Grey literature partnership network in the Czech Republic

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After the dissolution of initial partnership network, involved into the international SIGLE cooperation, at the beginning of 2005, new and broader partnership network was founded at the end of 2009. In November 2012, there are 91 data producers from the fields of research and science, education, culture and also enterprise, namely research institutes, universities, libraries etc. Partnership network has been built to support National Repository of Grey Literature (NRGL).

Grey literature data producers can choose from three types of cooperation with NRGL. All data are available through the Central Search Interface at http://www.nusl.cz in both Czech and English versions. National Technical Library (NTK) as a promoter supports partnership network in many ways. NTK runs informative webpages, e-mail conference, publishes manuals and methodologies, performs presentations and trainings and organizes full day conference every year.

Keywords: grey literature, data producers, digital repository, partnership network, legal framework

The starting point for building a grey literature partnership network in the Czech Republic was the state ascertained at the turn of 2007/2008, when the results of research, development and education paid for from public funds were often only available at the research workplaces (universities, research institutions) or through subsidiary information systems of subsidy providers. This meant that these valuable resources of information were often completely inaccessible to the expert public.

The National Technical Library (hereinafter only the "NTK"), which has systematically focused on collecting grey literature since the 1990s when it became a member of EAGLE (European Association for Grey Literature Exploitation), has sought to address this situation. The NTK has created the Grey Literature Cooperation System (hereinafter only the "GLCS"). This system was established on a contractual basis and accepted bibliographical records on grey literature (on dissertations) from cooperating Czech universities. Some universities also supplied the NTK with the actual printed dissertations so that the NTK could ensure access to them. This work always bore the marks of pragmatic access to information sources as carriers of information useful for education and research, and not merely the accumulation of library items without any direct relationship with their use. It was also for this reason that the building of a collection of printed dissertations in the NTK was ended in 2007, as it was already clear that other collections of these works would be available for study purposes in electronic form.

In 2009 the NTK began building a new, much more extensive partnership network of grey literature producers, within the framework of which it is attempting to capture grey literature from research, development and education fields such as grant agencies, state administration, research organisations, education and the commercial sphere. For this purpose the NTK, in cooperation with University of Economics, Prague (hereinafter only the "UEP"), created the National Repository of Grey Literature¹ environment (hereinafter only the "NRGL"), through which it is possible to search for documents, make them accessible or mediate access to them. Great emphasis is placed on the possibility of acquiring a document, and so in cases where there is no other option than to acquire a document at its storage location, the document records contain contact information for a service that will mediate the delivery of that document.

In view of legislative and organisational restrictions the NTK is creating a network of cooperating institutions on a voluntary basis. The first to be contacted, in 2009, were the institutes of the Academy of Sciences of the CR, followed by Czech state-run universities and grant agencies in 2010. In 2011 public research institutions, ministries and other selected

¹ The National Repository of Grey Literature was established within the framework of the project "The Digital Library for Grey Literature – Functional Model and Pilot Implementation" running from 2008 to 2011.

organisations were contacted. In 2012 private universities, private research organisations, and selected museums and galleries were contacted.

Thanks to the commencement of cooperation with institutes of the Academy of Sciences of the CR, the NTK determined the diversity of institutions' access to grey literature. In the case of the production of grey literature by institutes of the Academy of Sciences of the CR, a connection was established with the Library of the Academy of Sciences, which is also interested in archiving grey literature at the NRGL, and this resulted in an agreement on cooperation. The Library of the Academy of Sciences performs the role of central administrator of the collection of grey literature for institutes of the Academy of Sciences of the CR. Initially the system for collecting grey literature mainly contained only bibliographic data, but in 2011 the Academy of Sciences commenced the collection of electronic documents and the retroactive digitisation of selected documents.

At universities university works are collected in particular on the basis of obligations laid down in the Act on Higher Education Institutions. A significant problem with Czech universities is that in the majority of cases they refuse to make public the actual works and only provide descriptive information about such works. The Act on Higher Education Institutions does not specify the method or the scope of the publication of information about university works. This means that each school stipulates the scope and method itself, and the form of the database of university works in the Czech Republic also reflects this. Some universities only provide public access to records of university works, while others also publish full texts. 11 state-run universities have so far joined the NRGL partnership network, and either their repositories have been connected to the NRGL repository, or they directly use the NRGL repository as their storage location. Discussions are under way with others. 5 private universities thus joined in 2012. Private universities and state-run universities generally do not have their own repositories and do not publish the full texts of university works. If they participate in NRGL activities, they often only provide other grey literature.

We have been unsuccessful in terms of contacting grant agencies with proposals for cooperation with the NRGL. Reports from projects that a support beneficiary must prepare and submit to the grant agency contain valuable expert information, but are a type of grey literature document that is almost inaccessible to experts. The majority of support beneficiaries submit working and final reports to the applicable grant agency, which subsequently does not make them public. In general there is a fear of publishing data about research itself, but also about drawn funds. This, however, does not contribute towards transparency and credibility in the field of the provision of support from public funds for science and research in the Czech Republic. Experts are more interested in the part of the report with an analysis of the solution for the grant project, the general summary and the complete listing of all the results achieved through the grant project. The Ministry of Agriculture of the CR, for example, chose a good solution. It publishes so-called editorially modified final reports intended for publication. Although grant agencies were contacted in 2010, it has not been possible to establish cooperation. There were various reasons for this: some agencies highlighted a lack of manpower, the excessive difficulty of establishing cooperation, or refused without supplying a reason. The Technology Agency of the CR, established in 2009, was contacted with a proposal for cooperation in 2012. The agendas for the provision of support for research, which in previous years were maintained by the individual ministries, have been collected under this agency. The Technology Agency did not accept the proposal for cooperation either. Its reason was in particular the sensitivity of the data from research, which could be misused if published. There was also a legal problem the Technology Agency does not have the right to transfer reports it receives to third parties - in this case the NRGL. The Technology Agency's contracts with support beneficiaries would have to be amended and the latter would have to agree with such amendments. The Technology Agency would be willing to commence cooperation if the publication of these research reports was imposed by law.

The production of grey literature in the ministerial environment can be split into two groups. The first group is represented by reports from projects and grants from public funds, where the ministries play the role of support providers. The support beneficiaries are usually public research institutions, universities, private societies or companies. This area is influenced by Act No 130/2002, on the Support of Research and Development from Public Funds (the Act on the Support of Research and Development) and Act No 121/2000 (the Copyright Act). Pursuant to Section 16 (1) and (2) of Act No 130/2002 ministries only have ownership rights to the other results. Here it is necessary to negotiate directly with the individual support beneficiaries. Since 2012, in addition, some ministries have transferred the agenda for the provision of support to the Technology Agency mentioned above.

The second group is made up of grey literature produced by ministries and which is intended for publication. These are annual reports, yearbooks, bulletins, overviews, studies, statistics, analyses or reports on the state of the specific area that the ministry focuses on (e.g. the Report on the State of Human Rights in the Czech Republic in 2009 issued by the Ministry of Foreign Affairs of the CR, and so on). Even presentations and conference speeches by ministry employees are no exception to this. Usually these documents have already been published on the websites of the ministries. These materials have the character of employee work and the ministries have ownership rights to them. From the legal perspective, nothing prevents them from storing and publishing these materials intended for the public in the NRGL. The problem lies in the fact that grey literature is not centrally collected at ministries and the ministries do not usually have the staffing capacity to be able to designate an employee who would collect grey literature from throughout the ministry and place it in the NRGL. So far cooperation has only been commenced by the Ministry of the Environment, which only publishes records of research reports through the NRGL, by the Ministry of Justice, where the job of collecting grey literature has been taken over by the Press Department, and by the Ministry of Defence.

Public research institutions are legal entities whose main subject of activity is research supported, in particular, through public funds defined by Act No 130/2002, on the Support of Research and Development from Public Funds.² None of these institutions maintains its own database of grey literature as yet. If, therefore, public research institutions commence cooperation, they will use the NRGL to directly store their grey literature – in particular research and grant reports, certified methodologies, annual reports, analyses, studies and conference materials. So far eight public research institutions are cooperating with the NRGL, while discussions are underway with others. In the event of a refusal to cooperate, the reason most frequently given is the small quantity of grey literature, the appearance of sensitive information in grey literature, or lack of capacity.

Museums and galleries are specific producers of grey literature. They focus, among other things, on research activity and produce grey literature falling within the field of research, development and education. This results in conference materials, project reports, research reports, and certified methodologies. They also produce printed matter for displays and

² The source of information for public research institutions is the Register of Public Research Institutions. <u>http://rvvi.msmt.cz/</u>

exhibitions (exhibition catalogues, exhibition guides etc.) On the other hand the main activity of museums is to create collections, which includes special digitisation of two-dimensional and three-dimensional objects. Galleries and arts-focused schools (e.g. The Academy of Fine Arts, Prague) emphasise the archiving and publication of works of art in digital form (e.g. pictures, sculptures, music, dance etc.) For these works a separate repository of collectors' objects and works of art should be created, because their handling and accessibility (description, formats etc.) significantly differ from grey literature. In spite of this the NTK is establishing cooperation with museums and galleries, which only includes grey literature falling within the current typology of NRGL documents, and is collecting data for the potential design of a project to expand the NRGL to include collectors' objects and works of art. To date only the Museum of Western Bohemia has commenced cooperation, contributing its annual reports to the NRGL. The main discussions with museums and galleries are only now gathering pace.

Grey literature in Czech libraries is found in particular in those that are part of the organisations mentioned above (Academy of Sciences, universities etc.) If we focus on independently established libraries, these have a relatively small quantity of grey literature, which they produce themselves or which they collect from other institutions. The exception is the National Medical Library (NML), which manages a collection of grant reports of the Ministry of Health of the CR. The NML has expressed its agreement with the collection of grey literature by signing a licencing contract with the NTK, and data is already being collected for the NRGL. The Moravian Library in Brno has recently commenced cooperation with the NRGL It will publish through the NRGL both grey literature that it produces itself, and also records of grey literature that it has collected in its fund. Another potential partner for the NRGL is the National Library of the Czech Republic, which has already become a research organisation and is running many projects through which it produces grey literature. The National Library of the Czech Republic is planning to create an institutional repository, in which it would also collect grey literature that it produces, the records and documents of which it would subsequently also transfer to the NRGL repository.

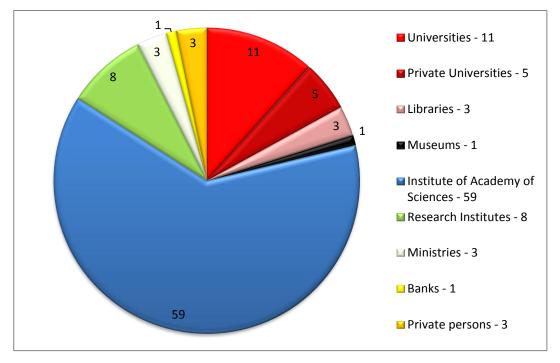


Figure 1: Types of partners

91 institutions were participating in the NRGL partnership network at the end of November 2012. The largest part of the partnership network is formed by institutes of the Academy of Sciences. These are followed by the already mentioned state-run universities, public research institutions, private universities, ministries, libraries and one museum. The Czech National Bank has not yet been mentioned. So far it is the only institution cooperating from this area; other institutions of this character have not yet been contacted. Within the framework of the NRGL there is also the possibility for scientists and researchers to establish their own personal archives of unpublished grey literature as private persons. Three persons have taken advantage of this possibility to date.

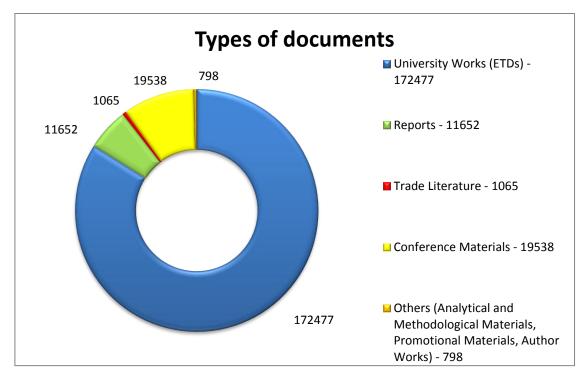


Figure 2: Types of documents

The graph shows that the most common type of document in the NRGL is university works. This is due to the fact that universities place records of university works from their own repositories into the NRGL, and this is always a large number of documents. These are followed by conference materials, of which there is also a large quantity collected in the NRGL. Various types of reports, trade literature, analytical and methodological materials, promotional materials and author works are less common.

Access to grey literature at national level is ensured through the Central Search Interface. At the end of November 2012 access to over 205,000 records was ensured through the NRGL. In view of the diversity of the access provided to documents, there is information about the availability of the primary document for each record. A document is either available directly in the Digital Repository of the NRGL, or a link is provided to the source repository of the partner institution, where access methods also differ. Only some of these repositories provide online access to digital documents. In the NRGL it is also possible to search for records of printed grey literature, and in such a case contact details are provided for the service that supplies copies of the document or that can lend it. Since the autumn of 2012 the Central Search Interface has also been adapted for mobile devices. The following table shows the growth in records of documents over 3 years since 2010, when work began on building the NRGL partnership network.

Year	Amount of records
2010	34 290
2011	107 266
2012	205 530

Figure 3: Number of records in the Central Search Interface

Searches are performed in particular through navigation by document type, author, key words, document format, and connected databases. A timeline is also offered. The Central Search Interface is intended for end users and is available at http://www.nusl.cz.

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	Černý František; Jech Vladimír Czech Technical University in Prague 2012	přírodopisu u žáků 9. ročníků základní škol a kvarty nižších	
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	escence Nd3+, Er3+ and Gd3+ in lex fluorides	University of South Bohemia in České Budějovice 2012	
Výzkum	n scintilačních materiálů na bázi komplexních	Solární škola v indickém HimálajiThe solar school in Indian Himalayas	
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	Nikl Martin; Martinčík Jiří	stavitelství v oblasti himálajského údolí Lung Nag v indickém státě Jammu and Kashmir. Místní stavby jsou	
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	Czech Technical University in Prague 2012		
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Figure 4: Main page of the Central Search Interface

(Picture of the 12th December 2012)

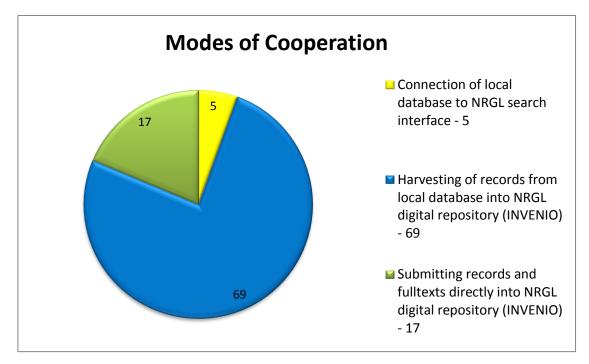


Figure 5: Modes of cooperation

The NRGL offers partner institutions several ways to cooperate. If an institution has its own repository (e.g. in the Digitool or DSpace system) for the long-term storage of grey literature documents, the repository can be connected to the <u>Central Search Interface</u> as a source (yellow colour – 5 institutions). Data from the repository of the institution are harvested using the OAI-PMH protocol, but are not long-term archived in the NRGL. Records from the <u>Central Search Interface of the NRGL</u> then link to the repository of the institution, which ensures long-term access to the digital documents.

If an institution has its own repository, but is also interested in the long-term archiving of metadata and full texts in the Digital Repository of the NRGL at the NTK, it can transfer the metadata as well as digital documents using the OAI-PMH protocol directly to the <u>Digital</u> <u>Repository of the NRGL</u> for long-term storage (blue colour – 69 institutions).

If an institution does not have its own repository and does not have the option of installing and subsequently managing its own institutional repository, it can enter metadata and digital documents directly into the <u>Digital Repository of the NRGL</u> (green colour – 17 institutions). For such an institution its own collection is created in the Digital Repository of the NRGL on the landing page of the Digital Repository of the NRGL. The institution is allocated its own user name and password for the collection in question, while an authorised employee is trained in the use of the Invenio system, and directly creates records and

attaches digital documents to them in the repository. All the metadata appears in the Central Search Interface of the NRGL.

Through various means the NRGL team is working both to provide support to institutions from the NRGL partnership network, and also to use these means to help expand awareness about grey literature, related issues and so on. An important ancillary means is the website of the NRGL service <u>http://nrgl.techlib.cz/.</u> There is information for both potential and existing NRGL partners, news relating to the National Repository of Grey Literature as well as related activities, and basic information about grey literature. There are also all the necessary standards, manuals and recommendations for work with grey literature and cooperation with the NRGL, informative documents and analyses of Czech legislation that applies to grey literature. The website also includes a section dedicated to the annual seminar and the proceedings from this action <u>http://nrgl.techlib.cz/index.php/Workshop.</u> Information is also uploaded to Facebook in addition to the website: http://www.facebook.com/nusl.cz.

Important information is regularly sent to partner institutions within the framework of a moderated email conference. Support for cooperation with the NRGL includes the provision of local installation of the Invenio system, which interested institutions can install on their own hardware and create and manage their own digital repository.

Another step towards successful cooperation was the preparation of an analysis of legal relations that will arise between the NTK, producers of grey literature and database operators. For the needs of the project, JUDr. Radim Polčák of the Faculty of Law at Masaryk University in Brno prepared an opinion on the legal issue entitled "Digital Processing of Grey Literature for the National Repository of Grey Literature", which is available from the project website. This analysis also contains six types of recommended formulations for licencing contracts, which are used depending on the mode of cooperation and the type of institution. The legislative framework for processing, archiving and enabling access to digital grey literature documents is made up of several different legal norms. In Czech legislation we do not find any specific legal regulation that focuses purely on grey literature, and therefore it is necessary to comply with and verify the validity of several legal norms at the same time. This does not mean only the Copyright Act and the Act on Higher Education Institutions, but also the Act on the Support of Research and Development. Producers of grey literature are also the target of the text "Submitting Grey Literature to the National Repository of Grey

Literature", which serves as a guide on how to proceed in individual cases of the publication of various types of grey literature, and which has been placed on the website of the NRGL service.

The Creative Commons licence supports easier publication, in particular electronically through the NRGL. The Czech Creative Commons licence was presented in 2009. In the NRGL every work is protected pursuant to the Copyright Act No 121/2000, and it is also possible to add to this the Creative Commons licence, which precisely defines the possibilities for the use of a work.

In order to improve the accessibility of documents the Open Access initiative is globally supported. This is an alternative to the traditional method of scientific communication. The objective is to reduce the access, financial and technical problems connected with scientific publication and this in particular through the use of the possibilities offered by the internet. In the Czech Republic the Working Group on Open Access was established in 2010, of which the NTK is a member.

Thanks to cooperation between the NRGL and international repositories and portals, access is enabled to Czech grey literature through the European grey literature database OpenGrey (formerly OpenSIGLE), DRIVER (Digital Repository Infrastructure Vision for European Research), ROAR (Registry of Open Access Repositories), OpenDOAR (The Directory of Open Access Repositories), Base, and the Ranking Web of Repositories. The NRGL is also indexed by the Google search engine, which significantly contributes towards its visitor rates.