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Date: 30 July 2022



This project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731015. The information and views set out in this publication are those of the author(s) and do not necessarily reflect the official opinion of the European Union.



H2020-INFRAIA-2016-2017

Grant Agreement No. 731015

ELEXIS - European Lexicographic Infrastructure

D1.6 Lexicographic data in ELEXIS

Deliverable Number:	D1.6
Dissemination Level:	Public
Delivery Date:	July 30, 2022
Version:	1
Author(s):	Carole Tiberius, Tina Munda, Andraž Repar, Simon Krek



Project Acronym:	ELEXIS
Project Full Title:	European Lexicographic Infrastructure
Grant Agreement No.:	731015

Deliverable/Document Information

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Document History

Version Date	Changes/Approval	Author(s)/Approved by
July 20, 2022	Initial draft	Carole Tiberius, Tina Munda
July 25, 2022	Internal revision	Simon Krek, Andraž Repar and ELEXIS lexicographic partners
July 29, 2022	External evaluation	Iztok Kosem

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1. About this report

This report provides documentation on the lexicographic data that has been collected for the ELEXIS infrastructure during the course of the project. It gives an overview of data contributed by the partner and observer institutions. The focus is on the description of the lexicographic data, but other types of data that have been contributed will also be mentioned.

The report is structured as follows. Section 2 gives an overview of the data that has been contributed by the partner institutions. Section 3 describes the data from the observer institutions. In section 4, we discuss the special metadata collection that was created in the CLARIN.SI repository to ensure uniform use of metadata in the ELEXIS infrastructure. Section 5 summarises the data processing work and section 6 concludes the report.

2. Data in ELEXIS from partner institutions

At the start of the ELEXIS project, a consortium agreement was signed (February 12, 2018). As agreed in the consortium agreement (attachment 1, p.42-43), existing lexicographic data that are available in the ELEXIS consortium and can be used in the development or included in LEX1, LEX2 and LEX3 are¹:

Partner	Dictionary or lexicographic resource	Language	Availability
JSI	Slovene Lexical Database	Slovene	PUB
INT	Dictionary of Contemporary Dutch (ANW)	Dutch	RES
INT	Dictionary of the Dutch Language (WNT)	Dutch	RES
INT	Dictionary of Old Dutch (ONW)	Old Dutch	RES
INT	Dictionary of Early Middle Dutch (VMNW)	Early Middle Dutch	RES
INT	Dictionary of Middle Dutch (MNW)	Middle Dutch	RES
OEAW	Dictionary of Bavarian Dialects of Austria	Austrian	UNK
OEAW	Dagaare-Cantonese-English Dictionary	Dagaare, Cantonese, English	PUB
OEAW	Haussa-English Dictionary	Haussa, English	UNK
OEAW	Database of Bavarian Dialects of Austria	Austrian Variants	UNK
OEAW	Russian Dialect Dictionary	Russian	UNK

¹ for availability CLARIN categories are used here – PUB: distributed publicly, ACA: distributed for research purposes, RES: require permission from the rights holder, UNK: unknown.



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OEAW	Tunico	Tunisian	PUB
OEAW	Viennese Historical Dictionaries Online (ViDi)	Austrian Variants	UNK
BCHD	Karadžić, Serbian Dictionary (1818, 1852)	Serbian	ACA
BCHD	Mikloshic, Lexicon Palaeoslovenico-Graeco- Latinum (1862—1865)	Old Church Slavic	ACA
BCHD	Daničić, Dictionary of Serbian Literary Antiquity (1863-4)	Serbian (medieval)	ACA
BCHD	Bojanić & Trivunac, Dictionary of Dubrovnik Dialect	Serbian (dialect)	ACA
BCHD	Elezović, Dictionary of Kosovo-Metohija Dialect	Serbian (dialect)	ACA
BCHD	Zlatanović, Dictionary of Southern Serbian Dialects	Serbian (dialect)	ACA
BCHD	Žugić, Dictionary of Jablanica Region	Serbian (dialect)	ACA
RILMTA	Hungarian Concise Dictionary	Hungarian	ACA
IBL	Dictionary of synonyms	Bulgarian	UNK
IBL	Dictionary of antonyms	Bulgarian	UNK
IBL	Dictionary of new words	Bulgarian	ACA
IBL	Dictionary of Bulgarian	Bulgarian	ACA
KD*	K English Multilingual Dictionary	English multilingual	RES
KD*	Global French Multilingual + L2-French	French multilingual	RES
KD*	Random House Webster's College Dictionary	English	RES
DSL	The Danish Dictionary	Danish	RES
DSL	Dictionary of the Danish Language	Danish	RES
DSL	Moths Dictionary	Danish	RES
DSL	Old Danish Dictionary	Old Danish	RES
DSL	Danish Thesaurus	Danish	RES
UCHP	Dictionary of Danish Insular Dialects	Danish	ACA
UCHP	Dictionary of Old Norse Prose	Old Norse	ACA
TCDH	The German Dictionary by Jacob and Wilhelm Grimm (first edition)	German	RES
TCDH	Rhenish Dictionary	German (dialect)	RES



Palatinate Dictionary	German (dialect)	RES
Dictionary of the German-Lorraine Dialects	German (dialect)	RES
Dictionary of the Alsatian Dialects	German (dialect)	RES
Grammatical-Critical Dictionary of the High- German Idiom (Adelung, second edition)	German	RES
Middle High German Dictionary (Benecke, Müller, Zarncke)	Middle High German	RES
Middle High German Dictionary (Lexer)	Middle High German	RES
The Dictionary of Standard Estonian ÕS 2013	Estonian	ACA
The Explanatory Dictionary of the Estonian Language	Estonian	ACA
The Dictionary of Foreign Words	Estonian	ACA
The Estonian Etymological Dictionary	Estonian	ACA
The Basic Estonian Dictionary	Estonian	ACA
The Estonian-Russian Dictionary	Estonian-Russian	ACA
The Russian-Estonian Dictionary	Russian-Estonian	ACA
Diccionario de la lengua española, 22nd Ed. (2001)	Spanish	RES
	 Dictionary of the German-Lorraine Dialects Dictionary of the Alsatian Dialects Grammatical-Critical Dictionary of the High-German Idiom (Adelung, second edition) Middle High German Dictionary (Benecke, Müller, Zarncke) Middle High German Dictionary (Lexer) The Dictionary of Standard Estonian ÕS 2013 The Explanatory Dictionary of the Estonian Language The Dictionary of Foreign Words The Estonian Etymological Dictionary The Estonian-Russian Dictionary The Russian-Estonian Dictionary Diccionario de la lengua española, 22nd Ed. 	Dictionary of the German-Lorraine DialectsGerman (dialect)Dictionary of the Alsatian DialectsGerman (dialect)Grammatical-Critical Dictionary of the High- German Idiom (Adelung, second edition)GermanMiddle High German Dictionary (Benecke, Müller, Zarncke)Middle High GermanMiddle High German Dictionary (Lexer)Middle High GermanThe Dictionary of Standard Estonian ÕS 2013EstonianThe Explanatory Dictionary of the Estonian LanguageEstonianThe Dictionary of Foreign WordsEstonianThe Basic Estonian DictionaryEstonianThe Estonian Etymological DictionaryEstonianThe Estonian-Russian DictionaryEstonianThe Russian-Estonian DictionaryRussian-EstonianDiccionario de la lengua española, 22nd Ed.Spanish

* KD's Background that is copyrighted and/or protected by Intellectual Property Rights concerning data and software resources is subject to prior negotiation between KD and the interested party.

In the remainder of this section, we discuss discrepancies between the data stated in the above table and what was actually contributed. We follow the order of the institutions as they are listed in the table.

JSI, INT, IBL, KD, TCDH, and RAE contributed the resources as specified.

OEAW delivered the resources as specified, except:

Partner	Dictionary or lexicographic resource	Language	Availability
OEAW	Haussa-English Dictionary	Haussa, English	UNK
OEAW	Database of Bavarian Dialects of Austria	Austrian Variants	UNK
OEAW	Russian Dialect Dictionary	Russian	UNK





In the proposal phase, the situation regarding licensing and availability of the material was not finally clarified and during the project due to changes in collaborations and staff with respect to the proposal stage, it turned out that it was not feasible to integrate the *Haussa-English Dictionary* and the *Russian Dialect Dictionary*. Instead, two other dictionaries have been contributed, i.e. *A Machine-readable Dictionary of Damascus Arabic - dc-apc-eng* and *A machine-readable Persian-English Dictionary - dc-pes-eng*.

The *Database of Bavarian Dialects of Austria* was not collected as it was not considered a lexicographic resource. It contains the paper slips of the *Dictionary of Bavarian Dialects of Austria*. The dictionary itself is a lexicographic resource and has been contributed.

BCDH delivered all specified resources, except one:

Partner	Dictionary or lexicographic resource	Language	Availability
BCHD	Žugić, Dictionary of Jablanica Region	Serbian (dialect)	ACA

BCDH originally planned to share the *Dictionary of Jablanica Region* by Radmila Žugić as well since the text of this dictionary was projected to be OCRed and post-corrected during the time span of the ELEXIS project. Changing priorities, staff shortages during the pandemic and the lack of specific funding for this particular type of activity within the BCDH resulted in the machine-readable version of this dictionary not being completed as planned.

RILMTA did not deliver the dictionary which was specified in the grant agreement.

Partner	Dictionary or lexicographic resource	Language	Availability
RILMTA	Hungarian Concise Dictionary	Hungarian	ACA

This dictionary was replaced by *The Explanatory Dictionary of the Hungarian Language - ÉrtSz*. RILMTA explains that it became clear at the start of the work that the institute was not the copyright holder of the *Hungarian Concise Dictionary*. (A contract which showed that all rights of use had been transferred to a publisher was found.)

DSL delivered the resources described above, except:

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D1.6 Lexicographic data in ELEXIS

Partner	Dictionary or lexicographic resource	Language	Availability
DSL	Old Danish Dictionary	Old Danish	RES
DSL	Danish Thesaurus	Danish	RES

The *Old Danish Dictionary* was originally on the list of possible resources but is actually not very well suited for use as an ELEXIS resource, as only a few entries are edited. Thus, the vast majority of entries only hold the headword and the POS. Instead, they have delivered <u>Kalkar's Dictionary</u>, an older (1881-1918) dictionary of Danish from 1300-1700, which covers the main part of Old Danish sources.

The *Danish Thesaurus* was originally on the list of possible resources. Unfortunately, DSL was not able to deliver the resource during the project as the dataset is currently undergoing a revision and transformation, and will be published as an API for academic use in 2024. Access to this resource could be made possible through the ELEXIS repository at a later date.

UCHP could not deliver one of the resources as the work is ongoing:

Partner	Dictionary or lexicographic resource	Language	Availability
UCHP	Dictionary of Danish Insular Dialects	Danish	ACA

The data of this dictionary are still split into two separate bases: 1 Previously edited volumes (1-11, alindorm), and 2 Present and future volumes (vol. 12 lindost-march 2018; vol. 13 marchere-måxxx). The joint database is not ready yet and will only be so in late 2022. The first base only has very basic, typeface tagging, whereas the second, on the contrary, has a complex XSD schema with customised elements, reflecting the very specialised and detailed linguistic and sociocultural content of the dictionary and project. Funding for establishing one, single database has now finally been received. This single database will merge the two separate bases in a more simple, shared XSDgrammar/structure, which is also more suitable for web publication. This single XML/database will probably be more suitable as a resource for ELEXIS - it is definitely not possible to use base 1 in its present state, and base 2 is very specialised and only covers a small part of the alphabet.

The situation for EKI is different. There was a transition period (2018-2021) in EKI that led to the consolidation of stand-alone XML-based dictionaries into one (relational) database called EKILEX. The Estonian dataset with translational equivalents as a whole is called <u>EKI Combined Dictionary</u>. The EKI



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Combined Dictionary contains information from the different resources mentioned in the grant agreement, i.e. *The Dictionary of Estonian 2019, Estonian Collocations Dictionary 2019, Basic Estonian Dictionary* (2014), *The Estonian Morphological Database of the Institute of the Estonian Language 2022, Estonian-Russian orthographic dictionary for students 2018* (1st edition 2011), *Estonian-Russian Dictionary 2018* (1st edition 1997–2009), *The Russian Morphological Database of the Institute of the Institute of the Estonian Language 2022. The Dictionary of Standard Estonian ÕS 2013, The Dictionary of Foreign Words* and *The Russian-Estonian Dictionary* were not imported into Ekilex as separate datasets, but a lot of information (e.g. missing headwords, missing translational equivalents) were added by lexicographers manually while editing the database. Altogether, *EKI Combined Dictionary* contains ca. 160,000 Estonian headwords and 170,000 Russian headwords.

Summarising, 51 resources were mentioned in the grant agreement. Of those, 36 have been contributed as specified. The 7 Estonian resources were replaced by *EKI Combined Dictionary* (into which they have been integrated). The resource originally mentioned by RILMTA was replaced by *The Explanatory Dictionary of the Hungarian Language - ÉrtSz*. 7 resources that were mentioned in the grant agreement have not been contributed. However, OEAW contributed 2 other lexicographic resources, and DSL 1.

3. Data in ELEXIS from observer institutions

In addition to the partner institutions, many observer institutions contributed data to ELEXIS. 32 observer institutions contributed 81 datasets. The data that has been contributed is generally the data that had been agreed on in the observer agreements. See appendix I for a template of such an agreement.

Towards the end of the project, reminders were sent out to observer institutions that had agreed to contribute data according to the observer agreement, but which was still missing in the infrastructure. Most institutions responded and more data was provided or an explanation was given why data could not be contributed.

The main reason for not providing data that was originally mentioned in the agreements, is that a resource had not been completed, was still being improved or that it was not yet available online. Lack of time was also mentioned as data preparation costs time and observers are not being paid by the



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project. Another reason that was mentioned for not sharing data, was that the observer institution did not use any of the ELEXIS services. All institutions have been informed that ELEXIS will be hosted by CLARIN.SI after the end of the project and that data can be contributed to the infrastructure at a later date. In total, 36 data sets have not been contributed yet.

Whereas the partners only contributed lexicographic resources, the data contributed by the observers was more diverse and includes 73 resources which are considered as lexicalConceptualResources in the ELEXIS collection in the CLARIN.SI repository (see the table below), and 8 corpora. There were 11 observer institutions that contributed knowledge.

Type of lexicalConceptualResource	Number
audio	1
computationalLexicon	3
machineReadableDictionary	40
ontology	2
terminologicalResource	14
wordList	12
wordnet	1
Total	73

The majority of the lexicalConceptualResources and corpora contributed by observer institutions are made available under an open licence, mostly a Creative Commons licence (62), although some individual data sets have a CLARIN LT-PUB (3), Open Data Commons Open Database Licence (ODbL) (1), or a GNU General Public Licence (1). 10 resources are Restricted and 4 data sets did not yet have a licence attached to them.

4. ELEXIS Collection in CLARIN.SI repository

To ensure consistency in the metadata of the datasets that have been collected for ELEXIS, a special ELEXIS (metadata) collection was created in the CLARIN.SI repository. See:

https://www.clarin.si/repository/xmlui/handle/11356/1479

The handles of all resources that have been collected for ELEXIS during the course of the project can be found in the appendix II. The metadata in the collection thus follows the guidelines of the CLARIN.si repository for metadata (see: https://www.clarin.si/repository/xmlui/page/metadata).



Rather than having the individual data providers adding the metadata for their resource(s) directly in the repository, all metadata for all resources was first collected in one big spreadsheet. Subsequently, to ensure consistency, the metadata provided by partners and observers was checked by colleagues at JSI and INT before importing it in the CLARIN.SI repository.

To clearly indicate that a resource belongs to this specific collection, (ELEXIS) was added at the end of the titles of all resources in the collection. This way potential users know immediately that this is a version of the resource which was contributed to ELEXIS. It was collected at a particular date (Date issued) and it forms a static copy of the resource. Moreover, lexicographic resources that have been contributed have been further processed and transformed into a shared format (cf. section 5) to allow further integration and processing in the ELEXIS infrastructure.

The existing classification in the repository distinguishes between the following types of resources: Corpus, lexicalConceptualResource, languageDescription, toolService. For ELEXIS, broadly two types of resources were collected, i.e. corpus and lexicalConceptualResource. The lexicalConceptualResource type can be further classified in the field Detailed Type as wordList, computationalLexicon, ontology, wordnet, thesaurus, terminologicalResource, machineReadableDictionary.

To harmonise the metadata even further, a controlled set of keywords was used to describe the resources. For all resource types, the type of resource was included in the keywords to refine the classification proposed by CLARIN.SI and to make sure that a record would be identifiable in case of searching by keywords only. Corpora, machineReadableDictionary, computationalLexicon, terminologicalResource and wordList include keywords specifying the language (monolingual, bilingual, multilingual); all of the above except wordLists have coverage (general, specialised) defined; here the thesaurus type joins in. In case of specialised resources, the domain or other defining characteristic is added, e.g. 'dialect', 'literary language'. Resources of the type machineReadableDictionary, computationalLexicon and thesaurus have additional keywords specifying time (historical, modern), whereas corpora's distinguishable keywords cover medium (spoken, written, multimedia, visual content). The types ontology and wordnet were assigned its individual property, where applicable, after the type of resource (e.g. ontology, mining documentation management).



5. Lexicographic Data Transformation

The lexicographic data that was provided came in many different formats and encodings (mostly custom XML, PDF, but also CSV, XSLS, RDF, HTML, or it was accessible via API. Some of the data was provided using an implementation of the REST interface according to the specifications provided in Deliverable 2.2 Interoperable interface for Lemon and TEI resources and McCrae et al. (2019). All lexicographic data that has been collected, has been transformed to a uniform format to ensure semantic interoperability between the different resources as well as smooth integration and reliable linking in the ELEXIS infrastructure. According to Ide and Pustejovsky (2010) "semantic interoperability exists when two systems have the ability to automatically interpret exchanged information meaningfully and accurately in order to produce useful results via deference to a common information exchange reference model". Thus an element labelled 'example' in dataset X is the same as an element labelled 'example' in Y. To realise semantic interoperability within ELEXIS, a set of core elements was identified and defined. These core elements are the elements which are transformed into the shared format. All other data is kept as is. During this transformation, the part of speech tags that are used in the input are mapped onto the Universal Dependencies part of speech tags². The table below gives an overview of the ELEXIS core elements:

Core element	Description
entry	part of a lexicographic resource which contains information related to at least one headword.
headword	organising element of an entry in a lexicographic resource. Note: In printed dictionaries typically at the top of an entry.
secondary headword	headword-like lexical item occurring within an entry in a lexicographic resource, for example derived forms, feminine forms, multiword expressions. Often an organising element of a part of an entry.

² https://universaldependencies.org/u/pos/



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variant headword	lexical item representing one of the alternative forms of the headword, for example spelling variation or regional variation.
inflected form	form of the inflectional paradigm of the headword.
part of speech	any of the word classes to which a lexical item may be assigned, e.g. noun, verb, adjective, etc.
sense	part of an entry which groups together information relating to a meaning of a headword (or secondary headword), for example definitions, examples, and translations.
sense indicator	short statement that gives an indication of a meaning and permits its differentiation from other meanings within a sense structure of an entry.
definition	statement that describes a meaning and permits its differentiation from other meanings within a sense structure of an entry.
example	instance of a lexical item's usage in a specific sense.
translation	equivalent in another language of any element in an entry. In Elexifier you can have a translation of the headword and of the example.
label	item from a controlled vocabulary indicating some kind of restriction on the use of the lexical item, for example, time, region, domain, register.



note	free text remark that can accompany any element in a lexicographic resource.	
cross-reference	element providing any kind of link or reference to another element within or outside the lexicographic resource.	

For the transformation of the data into the uniform format, we relied on the Elexifier³ tool (<u>D1.4</u> <u>ELEXIS conversion tools</u> and <u>D1.3 Tools for the automatic segmentation and identification of</u> <u>lexicographic content</u>), and some custom scripts.

5.1. Elexifier

Elexifier is a cloud-based dictionary conversion service for conversion of legacy XML and PDF dictionaries into a shared data format so that these dictionaries can be integrated into the ELEXIS infrastructure. It takes as input an XML or PDF dictionary and produces a TEI Lex-O-compliant XML file transforming the core elements described in table above. For more information on Elexifier, see D1.4 ELEXIS Conversion Tools and D1.3 Tools for the automatic segmentation and identification of lexicographic content. For more information on how to use Elexifier, see the course in the ELEXIS curriculum LEX3: Transforming Legacy Dictionaries using Elexifier.

The majority of resources could be transformed with Elexifier. These were primarily XML files and some PDFs.

5.2. Custom scripts

In addition, some custom scripts were written to deal with data formats that could not be processed with Elexifier.

- TEI to TEI to realise the UD POS mapping and to add ELEXIS ids Python script which takes as input a user-defined mapping of existing POS values to the UD tag set and a TEI file, and produces a new TEI file with UD POS values and ELEXIS ids. The script can be found here: <u>https://github.com/elexis-eu/elexifier-</u> <u>api/blob/master/custom_scripts/remap_pos.py</u>
- 2. CSV to TEI

³ https://elexifier.elex.is/



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Python script which converts a CSV file to a TEI file with elements based on the column header in the CSV file. The script can be found here: <u>https://github.com/elexis-eu/elexifier-api/blob/master/custom_scripts/csv2tei-general-windowsOS.py</u>

- ontolex2tei⁴
 Python script for converting OntoLex RDF (Turtle serialisation) into TEI Lex-0 XML, with input constraints and/or assumptions roughly as defined by ELEXIS D2.1 § 3⁵.
- 4. ontolex validator⁶
 Python script for validating OntoLex-Lemon data. There is also a web demo: <u>http://server1.nlp.insight-centre.org/ontolex-validator/index.php</u>

6. Summary

In total, 142 data sets have been collected for ELEXIS from partners and observers. Mostly lexicographic resources, but terminological resources, word lists, computational lexicons, ontologies, thesauri, wordnets and corpora were also contributed.

All lexicographic data has been transformed to a TEI Lex-0 compliant format to enable further processing of the data within the ELEXIS infrastructure. During transformation, TEI Lex-0 guidelines were followed (e.g. a language attribute was added at entry level and at translation level for translation of headwords and examples). In addition, the POS tags in the input data were all mapped to the Universal Dependencies tag set and uniform IDs were introduced. Finally, a special ELEXIS collection has been created in the CLARIN.SI repository to host the metadata for all the data in ELEXIS.

7. References

Ide, N. & Pustejovsky, J. (2010). What does interoperability mean, anyway? Toward an operational definition of interoperability. Proceedings of the Second International Conference on Global Interoperability for Language Resources (ICGL 2010). Hong Kong, Available at: http://www.cs.vassar.edu/~ide/papers/ICGL10.pdf [Accessed on 27-07-2022]

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⁴ https://github.com/elexis-eu/ontolex2tei/blob/main/README.md

⁵ https://elex.is/wp-content/uploads/2019/02/ELEXIS_D2_1_Interface_for_Interoperable_Resources.pdf

⁶ https://github.com/ontolex/ontolex-validator



McCrae, J.P., Tiberius, C., Khan, A.F., Kernerman, I., Declerck, T., Krek, S., Monachini, M. & Ahmadi, S. (2019). The ELEXIS interface for interoperable resources. In Electronic Lexicography in the 21st Century: Smart Lexicography. Proceedings of the eLex 2019 Conference, 1–3 October 2019, Sintra, Portugal. Brno: Lexical Computing CZ, s.r.o. Available at:

https://elex.link/elex2019/wp-content/uploads/2019/09/eLex_2019_37.pdf. [Accessed on 27-07-2022]



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Appendix I: Template of observer agreement and request letter

Template of the ELEXIS Observer Agreement



ELEXIS Observer Agreement

<<organisation>> declares itself willing to commit itself for **Observer status in ELEXIS** (European Lexicographic Infrastructure – Grant Agreement No 731015) for the duration of the project, until **31th January 2022**.

During this period, ELEXIS infrastructure (represented through **Jožef Stefan Institute**, Ljubljana, Slovenia) commits itself to grant <<organisation>> the following privileges:

- <<organisation>> will receive priority invitations to newly developed ELEXIS tools and services;
- <<organisation>> will be able to request customized lexicographic data or have their existing data enriched and expanded with monolingual and multilingual information; the extent of this service shall be subject to further specification detailed in annexes to this agreement;
- <<organisation>> will be granted access to external and internal ELEXIS communication channels to be able to follow latest developments, which includes invitations to ELEXIS grant calls;
- <<organisation>> will gain access to open-access and open-source resources, as well as to resources in the observers' area of the ELEXIS cloud, in accordance with project Intellectual Property Rights rules;
- <<organisation>> will be able to participate actively in the post-project ELEXIS infrastructure development through designated ELEXIS channels.

<<organisation>> commits itself to contribute the following (lexicographic) data or (lexicographic) expertise to ELEXIS infrastructure:

 - <<description of lexicographic data (including explicit declaration of license¹) or (lexicographic) expertise>>

and to participate in ELEXIS activities (such as surveys, interviews etc.) designed to collect information about lexicographic projects, workflows and infrastructures.

No financial obligation is requested from either party by this agreement.

<<organisation>> appoints <<name, function and email of person>> to represent it as an Observer in ELEXIS.

Jožef Stefan Institute is represented by Simon Krek, coordinator of the ELEXIS project.

 For the <<organisation>>
 For Jožef Stefan Institute

 Signature:
 Signature:

 <<name person authorized to sign>>
 Prof Jadran Lenarčič

 <<function>>
 Director





Template for the formal request letter to become an ELEXIS Observer

Template for the formal request letter to become an observer

To the director of Jožef Stefan Institute (Ljubljana, Slovenia),

Prof. Jadran Lenarčič

c/o Simon Krek, Coordinator of ELEXIS project

Jožef Stefan Institute Jamova cesta 39 SI-1000 Ljubljana Slovenia

Subject: Request to join ELEXIS as an Observer

Dear Prof Lenarčič,

<< full name and abbreviation of organisation>> hereby requests to join European Lexicographic Infrastructure (ELEXIS) project (GA No 731015) as an Observer. With this letter, <<organisation>> declares itself willing to sign the attached ELEXIS Observer Agreement if the request to join ELEXIS as an Observer will be approved by the ELEXIS Project Management Board.

For the <<organisation>>

Signature:

<<name person authorized to sign>>

<<function>>



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Appendix II: Overview of content in ELEXIS Collection

Adelung, Johann Christoph, High-German Idiom - Adelung (1811) (ELEXIS), Slovenian language resource repository CLARIN.SI, ISSN 2820-4042, <u>http://hdl.handle.net/11356/1643</u>

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