds of respondents** have experience **with at least one interface**. Both interfaces are visited by users rather exceptionally, i.e. several times a year.<sup>8</sup> Only **a small part of the representatives** (approximately 15 %) of the member institutions use some of the interfaces **once a month or more often**. Despite the different launch dates of both interfaces, their **use is almost the same among respondents**, differing only in the units of respondents.

Approximately one tenth of respondents do not know the ERMS and CELUS tools.<sup>9</sup> The CELUS system was launched in a sharp version at the end of January and training on this system took place during April, but for the ERMS the ignorance of this tool is surprising for a tenth of respondents.

In member institutions, also a person who is not authorized to communicate with CzechELib may work with the ERMS and CELUS. In the email with the request to fill in the questionnaire, it was stated that in such a case the authorized person forwarded the questionnaire to the employee who works with the systems.

The use of ERMS and CELUS among respondents is shown in the following table:

Table 6 Evaluation of the question "How often do you use the following web interfaces?" (N=69)

Interface usage	ERMS (number of users / proportion)	CELUS (number of users / proportion)	
Several times a month	4 (5,8 %)	4 (5,8 %)	
Approximately once a month	7 (10,1 %)	7 (10,1 %)	
Exceptionally (several times a year)	20 (29,0 %)	19 (27,5 %)	

<sup>&</sup>lt;sup>8</sup> Due to the launch date of CELUS, it is possible that the use will change in part, but due to the used CELUS functions, it can be expected that users will not use CELUS every month or more often.

<sup>&</sup>lt;sup>9</sup> Five respondents do not know any of the tools.





Approximately once a year	9 (13,0 %)	10 (14,5 %)
Never	21 (30,4 %)	21 (30,4 %)
I don't know the tool	8 (11,6 %)	8 (11,6 %)

The tools were evaluated only by those respondents who stated that they use it at least once a year. The criteria evaluated below were evaluated by about 40 respondents, the specific numbers of respondents are then given for each table.

#### Interface functions

As part of the evaluation, we also found out what **are the most important interface functions** for users (what they use / plan to use user interfaces for). At the ERMS, respondents most value the opportunity to find out to **which EIR is the represented institution subscribed**. A key function for users is also **access to the necessary documents** (centralized procurement contracts, contracts for securing and making EIR available). The possibility of finding out the subscription of EIR by other institutions is perceived as important by less than half of the respondents, as well as the possibility of checking the prices of individual EIR. Detailed results are shown in the following table:

Table 7 Evaluation of the question "What are the most important interface functions for you?" (N=36)<sup>10</sup>

ERMS interface functions <sup>11</sup>	Proportion of respondents for whom the function is important
I can find out which EIR my institution subscribes	66,7 %
I can find the necessary documents (contracts on centralized procurement, contracts on securing and making EIR available)	55,6 %
I can find out which EIR is subscribed by other institutions	47,2 %
I can check the prices of individual EIR for the current year	47,2 %
I can plan a budget for the future	11,2 %
Other <sup>12</sup>	5,6 %

<sup>&</sup>lt;sup>10</sup> The lower number of respondents in the question devoted to the most important functions of the interface results from the fact that the question on the most important functions was open during the piloting. The transformation into a semi-closed question thus took place only in the main phase of the questionnaire survey.

<sup>&</sup>lt;sup>11</sup> Respondents had a total of six options to choose from (including Other), from which they chose a maximum of three functions that are most important to them. The answers were proposed by the CzechELib implementation team and their text is available in the appendix to the report.

<sup>&</sup>lt;sup>12</sup> One respondent stated the search for detailed information on the EIR and the other stated that the ERMS was only tested and is therefore unable to evaluate the most important functions of the ERMS.





For the CELUS system, respondents had a wider range of functions and could choose up to five most important functions from the nine offered. Almost all users use CELUS to monitor the use of magazines they purchase. Half of the users use CELUS to monitor the use of databases and find summary numbers for annual reports. The evaluation of all functions is given in the following table:

Table 8 Evaluation of the question "What are the most important interface functions for you?" (N=38)

CELUS interface functions	Proportion of respondents for whom the function is important
I can monitor the use of EIR - magazines	86,8 %
I can monitor the use of EIR - other databases	50,0 %
I can use summary numbers for annual reports	50,0 %
I can monitor the use of EIR - e-books	44,7 %
I can monitor rejected approaches for EIR - magazines	42,1 %
I can make comparisons with other members of the consortium	31,6 %
I can track rejected accesses for EIR - e-books	15,8 %
I can use graphs for annual reports	13,2 %
Other <sup>13</sup>	2,6 %

With both interfaces, **all offered functions are perceived as important by at least some users**. The least used functions are the ERMS budget planning for the next period, and the CELUS system uses of graphs for annual reports. However, even these functions were mentioned by more than a tenth of the respondents as important and the offered functionalities of both systems **correspond to the needs of users**. Potential areas for system improvement are listed in one of the following subchapters.

#### User friendliness (UX)

Part of the questionnaire, telephone interviews and evaluation of EY's internal expert focused on user friendliness. According to the questionnaire survey, respondents evaluate **both interfaces mostly positively** from the UX point of view. There were **no significant differences** in the evaluation between the ERMS and CELUS, the users rated the CELUS system a little better,

<sup>&</sup>lt;sup>13</sup> One respondent stated that CELUS is still being testing and therefore cannot assess the importance of individual functions.





which is in line with the fact that user comments on the ERMS were taken into account when creating CELUS.<sup>14</sup>

Table 9 Evaluation of the question "How would you evaluate the interface in the following criteria?" (each interface N = 40)

UX interface criteria	ERMS (average rating from 1 CELUS to 5) <sup>15</sup>	
Interface clarity	2,06	1,92
Simplicity and coherence of control	2,11	2,00
Reliability (absence of errors)	1,87	1,83

In addition to the evaluation of individual parameters, the respondents were presented with **a set of statements** in which the representatives of the member institutions had to state to what extent they agreed with them. Even here, the user-friendliness of both interfaces is perceived **rather positively**, with the majority of respondents giving a strong or moderate agreement with positive statements.

Table 10 Indicate the extent to which you agree with the following statements (each interface N = 39)

Consent to statements on the UX interface (average agreement with statements on a scale of 1 to 4) <sup>16</sup>	ERMS	CELUS
I can find the information I am looking for in the interface easily and quickly	1,86	1,97
Learning to work with the interface was easy	1,88	1,94
All the terminology in the interface is clear and I know what it means	2,03	1,94

In qualitative interviews, the CELUS interface was slightly better evaluated. Compared to the ERMS, the CELUS environment was perceived as **clearer and more intuitive**. Respondents stated that the CELUS searches well for information, the interface is relatively simple, clear and intuitive and contains useful functions beyond expectations. The clarity of the ERMS was rated as good, but less clear compared to the CELUS. The criticisms of the ERMS were directed to the terminology of two respondents, partial shortcomings appeared once (e.g. filtering, export, missing help or error rate). The reason for partial shortcomings in terminology is the time frame for the creation of the ERMS, when a uniform terminology has not yet been established. As part of the further development of the system, the terminology should be unified.

Both interfaces were positively evaluated for the **method of login**, which is simple due to the single login via Shibboleth through the organization's account. This login allows you to access

<sup>&</sup>lt;sup>14</sup> The ERMS was created in 2018–2019, but the CELUS system in 2019–2020.

<sup>&</sup>lt;sup>15</sup> 1=high level, 5=low level.

<sup>&</sup>lt;sup>16</sup> 1=strongly agree, 2=somewhat agree, 3=somewhat disagree, 4=strongly disagree.





different tools through a single account, so there's no need to manage multiple user accounts and passwords.

**The terminology** used in the ERMS and CELUS was assessed by the respondents as **rather understandable**. At CELUS, 61 % of respondents tend to agree that the terminology is clear. In contrast, for the ERMS, "somewhat agree" is reported by 51 %, "somewhat disagree" by 10 % and "strongly disagree" by 5 %. Suggestions for changes in terminology appeared in two of the four comments in the ERMS assessment, where respondents had the opportunity to suggest changes that they would welcome in the system. Within the expert UX evaluation, the fact that **some functions have different wording** on different screens (e.g. source acquisition vs. acquisition) was perceived as problematic, see the following figure.

**ERMS** Dashboard CzechELib ERMS Pořízení zdroje Dostupné komponentv I Katalog 0 0 Adresář Akvizice Katalog Adresář Konzorcia Rozpočet Audit Správa rolí 🚰 Konzorcia Moje zdroje Rozpočet Audit Zdroje Správa rolí Academic Complete Správa identit American Association for Cancer Research Publications American Institute of Physics - Complete Žádosti o přístup IEEE/IET Electronic Library (IEL)

Figure 1 ERMS - different names of the same item in the main menu

According to the expert evaluation, the layout of the **ERMS** homepage is clear. It would be beneficial to add other useful features (e.g. information about new available resources or messages and to unify text formats, as headings are larger than normal text, but do not always have a uniform style across the interface.)

The **CELUS** interface works well in both tested browsers and the main menu is clear and understandable. Graphic elements improve menu orientation and text links are highlighted and therefore well distinguishable from other text. Graphs and graphic elements are sufficiently clear and contrasting. As with the ERMS, the site footer does not contain contact information.

#### Awareness and communication

The provision of information on web interfaces and communication between the CzechELib implementation team and member institutions was **evaluated mainly positively for both tools**.





Awareness and communication in the case of the ERMS interface was slightly better evaluated, which can be partly attributed to the fact that the ERMS was launched before CELUS and the training on CELUS took place in the week of the questionnaire survey. The vast majority of respondents agreed with positive statements about awareness of launch and ongoing communication, as the following table shows:

Table 11 Indicate the extent to which you agree with the following statements (N = 39)

Consent to statements for communication (average agreement with statement) <sup>17</sup>	ERMS	CELUS
I was well informed about the launch of the system (scope and comprehensibility of information, timeliness)	1,68	1,76
CzechELib sufficiently informs about news or planned changes to the system	1,46	1,69

None of the respondents stated a strong disagreement with any of the statements on communication for any of the evaluated systems. Three to four respondents in both systems stated a slight disagreement with the above statements. **Comments on the ERMS** proved to be a partial shortcoming in the qualitative interviews. Two respondents to the interviews stated that the comments sent by them were almost not settled at all and perceived the communication regarding the comments of the system as unclear. With this exception, specific communication with member institutions about launch, news or changes at both interfaces can be assessed positively. According to the questionnaire survey and interviews, the error rate of both interfaces is minimal, however, in the event of an error or problem, CzechELib representatives are helpful and there is a quick correction.<sup>18</sup>

#### **Opportunities for improvement**

This subchapter is based on a **questionnaire survey** (specific proposals for changes in the user and areas with worse evaluation), **qualitative interviews** and **expert evaluation** of both interfaces.

In a questionnaire survey, we found out for both systems what changes in the interface users would welcome. For each system, only four respondents made specific suggestions. A comment on the adjustment of terminology and missing attributes appeared several times in the questionnaire survey, the remaining suggestions or comments appeared only once.<sup>19</sup>

During the qualitative interviews, the above-mentioned terminology and attributes also appeared. According to the interviews, the addition of help (by default, the question mark logo next to the term, when an explanation of the term is displayed when hovering the cursor) could improve the

<sup>&</sup>lt;sup>17</sup> 1=strongly agree, 2=somewhat agree, 3=somewhat disagree, 4=strongly disagree.

<sup>&</sup>lt;sup>18</sup> CzechELib representatives must forward errors to the system vendor.

<sup>&</sup>lt;sup>19</sup> These proposals need to be seen in this context, as the systems can hardly suit all users in full, regarding the different needs of the member institutions





comprehensibility of terminology. More specific suggestions for improvement are included in the annex with the transcripts of the qualitative interviews.<sup>20</sup>

#### Benefits of the interface

Although the benefits were not specifically identified in the questionnaire survey, the open questions and qualitative interviews show positive perceptions of the representatives of the member institutions.

With regard to **the ERMS interface**, respondents rated very positively that they have a large amount of information in one place and the management of EIR with related documents is easier than before. According to the interviews, this benefit varies slightly and depends on the size of the institution. While larger institutions have appropriate EIR management software, smaller institutions without similar software see the ERMS as a major improvement in EIR management. The different size of institutions was also reflected in the use of the ERMS for EIR acquired outside CzechELib.

Respondents from smaller institutions appreciated the possibility to add their own EIR to the ERMS (i.e. acquired outside the Project), while larger institutions have software in which they manage EIR for a long time and due to the possibility to modify attributes according to their needs in the short term, they do not consider the migration of their own EIR into the ERMS,<sup>21</sup>

According to the interviews, the biggest benefit of **the CELUS interface** is time savings and overall simplification of work with statistics. Prior to the launch of CELUS, representatives of member institutions had to obtain data separately from individual publishers, which was time consuming. It was stated that working with statistics within CELUS, on the other hand, is significantly faster.

<sup>&</sup>lt;sup>20</sup> A detailed expert evaluation of both tools will be handed over to the CzechELib implementation team.

<sup>&</sup>lt;sup>21</sup> The use of the ERMS for the management of EIR acquired outside CzechELib will be appropriate to find out across member institutions in a questionnaire survey in the following years, when there will be a sufficient distance from the launch of the ERMS.





### 4. Conclusions and recommendations

Within the evaluation period (i.e. June 2019 to May 2020) the implementation of the Project proceeded according to schedule and all key activities of the Project **proceeded as expected** (KA6 also took place, for which the position of guarantor was not filled in the months of May to November). The main findings, evaluation of the implementation of the recommendations from the 2nd Interim Evaluation Report and recommendations are listed below.

#### 4.1. Key conclusions of the third interim report

In the evaluation period, all important planned activities were implemented. In particular, **the conclusion of all licensing agreements** with EIR providers for the period 2020–2022, the signing of agreements on securing and making EIR available to member institutions and the implementation of public contracts for that period. As of April 2020, all member institutions had paid advances to EIR. As of May 2020, **both milestones were met**, i.e. the financial continuous and final milestone.

Within the evaluation period, **two web interfaces** were delivered to representatives of member institutions. The ERMS tool is used by member institutions to manage the agenda of acquisition and making EIR available, while the CELUS tool is used to obtain statistics on the use of EIR and work with these statistics. **Both instruments** were **mostly positively evaluated** by the representatives of the member institutions. Respondents positively assessed the user-friendliness of both tools as well as the communication of the CzechELib implementation team in connection with the launch and changes of both systems.

The tools **make it easier for users to manage EIR and work with statistics**. The use of the ERMS for own resources (acquired outside CzechELib) varied in the interviews according to the size of the institution. However, due to the relatively short time since the ERMS was launched, the evaluation of the use of the ERMS for resources outside CzechELib will be done in one of the following evaluation reports.

Partial shortcomings were identified mainly in the **terminology of the interface** (different designations of the same components in different screens). Some respondents to qualitative interviews then identified as a shortcoming the **unclear communication in the process of commenting on the pilot version of the ERMS system** by member institutions. According to the interviews, two respondents did not have information on how to settle their comments, and the help offered with consulting the form of the software was unanswered by the CzechELib team. Given the number of comments, the settlement of specific ones individually would probably be very time consuming, but the representatives of the member institutions should be informed sufficiently clearly and intelligibly about the method of settling the comments.

The internal evaluation **has not yet been formally implemented**, there have been implicit elements of process evaluation within the external meetings of the implementation team. A formal internal evaluation is planned for the second half of 2020, for the implementation of which an internal evaluator will be involved in the implementation team. The current proposal for internal evaluation is suitably focused on collecting feedback from members of the implementation team. However, targeting the internal evaluation on all outputs (according to monitoring indicators) could





lead to findings for all outputs, but the detail and depth of findings will not be high (compared to the possible selection of a smaller number of outputs and their evaluation in greater detail).

From the point of view of sustainability, the **key is the pre-negotiation of financing from the state budget** (through the NCIP project, from which the operation of the CzechELib consortium will be paid from 2023). Specifically, it is about co-financing by CzechELib, while the amount of support from the state budget after 2023 will be lower than the amount of support from the OP RDE. It is also important to create action plans for the implementation of a strategic document for the area of OA for the years 2017 to 2020, in which NTK representatives are involved. The topic of OA is to be partially addressed within the CARDS project, which is to focus on accessing and searching for all types of EIR. The topic of OA will be partially covered in education, methodological support and publicity.

### 4.2. Evaluation of the implementation of recommendations from the 2nd Interim evaluation report

The 2nd interim report contained a total of four recommendations. An overview of their implementation is given to each recommendation below:

### Systematically introduce elements of internal evaluation for the purpose of continuous evaluation of the project in 2020

In the evaluation period, a form of internal evaluation was proposed. The form of internal evaluation will be further consulted with the new internal evaluator. With regard to the planned date of the output of the internal evaluation (April 2021), the currently set time schedule of the internal evaluation is appropriate.

#### Create a detailed communication strategy

The publicity guarantor was recruited (occupied by two people) in December 2019, and a detailed communication strategy has not yet been created by the deadline for submitting the report. The creation of a new communication strategy, or rather its revision, is one of the main tasks of the guarantors of publicity for 2020.

#### > Take the Open Access topic into account in the project settings

The topic of Open Access is continuously addressed within the CzechELib project and activities related to the topic of OA are permitted. Representatives of the NTK were involved in the creation of the Action Plan for the Implementation of the National Strategy of the Czech Republic's Open Access to Scientific Information for 2017–2020. Moreover, in the autumn of 2019, the KRECon conference was held, the topic of which was OA, and which was organized by the NTK in cooperation with the CzechELib implementation team.

#### Use possible capacities and funds for additional support of member institutions

The financial reserve created as a result of lower EIR acquisition prices (compared to the expected ones) is intended to financially support the purchase of EIR by member institutions above the safe exchange rate (i.e. the CNB exchange rate at the beginning of 2020 with a reserve





of 5 % against possible exchange rate changes). Due to exchange rate changes, member institutions will not have to pay the contracted EIR beyond the advances paid in 2020. The use of the reserve is also planned for publicity, ERMS and CELUS systems or the purchase of data for the evaluation of publishing activities.





#### 4.3. Recommendations

In view of findings on the individual evaluation questions, we summarize below recommendations for the next phase of the project.

### Prioritization within the internal evaluation and supplementation of quantitative data collection with qualitative

The thematic focus of the internal evaluation proposal on collecting feedback from members of the implementation team on project outputs is **appropriate with regard to external evaluation**. However, targeting the internal evaluation on all outputs according to the project's monitoring indicators could lead to information on all outputs, but the **detail and depth of the findings will not be high**.

Therefore, in order to maximize the usability of the internal evaluation, the external evaluator recommends **prioritizing and focusing the internal evaluation on such topics** for which the findings will contribute to a better setting of processes within the Project (i.e. focus the evaluation more procedurally). The recommendation also includes the **extension of the questionnaire survey to qualitative methods of data collection**, because given the number of members of the implementation team, the results of the questionnaire survey may have limited informative value and semi-structured interviews will deepen quantitative findings from the questionnaire survey.

### In case of further comments on electronic interfaces by member institutions, communicate more the way of settling comments.

According to the qualitative findings, the method of settling the comments of the member institutions was not communicated sufficiently clearly and intelligibly. Although, given the number of comments, their individual settlement would be very time consuming, the representatives of the member institutions did not have sufficiently clear and comprehensible information about such a procedure and thus assessed the settlement process partially negatively. Consequently, the time devoted to comments could be perceived by the member institutions as inefficient, which may reduce their willingness to further participate in the development of both web interfaces. As part of the settlement of comments, representatives of member institutions were invited to a personal meeting, but only one representative of member institutions arrived. Thus, it would be appropriate to consider an alternative form of settlement of comments (e.g. online form, which may be more suitable for representatives of institutions outside Prague).

Therefore, if further comments on the existing interfaces will occur (or on other key outputs of the Project), there should be emphasis on the communication of comments settling.





### 5. List of references

The following sources of information have been consulted during the composition of the 3rd Interim report:

- 1. Methodologies and Procedures ESIF/evaluations:
  - > Operational programme Research, Development and Education,
  - > Evaluation plan of Operational programme Research, Development and Education,
  - Methodological documents of Ministry of Regional Development-National Coordination Authority for programming period 2014–2020.
- 2. Project Documentation
  - Project Charter (version valid as of January 2020),
  - Methodological document "Preparation and Management of Individual Systemic Projects in the Implementation of the Operational Program Research, Development and Education",
  - Presentations to the Project (e.g. meetings of member institutions, introduction of the CELUS tool, etc.),
  - Information on the CzechELib website.
- 3. Questionnaire survey among institutions involved in the CzechELib
- 4. Structured interviews with the representatives of institutions involved in the CzechELib
- 5. Three meetings with the CzechELib project team on the project progress,<sup>22</sup> internal evaluation and the CELUS and ERMS interfaces

<sup>&</sup>lt;sup>22</sup> A representative of the OP RDE was also a participant in the meeting.

### 6. Annex

List of Annexes:

Annex no. 1 – The Technical report (Only in Czech)

Annex no. 2.1 – Example of the Questionnaire for member institutions (CAWI) (Only in Czech)

Annex no. 2.2 – Anonymized results of the survey for member institutions (Only in Czech)

Annex no. 2.3 – Scenario interview with member institutions and anonymized transcripts (Only in Czech)

Annex no. 3 - Graphical overview of the evaluation outputs

## Annex no. 3 – Graphical overview of the evaluation outputs

Results of the Third Interim Evaluation Report of the project Evaluation of the Systemic Project "National Centre for Electronic Information Resources - CzechELib"

#### Key activities of the Project implemented in the period under review



Selection and purchase of additional EIR, acquisition of EIR for the period 2020 to 2022



Launch of electronic EMRS tools for EIR administration and CELUS for monitoring EIR usage for member institutions



Information and methodological support of the member institutions

#### Key findings

- The project meets the needs of member institutions in the area of EIR
- The ERMS and CELUS electronic interfaces are rated by the representatives of the member institutions as user-friendly and useful (increased efficiency and timesaving)
- Communication with project team representatives is viewed positively by member institutions
- Outputs of the project are evaluated more positively by the representatives of the member institutions than in the previous evaluation period
- Internal evaluation was proposed, and will be carried out according to plan in the second half of 2020

#### Recommendations

- Prioritize which outputs to use in the internal evaluation in order to maximize efficiency in project processes improvements
- In case of further comments by member institutions, put more emphasis on clear communication with member institutions representatives about resolving comments











The quality of the Interim report for 2020 is guaranteed by the EY.

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Ing. Romana Smetánková, Ph.D. Team Leader

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