European Language Grid

Release R1 Alpha

Jun 26, 2020

Chapter 1: Introduction

Welcome to the European Language Grid User Manual.

The European Language Grid (ELG) platform offers access to a **multitude of assets related to Language Technology (LT)**, including *commercial* and *non-commercial Language Technologies* for all European languages, *data resources* (such as models, datasets, lexica, terminologies, grammars), as well as information on *LT-related projects*, *organizations*, and *groups*.

This manual aims to guide

- **consumers** to exploit the ELG platform in order to find LT services, applications and resources, but also find relevant information such as companies, academic organisations and individual researchers active in LT and connect with them
- **providers** of Language Resources and Technologies to enrich the content of the platform.

The current version of the manual documents the first official release of the ELG platform, launched in May 2020, which comes with a limited set of functionalities. More functionalities will be added at later stages, and this manual will keep on being updated following the evolution of the ELG platform.

You can visit the ELG Catalogue and browse through the content. Please, note that some functionalities are restricted to registered users.

If you have any questions or want to share feedback, please send an email to contact@european-language-grid.eu.

CHAPTER 1

About the ELG

...

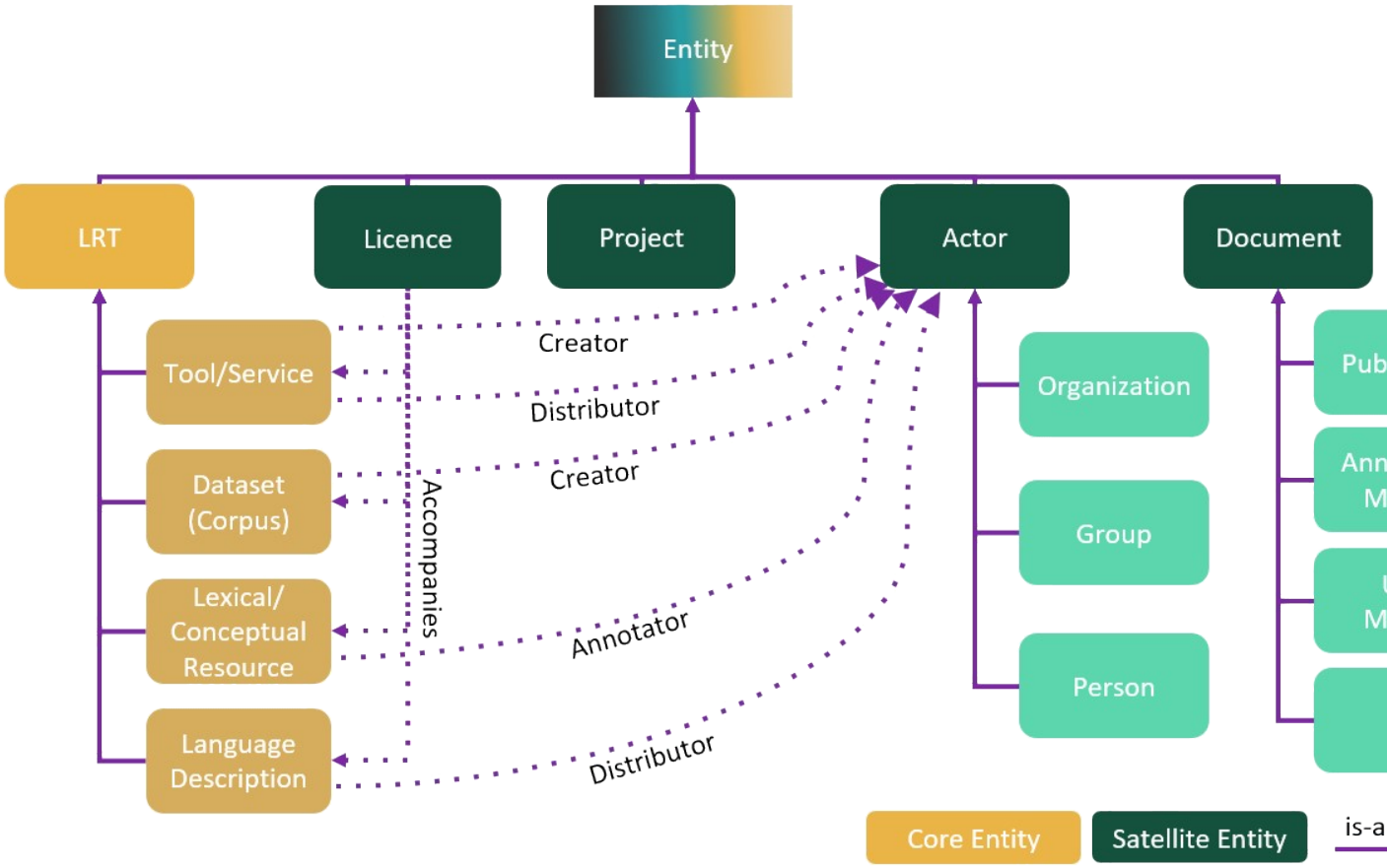
1.1 Mission statement

...

1.2 Types of resources

The ELG catalogue includes:

- **Language Resources and Technologies (LRTs)**, further classified into:
  - **tools & services**: *functional services* fully integrated and deployable in the ELG platform, but also downloadable *tools*, software in the form of source code, etc.,
  - **corpora**: collections of text documents, audio transcripts, audio and video recordings, etc.,
  - models & computational grammars, collectively referred to as **language descriptions**,
  - **lexical/conceptual resources**, which comprise computational lexica, gazetteers, ontologies, term lists, etc.
- related activities and stakeholders from the wider area of Language Technology:
  - **projects** that have funded the development of LRTs or in which they have been deployed,
  - **organizations**, as well as **groups** and **persons** active in Language Technology in Europe.



Note: The current release doesn't display *groups* and *persons*. Moreover, *documents* and *licences* are described as separate entities, but they are not shown as main entities in the catalogue.

Note: For the purposes of this document, we use the term "Language Technologies" as equivalent to "tools and services"; "Language Resources" or "Data Resources" is used for corpora, language descriptions, and lexical/conceptual resources.

1.3 Expected usage scenarios

...

CHAPTER 2

Browse the catalogue

2.1 View catalogue

You can

- browse through the catalogue and see all the entries (currently sorted by type and in alphabetical order),
- search for specific entries using the free text bar (e.g., you can search for a language processing service or application, a corpus, a project or an organization by its name; or search for all entries that mention "machine translation" or "English"),
- filter the catalogue or refine your search results by language, service function, resource type, etc., through the facets on the left side bar.

By clicking on the name of an entry, you can view its detailed description.

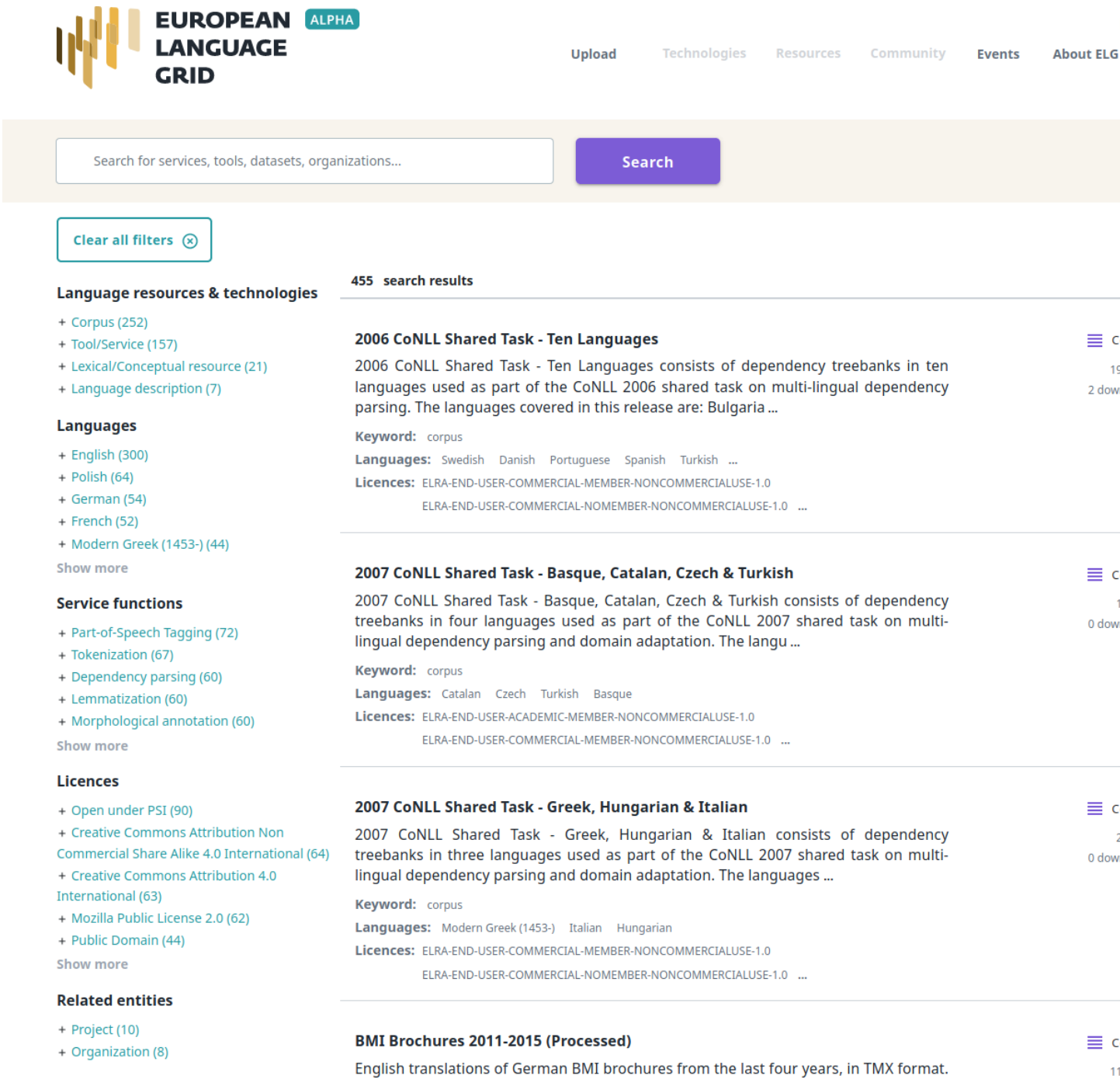
2.2 View catalogue entry

For each catalogue entry, we display a set of descriptive and technical information (metadata), together with hyperlinks to supporting documentation and other useful material. In addition, you can download, in accordance with licensing terms, resources that are available in a downloadable form, and try out or execute ELG-compliant services.

Note: For the current release, services can only be tested and only by registered users.

The following figure shows the catalogue entry for a **tool/service**.

- **Overview**: It contains the main descriptive and technical information (e.g., description of basic features, function, input and output language(s) and data format(s), etc.), links to supporting documentation, contact details, resource providers, etc.
- **Download/Run**: The second tab includes the licensing terms under which the tool/service can be accessed, and relevant technical information (i.e., whether it can be downloaded and executed locally, is provided with source code, etc.).


EUROPEAN LANGUAGE GRID
ALPHA
Upload
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Resources
Community
Events
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
Language resources & technologies
+ Corpus (252)
+ Tool/Service (157)
+ Lexical/Conceptual resource (21)
+ Language description (7)
Languages
+ English (300)
+ Polish (64)
+ German (54)
+ French (52)
+ Modern Greek (1453-) (44)
Show more
Service functions
+ Part-of-Speech Tagging (72)
+ Tokenization (67)
+ Dependency parsing (60)
+ Lemmatization (60)
+ Morphological annotation (60)
Show more
Licences
+ Open under PSI (90)
+ Creative Commons Attribution Non Commercial Share Alike 4.0 International (64)
+ Creative Commons Attribution 4.0 International (63)
+ Mozilla Public License 2.0 (62)
+ Public Domain (44)
Show more
Related entities
+ Project (10)
+ Organization (8)
455 search results
2006 CoNLL Shared Task - Ten Languages
2006 CoNLL Shared Task - Ten Languages consists of dependency treebanks in ten languages used as part of the CoNLL 2006 shared task on multi-lingual dependency parsing. The languages covered in this release are: Bulgaria ...
Keyword: corpus
Languages: Swedish Danish Portuguese Spanish Turkish ...
Licences: ELRA-END-USER-COMMERCIAL-MEMBER-NONCOMMERCIALUSE-1.0
ELRA-END-USER-COMMERCIAL-NOMEMBER-NONCOMMERCIALUSE-1.0 ...
2007 CoNLL Shared Task - Basque, Catalan, Czech & Turkish
2007 CoNLL Shared Task - Basque, Catalan, Czech & Turkish consists of dependency treebanks in four languages used as part of the CoNLL 2007 shared task on multi-lingual dependency parsing and domain adaptation. The langu ...
Keyword: corpus
Languages: Catalan Czech Turkish Basque
Licences: ELRA-END-USER-ACADEMIC-MEMBER-NONCOMMERCIALUSE-1.0
ELRA-END-USER-COMMERCIAL-MEMBER-NONCOMMERCIALUSE-1.0 ...
2007 CoNLL Shared Task - Greek, Hungarian & Italian
2007 CoNLL Shared Task - Greek, Hungarian & Italian consists of dependency treebanks in three languages used as part of the CoNLL 2007 shared task on multi-lingual dependency parsing and domain adaptation. The languages ...
Keyword: corpus
Languages: Modern Greek (1453-) Italian Hungarian
Licences: ELRA-END-USER-COMMERCIAL-MEMBER-NONCOMMERCIALUSE-1.0
ELRA-END-USER-COMMERCIAL-NOMEMBER-NONCOMMERCIALUSE-1.0 ...
BMI Brochures 2011-2015 (Processed)
English translations of German BMI brochures from the last four years, in TMX format.

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Upload Technologies Resources Community Events About E

← Back to catalogue

Cogito Discover Named Entity Recognizer

ESI_NER

Version: 14.3.0

ToolService

Overview Download/Run Test/Try out Code samples

Annotation of entities: People, Organizations, Places, Known concepts, Unknown concepts. And also tags: urls, mail addresses, phone numbers, addresses, dates, time, measures, money, percentage, file folder.

Keyword

multilingual English Spanish German French NER Named Entity Recognizer Named Entity Recognition Reconocimiento de entidades nombradas

Intended application

Named Entity Recognition

Resource provider

Expert System
Website

Additional info

Landing page

Contact

Gómez Pérez Jose Manuel

Input content resource

Language
English Spanish; Castilian German French

Data format
JSON text/plain HTML XML

Processing resource type
file

more

Function

Function
Named Entity Recognition

Language dependent
true

Output resource

Language
English

Data format
JSON

Processing resource type
file

more

Documentations

Is documented by
Cogito Discover Services Documentation

Resource creator

Expert System

Evaluated

Evaluated: true

TRL: TRL9

- **Try out** (only for functional services): You can provide a sample input and see the results output by the service. Depending on the type of the service, you can type in or paste some text, upload an audio file or record something, etc., and get the results rendered in a task-specific viewer.
- **Code samples** (only for functional services): You can use the code sample/template provided to test the service from the command line.

The following figure shows the entry of a **corpus**. Information is structured into tabs:

- **Overview**: It contains the main descriptive and technical information: description, subclass, keyword(s), domain(s), etc., as well as links to supporting documentation, contact details, resource providers, etc. Some properties are grouped under the "parts" of a resource, each of which is characterised by the media type (text, audio, video, image). This allows us to describe a multimedia corpus of videos, their audio excerpts (in English), the transcriptions of the recordings (in an annotated format), and the subtitles in one or more languages (English and French, provided in plain text files), as a set of four distinct parts with the corresponding properties.
- **Download**: The second tab includes the licensing terms under which the resource can be accessed, and technical details on how it can be accessed (i.e., whether it can be downloaded, used via an interface, etc.), as well as details on formats and size. If the resource has been uploaded to ELG, you will also be able to download it directly; otherwise, you will be re-directed to the original access location.
- **General**: This tab appears only for resources with a rich description and is used so as not to make the first tab too long and difficult to read.

The next two figures show the entries for **lexical/conceptual resources** (lexica, terminologies, ontologies, etc.) and **language descriptions** respectively, with information tabs similar to those of corpora.

The last two figures show respectively the catalogue entries for an **organization** and a **project**, with contact details, funding information, links to resources, etc.

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INTERA English-Slovene SVEZ ACQUIS Corpus

Version: v1.0.0 (automatically assigned)

Corpus

Overview Download

The Slovene-English part of the INTERA corpus; written, domain specific (law) parallel subcorpus; 4MWs (2 MWs per language); TMX format.

Keyword

corpus

Intended application

machineTranslation

Domain

law

Corpus subclass

annotated corpus

Funding project

Integrated European language data Repository Area

Additional info

Contact

Gavrilidou Maria

Relations to other resources

more

Corpus parts

TEXT

Linguality type
bilingual

Multilinguality type
parallel

Language
English Slovenian

Modality type
written language

Original source description
The raw corpus comes from the SVEZ corpus provided by the Office of the Government of the Republic of Slovenia for European Affairs

Documentations

Is documented by
Building Multilingual Terminological Resources

Is documented by
Building parallel corpora for eContent professionals

Is documented by
Language resources production models: the case of INTERA multilingual corpus and terminology

Is documented by
D5.2 - Report on the multilingual resources production

Actual use

Used in application:
terminologyExtraction

Actual use details
nlpApplications

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CEPLEXicon
Version: 1.0 (2015-04-15)

LexicalConceptualResource

Overview Download

CEPLEXicon is a lexicon based on two different corpora of child speech – Santos corpus (Santos, 2006, Santos et al., 2014, see http://www.clul.ul.pt/resources/546?lang=en) and Freitas corpus (Freitas, 1997, Freitas et al. 2012). This lexicon results from the automatic tagging of the two corpora, using a tagger and the POS tag set produced in the research unit ANAGRAMA (Centro de Linguística da Universidade de Lisboa - CLUL) (Généreux, Hendrickx & Mendes, 2012). The automatic tagging was followed by a partial manual ... **Read More**

Funding project

Complement Clauses in the Acquis
Portuguese (PTDC/CLE-LIN/120897/2

Additional info

Landing page

Keyword

lexicalconceptualresource

LCR subclass

lexicon

Encoding level
syntax

LCR parts

TEXT

Linguality type
monolingual

Language
Portuguese

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Finance English grammar

Fin.en.grm

Version: v1.0.0 (automatically assigned)

LanguageDescription

Overview Download

Finance English abnf grammar, manually created. Created within the Portdial project

Keyword

languagedescription

LD subclass

Grammar

Grammar details

Encoding level

morphology

LD parts

TEXT

Linguality type

monolingual

Language

English

Funding project

Portdial

Additional info

Landing page

Contact

Potamianos Alex

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Athena Research Center
ARC

Organization

Overview

Athena Research and Innovation Centre (ARC) is a scientific research and technological organisation, functioning under the auspices of the General Secretariat for Research and Technology (Greek Ministry of Education). It comprises 3 research Institutes: Institute for Language and Speech Processing (ILSP), dedicated to language technology research, development and innovation; Institute for the Management of Information Systems (IMIS), dedicated to data and information management, and Industrial Systems Institute (IS ... **Read More**

LT area

Language Technology

Has division

Institute for Language and Speech Processing
ILSP

Division category
institute

Organization description
The Institute for Language and Speech Processing (ILSP/Athena R.C.) is one of the institutes of Athena Research and Inno ... **Read More**

LT area

Annotation

NLP Development Support

Has division

Natural Language Processing and Language Infrastructures
NLPLI

Division category
department

Organization description
NLPLI conducts basic and applied research in the fields of NLP and Knowledge Technologies. It designs, implements and in ... **Read More**

LT area

Annotation

Machine translation support

Language resources infrastructures

Organization informatio

ATHINA-EREVNITIKO KENTRO KAINOTO
STIS TECHNOLOGIES TIS PLIROFORIAS
EPIKOINONION KAI TIS GNOSIS

Website
Website

Organization legal status
public organization

Organization role
LT user research organization

Address

Artemidos 6 and Epidavrou
Maroussi
Athens
151 25
GR

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European Language Grid

Project

Overview

With 24 official EU and many more additional languages, multilingualism in Europe and an inclusive Digital Single Market can only be enabled through Language Technologies (LTs). European LT business is dominated by thousands of SMEs and a few large players. Many are world-class, with technologies that outperform the global players. However, European LT business is also fragmented – by nation states, languages, verticals and sectors. Likewise, while much of European LT research is world-class, with results transferr ... **Read More**

Keyword

- Language technology services
- Multilingualism
- Less-resourced languages

LT area

- htttp://w3id.org/meta-share/omtd-share/LanguageTechnology

Coordinator

German Research Center for Artificial Intelligence
Website

Participants

Charles University	Website
SAIL LABS Technology	Website
Tilde	Website
THE UNIVERSITY OF SHEFFIELD	
EVALUATIONS AND LANGUAGE RESOURCES DISTRIBUTION AGENCY	
EXPERT SYSTEM IBERIA SL	
Athena Research Center	Website
University of Edinburgh	Website

Project information

Website
Website

Project start date
2019-01-01

Projec
2

Funder

Funder

European Commission
Website

Funding scheme category

IA

Funding country

European Union

Funding type

EU funds

Grant number: 825627

Status
SIGNED

Related call
H2020-ICT-2018-2

Related programme
H2020

Related subprogramme

CHAPTER 3

Register as a simple user

...

CHAPTER 4

Test an LT service

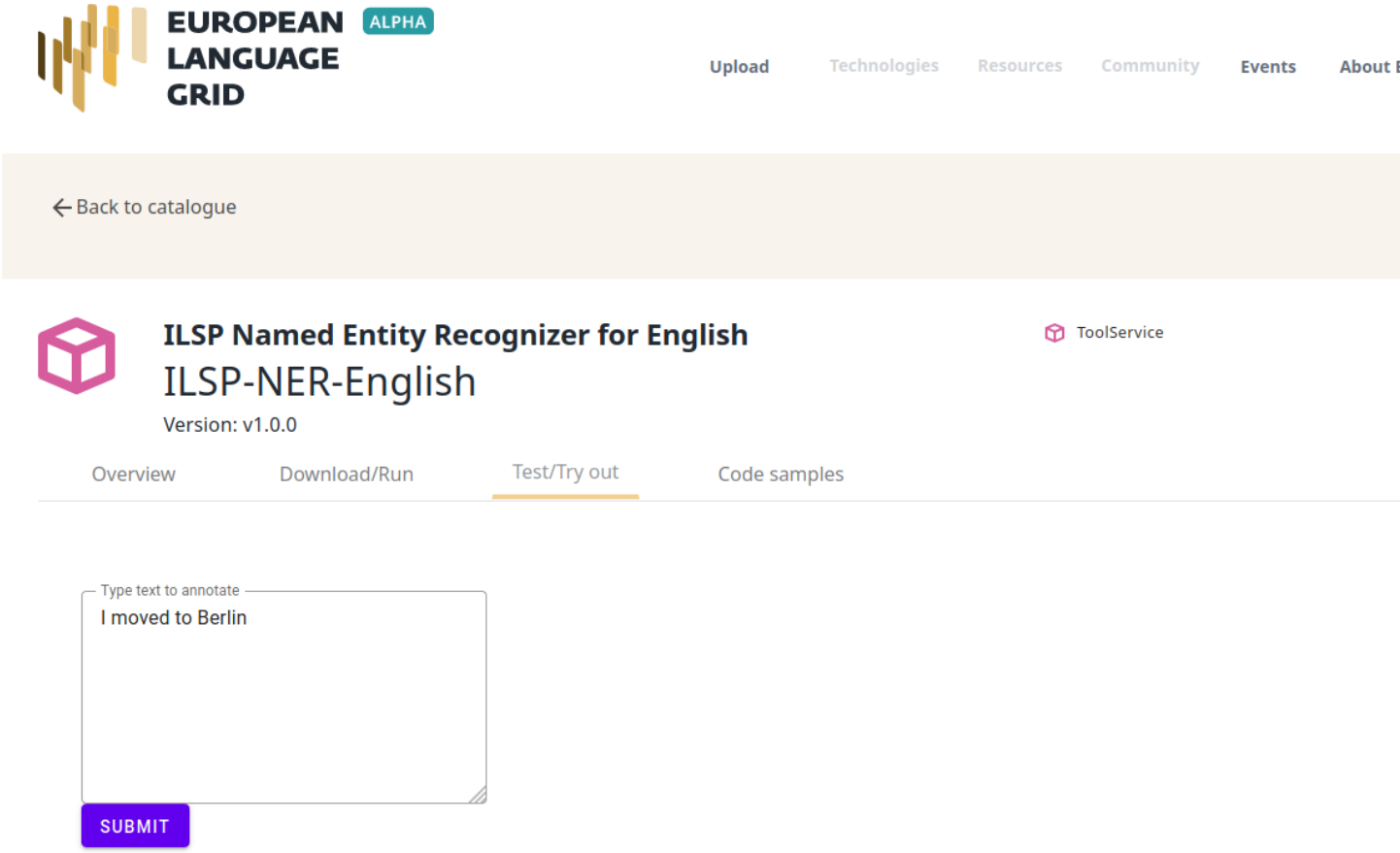
You can try out LT services that follow ELG technical specifications with a User Interface (UI) provided by the ELG platform, or via the command line. The catalogue entry of a service includes two tabs for this:

Try out: You can provide a sample input and see the results output by the service. Depending on the type of the service, you can type in or paste some text, upload an audio file or record something, etc., and get the results rendered in a task-specific viewer.

Code samples: You can use the code sample provided to test the service from your command line.

Note: For the current release, only registered users can try out services.

More information on how to call and test an integrated LT service is given in the *Public LT API specification*.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ILSP Named Entity Recognizer for English
ILSP-NER-English
Version: v1.0.0
ToolService
Overview
Download/Run
Test/Try out
Code samples
Type text to annotate
I moved to Berlin
SUBMIT

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ILSP Named Entity Recognizer for English

ILSP-NER-English

Version: v1.0.0

ToolService

Overview Download/Run Test/Try out Code samples

If you want to send a processing request from your command line to ILSP Named Entity Recognizer for English you can use the following code sample

```
curl -H "Authorization: Bearer $TOKEN" -H "Content-Type: text/plain" --data-binary "@./path/somefile" https://live.european-languag
```

Token:


```
eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICJ0MVhwNX1Cb1VpREM0emxOdTcyeUNwT3hKRG1fQTdObVRkSjZRcVRiQW5nIn0.eyJqdGkiOiI2ZjM5MDI3Y
eHAiOjE1ODc3NDU2MzAsIm5iZiI6MCwiaWF0IjoxNTg3NzM0ODMwLCJpc3MiOiJodHRwczovL2xpdmUuZXVyb3BlYW4tbGFuZ3VhZ2UtZ3JpZC51dS9hdXRoL3JlYWxtcy9FT
ImY2ZGE2ZWNmLTVlYWYtNDNhYy04NzZlLTYyMDA5YzA4MTQ2NiIsInR5cCI6IkJlYXJlciIsImF6cCI6InJlYWN0LWNsaWVudCIsIm5vbmNlIjoiOGQlOTM2YjEtYTk0My00O
IjoxNTg3NzIzMDQlLCJzZXNzaW9uX3N0YXRlIjoiZDJkOWUyNGYtZTE4ZC00YzQ3LWI2NTctYmY3YzhkZmE2NDc5IiwiYWNyIjoiMCIsImFsbG93ZWQtb3JpZ2lucyI6WyJod
ZC51dS8iXSwicmVhbG1fYWNjZXNzIjp7InJvbGVzIjpbIkVMRylhZGlpbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InJlYWN0LWNsaWVudCI6eyJyb2xlcyI6WyJwcm92aWRlc
cHJvZmlsZSBlbWFpbCIsImVtYWlsX3Zlcmlmaa WVkIjp0cnVlLCJyb2xlcyI6WyJFTEctYWRtaW4iXSwibmFtZSI6IktpbGlhbiBFdmFuZyIsInByZWZlcnJlZF91c2VybmFtZS
IjoiZW4iLCJnaXZlbl9uYWllIjoiS2lsaWFuIiwiZmFtaWx5X25hbWUiOiJFdmFuZyIsImVtYWlsIjoia2lsaWFuLmV2YW5nQGRma2kuZGUifQ.HQeS6OfR2qKPyDKKbxNGvr
OIn_wTW_SvG8NRSd0HevG_d7dnrlXPC4fhzn5rZUrxzwg3pC8rRIboGeoRCzPjr0PLcVsPvQf7TjLV-
Hgrqiy3rd0lbGqWNDMIEbl4qVpQmBaFyK_flGQQTGIVrky0W6Yz6YrWpal9cJ2fx0uzPrqK0rOMazN9t7S8cjbuECLiFhNXjB9Kz64sdi2d2UZ0GPXNxAKmFTf7G4YW4h7QeyX
0PIjUuvjVlvIw2e3AQrz4g
```

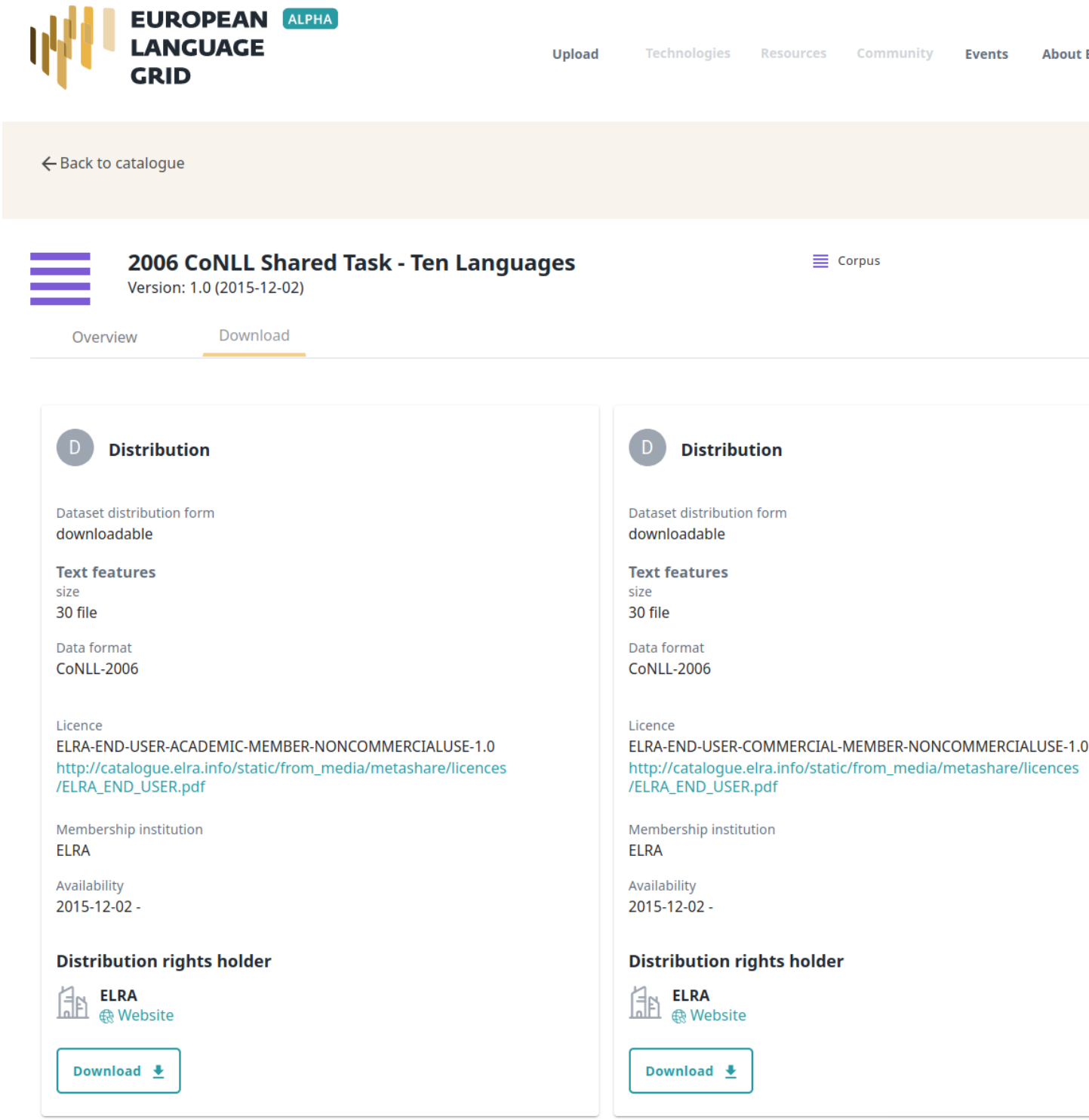
CHAPTER 5

Download a resource

You can download a resource provided in the ELG platform through the Download tab:

Downloading a resource is subject to agreeing with the licensing terms under which it is provided, while additional actions may also be required (for instance, access only for registered users):

Summary of and link to relevant policy in annex: . . .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Distribution
Dataset distribution form
downloadable
Text features
size
30 file
Data format
CoNLL-2006
Licence
ELRA-END-USER-ACADEMIC-MEMBER-NONCOMMERCIALUSE-1.0
http://catalogue.elra.info/static/from_media/metashare/licences/ELRA_END_USER.pdf
Membership institution
ELRA
Availability
2015-12-02 -
Distribution rights holder
ELRA
Website
Download
Distribution
Dataset distribution form
downloadable
Text features
size
30 file
Data format
CoNLL-2006
Licence
ELRA-END-USER-COMMERCIAL-MEMBER-NONCOMMERCIALUSE-1.0
http://catalogue.elra.info/static/from_media/metashare/licences/ELRA_END_USER.pdf
Membership institution
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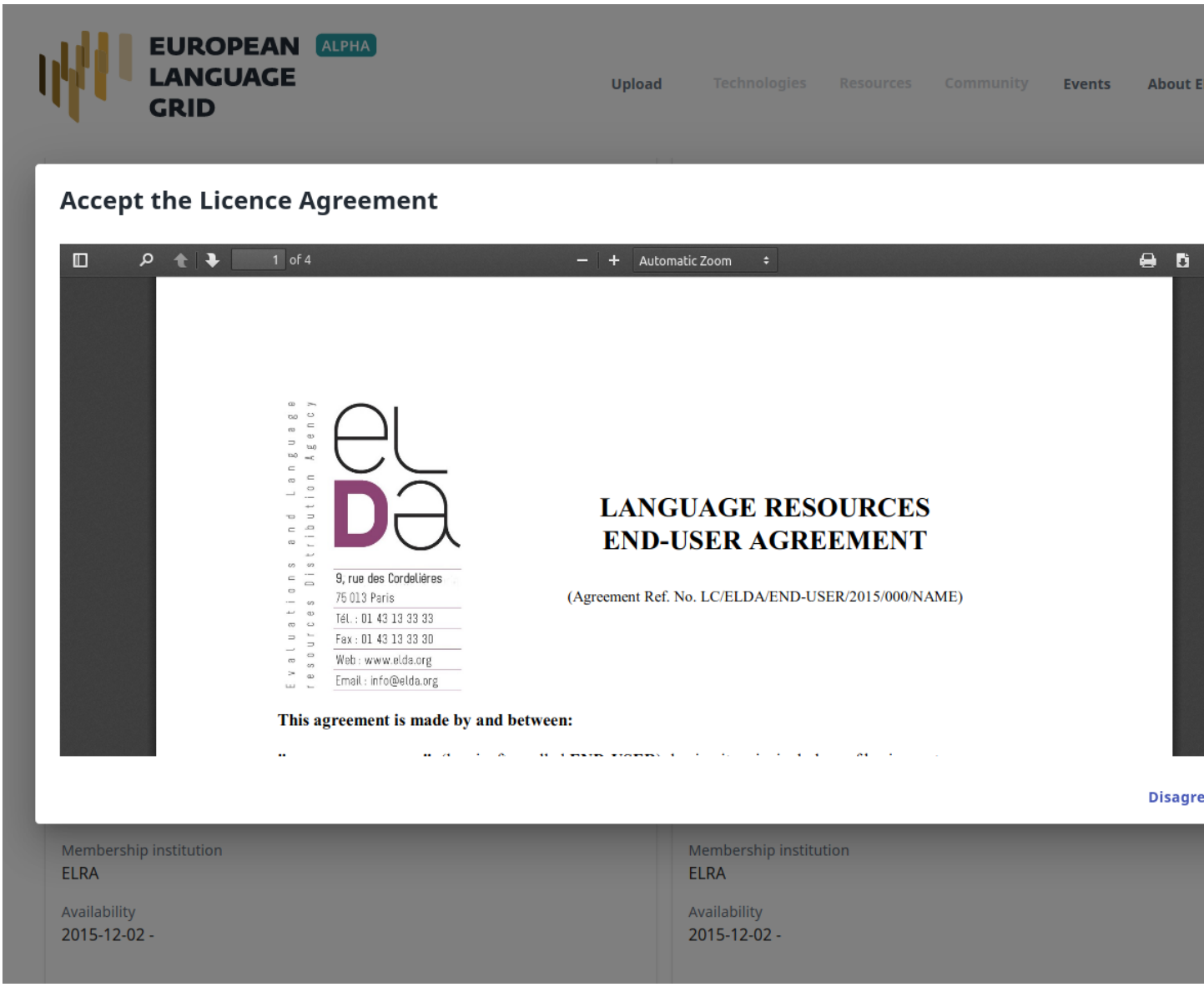
Distribution rights holder
ELRA
Website
Download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1 of 4
Automatic Zoom
Evaluations and Language resources Distribution Agency
9, rue des Cordeliéres
75 013 Paris
Tél. : 01 43 13 33 33
Fax : 01 43 13 33 30
Web : www.elda.org
Email : info@elda.org
LANGUAGE RESOURCES
END-USER AGREEMENT
(Agreement Ref. No. LC/ELDA/END-USER/2015/000/NAME)
This agreement is made by and between:
Disagre
Membership institution
ELRA
Availability
2015-12-02 -
Membership institution
ELRA
Availability
2015-12-02 -

CHAPTER 6

Use the public API

A brief overview with a few examples, including link to relevant policy. For full API specifications, refers to Annex 3.

CHAPTER 7

Ask for the Provider role

Register to the platform and ask (by email to contact@european-language-grid.eu) to be granted "provider" permissions.

CHAPTER 8

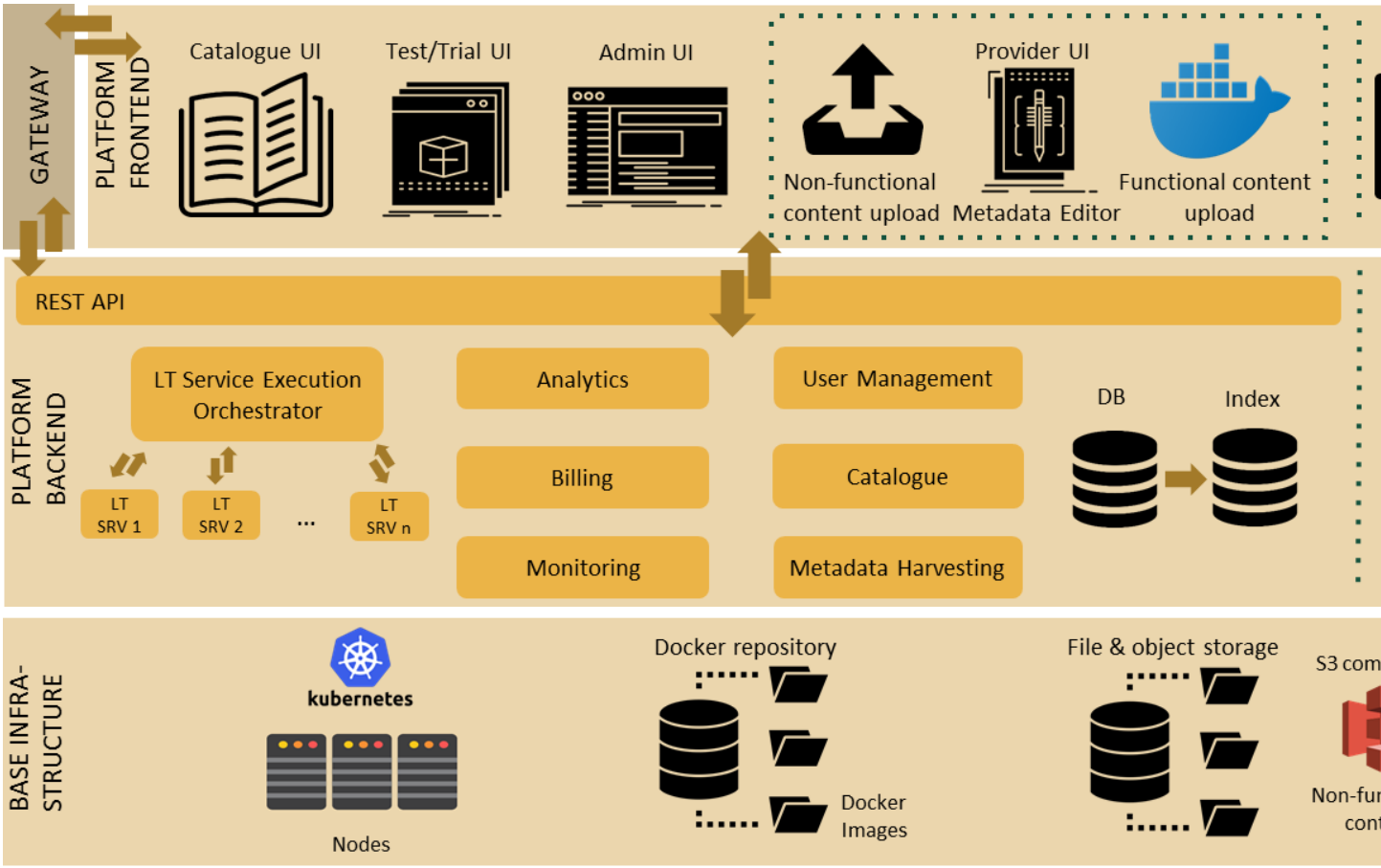
Contribute a service

Currently, ELG supports the integration of tools/services that fall into one of the following broad categories:

- Information Extraction (IE),
- Text Classification (TC),
- Machine Translation (MT),
- Automatic Speech Recognition (ASR), and
- Text to Speech Generation (TTS).

8.1 How an LT Service is integrated to ELG

An overview of the ELG platform is depicted below.



The following bullets summarize how LT services are deployed and invoked in ELG.

- All LT Services (as well as all the other ELG components) are deployed (run as containers) on a Kubernetes (k8s) cluster; k8s is a system for automating deployment, scaling, and management of containerized applications.
- All LT Services are integrated into ELG via the LT Service Execution Orchestrator/Server. This server exposes a **common public REST API** used for invoking any of the deployed backend LT Services. The public API is used from ELG's Test/Trial UIs that are embedded in the ELT Catalogue; however, it can also be invoked from the command line or any programming language; see *Test an LT service* section for more information. Some of the HTTP endpoints that are offered in the API are given below; for more information see *Public LT API specification*.

Endpoint	Type	Consumes	Produces
https://{domain}/execution/processText/{ltServiceID}	POST	'application/json'	'application/json'
https://{domain}/execution/processText/{ltServiceID}	POST	'text/plain' or 'text/html'	'application/json'
https://{domain}/execution/processAudio/{ltServiceID}	POST	'audio/x-wav' or 'audio/wav'	'application/json'
https://{domain}/execution/processAudio/{ltServiceID}	POST	'audio/mpeg'	'application/json'

{domain} is 'live.european-language-grid.eu' and {ltServiceID} is the ID of the backend LT service. This ID is assigned/configured during registration; see section *Register an LT Service to the platform* ('LT Service is deployed to ELG and configured' step).

Note: The REST API that is exposed from an LT Service X (see previous section) is for the communication between LT Service Execution Orchestrator Server and X (*ELG Internal LT API*).

- When LT Service Execution Orchestrator receives a processing request for service X, it retrieves from the database X's k8s REST endpoint and sends a request to it. This endpoint is configured/specified during the registration process; see section *Register an LT Service to the platform* ('LT Service is deployed to ELG and configured' step). When the Orchestrator gets the response from the LT Service, it returns it to the application/client that sent the initial call.

8.2 Technical Requirements

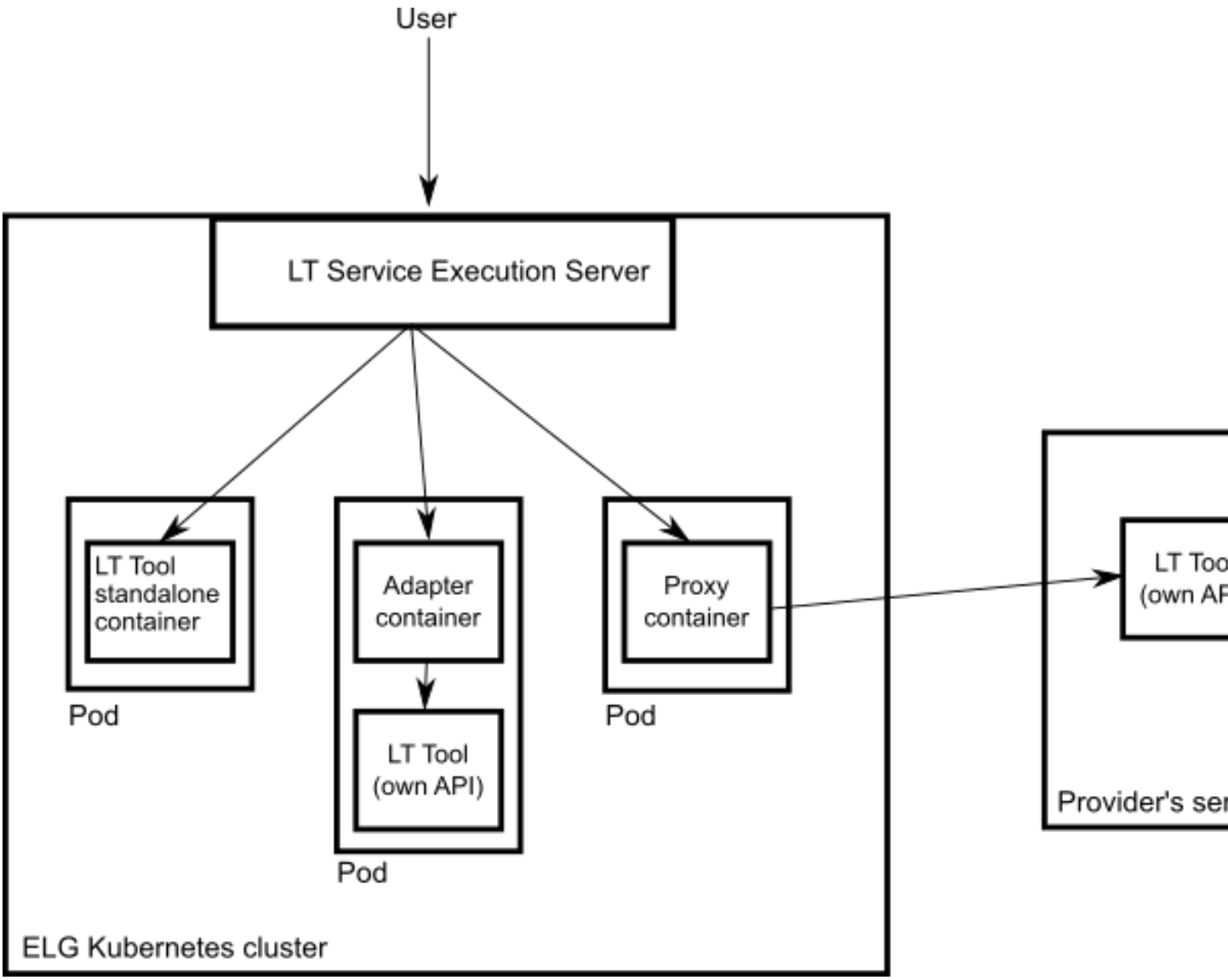
The requirements for integrating an LT tool/service are the following:

Expose an ELG compatible endpoint: You MUST create an application that exposes an HTTP endpoint for the provided LT tool(s). The application MUST consume (via the aforementioned HTTP endpoint) requests that follow the ELG JSON format, call the underlying LT tool and produce responses again in the ELG JSON format. For a detailed description of the JSON-based HTTP protocol (*ELG Internal LT API*) that you have to implement, see *the Internal LT API specification annex*.

Dockerization: You MUST dockerize the application and upload the respective image(s) in a Docker Registry, such as GitLab, DockerHub, Azure container registry etc. You MAY select out of the three following options, the one that best fits your needs:

- **LT tools packaged in one standalone image:** One docker image is created that contains the application that exposes the ELG compatible endpoint and the actual LT tool.
- **LT tools running remotely outside the ELG infrastructure:** For these tools, one *proxy* image is created that exposes one (or more) ELG compatible endpoints; the proxy container communicates with the actual LT service that runs outside the ELG infrastructure.
- **LT tools requiring an adapter:** For tools that already offer an image that exposes a non-ELG compatible endpoint (HTTP-based or other), a second *adapter* image SHOULD be created that exposes an ELG-compatible endpoint and acts as proxy to the container that hosts the actual LT tool.

In the following diagram the three different options for integrating a LT tool are shown:



In the Dockerization annex you will find more information on how you can create an ELG-compatible Docker image.

8.3 Describe a functional LT service

To register an ELG-compliant LT service at the platform, you must describe it according to the schemaFull (at least minimal version), i.e., you have to provide a *metadata record*; some of the metadata elements are used for deploying/integrating your service to the platform.

Note: For this release, you MUST create an ELG-compliant XML metadata file and upload it to the platform. Upcoming releases will also provide a metadata editor as well as other functionalities supporting an easy import of metadata records.

You will find templates of metadata records for each of ELG's five categories in this GitLab folder and some examples of already registered services here.

8.3.1 Examples of metadata records for LT services

ANNIE's Named Entity Recognizer (IE tool)

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../..
↪/Schema/ELG-SHARE.xsd" xmlns:ms="http://w3id.org/meta-share/meta-share/" xmlns:xsi=
↪"http://www.w3.org/2001/XMLSchema-instance">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">default id</ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-02-25</ms:metadataCreationDate>
        <ms:metadataLastDateUpdated>2020-02-25</ms:metadataLastDateUpdated>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Roberts</ms:surname>
                <ms:givenName xml:lang="en">Ian</ms:givenName>
                <ms:email>username1@somedomain.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Roberts</ms:surname>
                <ms:givenName xml:lang="en">Ian</ms:givenName>
                <ms:email>username2@somedomain.com</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">GATE: English Named Entity␣
↪Recognizer</ms:resourceName>
                        <ms:resourceShortName xml:lang="en">annie-named-entity-
↪recognizer</ms:resourceShortName>
                        <ms:description xml:lang="en">Identify names of &lt;em&gt;
↪persons&lt;/em&gt;, &lt;em&gt;locations&lt;/em&gt;, &lt;em&gt;organizations&lt;/em&
↪gt;, as well as &lt;em&gt;money amounts&lt;/em&gt;, &lt;em&gt;time and date␣
↪expressions&lt;/em&gt; in English texts automatically. </ms:description>
                        <ms:LRIdentifier ms:LRIdentifierScheme="http://w3id.org/meta-
↪share/meta-share/elg">ELG id automatically assigned</ms:LRIdentifier>
                        <ms:version>v8.6</ms:version>
                        <ms:additionalInfo>
                                <ms:landingPage>https://cloud.gate.ac.uk/shopfront/
↪displayItem/annie-named-entity-recognizer</ms:landingPage>
                        </ms:additionalInfo>
                        <ms:keyword xml:lang="en">Named Entity Recognition</
↪ms:keyword>
                        <ms:keyword xml:lang="en">English</ms:keyword>
                        <ms:resourceProvider>
                                <ms:Group>
                                        <ms:actorType>Group</ms:actorType>
                                        <ms:organizationName xml:lang="en">GATE Team,␣
↪University of Sheffield</ms:organizationName>
                                        <ms:website>https://gate.ac.uk/</ms:website>
                                </ms:Group>
                        </ms:resourceProvider>
                        <ms:publicationDate>2020-02-25</ms:publicationDate>
                        <ms:resourceCreator>
                                <ms:Person>
```

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```
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Roberts</ms:surname>
                                        <ms:givenName xml:lang="en">Ian</ms:givenName>
                                        <ms:email>username3@somedomain.com</ms:email>
                                </ms:Person>
                        </ms:resourceCreator>
                        <ms:intendedApplication>
                                <ms:LTClassRecommended>http://w3id.org/meta-share/
↪omtd-share/NamedEntityRecognition</ms:LTClassRecommended>
                        </ms:intendedApplication>
                        <ms:LRSubclass>
                                <ms:ToolService>
                                        <ms:lrType>ToolService</ms:lrType>
                                        <ms:function>
                                                <ms:LTClassRecommended>http://w3id.
↪org/meta-share/omtd-share/NamedEntityRecognition</ms:LTClassRecommended>
                                        </ms:function>
                                        <ms:SoftwareDistribution>
                                                <ms:SoftwareDistributionForm>http://
↪w3id.org/meta-share/meta-share/dockerImage</ms:SoftwareDistributionForm>
                                                <ms:executionLocation>http://
↪localhost:8080/process</ms:executionLocation>
                                                <ms:dockerDownloadLocation>registry.
↪gitlab.com/european-language-grid/usfd/gate-ie-tools/annie:8.6-0.0.3</
↪ms:dockerDownloadLocation>
                                                <ms:licenceTerms>
                                                        <ms:licenceTermsName xml:lang=
↪"en">GNU Lesser General Public License v3.0 only</ms:licenceTermsName>
                                                        <ms:licenceTermsURL>https://
↪spdx.org/licenses/LGPL-3.0-only.html</ms:licenceTermsURL>
                                                        <ms:LicenceIdentifier␣
↪ms:LicenceIdentifierScheme="http://w3id.org/meta-share/meta-share/SPDX">LGPL-3.0-
↪only</ms:LicenceIdentifier>
                                                        <ms:LicenceIdentifier␣
↪ms:LicenceIdentifierScheme="http://w3id.org/meta-share/meta-share/elg">ELG-ENT-LIC-
↪270220-00000199</ms:LicenceIdentifier>
                                                </ms:licenceTerms>
                                        </ms:SoftwareDistribution>
                                        <ms:languageDependent>true</
↪ms:languageDependent>
                                        <ms:inputContentResource>
                                                <ms:processingResourceType>http://
↪w3id.org/meta-share/meta-share/file1</ms:processingResourceType>
                                                <ms:language>
                                                        <ms:languageTag>en</
↪ms:languageTag> <ms:languageId>en</ms:languageId>
                                                </ms:language>
                                                <ms:mediaType>http://w3id.org/meta-
↪share/meta-share/text</ms:mediaType>
                                                <ms:dataFormat>http://w3id.org/meta-
↪share/omtd-share/Json</ms:dataFormat>
                                                <ms:characterEncoding>http://w3id.org/
↪meta-share/meta-share/UTF-8</ms:characterEncoding>
                                        </ms:inputContentResource>
                                        <ms:outputResource>
                                                <ms:processingResourceType>http://
↪w3id.org/meta-share/meta-share/file1</ms:processingResourceType>
```

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```
                                                <ms:language>
                                                        <ms:languageTag>en</
↪ms:languageTag> <ms:languageId>en</ms:languageId>
                                                </ms:language>
                                                <ms:mediaType>http://w3id.org/meta-
↪share/meta-share/text</ms:mediaType>
                                                <ms:dataFormat>http://w3id.org/meta-
↪share/omtd-share/Json</ms:dataFormat>
                                                <ms:characterEncoding>http://w3id.org/
↪meta-share/meta-share/UTF-8</ms:characterEncoding>
                                                <!-- annotations: :Address, :Date,␣
↪:Location, :Organization, :Person, :Money, :Percent, :Token, :SpaceToken, :Sentence␣
↪-->
                                                <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/Person</ms:annotationType>
                                                <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/Location</ms:annotationType>
                                                <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/Organization</ms:annotationType>
                                                <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/Date</ms:annotationType>
                                        </ms:outputResource>
                                        <ms:trl>http://w3id.org/meta-share/meta-share/
↪trl4</ms:trl>
                                        <ms:evaluated>false</ms:evaluated>
                                </ms:ToolService>
                        </ms:LRSubclass>
                </ms:LanguageResource>
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

The Docker image for this LT tool is stored at GitLab registry.

Edinburgh's German to English engine (MT tool)

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xmlns:ms="http://w3id.org/meta-share/meta-share/" xmlns:xsi="http:/
↪/www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://w3id.org/meta-share/
↪meta-share/ ../../Schema/ELG-SHARE.xsd">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">default id</ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-02-28</ms:metadataCreationDate>
        <ms:metadataLastDateUpdated>2020-02-28</ms:metadataLastDateUpdated>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Germann</ms:surname>
                <ms:givenName xml:lang="en">Ulrich</ms:givenName>
                <ms:PersonalIdentifier ms:PersonalIdentifierScheme="http://w3id.org/
↪meta-share/meta-share/elg">ELG-ENT-PER-050320-00000787</ms:PersonalIdentifier>
                <ms:email>user@somedomain.uk</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Germann</ms:surname>
                <ms:givenName xml:lang="en">Ulrich</ms:givenName>
```

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```
                <ms:PersonalIdentifier ms:PersonalIdentifierScheme="http://w3id.org/
↪meta-share/meta-share/elg">ELG-ENT-PER-050320-00000787</ms:PersonalIdentifier>
                <ms:email>user@somedomain.uk</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">UEDIN Machine Translation␣
↪Service for German to English</ms:resourceName>
                        <ms:resourceShortName xml:lang="en">UEDIN-MT-DeEn</
↪ms:resourceShortName>
                        <ms:description xml:lang="en">A machine translation (MT)␣
↪service for German-to-English translation based on the Marian machine translation␣
↪framework. The translation model is a basic transformer model trained on ca 13.3M␣
↪sentence pairs using Marian NMT</ms:description>
                        <ms:LRIdentifier ms:LRIdentifierScheme="http://w3id.org/meta-
↪share/meta-share/elg">ELG id automatically assigned</ms:LRIdentifier>
                        <ms:version>v1.0.0</ms:version>
                        <ms:additionalInfo>
                                <ms:email>user@somedomain.uk</ms:email>
                        </ms:additionalInfo>
                        <ms:keyword xml:lang="en">Machine Translation</ms:keyword>
                        <ms:keyword xml:lang="en">German</ms:keyword>
                        <ms:keyword xml:lang="en">English</ms:keyword>
                        <ms:keyword xml:lang="en">Neural machine translation</
↪ms:keyword>
                        <ms:keyword xml:lang="en">Marian framework</ms:keyword>
                        <ms:resourceProvider>
                                <ms:Organization>
                                        <ms:actorType>Organization</ms:actorType>
                                        <ms:organizationName xml:lang="en">UEDIN</
↪ms:organizationName>
                                        <ms:OrganizationIdentifier␣
↪ms:OrganizationIdentifierScheme="http://w3id.org/meta-share/meta-share/elg">ELG-ENT-
↪ORG-280220-00000397</ms:OrganizationIdentifier>
                                        <ms:website>https://www.ed.ac.uk/informatics/
↪</ms:website>
                                </ms:Organization>
                        </ms:resourceProvider>
                        <ms:publicationDate>2020-02-28</ms:publicationDate>
                        <ms:resourceCreator>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Germann</ms:surname>
                                        <ms:givenName xml:lang="en">Ulrich</
↪ms:givenName>
                                        <ms:PersonalIdentifier␣
↪ms:PersonalIdentifierScheme="http://w3id.org/meta-share/meta-share/elg">ELG-ENT-PER-
↪050320-00000787</ms:PersonalIdentifier>
                                        <ms:email>user@somedomain.uk</ms:email>
                                </ms:Person>
                        </ms:resourceCreator>
                        <ms:intendedApplication>
                                <ms:LTClassRecommended>http://w3id.org/meta-share/
↪omtd-share/MachineTranslation</ms:LTClassRecommended>
                        </ms:intendedApplication>
                        <ms:LRSubclass>
```

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```
                                <ms:ToolService>
                                        <ms:lrType>ToolService</ms:lrType>
                                        <ms:function>
                                                <ms:LTClassRecommended>http://w3id.
↪org/meta-share/omtd-share/MachineTranslation</ms:LTClassRecommended>
                                        </ms:function>
                                        <ms:SoftwareDistribution>
                                                <ms:SoftwareDistributionForm>http://
↪w3id.org/meta-share/meta-share/dockerImage</ms:SoftwareDistributionForm>
                                                <ms:executionLocation>http://
↪localhost:18080/api/elg/v1</ms:executionLocation>
                                                <ms:dockerDownloadLocation>mt4elg-de-
↪en</ms:dockerDownloadLocation>
                                                <ms:additionalHWRequirements>limits_
↪memory: 2048Mi limits_cpu: 1.5</ms:additionalHWRequirements>
                                                <ms:licenceTerms>
                                                        <ms:licenceTermsName xml:lang=
↪"en">CC BY-SA 4.0</ms:licenceTermsName>
                                                        <ms:licenceTermsURL>https://
↪creativecommons.org/licenses/by-sa/4.0/</ms:licenceTermsURL>
                                                        <ms:LicenceIdentifier␣
↪ms:LicenceIdentifierScheme="http://w3id.org/meta-share/meta-share/elg">ELG-ENT-LIC-
↪270220-00000097</ms:LicenceIdentifier>
                                                </ms:licenceTerms>
                                        </ms:SoftwareDistribution>
                                        <ms:languageDependent>true</
↪ms:languageDependent>
                                        <ms:inputContentResource>
                                                <ms:processingResourceType>http://
↪w3id.org/meta-share/meta-share/file1</ms:processingResourceType>
                                                <ms:language>
                                                        <ms:languageTag>de</
↪ms:languageTag>
                                                        <ms:languageId>de</
↪ms:languageId>
                                                </ms:language>
                                                <ms:mediaType>http://w3id.org/meta-
↪share/meta-share/text</ms:mediaType>
                                                <ms:dataFormat>http://w3id.org/meta-
↪share/omtd-share/Json</ms:dataFormat>
                                                <ms:characterEncoding>http://w3id.org/
↪meta-share/meta-share/UTF-8</ms:characterEncoding>
                                        </ms:inputContentResource>
                                        <ms:outputResource>
                                                <ms:processingResourceType>http://
↪w3id.org/meta-share/meta-share/file1</ms:processingResourceType>
                                                <ms:language>
                                                        <ms:languageTag>en</
↪ms:languageTag>
                                                        <ms:languageId>en</
↪ms:languageId>
                                                </ms:language>
                                                <ms:mediaType>http://w3id.org/meta-
↪share/meta-share/text</ms:mediaType>
                                                <ms:dataFormat>http://w3id.org/meta-
↪share/omtd-share/Json</ms:dataFormat>
                                                <ms:characterEncoding>http://w3id.org/
↪meta-share/meta-share/UTF-8</ms:characterEncoding>
```


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```
                                        </ms:outputResource>
                                        <ms:trl>http://w3id.org/meta-share/meta-share/
↪trl4</ms:trl>
                                        <ms:evaluated>false</ms:evaluated>
                                    </ms:ToolService>
                                </ms:LRSubclass>
                            </ms:LanguageResource>
                        </ms:DescribedEntity>
</ms:MetadataRecord>
```

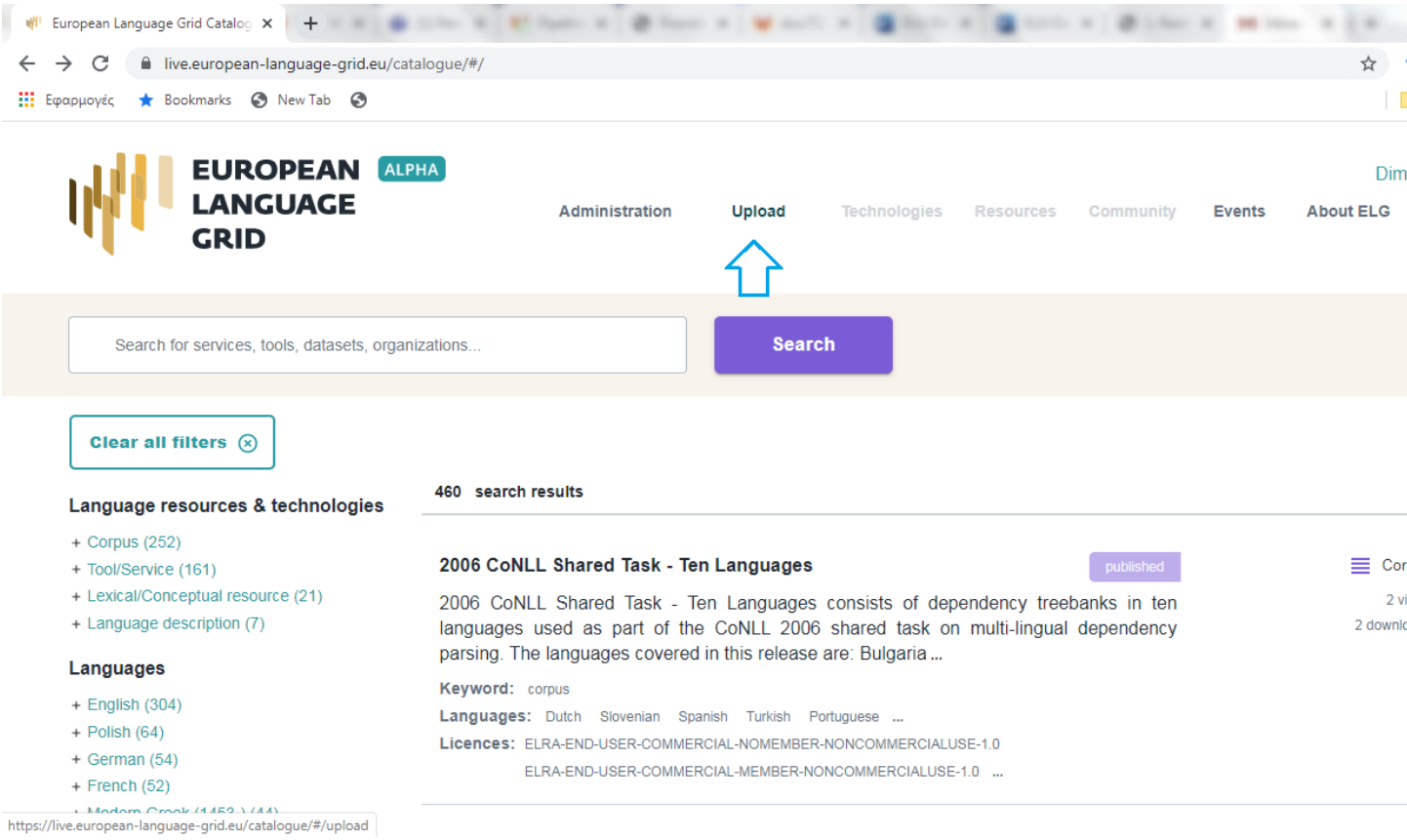
The Docker image for this LT tool is stored at DockerHub.

8.3.2 Minimal version metadata

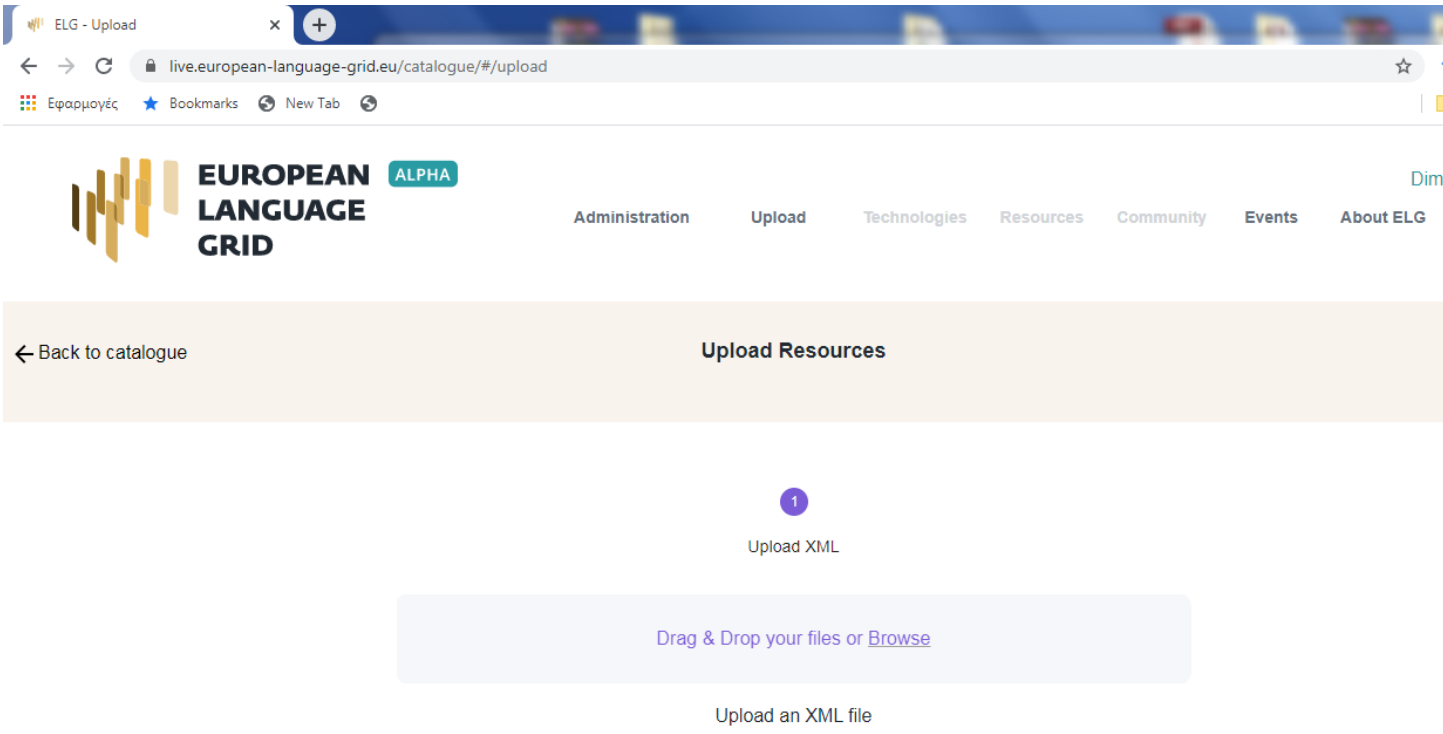
8.4 Register an LT Service to the platform

The following steps should be followed:

- **Provide a metadata record**: Sign into the ELG platform using your credentials and press the "upload" button on the main menu.



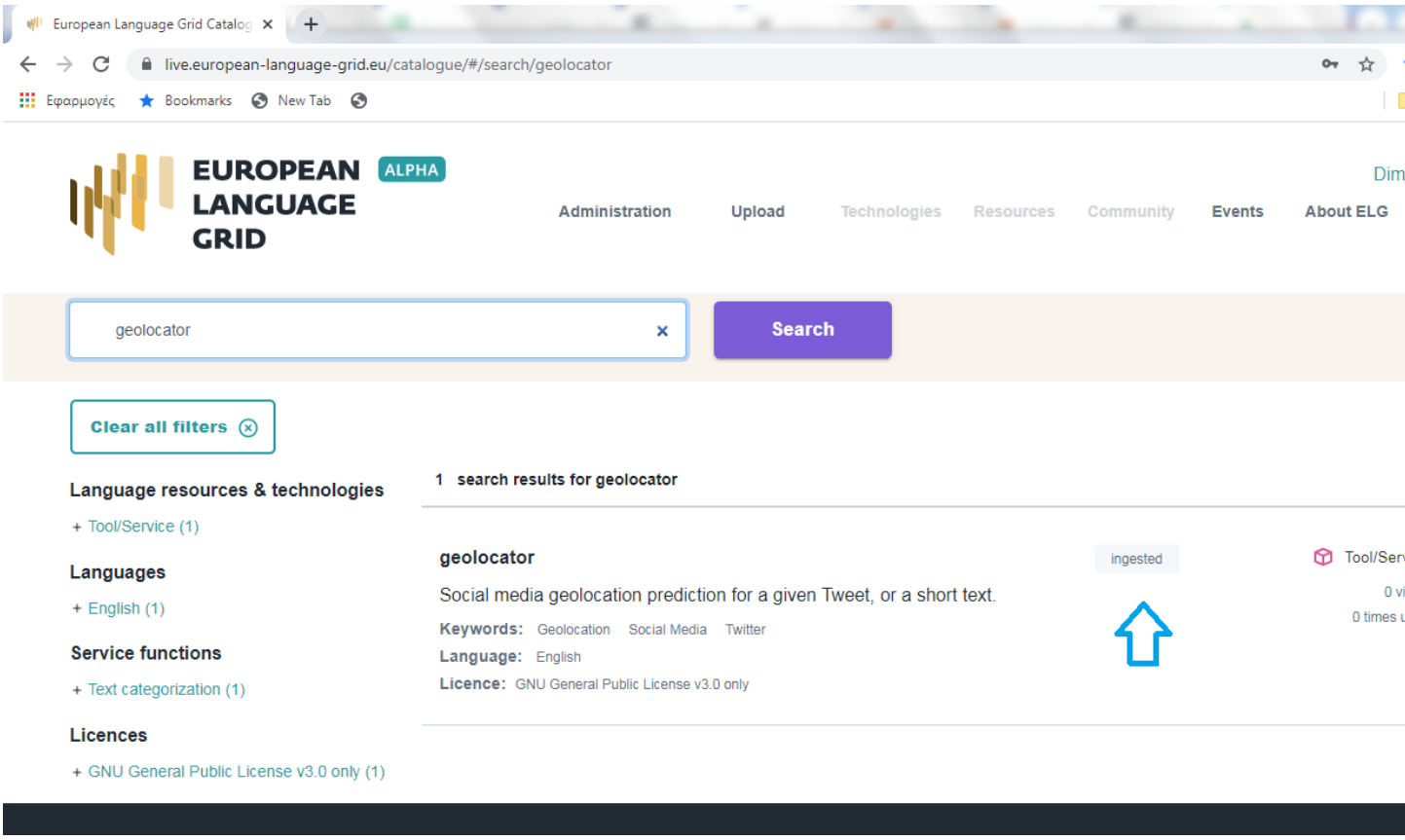
Then upload the XML file that contains the metadata. In the current release, this is the only way to provide them. Upcoming releases will also include a metadata editor and other functionalities.



The metadata record is validated at import against the metadata schema. Additional rules that check for syntactic and partial semantic integrity are also used. If the file is found invalid, you will see a message with a list of errors; you must correct them and re-upload the file. If it is valid you will be shown a success message; the file will be imported in the database. At this stage, it is visible only to the platform administrators.

- **LT Service is assigned to a reviewer**: The administrator will assign it to a reviewer; during the review process, the metadata record is visible only to you (LT provider) and the reviewer.

- **LT Service is deployed to ELG and configured**: The LT service is deployed (by the reviewer) to the k8s cluster by creating the appropriate configuration yaml file and uploading to the respective GitLab repository. The CI/CD pipeline that is responsible for deployments will automatically install the new service at the k8s cluster. If you request it, a separate dedicated k8s namespace can be created for the LT service before creating the yaml file. The reviewer of the service assigns to it:
  - the k8s REST endpoint that will be used for invoking it. The endpoint follows this template: `http://{k8s service name for the registered LT tool}.{k8s namespace for the registered LT tool}.svc.cluster.local{the path where the REST service is running at}`. The `{the path where the REST service is running at}` part can be found in the `executionLocation` field in the metadata. For instance, for the Edinburgh's MT tool above it is '/api/elg/v1'.
  - An ID that will be used to call it.
  - Which "try out" UI will be used for testing it and visualizing the returned results.
- **LT Service is tested**: On the LT landing page, there is a "Try out" tab and a "Code samples" tab; both can be



used to test the service with some input; see *Test an LT service* section. The reviewer can help you identify integration issues and resolve them. This process is continued until the LT service is correctly integrated to the platform. The procedure may require access to the k8s cluster for the reviewer (e.g., to check containers start-up/failures, logs, etc.).

- **LT Service is published**: When the LT service works as expected, the reviewer will approve it; the metadata record is then published and visible to all ELG users through the catalogue.

8.5 Frequently Asked Questions

Question: What is a k8s namespace and when should an LT Provider ask for one?
Answer: A k8s namespace is a virtual sub-cluster, which can be used to restrict access to the respective containers that run within it. You should ask for a dedicated namespace (in ELG k8s cluster) when you need to ensure isolation and security; i.e, limit access to your container, logs etc.

Question: The image that I have created is not publicly available. Is it possible to register it to the ELG platform?
Answer: Yes, it can be registered. A k8s secret containing the required credentials will be created for the namespace in which your image is going to be deployed. k8s will then be able to pull the image and deploy it.

Question: Are there any requirements for `executionLocation`? For example, an IE tool has to expose a specific path or use a specific port?

all/3_Contributing/./all/2_Using/TryOutUI.png

Answer: No, you can use any valid port or path. This holds for any kind of LT tool (IE, MT, ASR, etc.). The internal container port will be mapped (via port mapping) to port 80. Remember that the endpoint of the LT service follows this pattern: `http://{k8s service name for the registered LT tool}.{k8s namespace for the registered LT tool}.svc.cluster.local{the path where the REST service is running at}`, which assumes that the service is exposed to port 80.

Question: I have **n** different versions of the same IE LT tool; e.g., one version per language. How should I register them to the platform? I have to create one Docker image with all the different versions or one image per version?

Answer: Both are possible. In both cases you will have to provide a separate metadata record for each LT tool. However, in the case where the tools are packaged together, **all** metadata records must point to the same image location (`dockerDownloadLocation`) and each of them has to listen in a different HTTP endpoint (`executionLocation`) but on the same port (for simplicity). E.g, "http://localhost:8080/NamedEntityRecognitionEN", "http://localhost:8080/NamedEntityRecognitionDE".

Question: Should the Docker image that I will provide have a specific tag?

Answer: The images that are stored in GitLab or DockerHub are not immutable, even when they have been assigned a specific/custom tag; thus, it is possible that they are overwritten (by their creators). ELG (currently) does not have a private Docker registry that caches images. Therefore, when ELG will try (at some point) to spawn a new instance of an LT service, it might download (pull) and use an image that is not (any more) ELG compatible, because it has been overwritten (e.g. by accident). So, yes, it is recommended (but not enforced) to put a custom tag (dedicated for ELG) to the image that you will register, since it is usually more common to override the `:latest` one.

Question: How many resources will be allocated for my LT container in the k8s cluster?

Answer: By default, 512MB of RAM and half a CPU core. If your LT service requires more resources you have to specify it by using the `additionalHWRequirements` metadata element (see the MT example above) or by communicating with the ELG administrators.

8.5.1 Dockerization

8.6 Build/Store Docker images

Ideally, the source code of your LT tool/service already resides on GitLab where a built-in Continuous Integration (CI) Runner can take care of building the image; GitLab also offers a container registry that can be used for storing the built image. For this, you need to add on the root level of your GitLab repository a `.gitlab-ci.yml` file as well as a `Dockerfile`; i.e, the recipe for building the image. Here you can find an example. After each new commit, the CI Runner is automatically triggered and runs the CI pipeline that is defined in `.gitlab-ci.yml`. You can see the progress of the pipeline on the respective page in GitLab UI ("CI / CD -> Jobs"); also when it completes successfully, you can find the image at "Packages -> Container Registry".

Your image can also be built and tagged in your machine by running the `docker build` command. Then it can be uploaded (with `docker push`) to GitLab registry, in DockerHub (which is a public Docker registry) or any other Docker registry.

E.g for this GitLab hosted project the commands would be:

```
docker login registry.gitlab.com
```

For logging in and be allowed to push an image.

```
docker build -t registry.gitlab.com/european-language-grid/dfki/elg-jtok
```

For building an image (locally) for the project. Before running `docker build` you have to download (clone) a copy of the project and be in the top-level directory (`elg-jtok`).

`docker push registry.gitlab.com/european-language-grid/dfki/elg-jtok`

For pushing the image to GitLab.

In the following links you can find some more inforrmation on docker commands plus some examples:

- Docker Command Line Interface.
- Docker Tutorial from Stackify.

8.7 Dockerization of a Python-based LT service/tool

First you need to ensure that your python script provides either a std i/o messaging or a RESTful API.

A) create a REST API using Flask Example of a Shakespeare Bot

```
from flask import Flask
from flask import render_template
from flask import request

# creates a Flask application, named app
app = Flask(__name__)

from chatterbot import ChatBot

# a route where we will display a welcome message via an HTML template
@app.route("/", methods=['POST','GET'])
def hello():
    if request.method == 'POST':  # this block is only entered when the form is␣
↪submitted
        user_message = request.form['user_message']
        chatbot = ChatBot("Frank")
        bot_message = chatbot.get_response(user_message).text

        data = {
            'bot_message': bot_message,
            'user_message': user_message,
            'user_message_visibility': '',
        }
        return render_template('index.html', **data)

    data = {
        'bot_message': "Speak. I am bound to hear.",
        'user_message': '',
        'user_message_visibility': 'style=visibility:hidden;',
    }
    return render_template('index.html', **data)

# run the application
if __name__ == "__main__":
    app.run(debug=True)
```

B) create a std i/o messaging Example to be added soon.

Then you can make your service a Docker image by taking the following steps:

- choose python environment, e.g. python:3.6.4-slim-jessie
- add/copy python scripts
- add/copy other resources
- install missing modules
- define entrypoint

We provide you with some dockerfile examples to see its simplicity:

Example 1: Shakespeare Bot

```
from python:3.6.4-slim-jessie

COPY shakespearebot.py .
COPY corpora/hamlet.csv corpora/

RUN pip install pandas
RUN pip install chatterbot
RUN pip install chatterbot-corpus

ENTRYPOINT ["python","shakespearebot.py"]
```

Example 2: Legal Entity Recognition, install all requirements from .txt-file

```
FROM python:3.7

COPY . .

RUN pip install -r requirements.txt

EXPOSE 8080
ENTRYPOINT ["python", "ler-ws.py"]
```

8.8 Dockerization of a Java-based tool

ELG Spring Boot Starter

CHAPTER 9

Contribute downloadable software

You can register at the ELG platform data resources, such as corpora (raw and annotated), computational lexica, terminological glossaries, models, computational grammars, etc. For more information on the resource types, see CatContents.

Corpora are structured collections of data selected according to specific criteria in order to represent as comprehensively as possible a research question. The most common cases are:

- text corpora: monolingual, bilingual or multilingual collections of texts in a specific domain, such as corpora of news articles, scientific publications, legal documents, medical records, tweets, etc.
- corpora of audio recordings, e.g., of broadcast news, or lists of sentences recorded by individuals from a specific region with a dialect accent, etc.
- collections of videos, such as interviews with politicians, sign language corpora, etc.
- corpora combining all of the above, such as a multimedia corpus of video lectures, with their audio recordings, transcripts, subtitles and their translations.

Under **language descriptions**, we comprise:

- models, including Machine Learning models, statistical models, word embeddings, n-gram models,
- computational grammars of a language, language variety or for a specific domain or phenomenon.

The vast majority of these consist of a text part, but videos and images are also foreseen for cases such as sign language grammars.

Examples of **lexical/conceptual resources** include

- computational lexica, that are used for computational processing, and include morphological, syntactic and semantic information;
- dictionaries in digital format,
- ontologies and controlled vocabularies,
- monolingual and multilingual terminological glossaries,
- word lists, gazetteers of place names, proper names, etc.

They typically consist of a text part, but they may also comprise audio and video files, as in the case of:

- multimedia lexica with sound recordings (e.g., pronunciation of a word) and images (e.g. pictures denoting the sense of a word),
- sign language lexica with videos.

9.1 Technical requirements

All data resources must be provided as `.zip`, `.tar` or `.tar.gz` archives.

9.2 Describe a Language Resource

To register your resource at ELG, you must describe it according to the schemaFull (at least minimal version), i.e., you have to provide a *metadata record*, and upload this description to the platform.

Note: For this release, you MUST provide an ELG-compliant XML file. Upcoming releases will also include a metadata editor and other functionalities supporting an easy import of metadata records.

You will find the full schema XSD, documentation and templates and examples of metadata records for all resource types here and some examples of already registered data resources here.

Examples of metadata records and a list of the metadata elements of the minimal version are given in separate sections:

- corpora (datasets): registerCorpus
- language descriptions: registerLangDesc
- lexical/conceptual resources: registerLexConc

9.3 Register a language resource to the platform

The following steps should be followed:

- **Provide a metadata record**: Sign into the ELG platform using your credentials and press the "upload" button on the main menu.

Then upload the XML file that contains the metadata. In the current release this is the only way to provide them. Upcoming releases will also include a metadata editor and other functionalities supporting an easy import of metadata records.

The metadata record is validated at import against the metadata schema. Additional rules that check for syntactic and partial semantic integrity are also used. If the file is found invalid, you will see a message with a list of errors; you must correct them and re-upload the file. If it is valid you will be shown a success message; the file will be imported in the database. At this stage, it is visible only to the platform administrators.

- **Resource is checked**: The administrator will assign it to a reviewer; during the review process, the metadata record is visible only to you (LR provider) and the reviewer.

all/3_Contributing/./Figs/Upload01.png

all/3_Contributing/./Figs/Upload02.png

all/3_Contributing/./Figs/CatalogueIngested.png

- **LR is published**: When the LR has been checked, the reviewer will approve it; the metadata record is then published and visible to all ELG users through the catalogue.

CHAPTER 10

Contribute a corpus / dataset

In this section you will find information on how to describe a corpus with the minimal metadata in order to register it into the ELG platform. If you want to find more on the ELG resource types, see CatContents. You will also find instructions for all data resources (technical requirements, registration instructions to the platform) in registerLR.

Corpora are structured collections of data selected according to specific criteria in order to represent as comprehensively as possible a research question. The most common cases are:

- text corpora: monolingual, bilingual or multilingual collections of texts in a specific domain, such as corpora of news articles, scientific publications, legal documents, medical records, tweets, etc.
- corpora of audio recordings, e.g., of broadcast news, or lists of sentences recorded by individuals from a specific region with a dialect accent, etc.
- collections of videos, such as interviews with politicians, sign language corpora, etc.
- corpora combining all of the above, such as a multimedia corpus of video lectures, with their audio recordings, transcripts, subtitles and their translations.

10.1 Examples of metadata records for corpora

Bilingual raw corpus: Bilingual Bulgarian-English corpus from the National Revenue Agency (BG) (Processed)

Published at: https://live.european-language-grid.eu/catalogue/#/resource/service/corpus/734

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xmlns="http://w3id.org/meta-share/meta-share/" xmlns:datacite=
↪"http://purl.org/spar/datacite/" xmlns:dcat="http://www.w3.org/ns/dcat#" xmlns:ms=
↪"http://w3id.org/meta-share/meta-share/" xmlns:omtd="http://w3id.org/meta-share/
↪omtd-share/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../Schema/ELG-SHARE.
↪xsd">
<ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.org/meta-
↪share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
```

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```
        <ms:metadataCreationDate>2020-10-03</ms:metadataCreationDate>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>username@someDomain.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>username@someDomain.com</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">Bilingual Bulgarian-English␣
↪corpus from the National Revenue Agency (BG) (Processed)</ms:resourceName>
                        <ms:description xml:lang="en">Bilingual Bulgarian-English␣
↪corpus of administrative documents on the Refund of Value Added Tax from the␣
↪Bulgarian National Revenue Agency.

        Bilingual Bulgarian-English corpus of administrative documents on the Refund␣
↪of Value Added Tax from the Bulgarian National Revenue Agency. It was offered as␣
↪collection of documents by the Bulgarian National Revenue Agency.  Modules of the␣
↪ILSP Focused Crawler was used for the normalization, cleaning, (near) de-
↪duplication and identification of parallel documents. The Maligna sentence aligner␣
↪was used for extracting segment alignments from crawled parallel documents. As a␣
↪post-processing step, alignments were merged into one TMX file. The following␣
↪filters were applied:  TMX files generated from document pairs which have been␣
↪identified by non-aupidh methods were discarded ;  TMX files with a zeroToOne_
↪alignments/total_alignments ratio larger than 0.16, were discarded ;  Alignments of␣
↪non-[1:1] type(s) were discarded. ;  Alignments with a TUV (after normalization)␣
↪that has less than 1 tokens, were annotated ;  Alignments with a l1/l2 TUV length␣
↪ratio smaller than 0.6 or larger than 1.6, were annotated ;  Alignments in which␣
↪different digits appear in each TUV were kept and annotated. ;  Alignments with␣
↪identical TUVs (after normalization) were annotated ;  Alignments with only non-
↪letters in at least one of their TUVs were annotated ;  Duplicate alignments were␣
↪kept and were annotated. The mean value of aligner's scores is 5.714609036504669,␣
↪the std value is 1.8063256236105307. The mean value of length (in terms of␣
↪characters) ratios is 1.0040012545201242 and the std value is 0.26545877788005745.␣
↪There are 832 TUs with no annotation, containing 13336 words and 2604 lexical types␣
↪in bul and 15010 words and 2031 lexical types in eng. The mean value of aligner's␣
↪scores is 6.336834960545485, the std value is 1.53829791384023</ms:description>
                        <ms:LRIdentifier ms:LRIdentifierScheme="http://w3id.org/meta-
↪share/meta-share/other">ELRC_471</ms:LRIdentifier>
                        <ms:version>2.0</ms:version>
                        <ms:additionalInfo>
                                <ms:landingPage>https://elrc-share.eu/repository/
↪browse/bilingual-bulgarian-english-corpus-from-the-national-revenue-agency-bg-
↪processed/4ed47824d04a11e7b7d400155d026706dbe4fc9f12424b5ba0a749fd6758072b/</
↪ms:landingPage>
                        </ms:additionalInfo>
                        <ms:additionalInfo>
                                <ms:email>contact@someDomain.com</ms:email>
```

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```
                        </ms:additionalInfo>
                        <ms:contact>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Rusinova</
↪ms:surname>
                                        <ms:givenName xml:lang="en">Annie</
↪ms:givenName>
                                        <ms:email>contact@someDomain.com</ms:email>
                                </ms:Person>
                        </ms:contact>
                        <ms:iprHolder>
                                <ms:Organization>
                                        <ms:actorType>Organization</ms:actorType>
                                        <ms:organizationName xml:lang="en">National␣
↪Revenue Agency (BG)</ms:organizationName>
                                        <ms:website>http://www.nap.bg/en/</ms:website>
                                </ms:Organization>
                        </ms:iprHolder>
                        <ms:keyword xml:lang="en">corpus</ms:keyword>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">FINANCE</
↪ms:categoryLabel>
                                <ms:DomainIdentifier ms:DomainClassificationScheme=
↪"http://w3id.org/meta-share/meta-share/EUROVOC">24</ms:DomainIdentifier>
                        </ms:domain>
                        <ms:fundingProject>
                                <ms:projectName xml:lang="en">European Language␣
↪Resource Coordination LOT3</ms:projectName>
                                <ms:ProjectIdentifier ms:ProjectIdentifierScheme=
↪"http://w3id.org/meta-share/meta-share/other">Tools and Resources for CEF Automated␣
↪Translation - LOT3 (SMART 2015/1091 - 30-CE-0816766/00-92)</ms:ProjectIdentifier>
                                <ms:website>http://www.lr-coordination.eu</ms:website>
                        </ms:fundingProject>
                        <ms:validated>true</ms:validated>
                        <ms:validation>
                                <ms:validationDetails xml:lang="en">validated</
↪ms:validationDetails>
                        </ms:validation>
                        <ms:relation>
                                <ms:relationType xml:lang="en">isAlignedVersionOf</
↪ms:relationType>
                                <ms:relatedLR>
                                        <ms:resourceName xml:lang="en">Bilingual␣
↪Bulgarian-English corpus from the National Revenue Agency (BG)</ms:resourceName>
                                        <ms:LRIdentifier ms:LRIdentifierScheme="http:/
↪/w3id.org/meta-share/meta-share/other">ELRC_447</ms:LRIdentifier>
                                </ms:relatedLR>
                        </ms:relation>
                        <ms:LRSubclass>
                                <ms:Corpus>
                                        <ms:lrType>Corpus</ms:lrType>
                                        <ms:corpusSubclass>http://w3id.org/meta-share/
↪meta-share/rawCorpus</ms:corpusSubclass>
                                        <ms:CorpusMediaPart>
                                                <ms:CorpusTextPart>
                                                        <ms:corpusMediaType>
↪CorpusTextPart</ms:corpusMediaType>
```

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```
                                                        <ms:mediaType>http://w3id.org/
↪meta-share/meta-share/text</ms:mediaType>
                                                        <ms:lingualityType>http://
↪w3id.org/meta-share/meta-share/bilingual</ms:lingualityType>
                                                        <ms:multilingualityType>http:/
↪/w3id.org/meta-share/meta-share/parallel</ms:multilingualityType>
                                                        <ms:language>
                                                                <ms:languageTag>bg</
↪ms:languageTag>
                                                                <ms:languageId>bg</
↪ms:languageId>
                                                                <ms:scriptId>Cyrl</
↪ms:scriptId>
                                                        </ms:language>
                                                        <ms:language>
                                                                <ms:languageTag>en</
↪ms:languageTag>
                                                                <ms:languageId>en</
↪ms:languageId>
                                                        </ms:language>
                                                        <ms:textType>
                                                                <ms:categoryLabel␣
↪xml:lang="en">administrativeTexts</ms:categoryLabel>
                                                        </ms:textType>
                                                        <ms:TextGenre>
                                                                <ms:categoryLabel␣
↪xml:lang="en">official</ms:categoryLabel>
                                                        </ms:TextGenre>
                                                        <ms:creationMode>http://w3id.
↪org/meta-share/meta-share/mixed</ms:creationMode>
                                                        <ms:hasOriginalSource>
                                                                <ms:resourceName␣
↪xml:lang="en">ELRC-447</ms:resourceName>
                                                                <ms:LRIdentifier␣
↪ms:LRIdentifierScheme="http://w3id.org/meta-share/meta-share/other">ELRC_447</
↪ms:LRIdentifier>
                                                        </ms:hasOriginalSource>
                                                        <ms:creationDetails xml:lang=
↪"en">See description for creation details</ms:creationDetails>
                                                </ms:CorpusTextPart>
                                        </ms:CorpusMediaPart>
                                        <ms:DatasetDistribution>
                                                <ms:DatasetDistributionForm>http://
↪w3id.org/meta-share/meta-share/downloadable</ms:DatasetDistributionForm>
                                                <ms:accessLocation>https://elrc-share.
↪eu/repository/download/
↪4ed47824d04a11e7b7d400155d026706dbe4fc9f12424b5ba0a749fd6758072b/</
↪ms:accessLocation>
                                                <ms:distributionTextFeature>
                                                        <ms:size>
                                                                <ms:amount>1292</
↪ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/unit</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:dataFormat>http://w3id.
↪org/meta-share/omtd-share/Xml</ms:dataFormat>
```

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```
                                                        <ms:characterEncoding>http://
↪w3id.org/meta-share/meta-share/UTF-8</ms:characterEncoding>
                                                </ms:distributionTextFeature>
                                                <ms:licenceTerms>
                                                        <ms:licenceTermsName xml:lang=
↪"en">publicDomain</ms:licenceTermsName>
                                                        <ms:licenceTermsURL>https://
↪elrc-share.eu/terms/publicDomain.html</ms:licenceTermsURL>
                                                        <ms:LicenceIdentifier␣
↪ms:LicenceIdentifierScheme="http://w3id.org/meta-share/meta-share/elg">publicDomain
↪</ms:LicenceIdentifier>
                                                </ms:licenceTerms>
                                                <ms:cost>
                                                        <ms:amount>0</ms:amount>
                                                        <ms:currency>http://w3id.org/
↪meta-share/meta-share/euro</ms:currency>
                                                </ms:cost>
                                        </ms:DatasetDistribution>
                                        <ms:personalDataIncluded>false</
↪ms:personalDataIncluded>
                                        <ms:sensitiveDataIncluded>false</
↪ms:sensitiveDataIncluded>
                                </ms:Corpus>
                        </ms:LRSubclass>
                </ms:LanguageResource>
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

Annotated corpus: Greek Textual Entailment corpus

Published at: https://live.european-language-grid.eu/catalogue/#/resource/service/corpus/649

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xmlns="http://w3id.org/meta-share/meta-share/" xmlns:datacite=
↪"http://purl.org/spar/datacite/" xmlns:dcat="http://www.w3.org/ns/dcat#" xmlns:ms=
↪"http://w3id.org/meta-share/meta-share/" xmlns:omtd="http://w3id.org/meta-share/
↪omtd-share/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../Schema/ELG-SHARE.
↪xsd">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-02-02</ms:metadataCreationDate>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
```

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```
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCreator>
        <ms:sourceOfMetadataRecord>META-SHARE/ILSP</ms:sourceOfMetadataRecord>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">Greek Textual Entailment Corpus
↪</ms:resourceName>
                        <ms:resourceShortName xml:lang="en">GTEC</
↪ms:resourceShortName>
                        <ms:description xml:lang="en">GTEC consits of 600 T-H pairs␣
↪manually annotated for entailment (i.e. whether T entails H or not) by human␣
↪annotators. The dataset which is tailored to guide training and evaluation of␣
↪prospect RTE systems, is equally divided in three subsets each one representing the␣
↪output of a specific HLT application: Question Answering (QA), Comparable Documents␣
↪(CD) and Machine Translation (MT), and pertaining to specific subject fields (e.g.␣
↪law, politics, travel). T-H examples that correspond to success and failure cases␣
↪of the afore-mentioned applications have been included in the corpus. The␣
↪annotations provided are conformant to the RTE1 and RTE2 challenges.</
↪ms:description>
                        <ms:version>v1.0.0 (automatically assigned)</ms:version>
                        <ms:additionalInfo>
                                        <ms:email>username@someDomain.com</ms:email>
                        </ms:additionalInfo>
                        <ms:additionalInfo>
                                        <ms:email>username3@someDomain.com</ms:email>
                        </ms:additionalInfo>
                        <ms:contact>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Giouli</ms:surname>
                                        <ms:givenName xml:lang="en">Voula</
↪ms:givenName>
                                        <ms:email>username@someDomain.com</ms:email>
                                </ms:Person>
                        </ms:contact>
                        <ms:contact>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Piperidis</
↪ms:surname>
                                        <ms:givenName xml:lang="en">Stelios</
↪ms:givenName>
                                        <ms:email>username3@someDomain.com</ms:email>
                                </ms:Person>
                        </ms:contact>
                        <ms:keyword xml:lang="en">corpus</ms:keyword>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">law</ms:categoryLabel>
                        </ms:domain>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">politics</
↪ms:categoryLabel>
                        </ms:domain>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">travel</
↪ms:categoryLabel>
```

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```
                        </ms:domain>
                        <ms:resourceCreator>
                                <ms:Organization>
                                        <ms:actorType>Organization</ms:actorType>
                                        <ms:organizationName xml:lang="en">Institute␣
↪for Language and Speech Processing</ms:organizationName>
                                        <ms:website>http://www.ilsp.gr</ms:website>
                                </ms:Organization>
                        </ms:resourceCreator>
                        <ms:intendedApplication>
                                <ms:LTClassRecommended>http://w3id.org/meta-share/
↪omtd-share/AnnotationOfTextualEntailment</ms:LTClassRecommended>
                        </ms:intendedApplication>
                        <ms:actualUse>
                                <ms:usedInApplication>
                                        <ms:LTClassRecommended>http://w3id.org/meta-
↪share/omtd-share/AnnotationOfTextualEntailment</ms:LTClassRecommended>
                                </ms:usedInApplication>
                                <ms:actualUseDetails xml:lang="en">nlpApplications</
↪ms:actualUseDetails>
                        </ms:actualUse>
                        <ms:isDocumentedBy>
                                <ms:title xml:lang="en">Building a Greek corpus of␣
↪Textual Entailment</ms:title>
                                <ms:DocumentIdentifier ms:DocumentIdentifierScheme=
↪"http://purl.org/spar/datacite/url">http://www.lrec-conf.org/proceedings/lrec2008/
↪pdf/427_paper.pdf</ms:DocumentIdentifier>
                        </ms:isDocumentedBy>
                        <ms:LRSubclass>
                                <ms:Corpus>
                                        <ms:lrType>Corpus</ms:lrType>
                                        <ms:corpusSubclass>http://w3id.org/meta-share/
↪meta-share/annotatedCorpus</ms:corpusSubclass>
                                        <ms:CorpusMediaPart>
                                                <ms:CorpusTextPart>
                                                        <ms:corpusMediaType>
↪CorpusTextPart</ms:corpusMediaType>
                                                        <ms:mediaType>http://w3id.org/
↪meta-share/meta-share/text</ms:mediaType>
                                                        <ms:lingualityType>http://
↪w3id.org/meta-share/meta-share/monolingual</ms:lingualityType>
                                                        <ms:language>
                                                                <ms:languageTag>el</
↪ms:languageTag>
                                                                <ms:languageId>el</
↪ms:languageId>
                                                        </ms:language>
                                                        <ms:creationMode>http://w3id.
↪org/meta-share/meta-share/mixed</ms:creationMode>
                                                        <ms:originalSourceDescription␣
↪xml:lang="en">web news</ms:originalSourceDescription>
                                                        <ms:originalSourceDescription␣
↪xml:lang="en">EU texts</ms:originalSourceDescription>
                                                </ms:CorpusTextPart>
                                        </ms:CorpusMediaPart>
                                        <ms:DatasetDistribution>
                                                <ms:DatasetDistributionForm>http://
↪w3id.org/meta-share/meta-share/downloadable</ms:DatasetDistributionForm>
```

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```
                                                <ms:accessLocation>http://metashare.
↪ilsp.gr:8080/repository/download/
↪26dca2fe63d211e29b2c842b2b6a04d7db87c85bfbe34326bb4c2e88b8c4da85</ms:accessLocation>
                                                <ms:distributionTextFeature>
                                                        <ms:size>
                                                                <ms:amount>600</
↪ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/T-HPair</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:dataFormat>http://w3id.
↪org/meta-share/omtd-share/Xml</ms:dataFormat>
                                                </ms:distributionTextFeature>
                                                <ms:licenceTerms>
                                                        <ms:licenceTermsName xml:lang=
↪"en">CC-BY-4.0</ms:licenceTermsName>
                                                        <ms:licenceTermsURL>https://
↪spdx.org/licenses/CC-BY-4.0.html</ms:licenceTermsURL>
                                                </ms:licenceTerms>
                                                <ms:attributionText xml:lang="en">
↪Greek Textual Entailment Corpus by Athena R.C./ILSP used under CC-BY licence</
↪ms:attributionText>
                                        </ms:DatasetDistribution>
                                        <ms:personalDataIncluded>false</
↪ms:personalDataIncluded>
                                        <ms:sensitiveDataIncluded>false</
↪ms:sensitiveDataIncluded>
                                        <ms:annotation>
                                                <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/Lemma</ms:annotationType>
                                                <ms:annotationStandoff>false</
↪ms:annotationStandoff>
                                                <ms:annotationMode>http://w3id.org/
↪meta-share/meta-share/mixed</ms:annotationMode>
                                                <ms:annotationModeDetails xml:lang="en
↪">automatic annotation followed with manual disambiguation</
↪ms:annotationModeDetails>
                                                <ms:isAnnotatedBy>
                                                        <ms:resourceName xml:lang="en
↪">ILSP-Lemmatizer</ms:resourceName>
                                                </ms:isAnnotatedBy>
                                        </ms:annotation>
                                        <ms:annotation>
                                                <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/PartOfSpeech</ms:annotationType>
                                                <ms:annotationStandoff>false</
↪ms:annotationStandoff>
                                                <ms:tagset>
                                                        <ms:resourceName xml:lang="en
↪">ILSP/PAROLE tagset</ms:resourceName>
                                                </ms:tagset>
                                                <ms:annotationMode>http://w3id.org/
↪meta-share/meta-share/mixed</ms:annotationMode>
                                                <ms:annotationModeDetails xml:lang="en
↪">automatic annotation followed with manual disambiguation</
↪ms:annotationModeDetails>
                                                <ms:isAnnotatedBy>
```

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```
                                                                <ms:resourceName xml:lang="en
↪">ILSP FBT POS tagger</ms:resourceName>
                                                        </ms:isAnnotatedBy>
                                                </ms:annotation>
                                                <ms:annotation>
                                                        <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/SyntacticAnnotationType</ms:annotationType>
                                                        <ms:annotationStandoff>false</
↪ms:annotationStandoff>
                                                        <ms:annotationMode>http://w3id.org/
↪meta-share/meta-share/mixed</ms:annotationMode>
                                                </ms:annotation>
                                                <ms:annotation>
                                                        <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/SyntacticAnnotationType</ms:annotationType>
                                                        <ms:annotationStandoff>false</
↪ms:annotationStandoff>
                                                        <ms:annotationMode>http://w3id.org/
↪meta-share/meta-share/mixed</ms:annotationMode>
                                                        <ms:annotationModeDetails xml:lang="en
↪">Automatic annotation followed by manual correction</ms:annotationModeDetails>
                                                </ms:annotation>
                                                <ms:annotation>
                                                        <ms:annotationType>http://w3id.org/
↪meta-share/omtd-share/SemanticAnnotationType</ms:annotationType>
                                                        <ms:annotationStandoff>false</
↪ms:annotationStandoff>
                                                        <ms:annotationMode>http://w3id.org/
↪meta-share/meta-share/manual</ms:annotationMode>
                                                </ms:annotation>
                                        </ms:Corpus>
                                </ms:LRSubclass>
                        </ms:LanguageResource>
                </ms:DescribedEntity>
</ms:MetadataRecord>
```

10.2 Minimal version metadata for corpora

The set of the metadata (mandatory or recommended) that **are common to all kinds of resources** including data language resources are presented in section describeLRT. **In addition**, the metadata elements that are required or recommended for corpora are described below.

For a quick guide to the ELG template, see *Template - Explanations*.

10.2.1 Corpus

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus`

Data type component

Optionality Mandatory

Explanation & Instructions

Wraps together the set of elements that is specific to corpora

Example

```
<ms:LRSubclass>
        <ms:Corpus>
                <ms:lrType>Corpus</ms:lrType>
        </ms:Corpus>
</ms:LRSubclass>
```

10.2.2 corpusSubclass

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.corpusSubclass`

Data type CV (corpusSubclass)

Optionality Mandatory

Explanation & Instructions

Introduces a classification of corpora into types (used for descriptive reasons)

Use one of the values for raw corpora, annotated corpora (mixed raw with annotations), annotations (only annotations without the original corpus)

Example

```
<ms:corpusSubclass>http://w3id.org/meta-share/meta-share/rawCorpus</ms:corpusSubclass>

<ms:corpusSubclass>http://w3id.org/meta-share/meta-share/annotatedCorpus</
↪ms:corpusSubclass>
```

10.2.3 CorpusTextPart

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusTextPart`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

The part of a corpus (or a whole corpus) that consists of textual segments (e.g., a corpus of publications, or transcriptions of an oral corpus, or subtitles , etc.)

You can repeat the group of elements for multiple textual parts.

The mandatory or recommended elements for the text part are:

- `mediaType` (Mandatory): Specifies the media type of a language resource (the physical medium of the contents representation). For text parts, always use the value 'text'.
- `lingualityType` (Mandatory): Indicates whether the resource includes one, two or more languages.

- `multilingualityType` (Mandatory if applicable): Indicates whether the resource (part) is parallel, comparable or mixed. If lingualityType = bilingual or multilingual, it is required; select one of the values for parallel (e.g., original text and its translations), comparable (e.g. corpus of the same domain in multiple languages) and multilingualSingleText (for corpora that consist of segments including text in two or more languages (e.g., the transcription of a European Parliament session with MPs speaking in their native language.
- `language` (Mandatory): Specifies the language that is used in the resource part , expressed according to the BCP47 recommendation. See language.
- `languageVariety` (Mandatory if applicable): Relates a language resource that contains segments in a language variety (e.g., dialect, jargon) to it. Please use for dialect corpora.
- `modalityType` (Recommended if applicable): Specifies the type of the modality represented in the resource. For instance, you can use 'spoken language' to describe transcribed speech corpora.
- `TextGenre` (Recommended): A category of text characterized by a particular style, form, or content according to a specific classification scheme. See *TextGenre*.

Example

```
<ms:CorpusTextPart>
        <ms:corpusMediaType>CorpusTextPart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/text</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>es</ms:languageTag>
                <ms:languageId>es</ms:languageId>
        </ms:language>
</ms:CorpusTextPart>

<ms:CorpusTextPart>
        <ms:corpusMediaType>CorpusTextPart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/text</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/bilingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>es</ms:languageTag>
                <ms:languageId>es</ms:languageId>
        </ms:language>
        <ms:language>
                <ms:languageTag>en</ms:languageTag>
                <ms:languageId>en</ms:languageId>
        </ms:language>
        <ms:multilingualityType>http://w3id.org/meta-share/meta-share/parallel</
↪ms:multilingualityType>
        <ms:TextGenre>
                <ms:CategoryLabel>administrative texts</ms:CategoryLabel>
        </ms:TextGenre>
</ms:CorpusTextPart>

<ms:CorpusTextPart>
        <ms:corpusMediaType>CorpusTextPart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/text</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>en</ms:languageTag>
                <ms:languageId>en</ms:languageId>
```

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```
        </ms:language>
        <ms:modalityType>http://w3id.org/meta-share/meta-share/spokenLanguage</
↪ms:modalityType>
</ms:CorpusTextPart>
```

10.2.4 CorpusAudioPart

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusAudioPart`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

The part of a corpus (or whole corpus) that consists of audio segments

You can repeat the group of elements for multiple audio parts.

The mandatory or recommended elements for the audio part are:

- `mediaType` (Mandatory): Specifies the media type of a language resource (the physical medium of the contents representation). For text parts, always use the value 'audio'
- `lingualityType` (Mandatory): Indicates whether the resource includes one, two or more languages
- `multilingualityType` (Mandatory if applicable): Indicates whether the resource (part) is parallel, comparable or mixed. If lingualityType = bilingual or multilingual, it is required; select one of the values for parallel (e.g., original text and its translations), comparable (e.g. corpus of the same domain in multiple languages) and multilingualSingleText (for corpora that consist of segments including text in two or more languages (e.g., the transcription of a European Parliament session with MPs speaking in their native language)
- `language` (Mandatory): Specifies the language that is used in the resource part , expressed according to the BCP47 recommendation. See language
- `languageVariety` (Mandatory if applicable): Relates a language resource that contains segments in a language variety (e.g., dialect, jargon) to it. Please use for dialect corpora.
- `modalityType` (Recommended if applicable): Specifies the type of the modality represented in the resource. For instance, you can use 'spoken language' to describe transcribed speech corpora.
- `AudioGenre` (Recommended if applicable): A category of audio characterized by a particular style, form, or content according to a specific classification scheme. See *AudioGenre*
- `SpeechGenre` (Recommended if applicable): A category for the conventionalized discourse of the speech part of a language resource, based on extra-linguistic and internal linguistic criteria. See *SpeechGenre*

Example

```
<ms:CorpusAudioPart>
        <ms:corpusMediaType>CorpusAudioPart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/audio</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>en</ms:languageTag>
                <ms:languageId>en</ms:languageId>
```

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```
        </ms:language>
        <ms:AudioGenre>
                <ms:CategoryLabel>conference noises</ms:CategoryLabel>
        </ms:AudioGenre>
</ms:CorpusAudioPart>

<ms:CorpusAudioPart>
        <ms:corpusMediaType>CorpusAudioPart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/audio</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>en</ms:languageTag>
                <ms:languageId>en</ms:languageId>
        </ms:language>
        <ms:modalityType>http://w3id.org/meta-share/meta-share/spokenLanguage</
↪ms:modalityType>
        <ms:SpeechGenre>
                <ms:CategoryLabel>monologue</ms:CategoryLabel>
        </ms:SpeechGenre>
</ms:CorpusAudioPart>
```

10.2.5 CorpusVideoPart

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusVideoPart`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

The part of a corpus (or a whole corpus) that consists of video segments (e.g., a corpus of video lectures, a part of a corpus with news, a sign language corpus, etc.)

You can repeat the group of elements for multiple video parts.

The mandatory or recommended elements for the video part are:

- `mediaType` (Mandatory): Specifies the media type of a language resource (the physical medium of the contents representation). For text parts, always use the value 'video'.
- `lingualityType` (Mandatory): Indicates whether the resource includes one, two or more languages.
- `multilingualityType` (Mandatory if applicable): Indicates whether the resource (part) is parallel, comparable or mixed. If lingualityType = bilingual or multilingual, it is required; select one of the values for parallel (e.g., original text and its translations), comparable (e.g. corpus of the same domain in multiple languages) and multilingualSingleText (for corpora that consist of segments including text in two or more languages (e.g., the transcription of a European Parliament session with MPs speaking in their native language).
- `language` (Mandatory): Specifies the language that is used in the resource part , expressed according to the BCP47 recommendation. See language.
- `languageVariety` (Mandatory if applicable): Relates a language resource that contains segments in a language variety (e.g., dialect, jargon) to it. Please use for dialect corpora.

- `modalityType` (Recommended if applicable): Specifies the type of the modality represented in the resource. For instance, you can use 'spoken language' to describe transcribed speech corpora.
- `VideoGenre` (Recommended): A classification of video parts based on extra-linguistic and internal linguistic criteria and reflected on the video style, form or content. See *VideoGenre*
- `typeOfVideoContent` (Mandatory): Main type of object or people represented in the video.

Example

```
<ms:CorpusVideoPart>
        <ms:corpusMediaType>CorpusVideoPart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/video</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>en</ms:languageTag>
                <ms:languageId>en</ms:languageId>
        </ms:language>
        <ms:modalityType>http://w3id.org/meta-share/meta-share/bodyGesture</
↪ms:modalityType>
        <ms:modalityType>http://w3id.org/meta-share/meta-share/facialExpression</
↪ms:modalityType>
        <ms:modalityType>http://w3id.org/meta-share/meta-share/spokenLanguage</
↪ms:modalityType>
        <ms:typeOfVideoContent>people eating at a restaurant</ms:typeOfVideoContent>
</ms:CorpusVideoPart>

<ms:CorpusVideoPart>
        <ms:corpusMediaType>CorpusVideoPart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/video</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>fr</ms:languageTag>
                <ms:languageId>fr</ms:languageId>
        </ms:language>
        <ms:VideoGenre>
                <ms:CategoryLabel>documentary</ms:CategoryLabel>
        </ms:VideoGenre>
        <ms:typeOfVideoContent>birds, wild animals, plants</ms:typeOfVideoContent>
</ms:CorpusVideoPart>
```

10.2.6 CorpusImagePart

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusImagePart`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

The part of a corpus (or whole corpus) that consists of images (e.g., g a corpus of photographs and their captions)

You can repeat the group of elements for multiple video parts.

The mandatory or recommended elements for the image part are:

- `mediaType` (Mandatory): Specifies the media type of a language resource (the physical medium of the contents representation). For text parts, always use the value 'image'.
- `lingualityType` (Mandatory): Indicates whether the resource includes one, two or more languages.
- `multilingualityType` (Mandatory if applicable): Indicates whether the resource (part) is parallel, comparable or mixed. If lingualityType = bilingual or multilingual, it is required; select one of the values for parallel (e.g., original text and its translations), comparable (e.g. corpus of the same domain in multiple languages) and multilingualSingleText (for corpora that consist of segments including text in two or more languages (e.g., the transcription of a European Parliament session with MPs speaking in their native language).
- `language` (Mandatory): Specifies the language that is used in the resource part, expressed according to the BCP47 recommendation. See language.
- `languageVariety` (Mandatory if applicable): Relates a language resource that contains segments in a language variety (e.g., dialect, jargon) to it. Please use for dialect corpora.
- `modalityType` (Recommended if applicable): Specifies the type of the modality represented in the resource.
- `ImageGenre` (Recommended): A category of images characterized by a particular style, form, or content according to a specific classification scheme. See *ImageGenre*.
- `typeOfImageContent` (Mandatory): Main type of object or people represented in the image.

Example

```
<ms:CorpusImagePart>
        <ms:corpusMediaType>CorpusImagePart</ms:corpusMediaType>
        <ms:mediaType>http://w3id.org/meta-share/meta-share/image</ms:mediaType>
        <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
        <ms:language>
                <ms:languageTag>el</ms:languageTag>
                <ms:languageId>el</ms:languageId>
        </ms:language>
        <ms:ImageGenre>
                <ms:CategoryLabel>comics</ms:CategoryLabel>
        </ms:ImageGenre>
        <ms:typeOfImageContent>human figures</ms:typeOfVideoContent>
</ms:CorpusImagePart>
```

10.2.7 TextGenre

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusTextPart.TextGenre`

Data type component

Optionality Recommended

Explanation & Instructions

A category of text characterized by a particular style, form, or content according to a specific classification scheme

You can add only a free text value at the `CategoryLabel` element; if you have used a value from an established controlled vocabulary, you can use the `TextGenreIdentifier` and the attribute `TextGenreClassificationScheme`.

Example

```
<ms:TextGenre>
        <ms:CategoryLabel>movie subtitles</ms:CategoryLabel>
</ms:TextGenre>

<ms:TextGenre>
        <ms:CategoryLabel>news articles</ms:CategoryLabel>
</ms:TextGenre>
```

10.2.8 AudioGenre

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusAudioPart`

Data type component

Optionality Recommended if applicable

Explanation & Instructions

A category of audio characterized by a particular style, form, or content according to a specific classification scheme

You can add only a free text value at the `CategoryLabel` element; if you have used a value from an established controlled vocabulary, you can use the `AudioGenreIdentifier` and the attribute `AudioGenreClassificationScheme` to provide further details.

Example

```
<ms:AudioGenre>
        <ms:CategoryLabel>conference noises</ms:CategoryLabel>
</ms:AudioGenre>
```

10.2.9 SpeechGenre

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusAudioPart.SpeechGenre`

Data type component

Optionality Recommended if applicable

Explanation & Instructions

A category for the conventionalized discourse of the speech part of a language resource, based on extra-linguistic and internal linguistic criteria

You can add only a free text value at the `CategoryLabel` element; if you have used a value from an established controlled vocabulary, you can use the `SpeechGenreIdentifier` and the attribute `SpeechGenreClassificationScheme` to provide further details.

Example

```
<ms:SpeechGenre>
        <ms:CategoryLabel>broadcast news</ms:CategoryLabel>
</ms:SpeechGenre>

<ms:SpeechGenre>
        <ms:CategoryLabel>monologue</ms:CategoryLabel>
</ms:SpeechGenre>
```

10.2.10 VideoGenre

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusVideoPart.VideoGenre`

Data type string (+ id + scheme)

Optionality Recommended if applicable

Explanation & Instructions

A classification of video parts based on extra-linguistic and internal linguistic criteria and reflected on the video style, form or content

You can add only a free text value at the `CategoryLabel` element; if you have used a value from an established controlled vocabulary, you can use the `VideoGenreIdentifier` and the attribute `VideoClassificationScheme`

Example

```
<ms:videoGenre>
        <ms:CategoryLabel>documentaries</ms:CategoryLabel>
</ms:videoGenre>

<ms:videoGenre>
        <ms:CategoryLabel>video lectures</ms:CategoryLabel>
</ms:videoGenre>
```

10.2.11 ImageGenre

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.CorpusImagePart.ImageGenre`

Data type component

Optionality Recommended

Explanation & Instructions

A category of images characterized by a particular style, form, or content according to a specific classification scheme

You can add only a free text value at the `CategoryLabel` element; if you have used a value from an established controlled vocabulary, you can use the `ImageGenreIdentifier` and the attribute `ImageClassificationScheme` to provide further details.

Example

```
<ms:imageGenre>
        <ms:CategoryLabel>human faces</ms:CategoryLabel>
</ms:imageGenre>

<ms:imageGenre>
        <ms:CategoryLabel>landscape</ms:CategoryLabel>
</ms:imageGenre>
```

10.2.12 DatasetDistribution

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.DatasetDistribution`

Data type component

Optionality Mandatory

Explanation & Instructions

Any form with which a dataset is distributed, such as a downloadable form in a specific format (e.g., spreadsheet, plain text , etc.) or an API with which it can be accessed

You can repeat the element for multiple distributions.

The list of mandatory and recommended elements are:

- `DatasetDistributionForm` (Mandatory): The form (medium/channel) used for distributing a language resource consisting of data (e.g., a corpus, a lexicon, etc.). The typical values are 'downloadable', 'accessibleThroughInterface', 'accessibleThroughQuery' (see more at DatasetDistributionForm).
- `downloadLocation` (Mandatory if applicable): A URL where the language resource (mainly data but also downloadable software programmes or forms) can be downloaded from. Use this element if the value of `DatasetDistributionForm` is 'downloadable' and only for direct download links (i.e., from which the dataset is downloaded without the need of further actions such as clicks on a page).
- `accessLocation` (Mandatory if applicable): A URL where the resource can be accessed from; it can be used for landing pages or for cases where the resource is accessible via an interface, i.e. cases where the resource itself is not provided with a direct link for downloading. Use if the value of `DatasetDistributionForm` is 'accessibleThroughInterface' or 'accessibleThroughQuery' but also for links used for downloading corpora which are mentioned on a landing page or require some kind of action on the part of the user.
- `samplesLocation` (Recommended): Links a resource to a url (or url's) with samples of a data resource or of the input of output resource of a tool/service.
- `licenceTerms` (Mandatory): See licence
- `cost` (Mandatory if applicable): Introduces the cost for accessing a resource, formally described as a set of amount and currency unit. Please use only for resources available at a cost and not for free resources.

Depending on the parts of the corpus, you must also use one or more of the following:

- `distributionTextFeature`: See *distributionTextFeature*
- `distributionAudioFeature`: See *distributionAudioFeature*
- `distributionVideoFeature`: See *distributionVideoFeature*
- `distributionImageFeature`: See *distributionImageFeature*

Example

```
<ms:DatasetDistribution>
        <ms:DatasetDistributionForm>http://w3id.org/meta-share/meta-share/downloadable
↪</ms:DatasetDistributionForm>
        <ms:accessLocation>https://www.someAccessURL.com</ms:accessLocation>
        <ms:samplesLocation>https://www.URLwithsamples.com</ms:samplesLocation>
        <ms:distributionTextFeature>
                <ms:size>
                        <ms:amount>17601</ms:amount>
                        <ms:sizeUnit>http://w3id.org/meta-share/meta-share/unit</
↪ms:sizeUnit>
                </ms:size>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/Xml</
↪ms:dataFormat>
                <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
↪ms:characterEncoding>
        </ms:distributionTextFeature>
        <ms:licenceTerms>
                <ms:licenceTermsName xml:lang="en">openUnder-PSI</ms:licenceTermsName>
                <ms:licenceTermsURL>https://elrc-share.eu/terms/openUnderPSI.html</
↪ms:licenceTermsURL>
        </ms:licenceTerms>
</ms:DatasetDistribution>

<ms:DatasetDistribution>
        <ms:DatasetDistributionForm>http://w3id.org/meta-share/meta-share/
↪accessibleThroughInterface</ms:DatasetDistributionForm>
        <ms:accessLocation>https://www.someAccessURL.com</ms:accessLocation>
        <ms:distributionTextFeature>
                <ms:size>
                        <ms:amount>100</ms:amount>
                        <ms:sizeUnit>http://w3id.org/meta-share/meta-share/text1</
↪ms:sizeUnit>
                </ms:size>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/Pdf</
↪ms:dataFormat>
                <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
↪ms:characterEncoding>
        </ms:distributionTextFeature>
        <ms:licenceTerms>
                <ms:licenceTermsName xml:lang="en">some commercial licence</
↪ms:licenceTermsName>
                <ms:licenceTermsURL>https://elrc-share.eu/terms/someCommercialLicence.
↪html</ms:licenceTermsURL>
        </ms:licenceTerms>
        <ms:cost>
                <ms:amount>10000</ms:amount>
                <ms:currency>http://w3id.org/meta-share/meta-share/euro</ms:currency>
        </ms:cost>
</ms:DatasetDistribution>
```

10.2.13 distributionTextFeature

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.DatasetDistribution.distributionTextFeature`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

Links to a feature that can be used for describing distinct distributable forms of text resources/parts

The following are mandatory or recommended:

- `size` (Mandatory): The size of the text part, expressed as a combination of `amount` and `sizeUnit` (with a value from a CV for sizeUnit).
- `dataFormat` (Mandatory): Indicates the format(s) of a data resource; it takes a value from a CV (dataFormat); the dataFormat includes the IANA mimetype and pointers to additional documentation for specialized formats (e.g., GATE XML, CONLL formats, etc.).
- `characterEncoding` (Recommended): Specifies the character encoding used for a language resource data distribution.

Example

```
<ms:distributionTextFeature>
        <ms:size>
                <ms:amount>9139</ms:amount>
                <ms:sizeUnit>http://w3id.org/meta-share/meta-share/sentence</
↪ms:sizeUnit>
        </ms:size>
        <ms:size>
                <ms:amount>40</ms:amount>
                <ms:sizeUnit>http://w3id.org/meta-share/meta-share/file</ms:sizeUnit>
        </ms:size>
        <ms:dataFormat>http://w3id.org/meta-share/omtd-share/Xml</ms:dataFormat>
        <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
↪ms:characterEncoding>
</ms:distributionTextFeature>
```

10.2.14 distributionAudioFeature

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.DatasetDistribution.distributionAudioFeature`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

Links to a feature that can be used for describing distinct distributable forms of audio resources/parts

The following are mandatory or recommended:

- `size` (Mandatory): The size of the audio part, expressed as a combination of `amount` and `sizeUnit` (with a value from a CV for sizeUnit).
- `durationOfAudio` (Recommended): Specifies the duration of the audio recording including silences, music, pauses, etc., expressed as a combination of `amount` and `durationUnit` (with a value from the CV for durationUnit).

- `durationOfEffectiveSpeech` (Recommended): Specifies the duration of effective speech of the audio (part of a) resource, expressed as a combination of `amount` and `durationUnit` (with a value from the CV for durationUnit).
- `audioFormat` (Mandatory): Indicates the format(s) of the audio (part of a) data resource, expressed as a value of `dataFormat` (with a value from a CV) and `compressed`.

Example

```
<ms:distributionAudioFeature>
        <ms:size>
                <ms:amount>10</ms:amount>
                <ms:sizeUnit>http://w3id.org/meta-share/meta-share/file</ms:sizeUnit>
        </ms:size>
        <ms:durationOfAudio>
                <ms:amount>3</ms:amount>
                <ms:durationUnit>http://w3id.org/meta-share/meta-share/hour</
↪ms:durationUnit>
        </ms:durationOfAudio>
        <ms:audioFormat>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/wav</
↪ms:dataFormat>
                <ms:compressed>true</ms:compressed>
        </ms:audioFormat>
</ms:distributionAudioFeature>
```

10.2.15 distributionVideoFeature

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.DatasetDistribution.distributionVideoFeature`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

Links to a feature that can be used for describing distinct distributable forms of video resources/parts

The following are mandatory or recommended:

- `size` (Mandatory): The size of the video part, expressed as a combination of `amount` and `sizeUnit` (with a value from a CV for sizeUnit).
- `durationOfVideo` (Recommended): Specifies the duration of the video recording, expressed as a combination of `amount` and `durationUnit` (with a value from the CV for durationUnit).
- `videoFormat` (Mandatory): Indicates the format(s) of the video (part of a) data resource, expressed as a value of `dataFormat` (with a value from a CV) and `compressed`.

Example

```
<ms:distributionVideoFeature>
        <ms:size>
                <ms:amount>9139</ms:amount>
                <ms:sizeUnit>http://w3id.org/meta-share/meta-share/screen</
↪ms:sizeUnit>
        </ms:size>
```

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```
        <ms:size>
                <ms:amount>40</ms:amount>
                <ms:sizeUnit>http://w3id.org/meta-share/meta-share/file</ms:sizeUnit>
        </ms:size>
        <ms:durationOfVideo>
                <ms:amount>40</ms:amount>
                <ms:durationUnit>http://w3id.org/meta-share/meta-share/hour</
↪ms:durationUnit>
        </ms:durationOfVideo>
        <ms:videoFormat>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/wav</
↪ms:dataFormat>
                <ms:compressed>true</ms:compressed>
        </ms:videoFormat>
```

10.2.16 distributionImageFeature

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.DatasetDistribution.distributionImageFeature`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

Links to a feature that can be used for describing distinct distributable forms of image resources/parts

The following are mandatory or recommended:

- `size` (Mandatory): The size of the image part, expressed as a combination of `amount` and `sizeUnit` (with a value from a CV for sizeUnit).
- `imageFormat` (Mandatory): Indicates the format(s) of the image (part of a) data resource, expressed as a value of `dataFormat` (with a value from a CV) and `compressed`.

Example

```
<ms:distributionImageFeature>
        <ms:size>
                <ms:amount>100</ms:amount>
                <ms:sizeUnit>http://w3id.org/meta-share/meta-share/file</ms:sizeUnit>
        </ms:size>
        <ms:imageFormat>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/Pdf`</
↪ms:dataFormat>
                <ms:compressed>true</ms:compressed>
        </ms:imageFormat>
```

10.2.17 personalDataIncluded

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.personalDataIncluded`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Specifies whether the language resource contains personal data (mainly in the sense falling under the GDPR)

If the resource contains personal data, you can use the (optional) `personalDataDetails` to provide more information

Example

```
<ms:personalDataIncluded>true</ms:personalDataIncluded>
<ms:personalDataDetails>The corpus contains data on the place of living and place of␣
↪birth of participants</ms:personalDataDetails>
```

10.2.18 sensitiveDataIncluded

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.sensitiveDataIncluded`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Specifies whether the language resource contains sensitive data (e.g., medical/health-related, etc.) and thus requires special handling

If the resource contains sensitive data, you can use the (optional) `sensitiveDataDetails` to provide more information.

Example

```
<ms:sensitiveDataIncluded>true</ms:sensitiveDataIncluded>
<ms:sensitiveDataDetails>The corpus contains medical data for persons with␣
↪disabilities</ms:sensitiveDataDetails>
```

10.2.19 anonymized

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.anonymized`

Data type boolean

Optionality Mandatory if applicable

Explanation & Instructions

Indicates whether the language resource has been anonymized

The element is mandatory if either `personalDataIncluded` or `sensitiveDataIncluded` have 'true' as value; `anonymizationDetails` must also be filled in with information on the anonymization mehod, etc.

Example

```
<ms:anonymized>true</ms:anonmized>
<ms:anonymizationDetails>pseudonymization performed manually</ms:anonymizationDetails>
```

10.2.20 annotation

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.annotation`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

Links a corpus to its annotated part(s)

You must use it for annotated corpora and annotations. You can repeat it for corpora that have separate files for each annotation type, or if you want to given information such as the use of different annotation tools for each annotation level.

Enter at least the annotation type(s); if you want, you can give a more detailed description of the annotated parts - see the annotation component of the full schema.

Example

```
<ms:annotation>
        <ms:annotationType>http://w3id.org/meta-share/omtd-share/Lemma</
↪ms:annotationType>
        <ms:annotationStandoff>false</ms:annotationStandoff>
        <ms:annotationMode>http://w3id.org/meta-share/meta-share/mixed</
↪ms:annotationMode>
        <ms:isAnnotatedBy>
                <ms:resourceName xml:lang="en">Lemmatizer</ms:resourceName>
        </ms:isAnnotatedBy>
</ms:annotation>

<ms:annotation>
        <ms:annotationType>http://w3id.org/meta-share/omtd-share/PartOfSpeech</
↪ms:annotationType>
        <ms:annotationStandoff>false</ms:annotationStandoff>
        <ms:tagset>
                <ms:resourceName xml:lang="en">Universal Dependencies</
↪ms:resourceName>
        </ms:tagset>
        <ms:isAnnotatedBy>
                <ms:resourceName xml:lang="en">PoS tagger</ms:resourceName>
        </ms:isAnnotatedBy>
</ms:annotation>

<ms:annotation>
        <ms:annotationType>http://w3id.org/meta-share/omtd-share/
↪SyntacticAnnotationType</ms:annotationType>
</ms:annotation>
```

CHAPTER 11

Contribute a grammar

In this section you will find information on how to describe a language description (model, grammar) with the minimal metadata in order to register it in the ELG platform. If you want to find more on the ELG resource types, see CatContents. You will also find instructions for all data resources(technical requirements, registration instructions to the platform) in registerLR.

Under **language descriptions**, we comprise:

- models, including Machine Learning models, statistical models, word embeddings, n-gram models,
- computational grammars of a language, language variety or for a specific domain or phenomenon.

The vast majority of these consist of a text part, but videos and images are also foreseen for cases such as sign language grammars.

11.1 Examples of metadata records for language descriptions

Monolingual computational grammar for a specific domain: Tourism Italian grammar Published at: https://live.european-language-grid.eu/catalogue/#/resource/service/ld/901

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xmlns="http://w3id.org/meta-share/meta-share/" xmlns:datacite=
↪"http://purl.org/spar/datacite/" xmlns:dcat="http://www.w3.org/ns/dcat#" xmlns:ms=
↪"http://w3id.org/meta-share/meta-share/" xmlns:omtd="http://w3id.org/meta-share/
↪omtd-share/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../Schema/ELG-SHARE.
↪xsd">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-10-03</ms:metadataCreationDate>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
```

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```
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>username@someDomain.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>username@someDomain.com</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">Tourism Italian grammar</
↪ms:resourceName>
                        <ms:resourceShortName xml:lang="en">Tour.ita.grm</
↪ms:resourceShortName>
                        <ms:description xml:lang="en">Tourism Italian abnf grammar,␣
↪manually created. Created within the Portdial project</ms:description>
                        <ms:version>v1.0.0 (automatically assigned)</ms:version>
                        <ms:additionalInfo>
                                <ms:landingPage>https://sites.google.com/site/
↪portdial2</ms:landingPage>
                        </ms:additionalInfo>
                        <ms:additionalInfo>
                                <ms:email>contact@someDomain.com</ms:email>
                        </ms:additionalInfo>
                        <ms:contact>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Potamianos</
↪ms:surname>
                                        <ms:givenName xml:lang="en">Alex</
↪ms:givenName>
                                        <ms:email>contact@someDomain.com</ms:email>
                                </ms:Person>
                        </ms:contact>
                        <ms:keyword xml:lang="en">languagedescription</ms:keyword>
                        <ms:fundingProject>
                                <ms:projectName xml:lang="en">Portdial</
↪ms:projectName>
                        </ms:fundingProject>
                        <ms:LRSubclass>
                                <ms:LanguageDescription>
                                        <ms:lrType>LanguageDescription</ms:lrType>
                                        <ms:LanguageDescriptionSubclass>
                                                <ms:Grammar>
                                                        <ms:ldSubclassType>Grammar</
↪ms:ldSubclassType>
                                                        <ms:encodingLevel>http://w3id.
↪org/meta-share/meta-share/morphology</ms:encodingLevel>
                                                </ms:Grammar>
                                        </ms:LanguageDescriptionSubclass>
                                        <ms:LanguageDescriptionMediaPart>
                                                <ms:LanguageDescriptionTextPart>
                                                        <ms:ldMediaType>
↪LanguageDescriptionTextPart</ms:ldMediaType>
```

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```
                                                        <ms:mediaType>http://w3id.org/
↪meta-share/meta-share/text</ms:mediaType>
                                                        <ms:lingualityType>http://
↪w3id.org/meta-share/meta-share/monolingual</ms:lingualityType>
                                                        <ms:language>
                                                                <ms:languageTag>it</
↪ms:languageTag>
                                                                <ms:languageId>it</
↪ms:languageId>
                                                        </ms:language>
                                                        <ms:metalanguage>
                                                                <ms:languageTag>und</
↪ms:languageTag>
                                                                <ms:languageId>und</
↪ms:languageId>
                                                        </ms:metalanguage>
                                                </ms:LanguageDescriptionTextPart>
                                        </ms:LanguageDescriptionMediaPart>
                                        <ms:DatasetDistribution>
                                                <ms:DatasetDistributionForm>http://
↪w3id.org/meta-share/meta-share/downloadable</ms:DatasetDistributionForm>
                                                <ms:accessLocation>http://accessURL</
↪ms:accessLocation>
                                                <ms:licenceTerms>
                                                        <ms:licenceTermsName xml:lang=
↪"en">CC-BY-SA-4.0</ms:licenceTermsName>
                                                        <ms:licenceTermsURL>https://
↪spdx.org/licenses/CC-BY-SA-4.0.html</ms:licenceTermsURL>
                                                </ms:licenceTerms>
                                        </ms:DatasetDistribution>
                                        <ms:personalDataIncluded>false</
↪ms:personalDataIncluded>
                                        <ms:sensitiveDataIncluded>false</
↪ms:sensitiveDataIncluded>
                                </ms:LanguageDescription>
                        </ms:LRSubclass>
                </ms:LanguageResource>
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

N-gram model: PANACEA Environment Corpus n-grams EL (Greek) Published at: https://live.european-language-grid.eu/catalogue/#/resource/service/ld/900

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xmlns="http://w3id.org/meta-share/meta-share/" xmlns:datacite=
↪"http://purl.org/spar/datacite/" xmlns:dcat="http://www.w3.org/ns/dcat#" xmlns:ms=
↪"http://w3id.org/meta-share/meta-share/" xmlns:omtd="http://w3id.org/meta-share/
↪omtd-share/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../Schema/ELG-SHARE.
↪xsd">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-10-03</ms:metadataCreationDate>
        <ms:metadataCurator>
```

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```
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>username@someDomain.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>username@someDomain.com</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">PANACEA Environment Corpus n-
↪grams EL (Greek)</ms:resourceName>
                        <ms:description xml:lang="en">PANACEA Environment Corpus n-
↪grams EL (Greek) 1.0 contains Greek word n-grams and Greek word/tag/lemma n-grams␣
↪in the "Environment" (ENV) domain. N-grams are accompanied by their observed␣
↪frequency counts. The length of the n-grams ranges from unigrams (single words) to␣
↪five-grams. The data were collected in the context of PANACEA (http://www.panacea-
↪lr.eu), an EU-FP7 Funded Project under Grant Agreement 248064.
The n-gram counts were generated from crawled Web pages that were automatically␣
↪detected to be in the Greek language and were automatically classified as relevant␣
↪to the ENV domain. The collection consisted of approximately 31.71 million tokens.␣
↪Data collection took place in the summer of 2011.</ms:description>
                        <ms:version>v1.0</ms:version>
                        <ms:additionalInfo>
                                <ms:landingPage>http://nlp.ilsp.gr/panacea/D4.3/data/
↪201209/gms/env_el/README.txt</ms:landingPage>
                        </ms:additionalInfo>
                        <ms:additionalInfo>
                                <ms:email>contact@someDomain.com</ms:email>
                        </ms:additionalInfo>
                        <ms:contact>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Prokopidis</
↪ms:surname>
                                        <ms:givenName xml:lang="en">Prokopis</
↪ms:givenName>
                                        <ms:email>contact@someDomain.com</ms:email>
                                </ms:Person>
                        </ms:contact>
                        <ms:contact>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Papavassiliou</
↪ms:surname>
                                        <ms:givenName xml:lang="en">Vassilis</
↪ms:givenName>
                                        <ms:email>contact@someDomain.com</ms:email>
                                </ms:Person>
                        </ms:contact>
                        <ms:keyword xml:lang="en">corpus</ms:keyword>
```

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```
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">environment</
↪ms:categoryLabel>
                        </ms:domain>
                        <ms:resourceCreator>
                                <ms:Organization>
                                        <ms:actorType>Organization</ms:actorType>
                                        <ms:organizationName xml:lang="en">Institute␣
↪for Language and Speech Processing</ms:organizationName>
                                        <ms:website>http://www.ilsp.gr</ms:website>
                                </ms:Organization>
                        </ms:resourceCreator>
                        <ms:creationStartDate>2011-06-01</ms:creationStartDate>
                        <ms:creationEndDate>2011-08-31</ms:creationEndDate>
                        <ms:fundingProject>
                                <ms:projectName xml:lang="en">Platform for Automatic,␣
↪Normalized Annotation and Cost-Effective Acquisition of Language Resources for␣
↪Human Language </ms:projectName>
                                <ms:website>http://www.panacea-lr.eu</ms:website>
                        </ms:fundingProject>
                        <ms:LRSubclass>
                                <ms:LanguageDescription>
                                        <ms:lrType>LanguageDescription</ms:lrType>
                                        <ms:LanguageDescriptionSubclass>
                                                <ms:NGramModel>
                                                        <ms:ldSubclassType>NGramModel
↪</ms:ldSubclassType>
                                                        <ms:baseItem>http://w3id.org/
↪meta-share/meta-share/word</ms:baseItem>
                                                        <ms:order>5</ms:order>
                                                </ms:NGramModel>
                                        </ms:LanguageDescriptionSubclass>
                                        <ms:LanguageDescriptionMediaPart>
                                                <ms:LanguageDescriptionTextPart>
                                                        <ms:ldMediaType>
↪LanguageDescriptionTextPart</ms:ldMediaType>
                                                        <ms:mediaType>http://w3id.org/
↪meta-share/meta-share/text</ms:mediaType>
                                                        <ms:lingualityType>http://
↪w3id.org/meta-share/meta-share/monolingual</ms:lingualityType>
                                                        <ms:language>
                                                                <ms:languageTag>el</
↪ms:languageTag>
                                                                <ms:languageId>el</
↪ms:languageId>
                                                        </ms:language>
                                                        <ms:metalanguage>
                                                                <ms:languageTag>und</
↪ms:languageTag>
                                                                <ms:languageId>und</
↪ms:languageId>
                                                        </ms:metalanguage>
                                                        <ms:creationDetails xml:lang=
↪"en">automatic web crawling, automatic language detection, data preprocessing␣
↪(boilerpipe filtering, lemmatization &amp; tagging)</ms:creationDetails>
                                                </ms:LanguageDescriptionTextPart>
                                        </ms:LanguageDescriptionMediaPart>
```

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```
                                        <ms:DatasetDistribution>
                                                <ms:DatasetDistributionForm>http://
↪w3id.org/meta-share/meta-share/downloadable</ms:DatasetDistributionForm>
                                                <ms:accessLocation>http://metashare.
↪ilsp.gr:8080/repository/download/
↪490952dc1cec11e2b545842b2b6a04d78dc202de28d5421f91752610a781175e</ms:accessLocation>
                                                <ms:distributionTextFeature>
                                                        <ms:size>
                                                                <ms:amount>435189</
↪ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/unigram</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:size>
                                                                <ms:amount>3.860716E6
↪</ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/bigram</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:size>
                                                                <ms:amount>9.767383E6
↪</ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/trigram</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:size>
                                                                <ms:amount>1.368394E7
↪</ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/four-gram</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:size>
                                                                <ms:amount>1.495402E7
↪</ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/five-gram</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:dataFormat>http://w3id.
↪org/meta-share/omtd-share/Text</ms:dataFormat>
                                                <ms:distributionTextFeature>
                                                <ms:licenceTerms>
                                                        <ms:licenceTermsName xml:lang=
↪"en">CC-BY-SA-4.0</ms:licenceTermsName>
                                                        <ms:licenceTermsURL>https://
↪spdx.org/licenses/CC-BY-SA-4.0.html</ms:licenceTermsURL>
                                                </ms:licenceTerms>
                                                <ms:attributionText xml:lang="en">
↪This LR has been created by Athena R.C./ILSP (www.ilsp.gr) and is licensed under a␣
↪CC-BY-SA licence</ms:attributionText>
                                        </ms:DatasetDistribution>
                                        <ms:personalDataIncluded>false</
↪ms:personalDataIncluded>
                                        <ms:sensitiveDataIncluded>false</
↪ms:sensitiveDataIncluded>
                                </ms:LanguageDescription>
                        </ms:LRSubclass>
                </ms:LanguageResource>
```


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```
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

11.2 Minimal version metadata for language descriptions

The set of the metadata (mandatory or recommended) that **are common to all kinds of resources** including data language resources are presented in section describeLRT. **In addition**, the metadata elements that are required or recommended for language descriptions are described below.

For a quick guide to the ELG template, see *Template - Explanations*.

11.2.1 LanguageDescription

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LanguageDescription`

Data type component

Optionality Mandatory

Explanation & Instructions

Wraps together elements for language descriptions

Example

```
<ms:LRSubclass>
        <ms:LanguageDescription>
                <ms:lrType>LanguageDescription</ms:lrType>
                ...
        </ms:LanguageDescription>
</ms:LRSubclass>
```

11.2.2 LanguageDescriptionSubclass

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LanguageDescription.LanguageDescriptionSubclass`

Data type component

Optionality Mandatory

Explanation & Instructions

The type of the language description (used for documentation purposes)

It wraps the set of elements that must be used for the Language Description subclasses:

- Machine Learning Model: See *MLModel*
- N-gram model: See *NGramModel*
- Computational grammar: See *Grammar*

Example

```
<ms:LanguageDescriptionSubclass>
        ...
<ms:LanguageDescriptionSubclass>
```

11.2.3 MLModel

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LanguageDescription.LanguageDescriptionSubclass.MLModel`

Data type Component

Optionality Mandatory if applicable

Explanation & Instructions

Mandatory for Machine Learning (ML) models; a ML model, for our purposes, is defined as "The model artifact that is created through a training process involving an ML algorithm (that is, the learning algorithm) and the training data to learn from"

The following set of elements are mandatory or recommended for ML models:

- `ldSubclassType` (Mandatory): Used to mark the subclass of a language description. For ML models, the value is fixed to 'MLModel'.
- `modelVariant` (Recommended): Introduces a label that can be used to identify the variant of a ML model.
- `typesystem` (Recommended): Specifies the typesystem (preferrably through an identifier or URL) that has been used for the annotation of a resource or that is required for the input resource of a tool/service or that should be used (dependency) for the annotation or used in the training of a ML model.
- `method` (Recommended): Specifies the method used for the development of a tool/service or the ML model. You must use one of the values from the CV.
- `mlFramework` (Recommended): Specifies the framework that has been used for developing a model (e.g. keras, tensorflow, etc.).
- `trainingCorpusDetails` (Recommended): Provides a detailed description of the training corpus (e.g., size, number of features , etc.).

Example

```
<ms:MLModel>
        <ms:ldSubclassType>MlModel</ms:ldSubclassType>
        <ms:modelVariant>factored</ms:modelVariant>
        <ms:typesystem>
                <ms:resourceName xml:lang="en">Universal dependencies</
↪ms:resourceName>
                <ms:version>undefined</ms:version>
        </ms:typesystem>
        <ms:method>http://w3id.org/meta-share/omtd-share/DeepLearning</ms:method>
        <ms:mlFramework>tensorflow</ms:mlFramework>
        <ms:trainingCorpusDetails xml:lang="en">Trained on a corpus of tweets</
↪ms:trainingCorpusDetails>
</ms:MLModel>
```

11.2.4 NGramModel

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LanguageDescription.LanguageDescriptionSubclass.NGramModel`

Data type Component

Optionality Mandatory if applicable

Explanation & Instructions

Mandatory for n-gram models; n-gram model for our purposes is defined as "A language model consisting of n-grams, i.e. specific sequences of a number of words"

The following set of elements are mandatory or recommended for Machine Learning models:

- `ldSubclassType` (Mandatory): Used to mark the subclass of a language description. For ML models, the value is fixed to 'NGramModel'.
- `baseItem` (Mandatory): Type of item that is represented in the n-gram resource.
- `order` (Mandatory): Specifies the maximum number of items in the sequence.
- `perplexity` (Recommended): Provides information on the perplexity derived from running on test set taken from the same corpus.

Example

```
<ms:NGramModel>
        <ms:ldSubclassType>NGramModel</ms:ldSubclassType>
        <ms:baseItem>http://w3id.org/meta-share/meta-share/word</ms:baseItem>
        <ms:order>5</ms:order>
</ms:NGramModel>
```

11.2.5 Grammar

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LanguageDescription.LanguageDescriptionSubclass.Grammar`

Data type Component

Optionality Mandatory if applicable

Explanation & Instructions

Mandatory for grammars; grammar for our purposes is defined as "A set of rules governing what strings are valid or allowable in a language or text" [https://en.oxforddictionaries.com/definition/grammar]

The following set of elements are mandatory or recommended for computational grammars:

- `ldSubclassType` (Mandatory): Used to mark the subclass of a language description. For grammars, the value is fixed to 'Grammar.'
- `encodingLevel` (Mandatory): Classifies the contents of a lexical/conceptual resource or language description as regards the linguistic level of analysis it caters for.
- `compliesWith` (Recommended): Specifies the vocabulary/standard/best practice to which a resource is compliant with.
- `formalism` (Recommended): Specifies the formalism (bibliographic reference, URL, name) used for the creation/enrichment of the resource (grammar or tool/service).

- `ldTask` (Recommended): Specifies the task performed by the language description.

Example

```
<ms:Grammar>
        <ms:ldSubclassType>Grammar</ms:ldSubclassType>
        <ms:encodingLevel>http://w3id.org/meta-share/meta-share/morphology</
↪ms:encodingLevel>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/GrAF</ms:compliesWith>
</ms:Grammar>
```

11.2.6 LanguageDescriptionTextPart

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.LanguageDescriptionTextPart`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

The textual part (or whole set) of a language description

You can repeat the group of elements for multiple textual parts.

The mandatory or recommended elements for the text part of lexical/conceptual resources are:

- `mediaType` (Mandatory): Specifies the media type of a language resource (the physical medium of the contents representation). For text parts, always use the value 'text'.
- `lingualityType` (Mandatory): Indicates whether the resource includes one, two or more languages.
- `multilingualityType` (Mandatory if applicable): Indicates whether the resource (part) is parallel, comparable or mixed. If lingualityType = bilingual or multilingual, it is required; select one of the values for parallel (e.g., original text and its translations), comparable (e.g. corpus of the same domain in multiple languages) and multilingualSingleText (for corpora that consist of segments including text in two or more languages (e.g., the transcription of a European Parliament session with MPs speaking in their native language).
- `language` (Mandatory): Specifies the language that is used in the resource part , expressed according to the BCP47 recommendation. See language.
- `languageVariety` (Mandatory if applicable): Relates a language resource that contains segments in a language variety (e.g., dialect, jargon) to it. Please use for dialect corpora.
- `metalanguage` (Recommended): Specifies the language that is used in the resource part , expressed according to the BCP47 recommendation. See language.

Example

```
<ms:LanguageDescriptionMediaPart>
        <ms:LanguageDescriptionTextPart>
                <ms:ldMediaType>LanguageDescriptionTextPart</ms:lcrMediaType>
                <ms:mediaType>http://w3id.org/meta-share/meta-share/text</
↪ms:mediaType>
                <ms:lingualityType>http://w3id.org/meta-share/meta-share/monolingual</
↪ms:lingualityType>
                <ms:language>
                        <ms:languageTag>es</ms:languageTag>
```

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```
                        <ms:languageId>es</ms:languageId>
                </ms:language>
                <ms:metalanguage>
                        <ms:languageTag>en</ms:languageTag>
                        <ms:languageId>en</ms:languageId>
                </metalanguage>
                </ms:language>
        </ms:LanguageDescriptionTextPart>
</ms:LanguageDescriptionMediaPart>
```

11.2.7 DatasetDistribution

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.DatasetDistribution`

Data type component

Optionality Mandatory

Explanation & Instructions

Any form with which a dataset is distributed, such as a downloadable form in a specific format (e.g., spreadsheet, plain text , etc.) or an API with which it can be accessed

You can repeat the element for multiple distributions.

The list of mandatory and recommended elements are:

- `DatasetDistributionForm` (Mandatory): The form (medium/channel) used for distributing a language resource consisting of data (e.g., a corpus, a lexicon, etc.). The typical values are 'downloadable', 'accessibleThroughInterface', 'accessibleThroughQuery' (see more at DatasetDistributionForm).
- `downloadLocation` (Mandatory if applicable): A URL where the language resource (mainly data but also downloadable software programmes or forms) can be downloaded from. Use this element if the value of `datasetDistributionForm` is 'downloadable' and only for direct download links (i.e., from which the dataset is downloaded without the need of further actions such as clicks on a page).
- `accessLocation` (Mandatory if applicable): A URL where the resource can be accessed from; it can be used for landing pages or for cases where the resource is accessible via an interface, i.e. cases where the resource itself is not provided with a direct link for downloading. Use if the value of `datasetDistributionForm` is 'accessibleThroughInterface' or 'accessibleThroughQuery' but also for links used for downloading corpora which are mentioned on a landing page or require some kind of action on the part of the user.
- `licenceTerms` (Mandatory): See licence
- `cost` (Mandatory if applicable): Introduces the cost for accessing a resource, formally described as a set of amount and currency unit. Please use only for resources available at a cost and not for free resources.

Depending on the parts of the corpus, you must also use one or more of the following:

- `distributionTextFeature`: See *distributionTextFeature*.

Example

```
<ms:DatasetDistribution>
        <ms:DatasetDistributionForm>http://w3id.org/meta-share/meta-share/downloadable
↪</ms:DatasetDistributionForm>
```

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```
        <ms:accessLocation>https://www.someAccessURL</ms:accessLocation>
        <ms:distributionTextFeature>
                <ms:size>
                        <ms:amount>17601</ms:amount>
                        <ms:sizeUnit>http://w3id.org/meta-share/meta-share/unit</
↪ms:sizeUnit>
                </ms:size>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/Xml</
↪ms:dataFormat>
                <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
↪ms:characterEncoding>
        </ms:distributionTextFeature>
        <ms:licenceTerms>
                <ms:licenceTermsName xml:lang="en">openUnder-PSI</ms:licenceTermsName>
                <ms:licenceTermsURL>https://elrc-share.eu/terms/openUnderPSI.html</
↪ms:licenceTermsURL>
        </ms:licenceTerms>
</ms:DatasetDistribution>

<ms:DatasetDistribution>
        <ms:DatasetDistributionForm>http://w3id.org/meta-share/meta-share/
↪accessibleThroughInterface</ms:DatasetDistributionForm>
        <ms:accessLocation>https://www.someAccessURL</ms:accessLocation>
        <ms:distributionTextFeature>
                <ms:size>
                        <ms:amount>100</ms:amount>
                        <ms:sizeUnit>http://w3id.org/meta-share/meta-share/text1</
↪ms:sizeUnit>
                </ms:size>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/Pdf</
↪ms:dataFormat>
                <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
↪ms:characterEncoding>
        </ms:distributionTextFeature>
        <ms:licenceTerms>
                <ms:licenceTermsName xml:lang="en">some commercial licence</
↪ms:licenceTermsName>
                <ms:licenceTermsURL>https://elrc-share.eu/terms/someCommercialLicence.
↪html</ms:licenceTermsURL>
        </ms:licenceTerms>
        <ms:cost>
                <ms:amount>10000</ms:amount>
                <ms:currency>http://w3id.org/meta-share/meta-share/euro</ms:currency>
        </ms:cost>
</ms:DatasetDistribution>
```

11.2.8 personalDataIncluded

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.personalDataIncluded`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Specifies whether the language resource contains personal data (mainly in the sense falling under the GDPR)

If the resource contains personal data, you can use the (optional) `personalDataDetails` to provide more information.

Example

```
<ms:personalDataIncluded>true</ms:personalDataIncluded>
<ms:personalDataDetails>The corpus contains data on the place of living and place of␣
↪birth of participants</ms:personalDataDetails>
```

11.2.9 sensitiveDataIncluded

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.sensitiveDataIncluded`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Specifies whether the language resource contains sensitive data (e.g., medical/health-related, etc.) and thus requires special handling

If the resource contains sensitive data, you can use the (optional) `sensitiveDataDetails` to provide more information.

Example

```
<ms:sensitiveDataIncluded>true</ms:sensitiveDataIncluded>
<ms:sensitiveDataDetails>The corpus contains medical data for persons with␣
↪disabilities</ms:sensitiveDataDetails>
```

11.2.10 anonymized

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.anonymized`

Data type boolean

Optionality Mandatory if applicable

Explanation & Instructions

Indicates whether the language resource has been anonymized

The element is mandatory if either `personalDataIncluded` or `sensitiveDataIncluded` have 'true' as value; `anonymizationDetails` must also be filled in with information on the anonymization mehod, etc.

Example

```
<ms:anonymized>true</ms:anonmized>
<ms:anonymizationDetails>pseudonymization performed manually</ms:anonymizationDetails>
```

CHAPTER 12

Contribute a lexical/conceptual resource

In this section you will find information on how to describe a language description (model, grammar) with the minimal metadata in order to register it in the ELG platform. If you want to find more on the ELG resource types, see CatContents. You will also find instructions for all data resources(technical requirements, registration instructions to the platform) in registerLR.

Examples of **lexical/conceptual resources** include

- computational lexica, that are used for computational processing, and include morphological, syntactic and semantic information;
- dictionaries in digital format,
- ontologies and controlled vocabularies,
- monolingual and multilingual terminological glossaries,
- word lists, gazetteers of place names, proper names, etc.

They typically consist of a text part, but they may also comprise audio and video files, as in the case of:

- multimedia lexica with sound recordings (e.g., pronunciation of a word) and images (e.g. pictures denoting the sense of a word),
- sign language lexica with videos.

12.1 Examples of metadata records for lexical/conceptual resources

Terminological lexicon: INTERA Corpus - the Bulgarian-English terms from the BG-EN pair

Published at: https://live.european-language-grid.eu/catalogue/#/resource/service/lcr/694

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xmlns="http://w3id.org/meta-share/meta-share/" xmlns:datacite=
↪"http://purl.org/spar/datacite/" xmlns:dcat="http://www.w3.org/ns/dcat#" xmlns:ms=
↪"http://w3id.org/meta-share/meta-share/" xmlns:omtd="http://w3id.org/meta-share/
↪omtd-share/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../Schema/ELG-SHARE.
↪xsd">
```

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```
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-02-02</ms:metadataCreationDate>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCurator>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCreator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">INTERA Corpus - the Bulgarian-
↪English terms from the BG-EN pair</ms:resourceName>
                        <ms:description xml:lang="en">The Bulgarian-English terms␣
↪from the BG-EN pair of the INTERA corpus; written language, domain specific (law,␣
↪education).</ms:description>
                        <ms:version>v1.0.0 (automatically assigned)</ms:version>
                        <ms:additionalInfo>
                                <ms:email>contact@somedomain.com</ms:email>
                        </ms:additionalInfo>
                        <ms:contact>
                                <ms:Person>
                                        <ms:actorType>Person</ms:actorType>
                                        <ms:surname xml:lang="en">Gavrilidou</
↪ms:surname>
                                        <ms:givenName xml:lang="en">Maria</
↪ms:givenName>
                                        <ms:email>contact@somedomain.com</ms:email>
                                </ms:Person>
                        </ms:contact>
                        <ms:keyword xml:lang="en">lexicalconceptualresource</
↪ms:keyword>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">education</
↪ms:categoryLabel>
                        </ms:domain>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">law</ms:categoryLabel>
                        </ms:domain>
                        <ms:creationStartDate>2003-01-01</ms:creationStartDate>
                        <ms:creationEndDate>2004-12-31</ms:creationEndDate>
                        <ms:fundingProject>
                                <ms:projectName xml:lang="en">Integrated European␣
↪language data Repository Area</ms:projectName>
                                <ms:website>http://www.elda.org/intera</ms:website>
                        </ms:fundingProject>
                        <ms:intendedApplication>
```

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```
                                <ms:LTClassOther>machineTranslation</ms:LTClassOther>
                        </ms:intendedApplication>
                        <ms:actualUse>
                                <ms:usedInApplication>
                                        <ms:LTClassOther>terminologyExtraction</
↪ms:LTClassOther>
                                </ms:usedInApplication>
                                <ms:actualUseDetails xml:lang="en">nlpApplications</
↪ms:actualUseDetails>
                        </ms:actualUse>
                        <ms:isDocumentedBy>
                                <ms:title xml:lang="en">Building Multilingual␣
↪Terminological Resources</ms:title>
                        </ms:isDocumentedBy>
                        <ms:isDocumentedBy>
                                <ms:title xml:lang="en">Building parallel corpora for␣
↪eContent professionals</ms:title>
                        </ms:isDocumentedBy>
                        <ms:isDocumentedBy>
                                <ms:title xml:lang="en">Language resources production␣
↪models: the case of INTERA multilingual corpus and terminology</ms:title>
                        </ms:isDocumentedBy>
                        <ms:isDocumentedBy>
                                <ms:title xml:lang="en">D5.2 - Report on the␣
↪multilingual resources production</ms:title>
                                <ms:DocumentIdentifier ms:DocumentIdentifierScheme=
↪"http://purl.org/spar/datacite/url">http://www.elda.org/article176.html</
↪ms:DocumentIdentifier>
                        </ms:isDocumentedBy>
                        <ms:relation>
                                <ms:relationType xml:lang="en">isExtractedfrom</
↪ms:relationType>
                                <ms:relatedLR>
                                        <ms:resourceName xml:lang="en">INTERA corpus</
↪ms:resourceName>
                                </ms:relatedLR>
                        </ms:relation>
                        <ms:LRSubclass>
                                <ms:LexicalConceptualResource>
                                        <ms:lrType>LexicalConceptualResource</
↪ms:lrType>
                                        <ms:lcrSubclass>http://w3id.org/meta-share/
↪meta-share/wordlist</ms:lcrSubclass>
                                        <ms:encodingLevel>http://w3id.org/meta-share/
↪meta-share/morphology</ms:encodingLevel>
                                        <ms:LexicalConceptualResourceMediaPart>
                                                <ms:LexicalConceptualResourceTextPart>
                                                        <ms:lcrMediaType>
↪LexicalConceptualResourceTextPart</ms:lcrMediaType>
                                                        <ms:mediaType>http://w3id.org/
↪meta-share/meta-share/text</ms:mediaType>
                                                        <ms:lingualityType>http://
↪w3id.org/meta-share/meta-share/bilingual</ms:lingualityType>
                                                        <ms:multilingualityType>http:/
↪/w3id.org/meta-share/meta-share/parallel</ms:multilingualityType>
                                                        <ms:language>
                                                                <ms:languageTag>bg</
↪ms:languageTag>
```

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```
                                                                <ms:languageId>bg</
↪ms:languageId>
                                                        </ms:language>
                                                        <ms:language>
                                                                <ms:languageTag>en</
↪ms:languageTag>
                                                                <ms:languageId>en</
↪ms:languageId>
                                                        </ms:language>
                                                        <ms:metalanguage>
                                                                <ms:languageTag>und</
↪ms:languageTag>
                                                                <ms:languageId>und</
↪ms:languageId>
                                                        </ms:metalanguage>
                                                        <ms:modalityType>http://w3id.
↪org/meta-share/meta-share/writtenLanguage</ms:modalityType>
                                                </
↪ms:LexicalConceptualResourceTextPart>
                                        </ms:LexicalConceptualResourceMediaPart>
                                        <ms:DatasetDistribution>
                                                <ms:DatasetDistributionForm>http://
↪w3id.org/meta-share/meta-share/downloadable</ms:DatasetDistributionForm>
                                                <ms:accessLocation>http://metashare.
↪ilsp.gr:8080/repository/download/
↪cdba66329e8111e581e1842b2b6a04d770c91fa84de04f259240aa450aaa9081</ms:accessLocation>
                                                <ms:distributionTextFeature>
                                                        <ms:size>
                                                                <ms:amount>7581</
↪ms:amount>
                                                                <ms:sizeUnit>http://
↪w3id.org/meta-share/meta-share/word3</ms:sizeUnit>
                                                        </ms:size>
                                                        <ms:dataFormat>http://w3id.
↪org/meta-share/omtd-share/Text</ms:dataFormat>
                                                </ms:distributionTextFeature>
                                                <ms:licenceTerms>
                                                        <ms:licenceTermsName xml:lang=
↪"en">CC-BY-4.0</ms:licenceTermsName>
                                                        <ms:licenceTermsURL>https://
↪spdx.org/licenses/CC-BY-4.0.html</ms:licenceTermsURL>
                                                        <ms:LicenceIdentifier␣
↪ms:LicenceIdentifierScheme="http://w3id.org/meta-share/meta-share/elg">ELG-ENT-LIC-
↪270220-00000072</ms:LicenceIdentifier>
                                                </ms:licenceTerms>
                                                <ms:attributionText xml:lang="en">The␣
↪INTERA Corpus - the Bulgarian-English terms from the BG-EN pair of the ILSP/RC␣
↪Athena licensed under CC-BY as accessed via META-SHARE</ms:attributionText>
                                        </ms:DatasetDistribution>
                                        <ms:personalDataIncluded>false</
↪ms:personalDataIncluded>
                                        <ms:sensitiveDataIncluded>false</
↪ms:sensitiveDataIncluded>
                                </ms:LexicalConceptualResource>
                        </ms:LRSubclass>
                </ms:LanguageResource>
        </ms:DescribedEntity>
```


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```
</ms:MetadataRecord>
```

Computational lexicon: MCL - Multifunctional Computational Lexicon of Contemporary Portuguese

Published at: https://live.european-language-grid.eu/catalogue/#/resource/service/lcr/918

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xmlns:ms="http://w3id.org/meta-share/meta-share/" xmlns:xsi="http:/
↪/www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://w3id.org/meta-share/
↪meta-share/ ../../Schema/ELG-SHARE.xsd">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2005-05-12</ms:metadataCreationDate>
        <ms:metadataLastDateUpdated>2020-02-24</ms:metadataLastDateUpdated>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCurator>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCreator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:DescribedEntity>
                <ms:LanguageResource>
                        <ms:entityType>LanguageResource</ms:entityType>
                        <ms:resourceName xml:lang="en">MCL - Multifunctional␣
↪Computational Lexicon of Contemporary Portuguese</ms:resourceName>
                        <ms:description xml:lang="en">MCL is a 26,443 lemma Frequency␣
↪Lexicon with 140,315 tokens, with the minimum lemma frequency of 6, extracted from␣
↪CORLEX, a contemporary Portuguese corpus (16,210,438 words). CORLEX is a subcorpus␣
↪of the Reference Corpus of Contemporary Portuguese and contains written and spoken␣
↪texts of several types, being genre diversity a characteristic of this corpus.␣
↪CORLEX contains mainly journalistic texts (56% of the written corpus and 53% of the␣
↪whole corpus). In order to extract the lexicon, all the different lexical forms␣
↪occurring in the corpus were indexed and subsequently tagged morphosyntactically␣
↪and lemmatised by PALAVROSO. Each lemma in MCL is followed by morphosyntactic and␣
↪quantitative information. The same information is given regarding each lemma token␣
↪(inflected forms and some compounds). The lexicon indexations are listed in␣
↪alphabetical order or decreasing frequency order.</ms:description>
                        <ms:LRIdentifier ms:LRIdentifierScheme="http://w3id.org/meta-
↪share/meta-share/islrn">489-956-642-755-8</ms:LRIdentifier>
                        <ms:LRIdentifier ms:LRIdentifierScheme="http://w3id.org/meta-
↪share/meta-share/other">ELRA-L0096</ms:LRIdentifier>
                        <ms:version>1.0</ms:version>
                        <ms:versionDate>2016-01-20</ms:versionDate>
                        <ms:additionalInfo>
                                <ms:landingPage>http://catalog.elra.info/product_info.
↪php?products_id=1254</ms:landingPage>
                        </ms:additionalInfo>
```

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```
                        <ms:additionalInfo>
                                <ms:email>contact@somedomain.com</ms:email>
                        </ms:additionalInfo>
                        <ms:keyword xml:lang="en">lexicalconceptualresource</
↪ms:keyword>
                        <ms:LRSubclass>
                                <ms:LexicalConceptualResource>
                                        <ms:lrType>LexicalConceptualResource</
↪ms:lrType>
                                        <ms:lcrSubclass>http://w3id.org/meta-share/
↪meta-share/lexicon</ms:lcrSubclass>
                                        <ms:encodingLevel>http://w3id.org/meta-share/
↪meta-share/morphology</ms:encodingLevel>
                                        <ms:encodingLevel>http://w3id.org/meta-share/
↪meta-share/syntax</ms:encodingLevel>
                                        <ms:LexicalConceptualResourceMediaPart>
                                                <ms:LexicalConceptualResourceTextPart>
                                                        <ms:lcrMediaType>
↪LexicalConceptualResourceTextPart</ms:lcrMediaType>
                                                        <ms:mediaType>http://w3id.org/
↪meta-share/meta-share/text</ms:mediaType>
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```

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```

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```
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```


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```

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```
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↪ms:amount>
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```

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```
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↪ms:personalDataIncluded>
                                        <ms:sensitiveDataIncluded>false</
↪ms:sensitiveDataIncluded>
                                </ms:LexicalConceptualResource>
                        </ms:LRSubclass>
                </ms:LanguageResource>
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

12.2 Minimal version metadata for lexical/conceptual resources

The set of the metadata (mandatory or recommended) that **are common to all kinds of resources** including data language resources are presented in section describeLRT. **In addition**, the metadata elements that are required or recommended for lexical/conceptual resources are described below.

For a quick guide to the ELG template, see *Template - Explanations*.

12.2.1 LexicalConceptualResource

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LexicalConceptualResource`

Data type component

Optionality Mandatory

Explanation & Instructions

Wraps together elements for lexical/conceptual resources

Example

```
<ms:LRSubclass>
        <ms:LexicalConceptualResource>
                <ms:lrType>LexicalConceptualResource</ms:lrType>
                ...
        </ms:LexicalConceptualResource>
</ms:LRSubclass>
```

12.2.2 lcrSubclass

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LexicalConceptualResource.lcrSubclass`

Data type CV (lcrSubclass)

Optionality Recommended

Explanation & Instructions

Introduces a classification of lexical/conceptual resources into types (used for descriptive reasons)

Example

```
<lcrSubclass>http://w3id.org/meta-share/meta-share/computationalLexicon</lcrSubclass>

<lcrSubclass>http://w3id.org/meta-share/meta-share/ontology</lcrSubclass>
```

12.2.3 encodingLevel

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LexicalConceptualResource.encodingLevel`

Data type CV (encodingLevel)

Optionality Mandatory

Explanation & Instructions

Classifies the contents of a lexical/conceptual resource or language description as regards the linguistic level of analysis it caters for

You can repeat the element for multiple encoding levels.

Example

```
<ms:encodingLevel>http://w3id.org/meta-share/meta-share/phonology</ms:encodingLevel>

<ms:encodingLevel>http://w3id.org/meta-share/meta-share/semantics</ms:encodingLevel>
```

12.2.4 ContentType

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LexicalConceptualResource.ContentType`

Data type CV (ContentType)

Optionality Mandatory

Explanation & Instructions

A more detailed account of the linguistic information contained in the lexical/conceptual resource

You can repeat the element for multiple encoding levels.

Example

```
<ms:ContentType>http://w3id.org/meta-share/meta-share/collocation</ms:ContentType>

<ms:ContentType>http://w3id.org/meta-share/meta-share/definition</ms:ContentType>
```

12.2.5 compliesWith

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.LexicalConceptualResource.ContentType`

Data type CV (compliesWith)

Optionality Mandatory

Explanation & Instructions

Specifies the vocabulary/standard/best practice to which a resource is compliant with

You can repeat the element for multiple encoding levels.

Example

```
<ms:compliesWith>http://w3id.org/meta-share/meta-share/LMF</ms:compliesWith>
```

12.2.6 LexicalConceptualResourceTextPart

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.CorpusMediaPart.LexicalConceptualResourceTextPart`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

A part (or whole set) of a lexical/conceptual resource that consists of textual elements

You can repeat the group of elements for multiple textual parts.

The mandatory or recommended elements for the text part of lexical/conceptual resources are:

- `mediaType` (Mandatory): Specifies the media type of a language resource (the physical medium of the contents representation). For text parts, always use the value 'text'.
- `lingualityType` (Mandatory): Indicates whether the resource includes one, two or more languages.
- `multilingualityType` (Mandatory if applicable): Indicates whether the resource (part) is parallel, comparable or mixed. If lingualityType = bilingual or multilingual, it is required; select one of the values for parallel (e.g., original text and its translations), comparable (e.g. corpus of the same domain in multiple languages) and multilingualSingleText (for corpora that consist of segments including text in two or more languages (e.g., the transcription of a European Parliament session with MPs speaking in their native language).
- `language` (Mandatory): Specifies the language that is used in the resource part , expressed according to the BCP47 recommendation. See language.
- `languageVariety` (Mandatory if applicable): Relates a language resource that contains segments in a language variety (e.g., dialect, jargon) to it. Please use for dialect corpora.
- `metalanguage` (Mandatory): Specifies the language that is used in the resource part , expressed according to the BCP47 recommendation. See language.
- `modalityType` (Recommended if applicable): Specifies the type of the modality represented in the resource. For instance, you can use 'spoken language' to describe transcribed speech corpora.

Example

```
<ms:LexicalConceptualResourceMediaPart>
        <ms:LexicalConceptualResourceTextPart>
                <ms:lcrMediaType>LexicalConceptualResourceTextPart</ms:lcrMediaType>
                <ms:mediaType>http://w3id.org/meta-share/meta-share/text</
↪ms:mediaType>
                <ms:lingualityType>http://w3id.org/meta-share/meta-share/bilingual</
↪ms:lingualityType>
                <ms:multilingualityType>http://w3id.org/meta-share/meta-share/parallel
↪</ms:multilingualityType>
                <ms:language>
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                <ms:metalanguage>
                        <ms:languageTag>es</ms:languageTag>
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                </metalanguage>
                </ms:language>
        </ms:LexicalConceptualResourceTextPart>
</ms:LexicalConceptualResourceMediaPart>
```

12.2.7 DatasetDistribution

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.DatasetDistribution`

Data type component

Optionality Mandatory

Explanation & Instructions

Any form with which a dataset is distributed, such as a downloadable form in a specific format (e.g., spreadsheet, plain text , etc.) or an API with which it can be accessed

You can repeat the element for multiple distributions.

The list of mandatory and recommended elements are:

- `DatasetDistributionForm` (Mandatory): The form (medium/channel) used for distributing a language resource consisting of data (e.g., a corpus, a lexicon, etc.). The typical values are 'downloadable', 'accessibleThroughInterface', 'accessibleThroughQuery' (see more at DatasetDistributionForm).
- `downloadLocation` (Mandatory if applicable): A URL where the language resource (mainly data but also downloadable software programmes or forms) can be downloaded from. Use this element if the value of `datasetDistributionForm` is 'downloadable' and only for direct download links (i.e., from which the dataset is downloaded without the need of further actions such as clicks on a page).
- `accessLocation` (Mandatory if applicable): A URL where the resource can be accessed from; it can be used for landing pages or for cases where the resource is accessible via an interface, i.e. cases where the resource itself is not provided with a direct link for downloading. Use if the value of `datasetDistributionForm` is 'accessibleThroughInterface' or 'accessibleThroughQuery' but also for links used for downloading corpora which are mentioned on a landing page or require some kind of action on the part of the user.
- `licenceTerms` (Mandatory): See licence.
- `cost` (Mandatory if applicable): Introduces the cost for accessing a resource, formally described as a set of amount and currency unit. Please use only for resources available at a cost and not for free resources.

Depending on the parts of the corpus, you must also use one or more of the following:

- `distributionTextFeature`: See *distributionTextFeature*

Example

```
<ms:DatasetDistribution>
        <ms:DatasetDistributionForm>http://w3id.org/meta-share/meta-share/downloadable
↪</ms:DatasetDistributionForm>
        <ms:accessLocation>https://www.someAccessURL</ms:accessLocation>
        <ms:distributionTextFeature>
                <ms:size>
                        <ms:amount>17601</ms:amount>
                        <ms:sizeUnit>http://w3id.org/meta-share/meta-share/unit</
↪ms:sizeUnit>
                </ms:size>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/Xml</
↪ms:dataFormat>
                <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
↪ms:characterEncoding>
        </ms:distributionTextFeature>
        <ms:licenceTerms>
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                <ms:licenceTermsURL>https://elrc-share.eu/terms/openUnderPSI.html</
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        </ms:licenceTerms>
</ms:DatasetDistribution>

<ms:DatasetDistribution>
        <ms:DatasetDistributionForm>http://w3id.org/meta-share/meta-share/
↪accessibleThroughInterface</ms:DatasetDistributionForm>
```

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```
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                        <ms:amount>100</ms:amount>
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                <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
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↪ms:licenceTermsName>
                <ms:licenceTermsURL>https://elrc-share.eu/terms/someCommercialLicence.
↪html</ms:licenceTermsURL>
        </ms:licenceTerms>
        <ms:cost>
                <ms:amount>10000</ms:amount>
                <ms:currency>http://w3id.org/meta-share/meta-share/euro</ms:currency>
        </ms:cost>
</ms:DatasetDistribution>
```

12.2.8 personalDataIncluded

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.personalDataIncluded`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Specifies whether the language resource contains personal data (mainly in the sense falling under the GDPR)

If the resource contains personal data, you can use the (optional) `personalDataDetails` to provide more information.

Example

```
<ms:personalDataIncluded>true</ms:personalDataIncluded>
<ms:personalDataDetails>The corpus contains data on the place of living and place of␣
↪birth of participants</ms:personalDataDetails>
```

12.2.9 sensitiveDataIncluded

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.sensitiveDataIncluded`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Specifies whether the language resource contains sensitive data (e.g., medical/health-related, etc.) and thus requires special handling

If the resource contains sensitive data, you can use the (optional) `sensitiveDataDetails` to provide more information.

Example

```
<ms:sensitiveDataIncluded>true</ms:sensitiveDataIncluded>
<ms:sensitiveDataDetails>The corpus contains medical data for persons with␣
↪disabilities</ms:sensitiveDataDetails>
```

12.2.10 anonymized

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.Corpus.anonymized`

Data type boolean

Optionality Mandatory if applicable

Explanation & Instructions

Indicates whether the language resource has been anonymized

The element is mandatory if either `personalDataIncluded` or `sensitiveDataIncluded` have 'true' as value; `anonymizationDetails` must also be filled in with information on the anonymization mehod, etc.

Example

```
<ms:anonymized>true</ms:anonmized>
<ms:anonymizationDetails>pseudonymization performed manually</ms:anonymizationDetails>
```

CHAPTER 13

Contribute a project

In this section you will find information on how to describe a project with the minimal metadata in order to register it in the ELG platform. If you want to find more on the ELG resource types, see CatContents.

Projects listed in ELG are projects that have funded the development of LRTs or in which they have been deployed.

13.1 Examples of metadata records for projects

Example project: Bergamot – Browser-based Multilingual Translation

Published at: https://live.european-language-grid.eu/catalogue/#/resource/projects/392

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../
↪Schema/ELG-SHARE.xsd" xmlns:ms="http://w3id.org/meta-share/meta-share/" xmlns:xsi=
↪"http://www.w3.org/2001/XMLSchema-instance">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-01-07</ms:metadataCreationDate>
        <ms:metadataLastDateUpdated>2020-01-07</ms:metadataLastDateUpdated>
        <!-- the metadataCurator is the person responsible for editing/updating the␣
↪metadata record in the ELG system and maybe different from metadata creator (for␣
↪metadata records harvested from other repos, there will be no metadata creator) -->
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <!-- please add an identifier (preferrably ORCID in the format below)␣
↪and/or email -->
                <ms:PersonalIdentifier ms:PersonalIdentifierScheme="http://purl.org/
↪spar/datacite/orcid">0000-0000-0000-0000</ms:PersonalIdentifier>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCurator>
```

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```
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <!-- please add an identifier (preferrably ORCID in the format below)␣
↪and/or email -->
                <ms:PersonalIdentifier ms:PersonalIdentifierScheme="http://purl.org/
↪spar/datacite/orcid">0000-0000-0000-0000</ms:PersonalIdentifier>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
                <ms:Project>
                        <ms:entityType>Project</ms:entityType>
                        <ms:ProjectIdentifier ms:ProjectIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/cordis">219608</ms:ProjectIdentifier>
                        <ms:projectName xml:lang="en">Browser-based Multilingual␣
↪Translation</ms:projectName>
                        <ms:projectShortName xml:lang="en">Bergamot</
↪ms:projectShortName>
                        <ms:fundingType>http://w3id.org/meta-share/meta-share/euFunds
↪</ms:fundingType>
                        <ms:funder>
                                <ms:Organization>
                                        <ms:actorType>Organization</ms:actorType>
                                        <ms:organizationName xml:lang="en">European␣
↪Commission</ms:organizationName>
                                        <ms:website>https://ec.europa.eu/info/index_en
↪</ms:website>
                                </ms:Organization>
                        </ms:funder>
                        <ms:fundingCountry>EU</ms:fundingCountry>
                        <ms:projectStartDate>2019-01-01</ms:projectStartDate>
                        <ms:projectEndDate>2021-12-31</ms:projectEndDate>
                        <ms:website>https://browser.mt/</ms:website>
                        <ms:logo>https://ufal.mff.cuni.cz/sites/default/files/styles/
↪drupal_projects_logo_style/public/bergamot_logo.png</ms:logo>
                        <ms:LTArea>
                                <ms:LTClassRecommended>http://w3id.org/meta-share/
↪omtd-share/MachineTranslation</ms:LTClassRecommended>
                        </ms:LTArea>
                        <ms:LTArea>
                                <ms:LTClassOther>Browser-based Machine Translation</
↪ms:LTClassOther>
                        </ms:LTArea>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">htttp://w3id.org/meta-
↪share/omtd-share/NewsMediaJournalismAndPublishing</ms:categoryLabel>
                        </ms:domain>
                        <ms:domain>
                                <ms:categoryLabel xml:lang="en">General</
↪ms:categoryLabel>
                        </ms:domain>
                        <ms:keyword xml:lang="en">Machine translation</ms:keyword>
                        <ms:keyword xml:lang="en">translation integration</ms:keyword>
                        <ms:grantNumber>825303</ms:grantNumber>
```

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```
                        <ms:projectSummary xml:lang="en">'The Bergamot project will␣
↪add and improve client-side machine translation in a web browser.  Unlike current␣
↪cloud-based options, running directly on users'' machines empowers citizens to␣
↪preserve their privacy and increases the uptake of language technologies in Europe␣
↪in various sectors that require confidentiality.  Free software integrated with an␣
↪open-source web browser, such as Mozilla Firefox, will enable bottom-up adoption by␣
↪non-experts, resulting in cost savings for private and public sector users who␣
↪would otherwise procure translation or operate monolingually.  To understand and␣
↪support non-expert users, our user experience work package researches their needs␣
↪and creates the user interface.  Rather than simply translating text, this␣
↪interface will expose improved quality estimates, addressing the rising public␣
↪debate on algorithmic trust.  Building on quality estimation research, we will␣
↪enable users to confidently generate text in a language they do not speak, enabling␣
↪cross-lingual online form filling.  To improve quality overall, dynamic domain␣
↪adaptation research addresses the peculiar writing style of a website or user by␣
↪adapting translation on the fly using local information too private to upload to␣
↪the cloud.  These applications require adaptation and inference to run on desktop␣
↪hardware with compact model downloads, which we address with neural network␣
↪efficiency research.  Our combined research on user experience, domain adaptation,␣
↪quality estimation, outbound translation, and efficiency support a broad browser-
↪based innovation plan.'</ms:projectSummary>
                        <ms:cost>
                                <ms:amount>2999096.25</ms:amount>
                                <ms:currency>http://w3id.org/meta-share/meta-share/
↪euro</ms:currency>
                        </ms:cost>
                        <ms:ecMaxContribution>
                                <ms:amount>2999096.25</ms:amount>
                                <ms:currency>http://w3id.org/meta-share/meta-share/
↪euro</ms:currency>
                        </ms:ecMaxContribution>
                        <ms:fundingSchemeCategory>RIA</ms:fundingSchemeCategory>
                        <ms:status>SIGNED</ms:status>
                        <ms:relatedCall>H2020-ICT-2018-2</ms:relatedCall>
                        <ms:relatedProgramme>H2020</ms:relatedProgramme>
                        <ms:relatedSubprogramme>ICT-29-2018</ms:relatedSubprogramme>
                        <ms:coordinator>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">THE UNIVERSITY OF␣
↪EDINBURGH</ms:organizationName>
                                <ms:website>https://www.ed.ac.uk/</ms:website>
                        </ms:coordinator>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">TARTU ULIKOOL</
↪ms:organizationName>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">MZ DENMARK APS</
↪ms:organizationName>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">THE UNIVERSITY OF␣
↪SHEFFIELD</ms:organizationName>
                        </ms:participatingOrganization>
```

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```
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">UNIVERZITA KARLOVA
↪</ms:organizationName>
                                <ms:website>https://www.cuni.cz/</ms:website>
                        </ms:participatingOrganization>
                </ms:Project>
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

Example project: European Language Grid

Published at: https://live.european-language-grid.eu/catalogue/#/resource/projects/395

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../
↪Schema/ELG-SHARE.xsd" xmlns:ms="http://w3id.org/meta-share/meta-share/" xmlns:xsi=
↪"http://www.w3.org/2001/XMLSchema-instance">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-01-07</ms:metadataCreationDate>
        <ms:metadataLastDateUpdated>2020-01-07</ms:metadataLastDateUpdated>
        <!-- the metadataCurator is the person responsible for editing/updating the␣
↪metadata record in the ELG system and maybe different from metadata creator (for␣
↪metadata records harvested from other repos, there will be no metadata creator) -->
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <!-- please add an identifier (preferrably ORCID in the format below)␣
↪and/or email -->
                <ms:PersonalIdentifier ms:PersonalIdentifierScheme="http://purl.org/
↪spar/datacite/orcid">0000-0000-0000-0000</ms:PersonalIdentifier>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <!-- please add an identifier (preferrably ORCID in the format below)␣
↪and/or email -->
                <ms:PersonalIdentifier ms:PersonalIdentifierScheme="http://purl.org/
↪spar/datacite/orcid">0000-0000-0000-0000</ms:PersonalIdentifier>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
                <ms:Project>
                        <ms:entityType>Project</ms:entityType>
                        <ms:ProjectIdentifier ms:ProjectIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/cordis">219378</ms:ProjectIdentifier>
                        <ms:projectName xml:lang="en">European Language Grid</
↪ms:projectName>
                        <ms:projectShortName xml:lang="en">ELG</ms:projectShortName>
```

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```
                        <ms:fundingType>http://w3id.org/meta-share/meta-share/euFunds
↪</ms:fundingType>
                        <ms:funder>
                                <ms:Organization>
                                        <ms:actorType>Organization</ms:actorType>
                                        <ms:organizationName xml:lang="en">European␣
↪Commission</ms:organizationName>
                                        <ms:website>https://ec.europa.eu/info/index_en
↪</ms:website>
                                </ms:Organization>
                        </ms:funder>
                        <ms:fundingCountry>EU</ms:fundingCountry>
                        <ms:projectStartDate>2019-01-01</ms:projectStartDate>
                        <ms:projectEndDate>2021-12-31</ms:projectEndDate>
                        <ms:website>https://www.european-language-grid.eu/</
↪ms:website>
                        <ms:logo>https://www.european-language-grid.eu/wp-content/
↪themes/elg_theme/fab/image/logo/rgb_elg__logo--colour.svg</ms:logo>
                        <ms:LTArea>
                                <ms:LTClassRecommended>http://w3id.org/meta-share/
↪omtd-share/LanguageTechnology</ms:LTClassRecommended>
                        </ms:LTArea>
                        <ms:keyword xml:lang="en">Language technology services</
↪ms:keyword>
                        <ms:keyword xml:lang="en">Multilingualism</ms:keyword>
                        <ms:keyword xml:lang="en">Less-resourced languages</
↪ms:keyword>
                        <ms:grantNumber>825627</ms:grantNumber>
                        <ms:projectSummary xml:lang="en">With 24 official EU and many␣
↪more additional languages, multilingualism in Europe and an inclusive Digital␣
↪Single Market can only be enabled through Language Technologies (LTs). European LT␣
↪business is dominated by thousands of SMEs and a few large players. Many are world-
↪class, with technologies that outperform the global players. However, European LT␣
↪business is also fragmented β€" by nation states, languages, verticals and sectors.␣
↪Likewise, while much of European LT research is world-class, with results␣
↪transferred into industry and commercial products, its full impact is held back by␣
↪fragmentation. The key issue and challenge is the fragmentation of the European LT␣
↪landscape. The European Language Grid (ELG) project will address this fragmentation␣
↪by establishing the ELG as the primary platform for LT in Europe. The ELG will be a␣
↪scalable cloud platform, providing, in an easy-to-integrate way, access to hundreds␣
↪of commercial and non-commercial Language Technologies for all European languages,␣
↪including running tools and services as well as data sets and resources. It will␣
↪enable the commercial and non-commercial European LT community to deposit and␣
↪upload their technologies and data sets into the ELG, to deploy them through the␣
↪grid, and to connect with other resources. The ELG will boost the Multilingual␣
↪Digital Single Market towards a thriving European LT community, creating new jobs␣
↪and opportunities. Through open calls, up to 20 pilot projects will be financially␣
↪supported to demonstrate the usefulness of the ELG. The proposal is rooted in the␣
↪experience of a consortium with partners involved in all relevant initiatives.␣
↪Based on these, 30\\ national competence centres and the European LT Board will be␣
↪set up for European coordination. The ELG will foster β€language technologies for␣
↪Europe built in Europeβ€, tailored to our languages and cultures and to our␣
↪societal and economical demands, benefitting the European citizen, society,␣
↪innovation and industry.</ms:projectSummary>
                        <ms:cost>
                                <ms:amount>7460206.25</ms:amount>
                                <ms:currency>http://w3id.org/meta-share/meta-share/
↪euro</ms:currency>
```

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```
                        </ms:cost>
                        <ms:ecMaxContribution>
                                <ms:amount>6999631.25</ms:amount>
                                <ms:currency>http://w3id.org/meta-share/meta-share/
↪euro</ms:currency>
                        </ms:ecMaxContribution>
                        <ms:fundingSchemeCategory>IA</ms:fundingSchemeCategory>
                        <ms:status>SIGNED</ms:status>
                        <ms:relatedCall>H2020-ICT-2018-2</ms:relatedCall>
                        <ms:relatedProgramme>H2020</ms:relatedProgramme>
                        <ms:relatedSubprogramme>ICT-29-2018</ms:relatedSubprogramme>
                        <ms:coordinator>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">DEUTSCHES␣
↪FORSCHUNGSZENTRUM FUR KUNSTLICHE INTELLIGENZ GMBH</ms:organizationName>
                                <ms:website>https://www.dfki.de/</ms:website>
                        </ms:coordinator>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">SAIL LABS␣
↪TECHNOLOGY GMBH</ms:organizationName>
                                <ms:website>https://www.sail-labs.com/</ms:website>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">THE UNIVERSITY OF␣
↪SHEFFIELD</ms:organizationName>
                                <ms:website>https://www.dfki.de/</ms:website>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">ATHINA-EREVNITIKO␣
↪KENTRO KAINOTOMIAS STIS TECHNOLOGIES TIS PLIROFORIAS, TON EPIKOINONION KAI TIS␣
↪GNOSIS</ms:organizationName>
                                <ms:website>https://www.athena-innovation.gr/</
↪ms:website>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">EVALUATIONS AND␣
↪LANGUAGE RESOURCES DISTRIBUTION AGENCY</ms:organizationName>
                                <ms:website>http://www.elda.org/</ms:website>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">TILDE SIA</
↪ms:organizationName>
                                <ms:website>https://www.tilde.eu/</ms:website>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">UNIVERZITA KARLOVA
↪</ms:organizationName>
                                <ms:website>https://www.cuni.cz/</ms:website>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
```

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```
                                <ms:organizationName xml:lang="en">THE UNIVERSITY OF␣
↪EDINBURGH</ms:organizationName>
                                <ms:website>https://www.ed.ac.uk/</ms:website>
                        </ms:participatingOrganization>
                        <ms:participatingOrganization>
                                <ms:actorType>Organization</ms:actorType>
                                <ms:organizationName xml:lang="en">EXPERT SYSTEM␣
↪IBERIA SL</ms:organizationName>
                                <ms:website>http://www.expertsystem.com/</ms:website>
                        </ms:participatingOrganization>
                </ms:Project>
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

13.2 Minimal version metadata for projects

The set of the metadata (mandatory or recommended) that **are common to all kinds of resources** are presented in section describeLRT. **In addition**, the metadata elements that are required or recommended for projects are described below.

For a quick guide to the ELG template, see *Template - Explanations*.

13.2.1 Project

Path `MetadataRecord.DescribedEntity.Project`

Data type component

Optionality Mandatory

Explanation & Instructions

Wraps together elements for projects

Example

```
<ms:Project>
        <ms:entityType>project</ms:entityType>
        ...
</ms:Project>
```

13.2.2 ProjectIdentifier

Path `MetadataRecord.DescribedEntity.Project.ProjectIdentifier`

Data type string

Optionality Recommended

Explanations & Instructions

A string (e.g., PID, internal to an organization, issued by the funding authority, etc.) used to uniquely identify a project

You must also use the attribute `ProjectIdentifierScheme` to specify the name of the scheme according to which an identifier is assigned to a project by the authority that issues it. See https://european-language-grid.readthedocs.io/en/release1.0.0/Documentation/ELG-SHARE_xsd_Attribute_ms_ProjectIdentifierScheme.html#ProjectIdentifierScheme for details.

Example

```
<ms:ProjectIdentifier ms:ProjectIdentifierScheme="http://w3id.org/meta-share/meta-
↪share/cordis">219608</ms:ProjectIdentifier>

<ms:ProjectIdentifier ms:ProjectIdentifierScheme="http://w3id.org/meta-share/meta-
↪share/cordis">219378</ms:ProjectIdentifier>
```

13.2.3 projectName

Path `MetadataRecord.DescribedEntity.Project.projectName`

Data type multilingual string

Optionality Mandatory

Explanations & Instructions

The full name (title) of a project

Example

```
<ms:projectName xml:lang="en">Browser-based Multilingual Translation</ms:projectName>

<ms:projectName xml:lang="en">European Language Grid</ms:projectName>
```

13.2.4 projectShortName

Path `MetadataRecord.DescribedEntity.Project.projectShortName`

Data type multiligual string

Optionality Recommended

Explanations & Instructions

Introduces a short name (e.g., acronym, abbreviated form) by which a project is known

Example

```
<ms:projectShortName xml:lang="en">Bergamot</ms:projectShortName>

<ms:projectShortName xml:lang="en">ELG</ms:projectShortName>
```

13.2.5 projectAlternativeName

Path `MetadataRecord.DescribedEntity.Project.`

Data type multilingual string

Optionality Recommended

Explanations & Instructions

Introduces an alternative name (other than the short name) used for a project

Example

```
<ms:projectAlternativeName xml:lang="en">The European Language Grid</ms:projectName>
```

13.2.6 fundingType

Path `MetadataRecord.DescribedEntity.Project.`

Data type CV (fundingType)

Optionality Recommended

Explanations & Instructions

Specifies the type of funding of a project with regard to the source of the funding

Example

```
<ms:fundingType>http://w3id.org/meta-share/meta-share/euFunds</ms:fundingType>
```

13.2.7 funder

Path `MetadataRecord.DescribedEntity.Project.funder`

Data type component

Optionality Recommended

Explanations & Instructions

Identifies the person/organization/group that has financed the project

Funding information is important for acknowledgement purposes.

For organizations, you must provide the name of the organization (`organizationName`) and, if possible, a website (`website`) and/or an identifier (`OrganizationIdentifier`).

Example

```
<ms:funder>
        <ms:Organization>
                <ms:actorType>Organization</ms:actorType>
                <ms:organizationName xml:lang="en">European Commission</
↪ms:organizationName>
                <ms:website>https://ec.europa.eu/info/index_en</ms:website>
```

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```
        </ms:Organization>
</ms:funder>
```

13.2.8 fundingCountry

Path `MetadataRecord.DescribedEntity.Project.fundingCountry`

Data type CV (regionIdType)

Optionality Recommended

Explanations & Instructions

Specifies the name of the funding country, in case of national funding as mentioned in ISO3166

Example

```
<ms:fundingCountry>EU</ms:fundingCountry>
```

13.2.9 website

Path `MetadataRecord.DescribedEntity.Project.website`

Data type URL

Optionality Recommended

Explanations & Instructions

Links to a URL that acts as the primary page (like a table of contents) introducing information about an organization (e.g., products, contact information, etc.) or project

Example

```
<ms:website>https://browser.mt/</ms:website>

<ms:website>https://www.european-language-grid.eu/</ms:website>
```

13.2.10 logo

Path `MetadataRecord.DescribedEntity.Project.logo`

Data type URL

Optionality Recommended

Explanations & Instructions

Links to a URL with an image file containing a symbol or graphic object used to identify the entity

Example

```
<ms:logo>https://ufal.mff.cuni.cz/sites/default/files/styles/drupal_projects_logo_
↪style/public/bergamot_logo.png</ms:logo>

<ms:logo>https://www.european-language-grid.eu/wp-content/themes/elg_theme/fab/image/
↪logo/rgb_elg__logo--colour.svg</ms:logo>
```

13.2.11 LTArea

Path `MetadataRecord.DescribedEntity.Project.LTArea`

Data type component

Optionality Recommended

Explanations & Instructions

Introduces a Language Technology-related area that the project deals with

For details, see https://european-language-grid.readthedocs.io/en/release1.0.0/Documentation/ELG-SHARE_xsd_Element_ms_LTArea.html#LTArea.

Example

```
<ms:LTArea>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪MachineTranslation</ms:LTClassRecommended>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>Browser-based Machine Translation</ms:LTClassOther>
</ms:LTArea>
```

13.2.12 domain

Path `MetadataRecord.DescribedEntity.Project.domain`

Data type component

Optionality Recommended

Explanations & Instructions

Identifies a domain that the project deals with

You must fill in the `CategoryLabel` element with a free text value. If you prefer to add a value from an established controlled vocabulary, you can also use the `DomainIdentifier` (with the attribute `DomainClassificationScheme` with the appropriate value).

Example

```
<ms:domain>
        <ms:categoryLabel xml:lang="en">http://w3id.org/meta-share/omtd-share/
↪NewsMediaJournalismAndPublishing</ms:categoryLabel>
</ms:domain>
<ms:domain>
        <ms:categoryLabel xml:lang="en">General</ms:categoryLabel>
</ms:domain>
```

13.2.13 keyword

Path `MetadataRecord.DescribedEntity.Project.keyword`

Data type multilingual string

Optionality Recomended

Explanations & Instructions

Introduces a word or phrase considered important for the description of the project and thus used to index or classify it

Example

```
<ms:keyword xml:lang="en">Machine translation</ms:keyword>
<ms:keyword xml:lang="en">translation integration</ms:keyword>

<ms:keyword xml:lang="en">Language technology services</ms:keyword>
<ms:keyword xml:lang="en">Multilingualism</ms:keyword>
<ms:keyword xml:lang="en">Less-resourced languages</ms:keyword>
```

13.2.14 socialMediaOccupationalAccount

Path `MetadataRecord.DescribedEntity.Project.socialMediaOccupationalAccount`

Data type multilingual string

Optionality Recommended

Explanations & Instructions

Introduces the social media or occupational account details of a person, organization or project

You must also use the attribute `socialMediaAccountType` to specify the type of social media account. See https://european-language-grid.readthedocs.io/en/release1.0.0/Documentation/ELG-SHARE_xsd_Attribute_ms_socialMediaOccupationalAccountType.html#socialMediaOccupationalAccountType for details.

Example

Note: TODO: add example

13.2.15 projectSummary

Path `MetadataRecord.DescribedEntity.Project.projectSummary`

Data type multilingual string

Optionality Recommended

Explanations & Instructions

Introduces a short description (in free text) of the main objectives, mission or contents of the project

Example

```
<ms:projectSummary xml:lang="en">'The Bergamot project will add and improve client-
↪side machine translation in a web browser.  Unlike current cloud-based options,␣
↪running directly on users'' machines empowers citizens to preserve their privacy␣
↪and increases the uptake of language technologies in Europe in various sectors that␣
↪require confidentiality.  Free software integrated with an open-source web browser,␣
↪such as Mozilla Firefox, will enable bottom-up adoption by non-experts, resulting␣
↪in cost savings for private and public sector users who would otherwise procure␣
↪translation or operate monolingually.  To understand and support non-expert users,␣
↪our user experience work package researches their needs and creates the user␣
↪interface.  Rather than simply translating text, this interface will expose␣
↪improved quality estimates, addressing the rising public debate on algorithmic␣
↪trust.  Building on quality estimation research, we will enable users to␣
↪confidently generate text in a language they do not speak, enabling cross-lingual␣
↪online form filling.  To improve quality overall, dynamic domain adaptation␣
↪research addresses the peculiar writing style of a website or user by adapting␣
↪translation on the fly using local information too private to upload to the cloud. ␣
↪These applications require adaptation and inference to run on desktop hardware with␣
↪compact model downloads, which we address with neural network efficiency research. ␣
↪Our combined research on user experience, domain adaptation, quality estimation,␣
↪outbound translation, and efficiency support a broad browser-based innovation plan.'
↪</ms:projectSummary>

<ms:projectSummary xml:lang="en">With 24 official EU and many more additional␣
↪languages, multilingualism in Europe and an inclusive Digital Single Market can␣
↪only be enabled through Language Technologies (LTs). European LT business is␣
↪dominated by thousands of SMEs and a few large players. Many are world-class, with␣
↪technologies that outperform the global players. However, European LT business is␣
↪also fragmented β€" by nation states, languages, verticals and sectors. Likewise,␣
↪while much of European LT research is world-class, with results transferred into␣
↪industry and commercial products, its full impact is held back by fragmentation.␣
↪The key issue and challenge is the fragmentation of the European LT landscape. The␣
↪European Language Grid (ELG) project will address this fragmentation by␣
↪establishing the ELG as the primary platform for LT in Europe. The ELG will be a␣
↪scalable cloud platform, providing, in an easy-to-integrate way, access to hundreds␣
↪of commercial and non-commercial Language Technologies for all European languages,␣
↪including running tools and services as well as data sets and resources. It will␣
↪enable the commercial and non-commercial European LT community to deposit and␣
↪upload their technologies and data sets into the ELG, to deploy them through the␣
↪grid, and to connect with other resources. The ELG will boost the Multilingual␣
↪Digital Single Market towards a thriving European LT community, creating new jobs␣
↪and opportunities. Through open calls, up to 20 pilot projects will be financially␣
↪supported to demonstrate the usefulness of the ELG. The proposal is rooted in the␣
↪experience of a consortium with partners involved in all relevant initiatives.␣
↪Based on these, 30\\ national competence centres and the European LT Board will be␣
↪set up for European coordination. The ELG will foster β€language technologies for␣
↪Europe built in Europeβ€, tailored to our languages and cultures and to our␣
↪societal and economical demands, benefitting the European citizen, society,␣
↪innovation and industry.</ms:projectSummary>
```

CHAPTER 14

Contribute an organization

In this section you will find information on how to describe an organization with the minimal metadata in order to register in the ELG platform. If you want to find more on the ELG resource types, see CatContents.

Organizations listed in ELG are organizations which are or have been active in Language Technology in Europe.

14.1 Examples of metadata records for organizations

University: Charles University, Prague

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../
↪Schema/ELG-SHARE.xsd" xmlns:ms="http://w3id.org/meta-share/meta-share/" xmlns:xsi=
↪"http://www.w3.org/2001/XMLSchema-instance">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-01-07</ms:metadataCreationDate>
        <ms:metadataLastDateUpdated>2020-01-07</ms:metadataLastDateUpdated>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCreator>
```

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```
        <ms:DescribedEntity>
        <ms:Organization>
        <ms:entityType>Organization</ms:entityType>
        <ms:OrganizationIdentifier ms:OrganizationIdentifierScheme="http://w3id.org/
↪meta-share/meta-share/elg">automatically assigned by ELG - please don't change</
↪ms:OrganizationIdentifier>
        <ms:organizationName xml:lang="en">Charles University</ms:organizationName>
        <ms:organizationShortName xml:lang="en">CUNI</ms:organizationShortName>
        <ms:organizationAlternativeName xml:lang="en">UNIVERZITA KARLOVA</
↪ms:organizationAlternativeName>
        <ms:organizationRole>http://w3id.org/meta-share/meta-share/LTSupplier</
↪ms:organizationRole>
        <ms:organizationRole>http://w3id.org/meta-share/meta-share/
↪researchOrganization</ms:organizationRole>
        <ms:organizationRole>http://w3id.org/meta-share/meta-share/
↪languageServiceProvider</ms:organizationRole>
        <ms:organizationLegalStatus>http://w3id.org/meta-share/meta-share/
↪academicInstitution</ms:organizationLegalStatus>
        <ms:countryOfRegistration>CZ</ms:countryOfRegistration>
        <ms:organizationBio xml:lang="en">Charles University was founded in 1348,␣
↪making it one of the oldest universities in the world. Yet it is also renowned as a␣
↪modern, dynamic, cosmopolitan and prestigious institution of higher education. It␣
↪is the largest and most renowned Czech university, and is also the best-rated Czech␣
↪university according to international rankings. There are currently 17 faculties at␣
↪the University (14 in Prague, 2 in Hradec KrΓlovΓ© and 1 in PlzeE), plus 3␣
↪institutes, 6 other centres of teaching, research, development and other creative␣
↪activities, a centre providing information services, 5 facilities serving the whole␣
↪University, and the Rectorate - which is the executive management body for the␣
↪whole University.</ms:organizationBio>
        <ms:logo>https://cuni.cz/UKEN-1-version1-afoto.jpg</ms:logo>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪LanguageTechnology</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪MachineTranslation</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪SpeechRecognition</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪Annotation</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪LexiconCreation</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>language resources creation</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>Dialog systems</ms:LTClassOther>
        </ms:LTArea>
        <ms:keyword xml:lang="en">Computational Linguistics</ms:keyword>
```

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```
        <ms:keyword xml:lang="en">Natural Language Processing</ms:keyword>
        <ms:keyword xml:lang="en">Language Resources</ms:keyword>
        <ms:keyword xml:lang="en">Research infrastructures</ms:keyword>
        <ms:keyword xml:lang="en">Language Resources</ms:keyword>
        <ms:keyword xml:lang="en">Digital Humanities</ms:keyword>
        <ms:website>https://www.cuni.cz</ms:website>
        <ms:addressSet>
                <ms:address xml:lang="en">OVOCNY TRH 560/5</ms:address>
                <ms:zipCode>116 36</ms:zipCode>
                <ms:city xml:lang="en">PRAHA 1</ms:city>
                <ms:country>CZ</ms:country>
        </ms:addressSet>
        <ms:hasDivision>
                <ms:divisionName xml:lang="en">Institute of Formal and Applied␣
↪Linguistics</ms:divisionName>
                <ms:divisionShortName xml:lang="en">UFAL</ms:divisionShortName>
                <ms:divisionCategory>http://w3id.org/meta-share/meta-share/institute</
↪ms:divisionCategory>
                <ms:organizationBio xml:lang="en">'Institute of Formal and Applied␣
↪Linguistics (ΓFAL) at the Computer Science School, Faculty of Mathematics and␣
↪Physics, Charles University, Czech Republic.  The institute was established in 1990␣
↪as a continuation of the research  and teaching activities carried out by the␣
↪former Laboratory of Algebraic Linguistics since the early 60s at the Faculty of␣
↪Philosophy and later at the Faculty of Mathematics and Physics, Charles University.␣
↪The Institute is a primarily research department working on many topics in the area␣
↪of Computational Linguistics, and on many research projects both nationally and␣
↪internationally. However, the Institute of Formal and Applied Linguistics is also a␣
↪regular department in the sense that it carries a comprehensive teaching program␣
↪both for the Master''s degree (Mgr., or MSc.) as well as for a doctorate (Ph.D.) in␣
↪Computational Linguistics. Both programs are taught in Czech and English. The␣
↪Institute is also a member of the double- degree \"Master''s LCT programme\" of the␣
↪EU. Students also can take advantage of the Erasmus program for typically semester-
↪long stays at partner Universities abroad. '</ms:organizationBio>
                <ms:logo>https://ufal.mff.cuni.cz/sites/all/themes/drufal/css/logo/
↪logo_ufal_110u.png</ms:logo>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪MachineTranslation</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪SpeechRecognition</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪Annotation</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪LexiconCreation</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>Lexical Resources</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>Dialog systems</ms:LTClassOther>
        </ms:LTArea>
```

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```
        <ms:LTArea>
                <ms:LTClassOther>Corpus Creation</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>Research Infrastructure</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>LT services</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>NLP Support</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>Digital Humanities</ms:LTClassOther>
        </ms:LTArea>
        <ms:keyword xml:lang="en">Computational Linguistics</ms:keyword>
                <ms:addressSet>
                        <ms:address xml:lang="en">MalostranskΓ© nΓm. 25</ms:address>
                        <ms:zipCode>11800</ms:zipCode>
                        <ms:city xml:lang="en">Praha 1</ms:city>
                        <ms:country>CZ</ms:country>
                </ms:addressSet>
        </ms:hasDivision>
        </ms:Organization>
</ms:DescribedEntity>
</ms:MetadataRecord>
```

SME: Evaluation and Language Resources Distribution Agency (ELDA)

```
<?xml version="1.0" encoding="UTF-8"?>
<ms:MetadataRecord xsi:schemaLocation="http://w3id.org/meta-share/meta-share/ ../../
↪Schema/ELG-SHARE.xsd" xmlns:ms="http://w3id.org/meta-share/meta-share/" xmlns:xsi=
↪"http://www.w3.org/2001/XMLSchema-instance">
        <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.
↪org/meta-share/meta-share/elg">value automatically assigned - leave as is</
↪ms:MetadataRecordIdentifier>
        <ms:metadataCreationDate>2020-01-07</ms:metadataCreationDate>
        <ms:metadataLastDateUpdated>2020-01-07</ms:metadataLastDateUpdated>
        <ms:metadataCurator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCurator>
        <ms:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
                <ms:actorType>Person</ms:actorType>
                <ms:surname xml:lang="en">Smith</ms:surname>
                <ms:givenName xml:lang="en">John</ms:givenName>
                <ms:email>smith@example.com</ms:email>
        </ms:metadataCreator>
        <ms:DescribedEntity>
        <ms:Organization>
        <ms:entityType>Organization</ms:entityType>
```

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```
        <ms:OrganizationIdentifier ms:OrganizationIdentifierScheme="http://w3id.org/
↪meta-share/meta-share/elg">automatically assigned by ELG - please don't change</
↪ms:OrganizationIdentifier>
        <ms:organizationName xml:lang="en">Evaluation and Language Resources␣
↪Distribution Agency</ms:organizationName>
        <ms:organizationShortName xml:lang="en">ELDA</ms:organizationShortName>
        <ms:organizationAlternativeName xml:lang="en">EVALUATIONS AND LANGUAGE␣
↪RESOURCES DISTRIBUTION AGENCY</ms:organizationAlternativeName>
        <ms:organizationRole>http://w3id.org/meta-share/meta-share/LTSupplier</
↪ms:organizationRole>
        <ms:organizationRole>http://w3id.org/meta-share/meta-share/dataEvaluator</
↪ms:organizationRole>
        <ms:organizationLegalStatus>http://w3id.org/meta-share/meta-share/sme</
↪ms:organizationLegalStatus>
        <ms:countryOfRegistration>FR</ms:countryOfRegistration>
        <ms:organizationBio xml:lang="en">The Evaluations and Language Resources␣
↪Distribution Agency (ELDA), was created in 1995 as the organizational␣
↪infrastructure with the mission of  providing a central clearing house for Language␣
↪Resources (LR) of the  European Language Resources Association (ELRA). ELDA was set␣
↪up to  identify, classify, collect, validate and distribute the language resources␣
↪that are  needed by the Human Language Technology (HLT) community. Anticipating the␣
↪  evolutions in the HLT field, ELDA broadened its activities to cover  multimedia/
↪multimodal resources as well as evaluation activities, distributing  the language␣
↪resources needed for evaluation purposes, and conducting/coordinating evaluation␣
↪campaigns. ELDA has played a significant role within the major Multimedia and␣
↪Multimodal production projects that resulted in one of the most impressive␣
↪catalogues of available data sets, embracing all aspects of Language Technologies.␣
↪ELDA was also involved in evaluation initiatives, in several FPs' projects␣
↪involving HLT infrastructures, as well as in national programmes. In addition to␣
↪work on data production, processing and annotation, validation and quality control,␣
↪several of these projects also involved work on legal framework management for the␣
↪produced resources. Moreover, ELDA has contributed to the development of open␣
↪platforms and has joined forces with other European key players by bringing its␣
↪assets (LR catalogue, evaluation services and benchmarking) to constitute Europe's␣
↪backbone for Language Resources sharing and distribution. ELDA is also the␣
↪initiator of the Language Resource and the Evaluation Conference (LREC), since 1998.
↪ With over 1200 participants, LREC is the major event on Language Resources (LRs)␣
↪and Evaluation for Human Language Technologies (HLT).</ms:organizationBio>
        <ms:logo>https://www.european-language-grid.eu/wp-content/uploads/2019/03/
↪logo__consortium-elda.svg</ms:logo>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪LanguageTechnology</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪Evaluation</ms:LTClassRecommended>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>Language Resource collection, processing, production
↪</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>legal clearing</ms:LTClassOther>
        </ms:LTArea>
        <ms:LTArea>
                <ms:LTClassOther>HLT evaluation and dissemination</ms:LTClassOther>
```

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```
        </ms:LTArea>
        <ms:keyword xml:lang="en">Language Resources and Evaluation</ms:keyword>
        <ms:keyword xml:lang="en">Legal support</ms:keyword>
        <ms:keyword xml:lang="en">Data management</ms:keyword>
        <ms:website>http://www.elra.info/en/</ms:website>
        <ms:addressSet>
                <ms:address xml:lang="en">9 RUE DES CORDELIERES</ms:address>
                <ms:zipCode>75 013</ms:zipCode>
                <ms:city xml:lang="en">Paris</ms:city>
                <ms:country>FR</ms:country>
        </ms:addressSet>
</ms:Organization>
</ms:DescribedEntity>
</ms:MetadataRecord>
```

14.2 Minimal version metadata for organizations

The set of the metadata (mandatory or recommended) that **are common to all kinds of resources** are presented in section describeLRT. **In addition**, the metadata elements that are required or recommended for projects are described below.

For a quick guide to the ELG template, see *Template - Explanations*.

14.2.1 Organization

Path `MetadataRecord.DescribedEntity.Organization`

Data type component

Optionality Mandatory

Explanation & Instructions

Wraps together elements for organizations

Example

```
<ms:Organization>
        <ms:entityType>organization</ms:entityType>
        ...
</ms:Organization>
```

14.2.2 OrganizationIdentifier (M)

Path `MetadataRecord.DescribedEntity.Organization.OrganizationIdentifier`

Data type string

Optionality Recommended

Explanation & Instructions

A string (e.g., PID, internal to an organization, issued by the funding authority, etc.) used to uniquely identify an organization

You must also use the attribute `OrganizationIdentifierScheme` to specify the name of the scheme according to which an identifier is assigned to an organization by the authority that issues it. See https://european-language-grid.readthedocs.io/en/release1.0.0/Documentation/ELG-SHARE_xsd_Attribute_ms_OrganizationIdentifierScheme.html#OrganizationIdentifierScheme for details.

Example

```
<ms:OrganizationIdentifier ms:OrganizationIdentifierScheme="http://w3id.org/meta-
↪share/meta-share/elg">automatically assigned by ELG - please don't change</
↪ms:OrganizationIdentifier>
```

14.2.3 organizationName (M)

Path `MetadataRecord.DescribedEntity.Organization.organizationName`

Data type multilingual string

Optionality Mandatory

Explanation & Instructions

The full name of an organization

Example

```
<ms:organizationName xml:lang="en">Charles University</ms:organizationName>

<ms:organizationName xml:lang="en">Evaluation and Language Resources Distribution␣
↪Agency</ms:organizationName>
```

14.2.4 organizationShortName (M)

Path `MetadataRecord.DescribedEntity.Organization.organizationShortName`

Data type multilingual string

Optionality Recommended

Explanation & Instructions

Introduces the short name (abbreviation, acronym , etc.) used for an organization

Example

```
<ms:organizationShortName xml:lang="en">CUNI</ms:organizationName>

<ms:organizationShortName xml:lang="en">ELDA</ms:organizationName>
```

14.2.5 organizationAlternativeName (M)

Path `MetadataRecord.DescribedEntity.Organization.organizationAlternativeName`

Data type multilingual string

Optionality Recommended

Explanation & Instructions

Introduces an alternative name (other than the short name) used for an organization

Example

```
<ms:organizationAlternativeName xml:lang="en">UNIVERZITA KARLOVA</
↪ms:organizationAlternativeName>

<ms:organizationAlternativeName xml:lang="en">EVALUATIONS AND LANGUAGE RESOURCES␣
↪DISTRIBUTION AGENCY</ms:organizationAlternativeName>
```

14.2.6 countryOfRegistration (M)

Path `MetadataRecord.DescribedEntity.Organization.countryOfRegistration`

Data type CV (regionIdType)

Optionality Recommended

Explanation & Instructions

Introduces the country in which an organization has been first registered as a legal entity

Example

```
<ms:countryOfRegistration>CZ</ms:countryOfRegistration>

<ms:countryOfRegistration>FR</ms:countryOfRegistration>
```

14.2.7 organizationBio (M)

Path `MetadataRecord.DescribedEntity.Organization.organizationBio`

Data type multilingual string

Optionality Recommended

Explanation & Instructions

Introduces a short free-text account that provides information on an organization

Example

```
<ms:organizationBio xml:lang="en">Charles University was founded in 1348, making it␣
↪one of the oldest universities in the world. Yet it is also renowned as a modern,␣
↪dynamic, cosmopolitan and prestigious institution of higher education. It is the␣
↪largest and most renowned Czech university, and is also the best-rated Czech␣
↪university according to international rankings. There are currently 17 faculties at␣
↪the University (14 in Prague, 2 in Hradec KrΓlovΓ© and 1 in PlzeE), plus 3␣
↪institutes, 6 other centres of teaching, research, development and other creative␣
↪activities, a centre providing information services, 5 facilities serving the whole␣
↪University, and the Rectorate - which is the executive management body for the␣
↪whole University.</ms:organizationBio>

<ms:organizationBio xml:lang="en">The Evaluations and Language Resources Distribution␣
↪Agency (ELDA), was created in 1995 as the organizational infrastructure with the␣
↪mission of  providing a central clearing house for Language Resources (LR) of the ␣
↪European Language Resources Association (ELRA). ELDA was set up to  identify,␣
↪classify, collect, validate and distribute the language resources that are  needed␣
↪by the Human Language Technology (HLT) community. Anticipating the  evolutions in␣
↪the HLT field, ELDA broadened its activities to cover  multimedia/multimodal␣
↪resources as well as evaluation activities, distributing  the language resources␣
↪needed for evaluation purposes, and conducting/coordinating evaluation campaigns.␣
↪ELDA has played a significant role within the major Multimedia and Multimodal␣
↪production projects that resulted in one of the most impressive catalogues of␣
↪available data sets, embracing all aspects of Language Technologies. ELDA was also␣
↪involved in evaluation initiatives, in several FPs' projects involving HLT␣
↪infrastructures, as well as in national programmes. In addition to work on data␣
↪production, processing and annotation, validation and quality control, several of␣
↪these projects also involved work on legal framework management for the produced␣
↪resources. Moreover, ELDA has contributed to the development of open platforms and␣
↪has joined forces with other European key players by bringing its assets (LR␣
↪catalogue, evaluation services and benchmarking) to constitute Europe's backbone␣
↪for Language Resources sharing and distribution. ELDA is also the initiator of the␣
↪Language Resource and the Evaluation Conference (LREC), since 1998. With over 1200␣
↪participants, LREC is the major event on Language Resources (LRs) and Evaluation␣
↪for Human Language Technologies (HLT).</ms:organizationBio>
```

14.2.8 logo

Path `MetadataRecord.DescribedEntity.Organization.logo`

Data type URL

Optionality Recommended

Explanation & Instructions

Links to a URL with an image file containing a symbol or graphic object used to identify the entity

Example

```
<ms:logo>https://cuni.cz/UKEN-1-version1-afoto.jpg</ms:logo>

<ms:logo>https://www.european-language-grid.eu/wp-content/uploads/2019/03/logo__
↪consortium-elda.svg</ms:logo>
```

14.2.9 LTArea (M)

Path `MetadataRecord.DescribedEntity.Organization.LTArea`

Data type component

Optionality Recommended

Explanation & Instructions

Introduces a Language Technology-related area that a person or organization is involved or active in

For details, see https://european-language-grid.readthedocs.io/en/release1.0.0/Documentation/ELG-SHARE_xsd_Element_ms_LTArea.html#LTArea.

Example

```
<ms:LTArea>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪LanguageTechnology</ms:LTClassRecommended>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪MachineTranslation</ms:LTClassRecommended>
</ms:LTArea>
```

14.2.10 serviceOffered (M)

Path `MetadataRecord.DescribedEntity.Organization.serviceOffered`

Data type multilingual string

Optionality Recommended

Explanation & Instructions

Lists the service(s) offered by an organization or person

Example

```
<ms:serviceOffered xml:lang="en">Evaluation and benchmarking</ms:serviceOffered>
<ms:serviceOffered xml:lang="en">Legal support</ms:serviceOffered>
```

14.2.11 domain (M)

Path `MetadataRecord.DescribedEntity.Organization.domain`

Data type component

Optionality Recommended

Explanation & Instructions

Identifies a domain that the organization deals with

You must fill in the `CategoryLabel` element with a free text value. If you prefer to add a value from an established controlled vocabulary, you can also use the `DomainIdentifier` (with the attribute `DomainClassificationScheme` with the appropriate value).

Example

```
<ms:domain>
        <ms:categoryLabel xml:lang="en">environment</ms:categoryLabel>
</ms:domain>
```

14.2.12 keyword (M)

Path `MetadataRecord.DescribedEntity.Organization.keyword`

Data type multilingual string

Optionality Recommended

Explanation & Instructions

Introduces a word or phrase considered important for the description of the project and thus used to index or classify it

Example

```
<ms:keyword xml:lang="en">Computational Linguistics</ms:keyword>
<ms:keyword xml:lang="en">Natural Language Processing</ms:keyword>
<ms:keyword xml:lang="en">Language Resources</ms:keyword>
<ms:keyword xml:lang="en">Research infrastructures</ms:keyword>
<ms:keyword xml:lang="en">Language Resources</ms:keyword>
<ms:keyword xml:lang="en">Digital Humanities</ms:keyword>

<ms:keyword xml:lang="en">Language Resources and Evaluation</ms:keyword>
<ms:keyword xml:lang="en">Legal support</ms:keyword>
<ms:keyword xml:lang="en">Data management</ms:keyword>
```

14.2.13 email (M)

Path `MetadataRecord.DescribedEntity.Organization.email`

Data type string

Optionality Recommended

Explanation & Instructions

Points to the email address of a person, organization or group

Example

```
<ms:email>info@elda.org</ms:email>
```

14.2.14 website (M)

Path `MetadataRecord.DescribedEntity.Organization.website`

Data type URL

Optionality Recommended

Explanation & Instructions

Links to a URL that acts as the primary page (like a table of contents) introducing information about an organization (e.g., products, contact information, etc.) or project

Example

```
<ms:website>https://www.cuni.cz</ms:website>

<ms:website>http://www.elra.info/en/</ms:website>
```

14.2.15 socialMediaOccupationalAccount (M)

Path `MetadataRecord.DescribedEntity.Organization.socialMediaOccupationalAccount`

Data type multilingual string

Optionality Recommended

Explanation & Instructions

Introduces the social media or occupational account details of a person or organization

You must also use the attribute `socialMediaAccountType` to specify the type of social media account. See https://european-language-grid.readthedocs.io/en/release1.0.0/Documentation/ELG-SHARE_xsd_Attribute_ms_socialMediaOccupationalAccountType.html#socialMediaOccupationalAccountType for details.

Example

```
<ms:socialMediaOccupationalAccount ms:socialMediaOccupationalAccountType="http://w3id.
↪org/meta-share/meta-share/facebook">https://www.facebook.com/UFALMFFUK</
↪ms:socialMediaOccupationalAccount>
```

14.2.16 hasDivision (M)

Path `MetadataRecord.DescribedEntity.Organization.hasDivision`

Data type component

Optionality Recommended

Explanation & Instructions

Links an organization to the division(s) it consists of

Example

```
<ms:hasDivision>
        <ms:divisionName xml:lang="en">Institute of Formal and Applied Linguistics</
↪ms:divisionName>
        <ms:divisionShortName xml:lang="en">UFAL</ms:divisionShortName>
        <ms:divisionCategory>http://w3id.org/meta-share/meta-share/institute</
↪ms:divisionCategory>
        <ms:organizationBio xml:lang="en">'Institute of Formal and Applied␣
↪Linguistics (ΓFAL) at the Computer Science School, Faculty of Mathematics and␣
↪Physics, Charles University, Czech Republic.  The institute was established in 1990␣
↪as a continuation of the research  and teaching activities carried out by the␣
↪former Laboratory of Algebraic Linguistics since the early 60s at the Faculty of␣
↪Philosophy and later at the Faculty of Mathematics and Physics, Charles University.␣
↪The Institute is a primarily research department working on many topics in the area␣
↪of Computational Linguistics, and on many research projects both nationally and␣
↪internationally. However, the Institute of Formal and Applied Linguistics is also a␣
↪regular department in the sense that it carries a comprehensive teaching program␣
↪both for the Master''s degree (Mgr., or MSc.) as well as for a doctorate (PhD.) in␣
↪Computational Linguistics. Both programs are taught in Czech and English. The␣
↪Institute is also a member of the double- degree \"Master''s LCT programme\" of the␣
↪EU. Students also can take advantage of the Erasmus program for typically semester-
```

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```
        <ms:logo>https://ufal.mff.cuni.cz/sites/all/themes/drufal/css/logo/logo_ufal_
↪110u.png</ms:logo>
<ms:LTArea>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪MachineTranslation</ms:LTClassRecommended>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/SpeechRecognition
↪</ms:LTClassRecommended>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/Annotation</
↪ms:LTClassRecommended>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/LexiconCreation</
↪ms:LTClassRecommended>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>Lexical Resources</ms:LTClassOther>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>Dialog systems</ms:LTClassOther>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>Corpus Creation</ms:LTClassOther>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>Research Infrastructure</ms:LTClassOther>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>LT services</ms:LTClassOther>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>NLP Support</ms:LTClassOther>
</ms:LTArea>
<ms:LTArea>
        <ms:LTClassOther>Digital Humanities</ms:LTClassOther>
</ms:LTArea>
<ms:keyword xml:lang="en">Computational Linguistics</ms:keyword>
        <ms:addressSet>
                <ms:address xml:lang="en">MalostranskΓ© nΓm. 25</ms:address>
                <ms:zipCode>11800</ms:zipCode>
                <ms:city xml:lang="en">Praha 1</ms:city>
                <ms:country>CZ</ms:country>
        </ms:addressSet>
</ms:hasDivision>
```

CHAPTER 15

Update/Delete a resource

...

CHAPTER 16

Contribute via an external repository

16.1 Metadata harvesting

CHAPTER 17

Evaluate a contributed resource

Step-by-step instructions for reviewers:

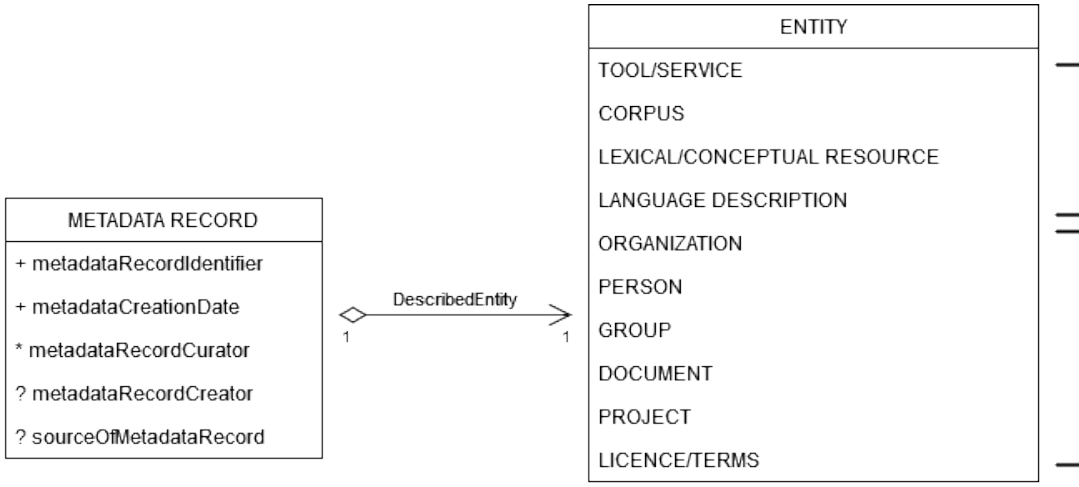
...

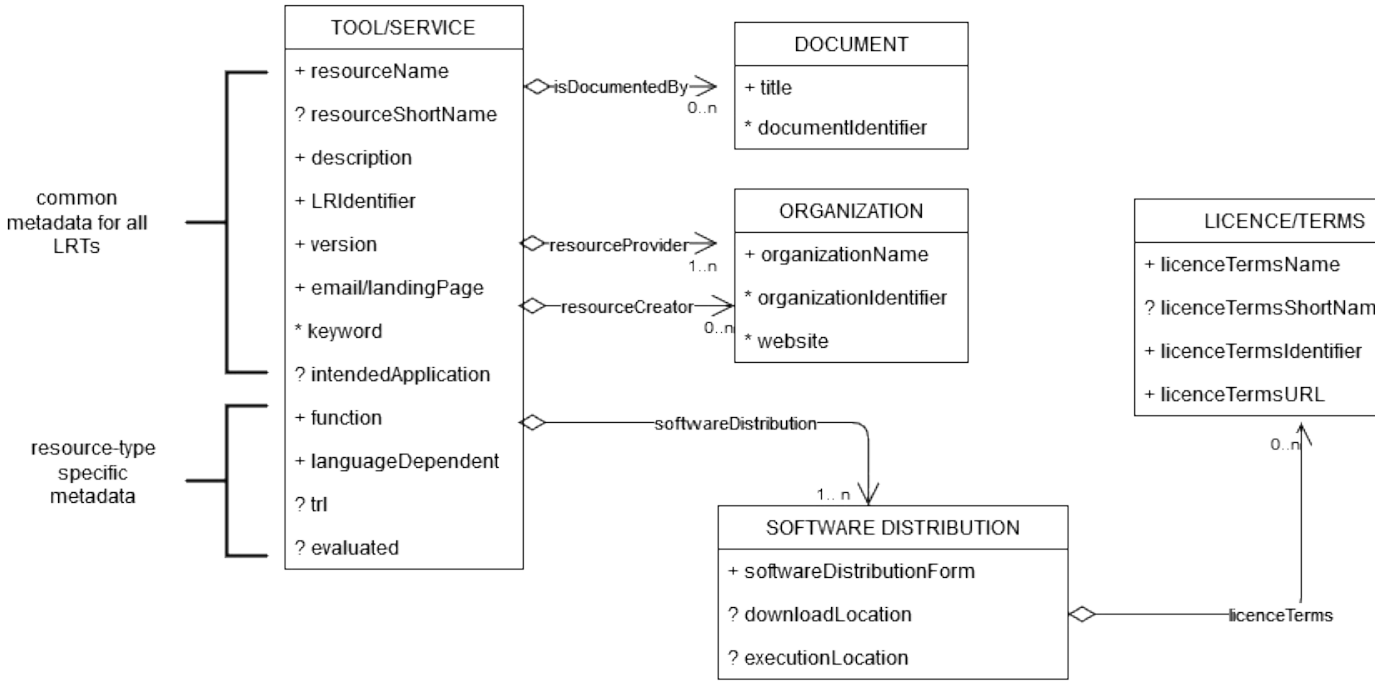
CHAPTER 18

Introduction

18.1 Basic concepts

The following figure shows the main notions upon which the ELG schema builds.





These include:

- `MetadataRecord`: It corresponds to the catalogue entry, and records information concerning the registration process, such as who created the entry and when, whether it was harvested from another catalogue, who is responsible for its curation (updates), etc.
- `DescribedEntity`: It corresponds to any entity that can be described by a metadata record. It can be a Language Resource, a Person, Organization, etc. (cf. CatContents).
- `LanguageResource`, which is further classified into one of four resource types: `ToolService`, `Corpus`, `LexicalConceptualResource` and `LanguageDescription`. A Language Resource can be described through a set of metadata elements common to all, and a further set that fits to each of these four types.
- `Distribution`: It corresponds to the physical form with which a Language Resource is made available

through the catalogue, e.g. as a downloadable file, or a form accessed via an interface, etc.

18.2 Full schema documentation

You can find the full schema XSD, documentation as well as templates and examples of metadata records for all resource types in the ELG SHARE schema Git repository.

You can browse the documentation here:

- Metadata record (Base item)
- Language Resource
  - Tool/Service
  - Corpus
  - Language description
  - Lexical/Conceptual resource
- Project
- Organization
- Group
- Person
- Licence/Terms of use
- Document

18.3 Minimal version

The minimal version comprises a set of carefully selected metadata elements that are deemed important for various reasons, such as:

- *identification and citation*: resource name(s); identifier(s); a short description of contents; versioning information; a contact point for further information (email or landing page); data of the resource provider(s) and resource creator(s); classification by domain, keywords and intended LT application; language coverage (language and, if needed, dialect); publication date;
- *support*: links to manuals, training material; samples of the resource;
- *usage/access*: distribution form (e.g. as downloadable file, a form that can be accessed via an interface, source code or binary file of software, etc.); licensing conditions; access location.

These metadata elements can be used to describe all resources, irrespective of the resource type. Additional metadata elements, particular to each resource type, are required, such as size and format for data files, prerequisites for tools and services, etc.

18.4 Template - Explanations

For each metadata element we present the following information:

- *Path*: the path of the element as in the XSD

- *Data type*:
  - string
  - multilingual string: you can repeat the element for different language versions; to specify the language, you must use the xml attribute `lang` with a value from IETF BCP 47, the IANA Language Subtag Registry; for all metadata elements, a value in English ("en") is mandatory
  - component: group of elements
  - Controlled Vocabulary (CV): value taken from a controlled vocabulary; a link to the relevant controlled vocabulary is provided
  - date: date in the format xs:date
  - URL
- *Optionality*:
  - **Mandatory (M)**: the element must always be filled in the metadata record
  - **Recommended (R)**: the use of the element is not enforced but provides important information
  - **Mandatory if applicable (MA)**: the element must be filled in when specific conditions apply
  - **Recommended if applicable (RA)**: the use of the element is recommended when specific conditions apply
- *Explanation & Instructions*: A short definition of the element, followed by instructions on how it should be used in the specific context.
- *Example*: One or more examples for the element in XML format.

CHAPTER 19

Minimal elements for all metadata records

...

CHAPTER 20

Internal LT Service API specification

Note: This specification details the API that LT tool containers need to implement in order to be runnable as functional services within the ELG infrastructure. This is distinct from (though closely related to) the public-facing service execution API that outside users use to send requests to ELG services - the *public APIs* are documented separately.

Contents

Where possible, this document SHOULD use the MUST/SHOULD/MAY terms from RFC 2119 to indicate requirement levels.

20.1 Basic API pattern

In order to integrate an LT tool as a functional service in the ELG infrastructure, the tool MUST offer at least one endpoint that can accept HTTP (1.1 or 2 - preferably cleartext HTTP/2) POST requests conforming to the appropriate request schema, and return an appropriate response as `application/json`. This specification also details a response pattern based on Server-Sent Events (SSE, a protocol defined as part of HTML5) that long-running tools can use to report progress information - support for this mechanism is RECOMMENDED for all tools but not required.

Endpoints may be sent multiple parallel requests by the ELG platform, and there is no requirement that a service must respond to requests in any particular order - certain services may, for example, be more efficient if they can batch up several requests into one back end process (e.g. for GPU computing) and send the responses in one go. If a tool has limits on the number of concurrent requests a single instance can handle then this information should be supplied to the ELG platform administrators as part of the on-boarding process, so the platform can use this data to decide how to scale the pod replicas to match the level of load on the service at any given time.

Where a tool already has its own native HTTP API it may be more convenient for integrators to provide a separate *service adapter* image which can handle requests matching the ELG specification and transform them into calls on the tool's native API. The tool container and the adapter container will run within the same "pod" in Kubernetes and can access each other as `localhost`.

20.2 Utility datatypes

The following JSON structures are used in several places in this specification, they are documented here to avoid duplication.

20.2.1 Status message

Since the ELG is supposed to be a multilingual platform, error and other status messages are handled using an approach modelled on the i18n mechanism from the Spring Framework - the message is represented by a *code*, along with a template *text* with numbered placeholders that are zero-based indices into an array of *params* replacement values.

```
{
  "code":"elg.example.no.translation",
  "text":"Default text to use for the {0} if no {1} can be found",
  "params":["message", "translation"],
  "detail":{
    // arbitrary further details that don't need translation,
    // such as a stack trace, service-native error code, etc.
  }
}
```

ELG provides a common library of fully-translated message codes for service developers to use, as detailed below - developers are free to use their own codes in their own namespaces (i.e. not prefixed `elg.`) on the understanding that

it is their responsibility to provide translations. A mechanism for developers to contribute their translated messages to the platform is under development but not yet generally available.

20.2.2 Annotations

Many of the request and response types need to represent *annotations* - pieces of metadata about specific parts of a text or audio data stream, rather than about the stream as a whole. For example, a named entity recogniser might want to state that characters 10 to 15 in the request text represent the name of a female person, or a speech recogniser might want to state that characters 75 to 80 in the transcription represent a word, and map to the time period 1.37 to 1.6 seconds in the source audio. Such structures are represented in a consistent way across all the ELG API messages:

```
"annotations":{
    "<annotation type>":[
      {
        "start":number,
        "end":number,
        "sourceStart":number,
        "sourceEnd":number,
        "features":{ /* arbitrary JSON */ }
      }
    ]
  }
```

The `<annotation type>` is an arbitrary string representing the type of annotation, e.g. "Person" or "Word" in the examples above. For each type of annotation, the matching value is a JSON *array* of objects, each object representing one annotation of that type. Note that when generating these structures in your API responses the value here MUST be an array even if there is only one annotation of the relevant type - some JSON generation libraries "unwrap" singleton arrays by default. The properties of each annotation object are:

`start` and `end` The position of the annotation in the main data stream to which it refers - this is typically the content directly associated with this `annotations` structure (for example the text of a translation). When the stream is text these would be Unicode character offsets from the start of the text, for audio they would typically be time points in seconds, etc. Subtracting the start value from the end value should give the length of the annotated area - there are several equivalent ways to conceptualise this, for example with text you could consider the characters as numbered from zero with the start offset *inclusive* and the end offset *exclusive*, or you could consider the offsets to represent the positions *between* characters (so 0 is before the first character, 1 is between the first and second, etc.).

`sourceStart` and `sourceEnd` Where these annotations are relative to a data stream that has been generated from another "source" data stream (e.g. a translation of text in another language, or a transcription of audio), these properties can be optionally used to link to the positions in the source stream (e.g. to align words in the translation with words in the original).

`features` Arbitrary JSON representing other properties of the annotation, e.g. a "Person" annotation might have a feature for "gender", a "Word" from a morphological analyser might have "root" and "suffix", etc.

20.3 Request structure

There are two main types of endpoint currently supported for this specification, one for services whose input is structured or unstructured *text* and one for services whose input is *audio*.

20.3.1 Text requests

Services that take plain text (or something from which plain text can be extracted, e.g. HTML) as their input are expected to offer an endpoint that accepts POST requests with `Content-Type: application/json` that conforms to the following structure.

```
{
  "type":"text",
  "params":{...},   /* optional */
  "content":"The text of the request",
  // mimeType optional - this is the default if omitted
  "mimeType":"text/plain",
  "features":{ /* arbitrary JSON metadata about this content, optional */ },
  "annotations":{ /* optional */
    "<annotation type>":[
      {
        "start":number,
        "end":number,
        "features":{ /* arbitrary JSON */ }
      }
    ]
  }
}
```

We expect that across the ELG from amongst the large number of possible and supported document types, a set of a smaller number of document types will emerge as being preferred and well supported (for example, plain text, HTML, XML - we do not intend to support binary formats such as PDF or Word as "text" requests, but may introduce other formats to this specification at a later date).

The only part of this request that is guaranteed to be present is the `type` (which will always be "text") and the `content`. So a minimal request would look like this:

```
{"type":"text", "content":"This is an example request"}
```

The optional elements are:

`mimeType` the MIME type of the content, if it is not simply plain text

`params` vendor-specific parameters - it is up to the individual service implementor to decide how (or indeed whether) to interpret these

`features` metadata about the input *as a whole*

`annotations` *as described above* - the `start` and `end` are Unicode character offsets within the `content` and the `sourceStart` and `sourceEnd` are ignored.

Tools that are able to accept `text` requests are RECOMMENDED to also offer an endpoint that can accept just the plain text (or other types of) "content" posted directly, and treat that the same as they would a message with the `"content"` property equal to the post data, the `"mimeType"` taken from the request `Content-Type` header, and no features or annotations. The `"params"` should be populated from the URL query string parameters. This endpoint will not be called by the ELG platform internally but it will make the service easier to test outside of the ELG platform infrastructure, and for open-source tools it will allow users to easily download and run the tool locally in Docker on their own hardware.

20.3.2 Structured text request

This is very similar to the plain text request, but for services that require some structure to their input, for example a list of sentences for some MT services, a list of words for a service that re-segments a stream of ASR output into

a list of sentences, etc. Again, services that accept this kind of input should provide a POST endpoint that accepts `Content-Type: application/json` conforming to the following structure:

```
{
  "type":"structuredText",
  "params":{...},   /* optional */
  "texts":[
    {
      "content":"The text of this node",           // either
      "texts":[/* same structure, recursive */],   // or
      // mimeType optional - this is the default if omitted
      "mimeType":"text/plain",
      "features":{ /* arbitrary JSON metadata about this node, optional */ },
      "annotations":{ /* optional */
        "<annotation type>":[
          {
            "start":number,
            "end":number,
            "features":{ /* arbitrary JSON */ }
          }
        ]
      }
    }
  ]
}
```

The `type` will always be "structuredText", `params` (optional) allows for vendor-specific parameters whose interpretation is up to the individual service implementor, and `texts` will always be an array of at least one JSON object. The `texts` property forms a recursive tree-shaped data structure, each object will be either a *leaf node* containing a piece of content or a *branch node* containing another list of texts.

Leaf nodes have one required property `content` containing the text of this node, plus zero or more of the following optional properties:

`mimeType` the MIME type of the content, if it is not simply plain text

`features` metadata about this node as a whole

`annotations` *as described above* - the `start` and `end` are Unicode character offsets within the `content` and the `sourceStart` and `sourceEnd` are ignored.

Branch nodes have one required property `texts` containing an array of child nodes (which may in turn be branch or leaf nodes), plus zero or more of the following optional properties:

`features` metadata about this node as a whole

`annotations` *as described above* - the `start` and `end` are array offsets within the `texts` array (e.g. `"start":0, "end":2` would refer to the first and second children - treat them as zero-based array indices where the start is *inclusive* and the end is *exclusive*) and the `sourceStart` and `sourceEnd` are ignored.

Here is the simplest possible example of a structured text request representing two sentences, each with several words, with no features and no annotations.

```
{
  "type":"structuredText",
  "texts":[
    {
      "texts":[
        {"content":"The"},{"content":"European"},{"content":"Language"},{"content":
↪"Grid"}
```

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```
      ]
    },
    {
      "texts":[
        {"content":"An"},{"content":"API"},{"content":"example"}
      ]
    }
  ]
}
```

20.3.3 Audio requests

Services that accept *audio* as input (e.g. speech recognition) are slightly more complex, given the input data cannot be easily encoded directly in JSON. Audio services must accept a POST of `Content-Type: multipart/form-data` with two parts, the first part named "request" will be `application/json` conforming to the following structure, and the second part named "content" will be `audio/x-wav` or `audio/mpeg` containing the actual audio data.

```
{
  "type":"audio",
  "params":{...}, // optional
  "format":"string", // LINEAR16 for WAV or MP3 for MP3, other types are service␣
↪specific
  "sampleRate":number,
  "features":{ /* arbitrary JSON metadata about this content, optional */ },
  "annotations":{ /* optional */
    "<annotation type>":[
      {
        "start":number,
        "end":number,
        "features":{ /* arbitrary JSON */ }
      }
    ]
  }
}
```

The ELG platform typically expects audio to be a single channel - this is not guaranteed, as it depends what the requesting user submits, and a service receiving multiple audio channels may handle this situation in any way it sees fit including processing only the first channel or mixing down the multi-channel stream to mono before processing.

As with text requests we expect that there will be a small number of standard audio formats that are well supported across services (e.g. 16kHz uncompressed WAV) but individual services may support other types. The format and sample rate parameters may be ignored if the audio is in a format with a self-describing file header (e.g. WAV) which specifies other values.

Optional properties of this request type are:

`params` vendor-specific parameters - it is up to the individual service implementor to decide how (or indeed whether) to interpret these

`features` metadata about the input *as a whole*

`annotations` *as described above* - the `start` and `end` are floating point timestamps in seconds from the start of the audio and the `sourceStart` and `sourceEnd` are ignored.

20.4 Response structure

Services are expected to return their responses as JSON as described in the rest of this document. The minimal requirement is for services to be able to respond with `Content-Type: application/json` containing a successful or failed response message, but long-running services may also choose to offer `Content-Type: text/event-stream` to be able to stream progress reports during processing of the request. This mechanism is described at the end of this document.

20.4.1 Failure message

If processing fails for any reason (whether due to bad input, overloading of the service, or internal errors during processing) then the service should return the following JSON structure to describe the failure.

```
{
  "failure":{
    "errors":[array of status messages]
  }
}
```

The `errors` property is an array of *i18n status messages* (JSON objects with properties "code", "text" and "params") as described above - standard message codes are given in the appendix to this document.

20.4.2 Successful response message

All the successful responses follow this basic format:

```
{
  "response":{
    "type":"Response type code",
    "warnings":[/* array of status messages, optional*/],
    // other properties type-specific
  }
}
```

As with the request, the response `type` code will likely be constant for any given service. The exact format of rest of a successful response message depends on the type of the service.

The `warnings` list is a slot to report warning messages that did not cause processing to fail entirely but may need to be fed back to the user (e.g. if the process involves several independent steps and only some of the steps failed, or the input was too long and the service chose to truncate it rather than fail altogether). Again, the individual messages in this array are *i18n status messages* as described above.

20.4.3 Annotations response

This response is suitable for any service that returns standoff annotations that are anchored to locations in text (e.g. named entity recognition) or time points in an audio/video stream (in general: anything compatible with a 1-dimensional coordinate system that uses a single number).

```
{
  "response":{
    "type":"annotations",
    "warnings":[...], /* optional */
```

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```
    "features":{...}, /* optional */
    "annotations":{
      "<annotation type>":[
        {
          "start":number,
          "end":number,
          "features":{ /* arbitrary JSON */ }
        }
      ]
    }
  }
}
```

`features` (optional) metadata about the input *as a whole*

`annotations` (required, but may be empty `"annotations":{}`) *as described above* - for plain text data `start` and `end` would be character offsets into the text (Unicode code points), for audio data they would be the time point within the audio in seconds. The `sourceStart` and `sourceEnd` are ignored since there are no separate "source" and "target" data streams in this situation.

20.4.4 Classification response

For document-level (or more generally whole-input-level) classification services, e.g. language identification

```
{
  "response":{
    "type":"classification",
    "warnings":[...], /* optional */
    "classes":[
      {
        "class":"string",
        "score":number /* optional */
      }
    ]
  }
}
```

We allow for zero or more classifications, each with an optional score. Services should return multiple classes in whatever order they feel is most useful (e.g. "most probable class" first), this order need not correspond to a monotonic ordering by score - we don't assume scores are all mutually comparable - and the order will be preserved by any subsequent processing steps.

Classification tools that classify *segments* of the input rather than the whole input should use the annotations or texts response formats instead of this one.

20.4.5 Texts response

A response consisting of one or more *new* texts with optional annotations, for example multiple alternative possible translations from an MT service or transcriptions from an ASR service.

```
{
  "response":{
    "type":"texts",
    "warnings":[...], /* optional */
```

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```
    "texts":[
      {
        "role":"string", /* optional */
        "content":"string of translated/transcribed text", // either
        "texts":[/* same structure, recursive */],         // or
        "score":number, /* optional */
        "features":{ /* arbitrary JSON, optional */ },
        "annotations":{ /* optional */
          "<annotation type>":[
            {
              "start":number,
              "end":number,
              "sourceStart":number, // optional
              "sourceEnd":number,   // optional
              "features":{ /* arbitrary JSON */ }
            }
          ]
        }
      }
    ]
  }
}
```

As with the structured text request format above, this texts response structure is recursive, so it is possible for each object in the list to be a branch node containing a set of child texts or a leaf node containing a single string.

Leaf nodes have one required property `content`, plus zero or more of the following optional properties:

`role` the role of this node in the response, "alternative" if it represents one of a list of alternative translations/transcriptions, "segment" if it represents a segment of a longer text, or "paragraph", "sentence", "word" etc. for specific types of text segment.

`score` if this is one of a list of alternatives, each alternative may have a score representing the quality of the alternative

`features` metadata about this node as a whole

`annotations` *as described above* - the `start` and `end` are Unicode character offsets within the `content` and the `sourceStart` and `sourceEnd` are the offsets into the source data (the interpretation depends on the nature of the source data).

Branch nodes have one required property `texts` containing an array of child nodes (which may in turn be branch or leaf nodes), plus zero or more of the following optional properties:

`role` the role of this node in the response, "alternative" if it represents one of a list of alternative translations/transcriptions, "segment" if it represents a segment of a longer text, or "paragraph", "sentence", "word" etc. for specific types of text segment.

`features` metadata about this node as a whole

`annotations` *as described above* - the `start` and `end` are array offsets within the `texts` array (e.g. `"start":0, "end":2` would refer to the first and second children - treat them as zero-based array indices where the start is *inclusive* and the end is *exclusive*) and the `sourceStart` and `sourceEnd` are the offsets into the source data (the interpretation depends on the nature of the source data).

The texts response type will typically be used in two different ways, either

- the top-level list of texts is interpreted as a set of *alternatives* for the whole result - in this case we would expect the `content` property to be populated but not the `texts` one, and a "role" value of "alternative" - tools should return the alternatives in whatever order they feel is most useful, typically descending order of likelihood (though

as for classification results we don't assume scores are mutually comparable and the order of alternatives in the array need not correspond to a monotonic ordering by score).

- the top-level list of texts is interpreted as a set of *segments* of the result, where each segment can have N-best alternatives (e.g. a list of sentences, with N possible translations for each sentence). In this case we would expect `texts` to be populated but not `content`, and a "role" value of either "segment" or something more detailed indicating the nature of the segmentation such as "sentence", "paragraph", "turn" (for speaker detection), etc. - in this case the order of the texts should correspond to the order of the segments in the result.

20.4.6 Audio response

A response consisting of a piece of audio (e.g. an audio rendering of text in a text-to-speech tool), optionally with annotations linked to either or both of the source and target data.

```
{
  "response":{
    "type":"audio",
    "warnings":[...], /* optional */
    "content":"base64 encoded audio for shorter snippets",
    "format":"string",
    "features":{/* arbitrary JSON, optional */},
    "annotations":{
      "<annotation type>":[
        {
          "start":number,
          "end":number,
          "sourceStart":number, // optional
          "sourceEnd":number,   // optional
          "features":{ /* arbitrary JSON */ }
        }
      ]
    }
  }
}
```

Here the `content` property contains base64-encoded audio data, and the `format` specifies the audio format used - in this version of the ELG platform the supported formats are `LINEAR16` (uncompressed WAV) or `MP3`. In addition the response may contain zero or more of the following optional properties:

`features` metadata about this node as a whole

`annotations` *as described above* - the `start` and `end` are time offsets within the audio `content` expressed as floating point numbers of seconds, and the `sourceStart` and `sourceEnd` are the offsets into the source data (the interpretation depends on the nature of the source data).

As an alternative to embedding the audio data in base64 encoding within the JSON payload, a service MAY simply return the audio data directly with the appropriate `Content-Type` (`audio/x-wav` or `audio/mpeg`), however this approach means the service will be unable to return features or annotations over the audio, and will be unable to report partial progress.

20.5 Progress Reporting

Some LT services can take a long time to process each request, and in these cases it may be useful to be able to send intermediate progress reports back to the caller. This serves both to reassure the caller that processing has not silently failed, and also to ensure the HTTP connection is kept alive. The mechanism for this in ELG leverages the standard

"Server-Sent Events" (SSE) protocol format - *if* the client sends an `Accept` header that announces that it is able to understand the `text/event-stream` response type, then the service may choose to *immediately* return a 200 "OK" response with `Content-Type: text/event-stream` and hold the connection open (using `chunked` transfer encoding in HTTP/1.1 or simply not sending a `Content-Length` in HTTP2). It may then dispatch zero or more SSE "events" with JSON data in the following structure:

```
{
  "progress":{
    "percent://number between 0.0 and 100.0,
    "message":{
      // optional status message, with code, text and params as above
    }
  }
}
```

followed by *exactly one* successful or failed response in the usual format. Services should not send any further progress messages once the success or failure response has been sent. Note that if a `message` is provided in a progress report it must be an *i18n status message*, not simply a plain string.

For example:

```
Content-Type: text/event-stream

data:{"progress":{"percent":0.0}}

data:{"progress":{"percent":20.0}}

data:{"progress":{
data:    "percent":70.0
data:  }
data:}

data:{"response":{...}}
```

As per the SSE specification, *each line* of data within an event is prefixed `data:`, and an event is terminated by a blank line - there MUST be two consecutive newlines or CRLF sequences between the end of one event and the start of the next.

One would normally expect the progress percentage to increase over time but this is not necessarily a requirement of the specification - services are free to publish progress messages *without* a `"percent"` property if they wish to provide a status update message but cannot quantify their progress numerically, or even with a lower percentage than the previous message if they now have information to suggest that the overall process will take longer than first estimated.

Services are RECOMMENDED to support this response format, and to send it if the client indicates they can accept `text/event-stream`, but it is not required. The clients which will call your services within the ELG infrastructure will accept both `text/event-stream` and `application/json` responses, and you are encouraged to return an event stream if you can, but you are free to return `application/json` if it makes more sense for your service, and you MUST return `application/json` if the calling client does not indicate in the `Accept` header that they can understand `text/event-stream`.

20.6 Appendix: Standard status message codes

```
#
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#
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#   you may not use this file except in compliance with the License.
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#
#      http://www.apache.org/licenses/LICENSE-2.0
#
#   Unless required by applicable law or agreed to in writing, software
#   distributed under the License is distributed on an "AS IS" BASIS,
#   WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
#   See the License for the specific language governing permissions and
#   limitations under the License.
#
# This file contains the standard ELG status messages, translations should
# be placed in files named elg-messages_LANG.properties alongside this file.
#

# general bad request errors
elg.request.invalid=Invalid request message
elg.request.missing=No request provided in message
elg.request.type.unsupported=Request type {0} not supported by this service
elg.request.property.unsupported=Unsupported property {0} in request

elg.request.too.large=Request size too large

# Errors specific to text requests
elg.request.text.mimeType.unsupported=MIME type {0} not supported by this service

# Errors specific to audio requests
elg.request.audio.format.unsupported=Audio format {0} not supported by this service
elg.request.audio.sampleRate.unsupported=Audio sample rate {0} not supported by this␣
↪service

# Errors specific to structured text requests
elg.request.structuredText.property.unsupported=Unsupported property {0} in "texts"␣
↪of structuredText request

# General bad response errors
elg.response.invalid=Invalid response message
elg.response.type.unsupported=Response type {0} not supported

# Unknown property in response
elg.response.property.unsupported=Unsupported property {0} in response
elg.response.texts.property.unsupported=Unsupported property {0} in "texts" of texts␣
↪response
elg.response.classification.property.unsupported=Unsupported property {0} in "classes
↪" of classification response

# User requested a service that does not exist
elg.service.not.found=Service {0} not found

# generic internal error when there's no more specific option
elg.service.internalError=Internal error during processing: {0}
```

CHAPTER 21

Public LT API specification

LT services can be called via the API endpoints given on the "code samples" page, the format of the various requests and responses is closely related to the internal LT service API used within the ELG infrastructure, but the public endpoints also offer shortcuts to simplify common interactions. There are three different types of endpoint depending on the kind of data required by the service as input - *flat text*, *structured text* or *audio*.

Authentication to all endpoints is by the use of an OAuth2 Bearer Token, and a token suitable for test use can be copied from the "code samples" page. Future versions of this document will include details of how to obtain and renew access tokens programatically. The token is passed via the HTTP `Authorization` header in the usual way: `Authorization: Bearer <tokenValue>`

21.1 Input formats

21.1.1 Services that process flat text

`https://{domain}/execution/processText/{ltServiceID}`

Services that process a single flat stream of text can be called via an endpoint of this form. Make an HTTP `POST` request to the endpoint with one of the following `Content-Type` headers:

`application/json` A JSON object as described in the *"text request"* section of the LT Service API specification. For example `{ "type":"text", "content":"The text to process", "params":{"genre":"news"} }`. The `type` *must* be the string "text", the `content` is the text to be processed, and `params` are specific to the individual service - see the per-service documentation for details of any parameters the service accepts.

`text/plain` or `text/html` Just the text to be processed. In this case any URL query parameters added to the endpoint URL will be passed on to the service as `params`

21.1.2 Services that process "structured" text

`https://{domain}/execution/processStructured/{ltServiceID}`

Some services require text that has been pre-segmented in some way, for example split into tokens, sentences or paragraphs. For this endpoint the following `Content-Type` values are supported:

`application/json` A JSON object as described in the *"structured text request"* section of the LT Service API specification. For example `{"type":"structuredText", "texts":[{"content":"First sentence."},{"content":"Second sentence"}]}`. As with text requests above, you may also add `params` to the JSON, these are specific to the individual service - see the per-service documentation for details of any parameters the service accepts.

`text/plain` As a convenience shortcut the endpoint can also accept a POST of plain text. In this case, how the text is segmented depends on a URL query parameter `split`

`processStructured/{service}` (without a `split` parameter) the whole text is treated as a single segment

`processStructured/{service}?split=line` the text is divided at line breaks, and each line is treated as a separate segment. Leading or trailing white space on each line is *not* trimmed, and blank lines become empty segments `{"content":""}`

`processStructured/{service}?split=paragraph` the text is divided at each run of one or more *blank lines* (i.e. two or more consecutive line breaks, possibly with white space in between). Again, leading or trailing whitespace around each segment is *not* trimmed.

All query parameters (including split) are passed on to the underlying service.

21.1.3 Services that process audio

`https://{domain}/execution/processAudio/{ltServiceID}`

Services that process a stream of audio can be called via an endpoint of this form. Make an HTTP `POST` request whose body is the audio data, with an appropriate `Content-Type: audio/mpeg` for MP3 audio or `Content-Type: audio/x-wav` for uncompressed WAV audio.

Any URL query parameters added to the endpoint will be passed on to the service, see the per-service documentation for details of which (if any) parameters the service accepts.

21.2 Service responses

The response formats returned from service calls are identical to *their counterparts in the internal LT Service API* and will not be repeated here. However there is one shortcut for services such as text-to-speech that return audio data. Ordinarily these services return a response of `Content-Type: application/json` including the audio data encoded in base64, but if you supply a parameter `audioOnly` (in the `params` for a JSON request, or as a URL query parameter for an unwrapped text/HTML/audio request) with the value "true" or "yes", then instead of receiving the full JSON response you will receive just the binary audio data with an appropriate `Content-Type` of `audio/mpeg` or `audio/x-wav`.

Failed responses return a special type of response as follows:

```
{
  "failure":{
    "errors":[array of status messages]
  }
}
```

The `errors` property is an array of *internationalization-compatible status message objects* - the ELG platform provides another endpoint `https://{domain}/i18n/resolve` to which you can `POST` a JSON array of these objects and receive an array of resolved message strings in response.

21.3 Asynchronous processing

Some services may take several seconds or more to respond, either because their processing is naturally complex or because there are many requests for the same service being processed at the same time. To avoid the risk of dropped connections in such cases, the ELG platform offers an alternative "asynchronous" interaction style. To use this, send the same `POST` request, but add `/async` to the endpoint URL ahead of the `/process*`, e.g.

`https://{domain}/execution/async/processAudio/{ltServiceID}`

When called in async mode, the initial request should return immediately with a response of the following form:

```
{
  "response":{
    "type":"stored",
    "uri":"<polling URL>"
  }
}
```

The `uri` property is a URL which you should then begin to poll on a regular basis with a `GET` request (using the same `Authorization` token). Each time you poll, if processing is still ongoing you will receive a "progress" response of the form

```
{
  "progress":{
    "percent://number between 0.0 and 100.0,
    "message":{
      // optional status message
    }
  }
}
```

(The `message` is optional, if provided it is a message *object* as in the failure response case above, which can be resolved to a message *string* by the `/i18n/resolve` endpoint). Some services return true progress percentages, for those that do not provide real updates the endpoint will always return `{"progress":{"percent":0.0}}` to show that processing is still ongoing.

Once the processing is complete the poll URL will return the JSON response (successful or failed) exactly as you would have got from the normal synchronous API endpoint.

CHAPTER 22

Publications and reports

...

CHAPTER 23

Processes and policies

23.1 Service and resources

Requirement / Process	User role	Prerequisites
Upload a language resource	Provider	Logged in + rights on metadata record
Register a service	Provider	Logged in + rights on metadata record
Delete a resource / service	Provider	Logged in + rights on metadata record
Upgrade a resource / service (not available in current release)	Provider	Logged in + rights on metadata record
Provide a Trial UI for an uploaded service or a sample of the dataset	Provider	Logged in + rights on metadata record
Add a description of a service / dataset	Provider	Logged in + rights on metadata record
Update a description of a service / dataset	Provider	Logged in + rights on metadata record
Provide a documentation of the service API or the resource	Provider	Logged in + rights on metadata record
Add links / Upload supporting documentation for a resource / service	Provider	Logged in + rights on metadata record
Provide a link to where a data resource is hosted	Provider	Logged in + rights on metadata record
Define / Edit licence for service / resource	Provider	Logged in + rights on metadata record
Manage (define, update) accessibility (user groups) for a service	Provider	Logged in + rights on metadata record

23.2 User management

...

23.3 Metadata

...

23.4 Catalogue UI

...

23.5 Analytics

...

23.6 Monitoring

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23.7 Profile Pages

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