European Language Grid

Release 1

ELG Technical Team

Apr 11, 2021

CHAPTER 1: INTRODUCTION

Welcome to the user manual of the European Language Grid.

CHAPTER

ONE

INTRODUCTION

The European Language Grid (ELG) is a catalogue and cloud platform that offers access to a **multitude of assets related to language technology (LT)**, including commercial and non-commercial cloud LT services for all European languages, data resources such as *models*, *datasets*, *lexica, terminologies*, *grammars*, as well as information on *LT-related projects*, *organisations, and groups*.

This manual aims to guide

- **consumers:** learn how to browse the ELG catalogue and find the language resources and technologies you need. Also find organisations and projects to connect with.
- **providers:** learn how to contribute your language resources and technologies to the ELG catalogue and how to host and sell access to your services via the ELG cloud.
- **moderators:** if you are part of the ELG technical team, learn how to review and ingest submitted language resources and technologies.

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 are continuously added, and this manual keeps on being updated following the evolution of the ELG platform.

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

CHAPTER

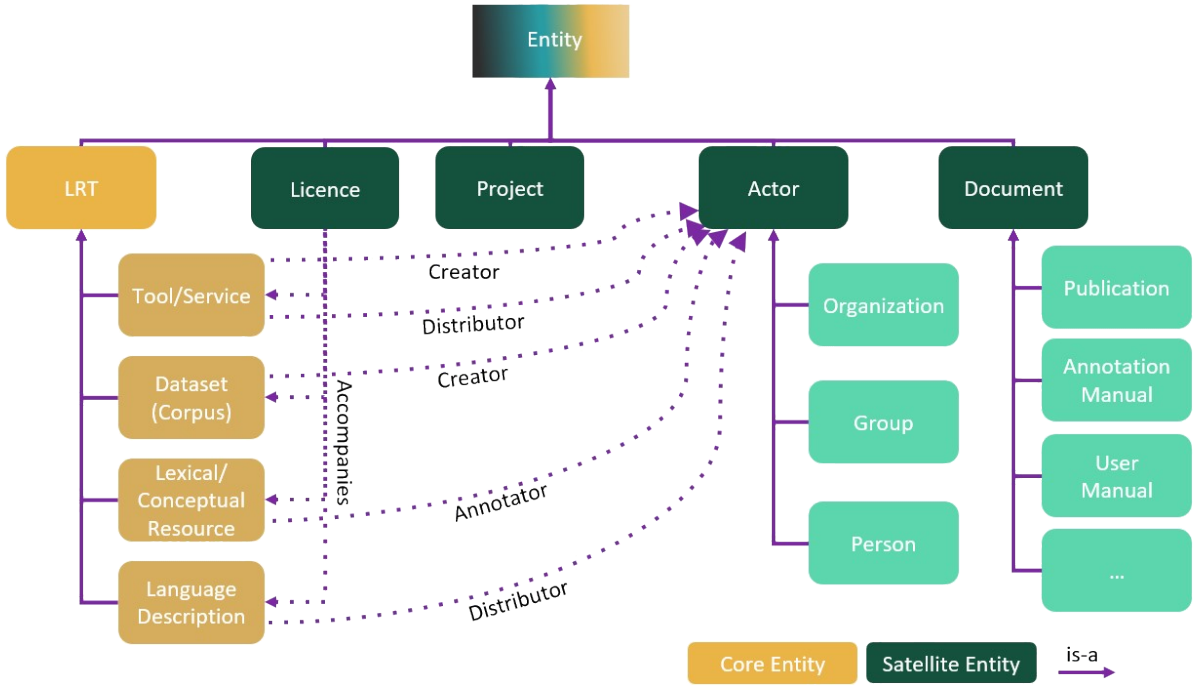
TWO

TYPES OF CATALOGUE ENTRIES

The ELG catalogue includes:

- **Language resources and technologies (LRTs)**, further classified into:
  - **tools & services**: services that run in the cloud, but also downloadable tools, source code, etc.,
  - **corpora** a.k.a datasets: collections of text documents, audio transcripts, audio and video recordings, etc.,
  - models & computational grammars, collectively referred to as **language descriptions**,
  - **lexical/conceptual resources**, comprising 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.

The following diagram depicts the taxonomy of catalogue entries:



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.

CHAPTER

THREE

USING ELG

This chapter is for **consumers**, i.e. users of the European Language Grid who wish to explore the catalogue and use the provided language resources and technologies (LRTs). You will learn how to use the catalogue, how to try out and how to download LRTs.

CHAPTER

FOUR

BROWSE THE CATALOGUE

4.1 View catalogue

You can

- browse through the catalogue and see all the entries,
- search for entries using the free text bar,
- filter entries by type, language, service function, license, etc.

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

4.2 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.

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

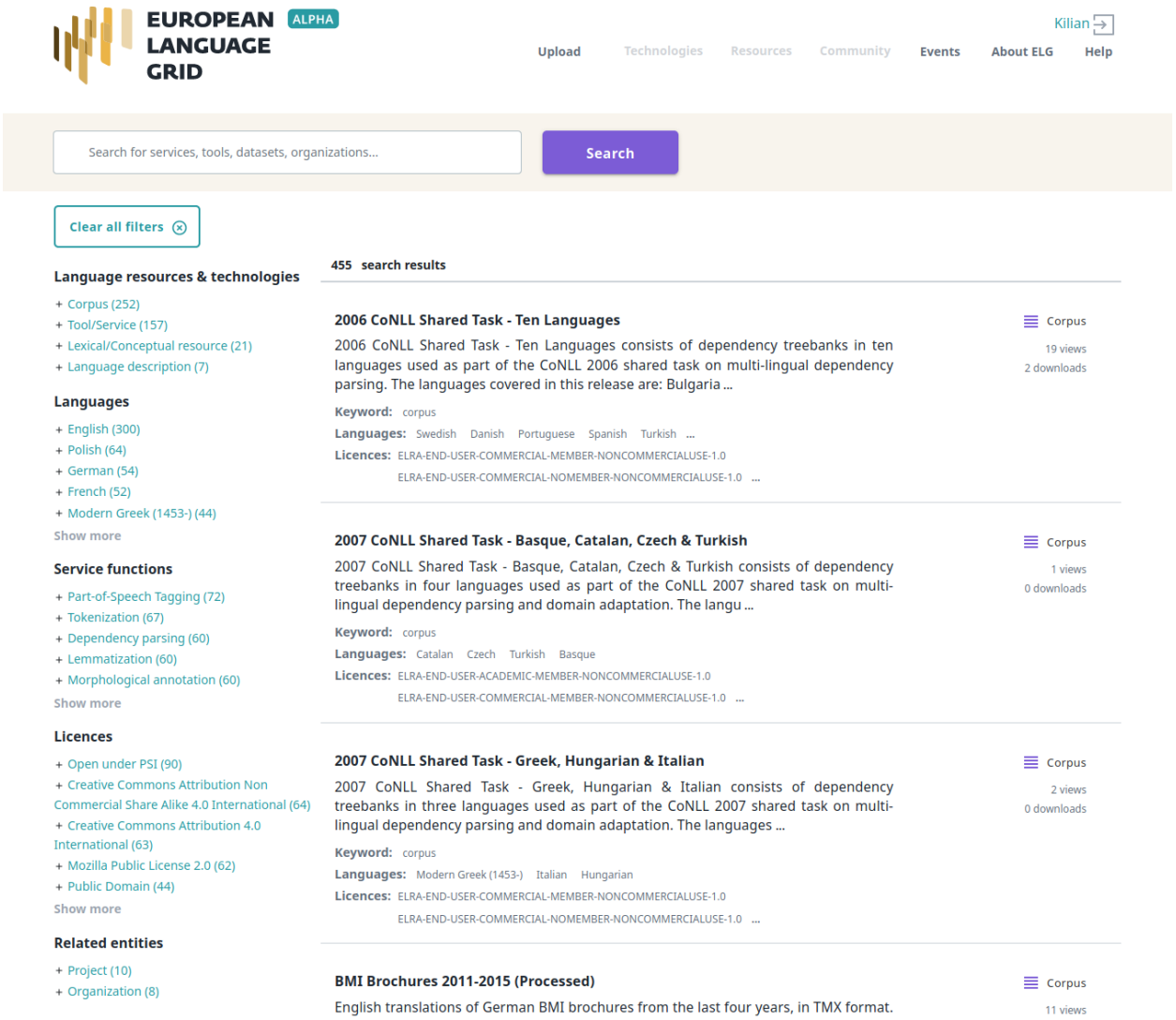
There are four tabs:

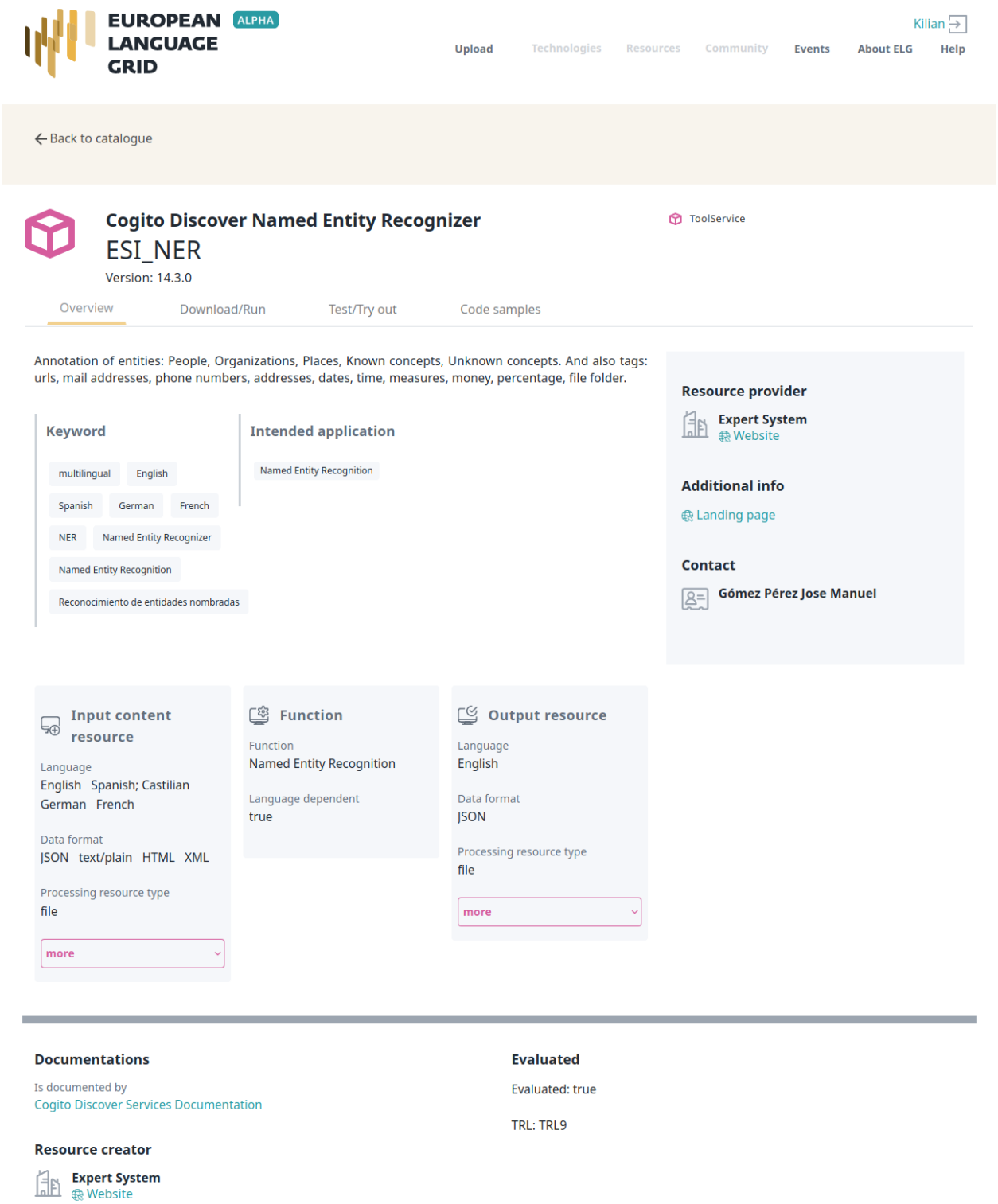
- **Overview**: contains the main metadata (e.g., description of basic features, function, input and output language(s) and data format(s), etc.), links to supporting documentation, contact details, resource providers, etc.
- **Download/Run**: includes the licensing terms under which the tool/service can be accessed, and relevant technical information (i.e., whether it can be downloaded and executed locally, is provided with source code, etc.).
- **Try out** (only for services running in the cloud): 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 services running in the cloud): you can use the code sample/template provided to test the service from the command line.

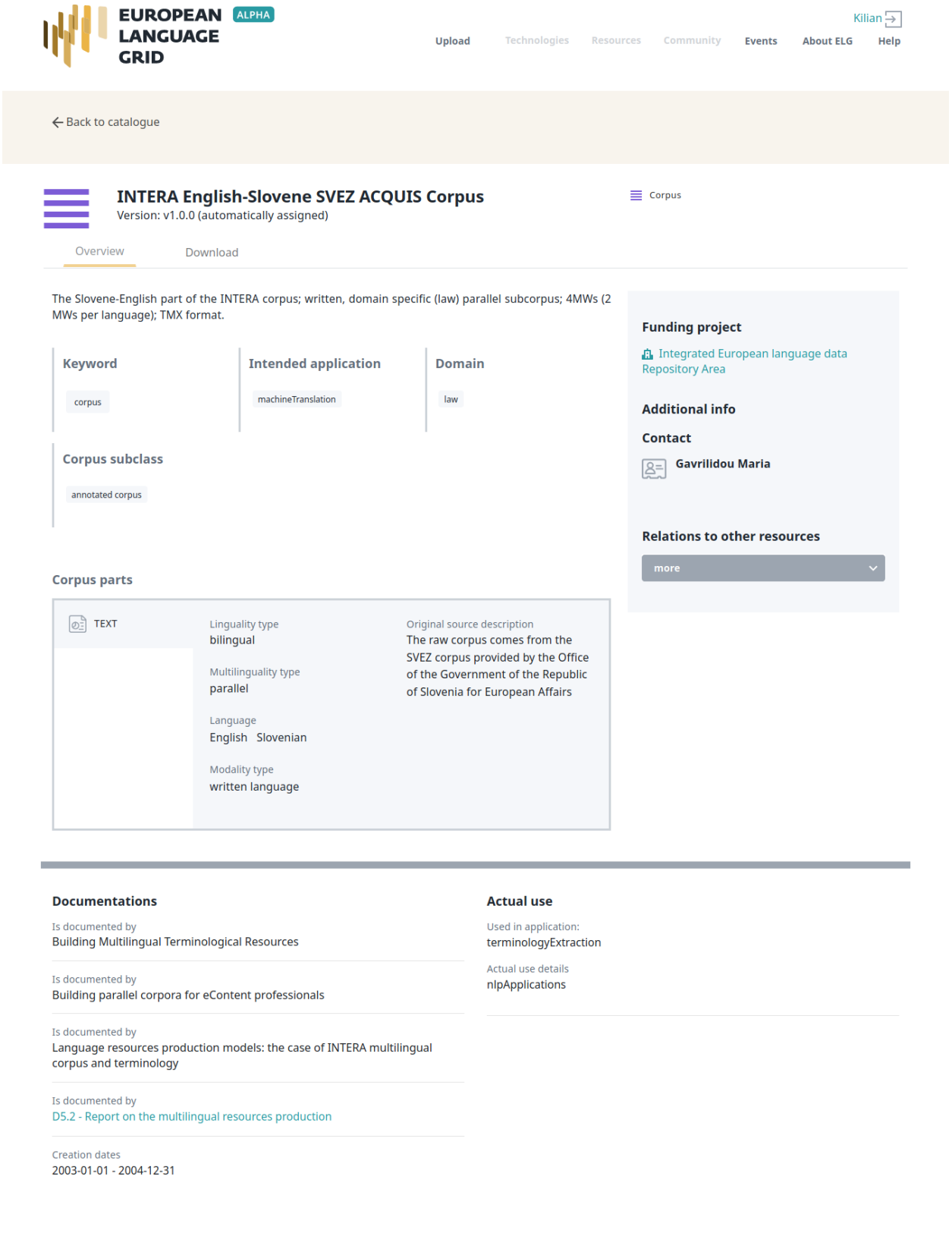
The following figure shows the entry of a **corpus**.

There are three tabs:

- **Overview**: contains the main metadata: 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, for example, 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.

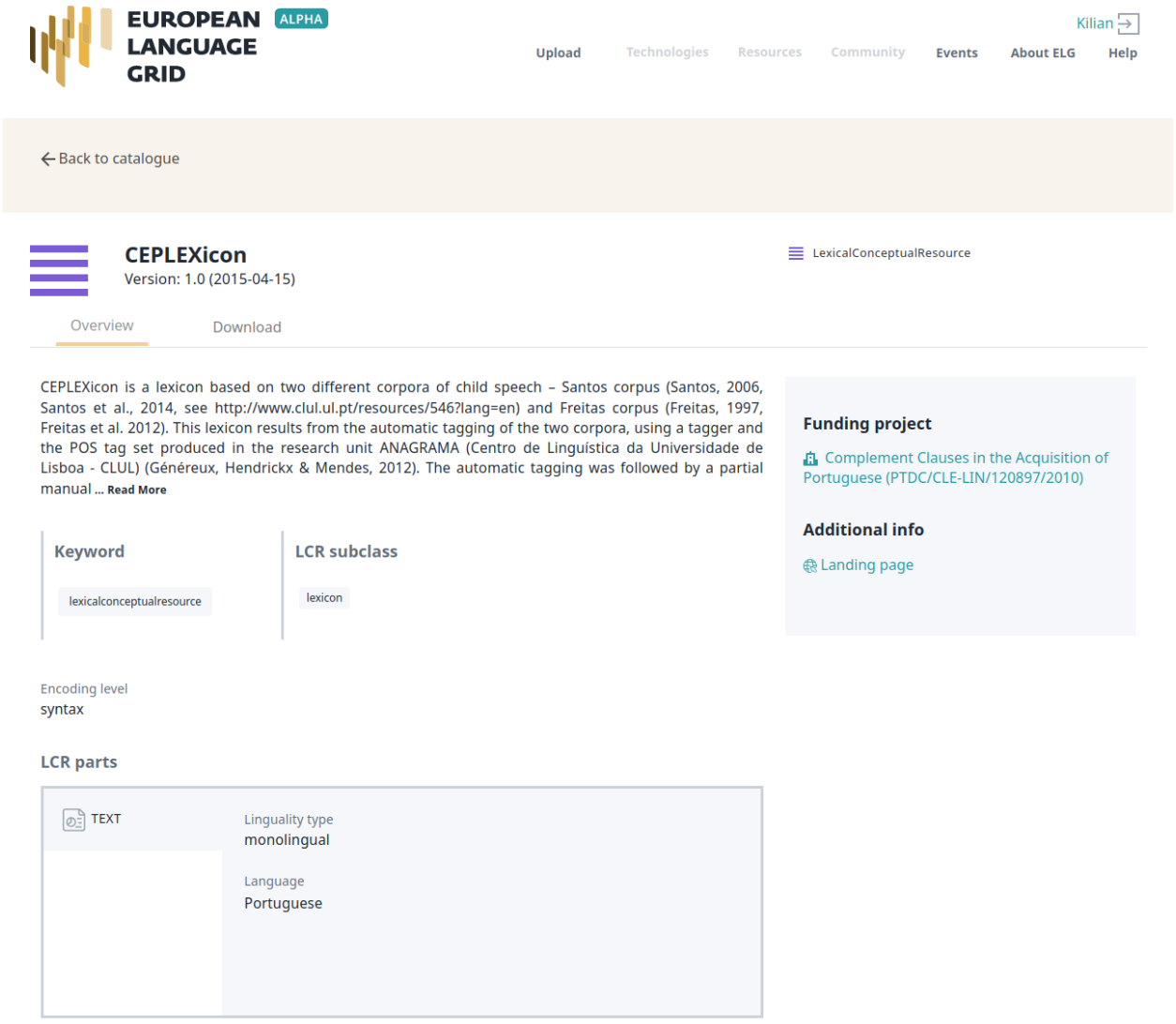

EUROPEAN LANGUAGE GRID
ALPHA
Kilian
Upload
Technologies
Resources
Community
Events
About ELG
Help
Search for services, tools, datasets, organizations...
Search
Clear all filters
Language resources & technologies
+ Corpus (252)
+ Tool/Service (157)
+ Lexical/Conceptual resource (21)
+ Language description (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
Corpus
19 views
2 downloads
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
Corpus
1 views
0 downloads
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
Corpus
2 views
0 downloads
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)
Corpus
11 views
English translations of German BMI brochures from the last four years, in TMX format.


EUROPEAN LANGUAGE GRID
ALPHA
Kilian
Upload
Technologies
Resources
Community
Events
About ELG
Help
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
Website
Evaluated
Evaluated: true
TRL: TRL9

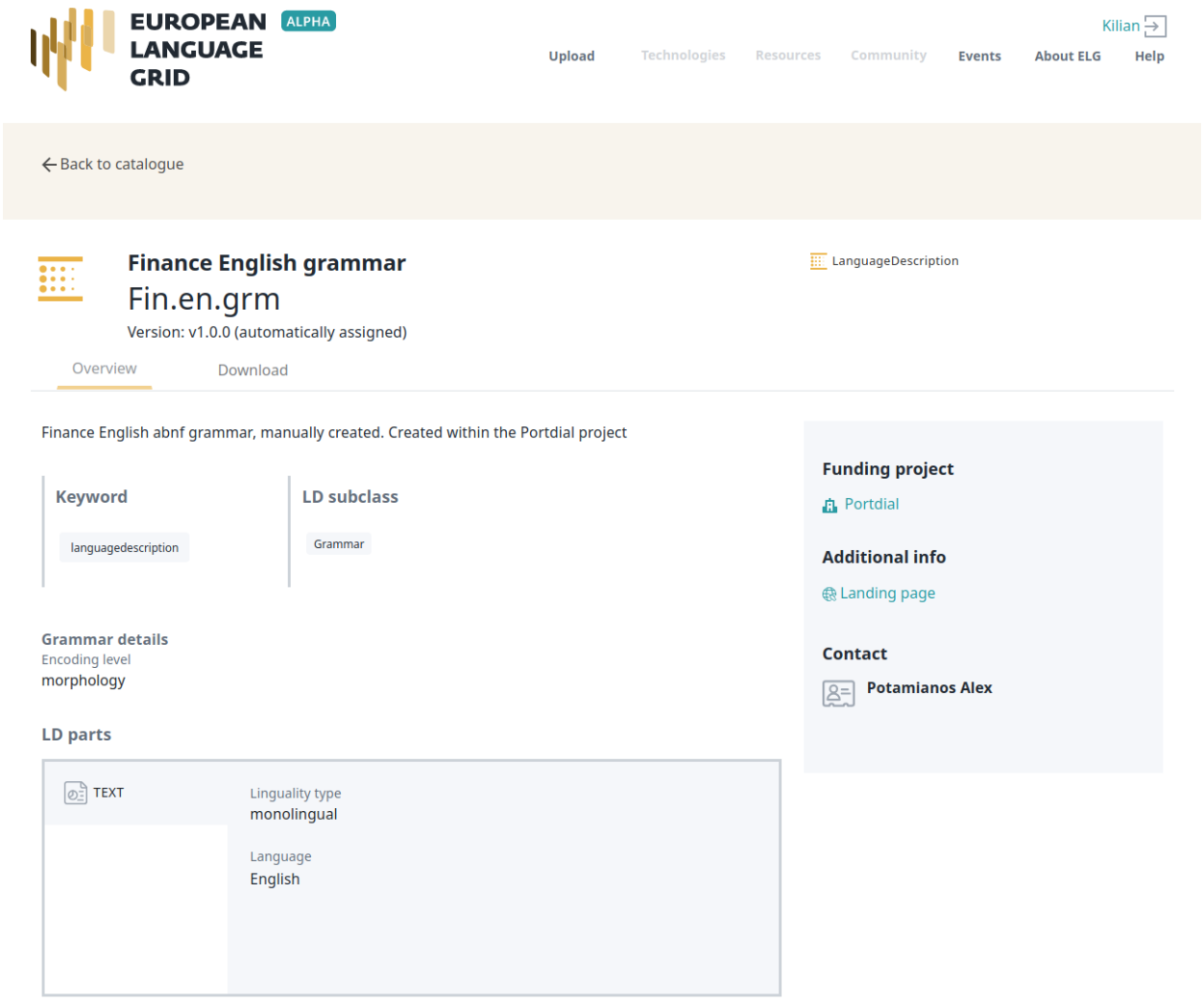

EUROPEAN LANGUAGE GRID
ALPHA
Kilian
Upload
Technologies
Resources
Community
Events
About ELG
Help
Back to catalogue
INTERA English-Slovene SVEZ ACQUIS Corpus
Version: v1.0.0 (automatically assigned)
Corpus
Overview
Download
The Slovene-English part of the INTERA corpus; written, domain specific (law) 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
Creation dates
2003-01-01 - 2004-12-31
Actual use
Used in application:
terminologyExtraction
Actual use details
nlpApplications

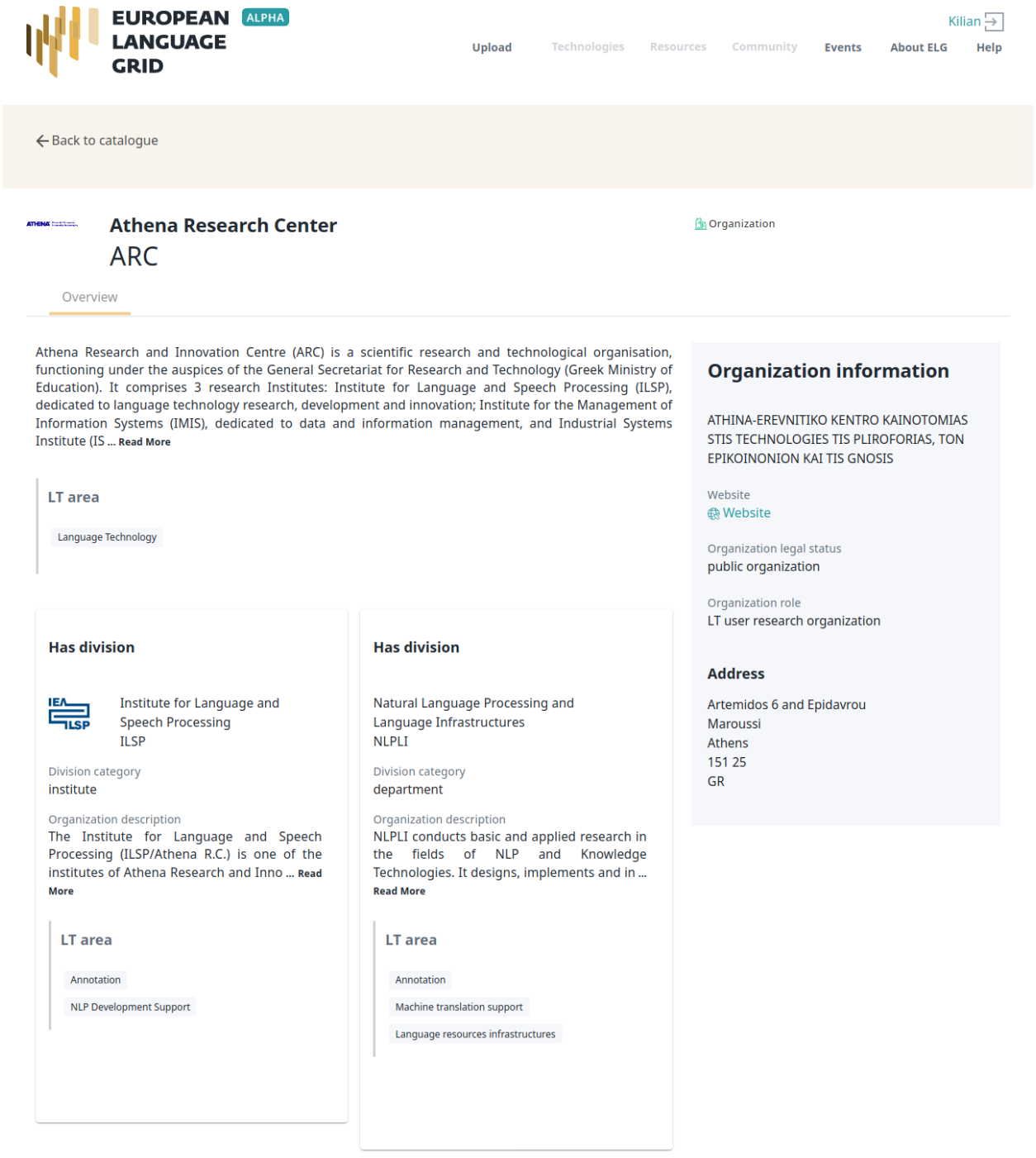
- **Download**: The second tab includes the licensing terms under which the resource can be accessed, and technical details on how it can be accessed (i.e., whether it can be downloaded, used via an interface, etc.), as well as details on formats and size. If the resource has been uploaded to ELG, you 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.

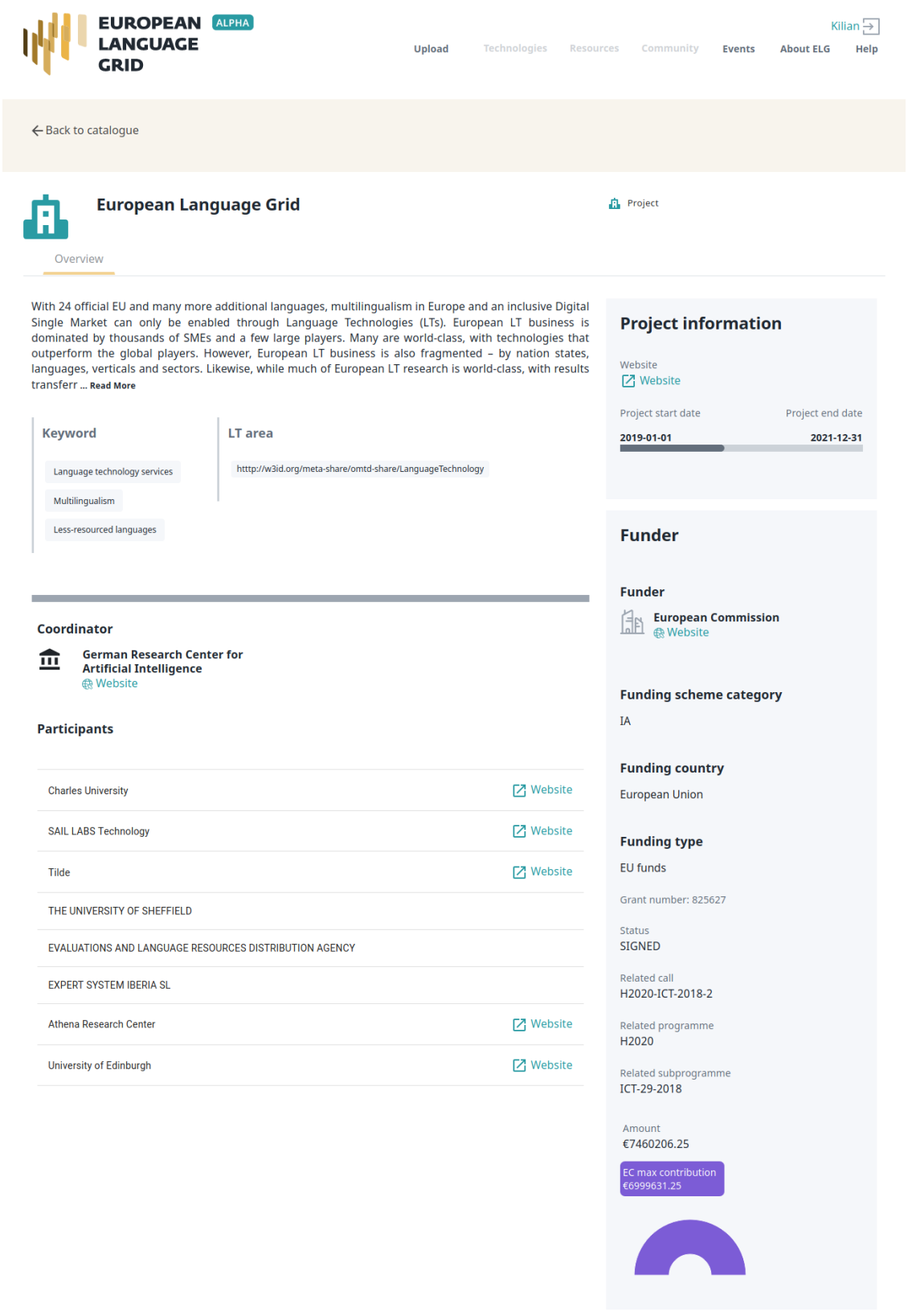
The next two figures show the entries for **lexical/conceptual resources** (lexica, terminologies, ontologies, etc.) and **language descriptions** respectively, with information tabs similar to those of corpora.



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


EUROPEAN LANGUAGE GRID
ALPHA
Upload
Technologies
Resources
Community
Events
About ELG
Help
Kilian
Back to catalogue
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


EUROPEAN LANGUAGE GRID
ALPHA
Kilian
Upload
Technologies
Resources
Community
Events
About ELG
Help
Back to catalogue
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 information
ATHINA-EREVNITIKO KENTRO KAINOTOMIAS STIS TECHNOLOGIES TIS PLIROFORIAS, TON 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


EUROPEAN LANGUAGE GRID
ALPHA
Kilian
Upload
Technologies
Resources
Community
Events
About ELG
Help
Back to catalogue
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
http://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
Project end date
2021-12-31
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
ICT-29-2018
Amount
€7460206.25
EC max contribution
€6999631.25

CHAPTER

FIVE

REGISTER AS A USER

Although you can browse the catalogue and access many resources without registration, a user account is required for, e.g., accessing resources with access restrictions, or making use of the try-out feature.

If you don't have an account yet, request one via our contact form.

To sign in to your existing account, click on the user icon at the top right and follow the instructions.

CHAPTER

SIX

USE AN LT SERVICE

LT services that run in the cloud and follow ELG's specifications can be used via the ELG platform. You can do this via the try-out UI directly in the catalogue, or via ELG's API.

6.1 Try-out UI

The catalogue entry of a service has a tab called **Test/Try out**:

Test/Try out:

Here 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, or upload or record audio, and get the results rendered in a task-specific viewer.

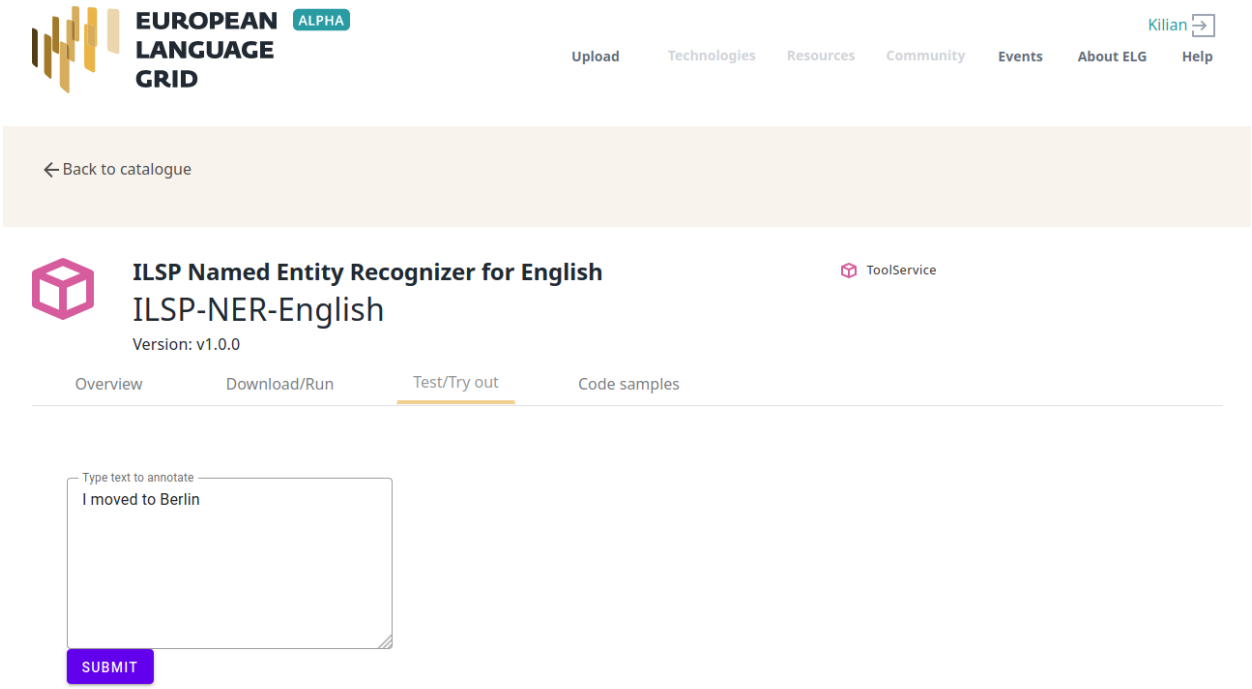
Note: In the current release, only registered users can try out services.

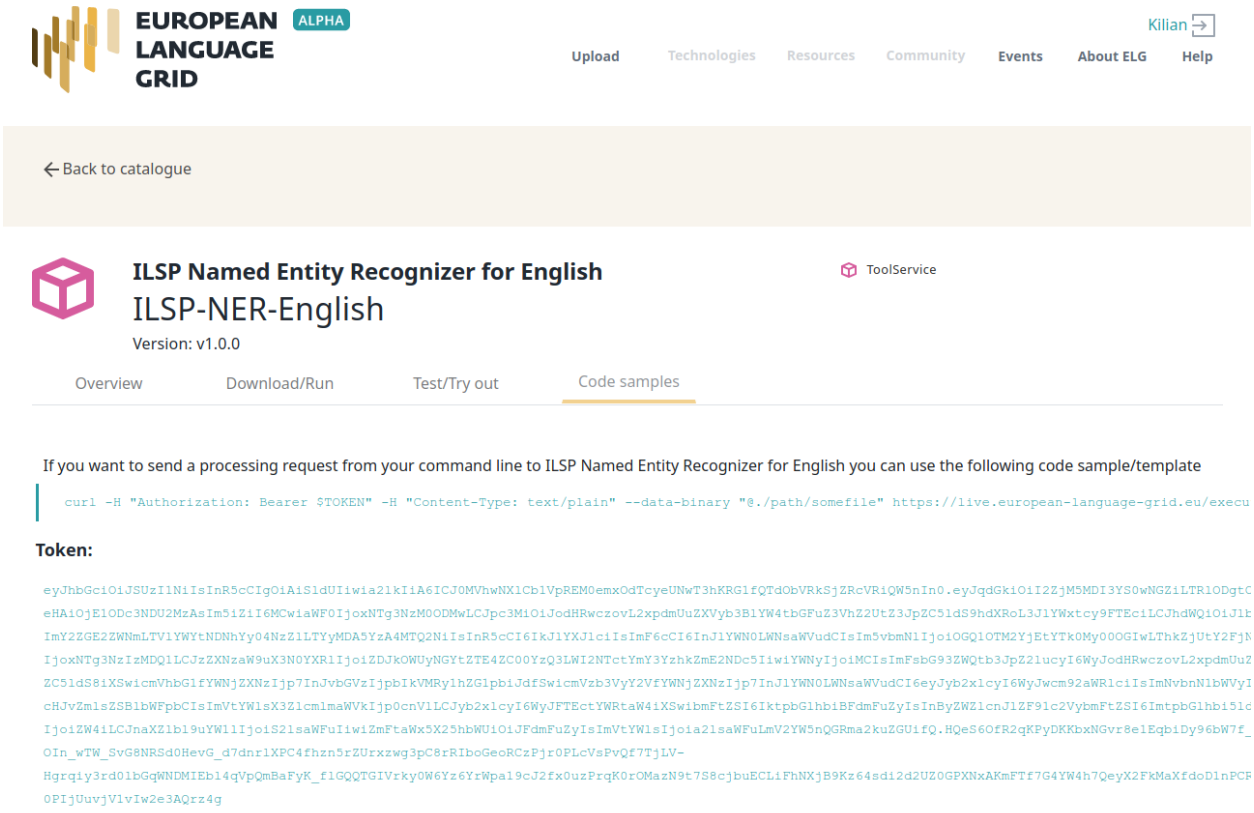
6.2 Call a service via the API

The catalogue entry of a service has a tab called **Code samples**:

You can copy and modify the provided example commands to call the service from your command line.

More information on how to call and test services is given in the *Public LT API specification*.


EUROPEAN LANGUAGE GRID
ALPHA
Kilian
Upload
Technologies
Resources
Community
Events
About ELG
Help
Back to catalogue
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

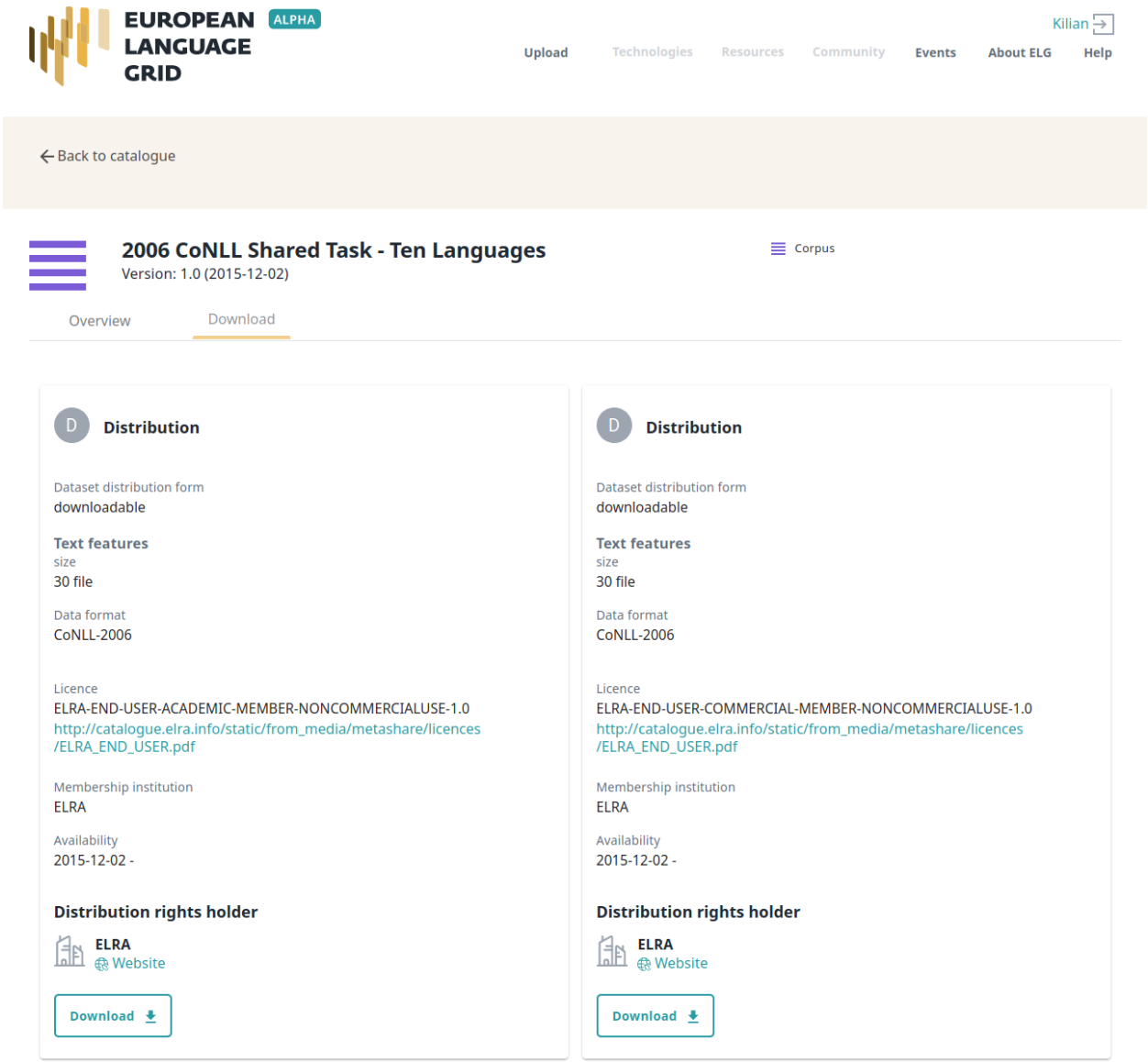

EUROPEAN LANGUAGE GRID
ALPHA
Kilian
Upload
Technologies
Resources
Community
Events
About ELG
Help
Back to catalogue
ILSP Named Entity Recognizer for English
ILSP-NER-English
Version: v1.0.0
ToolService
Overview
Download/Run
Test/Try out
Code samples
If you want to send a processing request from your command line to ILSP Named Entity Recognizer for English you can use the following code sample/template
curl -H "Authorization: Bearer $TOKEN" -H "Content-Type: text/plain" --data-binary "@./path/somefile" https://live.european-language-grid.eu/execu
Token:
eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICJ0MVhwNXlCblVpREM0emxOdTcyeUNwT3hKRG1fQTdObVRkSjZRcVRiQW5nIn0.eyJqdGkiOiI2ZjM5MDI3YS0wNGZiLTRlODgtC
eHAiOjE1ODc3NDU2MzAsIm5iZiI6MCwiaWF0IjoxNTg3NzM0ODMwLCJpc3MiOiJodHRwczovL2xpdmUuZXVyb3BlYW4tbGFuZ3VhZ2UtZ3JpZC51dS9hdXRoL3JlYWxtcy9FTEci1CJhdWQiOiJlk
ImY2ZGE2ZWNmLTV1YWYtNDNhYy04NzZlLTYyMDA5YzA4MTQ2NiIsInR5cCI6IkJlYXJlciIsImF6cCI6InJlYWN0LWNsaWVudCIsIm5vbmNlIjoiOGQlOTM2YjEtYTk0My00OGIwLThkZjUtY2FjN
IjoxNTg3NzIzMDQlLCJzZXNzaW9uX3N0YXRlIjoiZDJkOWUyNGYtZTE4ZC00YzQ3LWI2NTctYmY3YzhkZmE2NDc5IiwiYWNyIjoiMCIsImFsbG93ZWQtb3JpZ2lucyI6WyJodHRwczovL2xpdmUuZ
ZC5ldS8iXSwicmVhbGlfYWNjZXNzIjp7InJvbGVzIjpbIkVMRylhZGlpbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InJlYWN0LWNsaWVudCI6eyJyb2xlcyI6WyJwcm92aWRlciIsImNvbnN1bWVyI
cHJvZmlsZSBlbWFpbCIsImVtYWlsX3ZlcmlmaWVkIjp0cnVlLCJyb2xlcyI6WyJFTEctYWRtaW4iXSwibmFtZSI6IktpbGlhbiBFdmFuZyIsInByZWZlcnJlZF91c2VybmFtZSI6ImtpbGlhbi5l
IjoiZW4iLCJnaXZlbl9uYW1lIjoiS2lsaWFuIiwiZmFtaWx5X25hbWUiOiJFdmFuZyIsImVtYWlsIjoia2lsaWFuLmV2YW5nQGRma2kuZGUifQ.HQeS6OfR2qKPyDKKbxNGvr8e1EqbiDy96bW7f_
OIn_wTW_SvG8NRSd0HevG_d7dnrlXPC4fhzn5rZUrxzwg3pC8rRIboGeoRCzPjr0PLcVsPvQf7TjLV-
Hgrqiy3rd0lbGqWNDMIEbl4qVpQmBaFyK_flGQQTGIVrky0W6Yz6YrWpal9cJ2fx0uzPrqK0rOMazN9t7S8cjbuECLiFhNXjB9Kz64sdi2d2UZ0GPXNxAKmFTf7G4YW4h7QeyX2FkMaXfdoDlnPCF
0PIjUuvjVlvIw2e3AQrz4g

CHAPTER

SEVEN

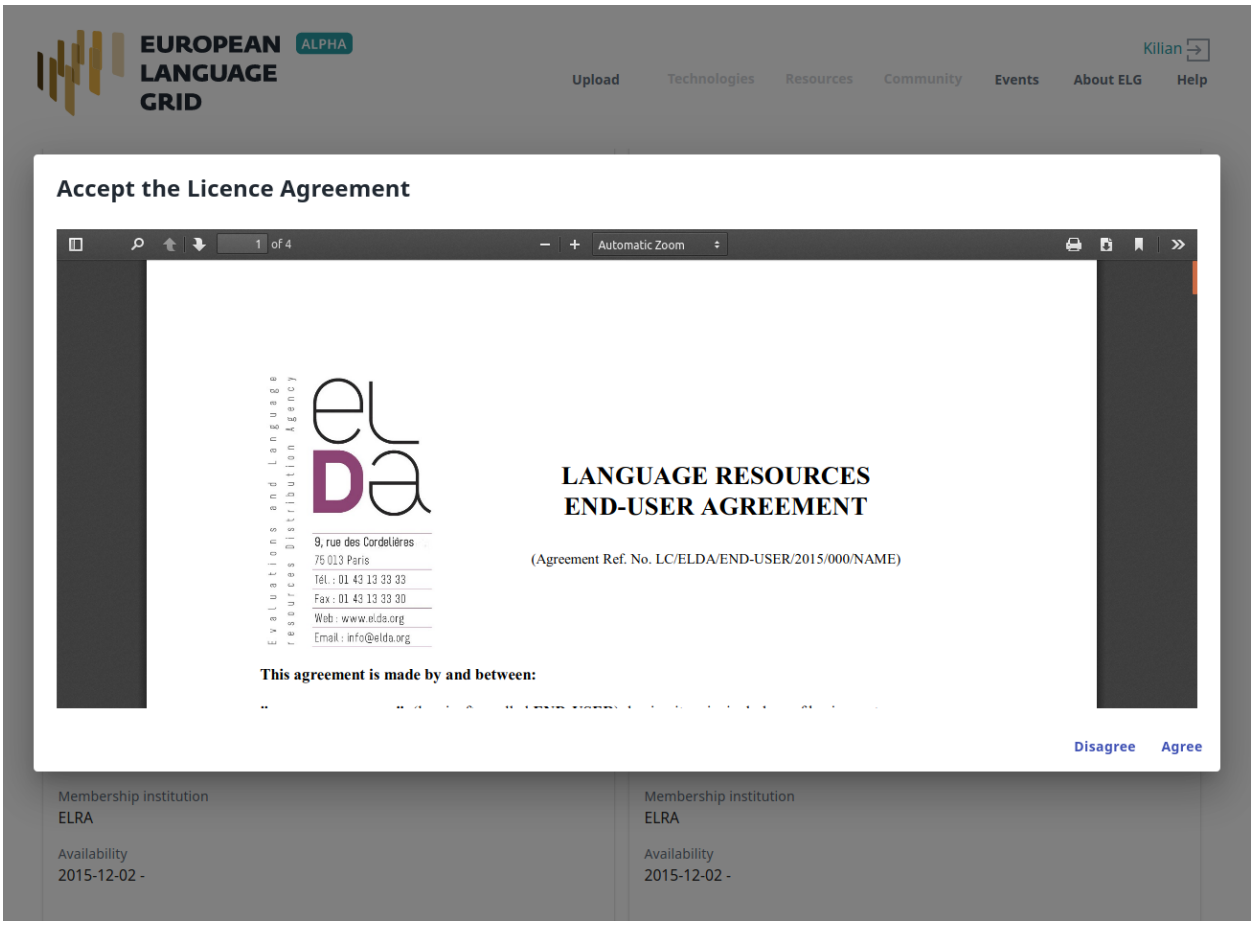
DOWNLOAD A RESOURCE

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):



CHAPTER

EIGHT

CONTRIBUTING TO ELG

This chapter is for **providers**, i.e. for users who wish to contribute language resources and technologies as well as information about organizations and projects to ELG. You will learn how to register as a provider and how to contribute each type of entity.

CHAPTER

NINE

REGISTER AS A PROVIDER

In order to contribute to ELG, *Register as a user* to the platform and ask (by email to contact@european-language-grid.eu) to be granted "Provider" permissions.

CHAPTER

TEN

CONTRIBUTE A SERVICE

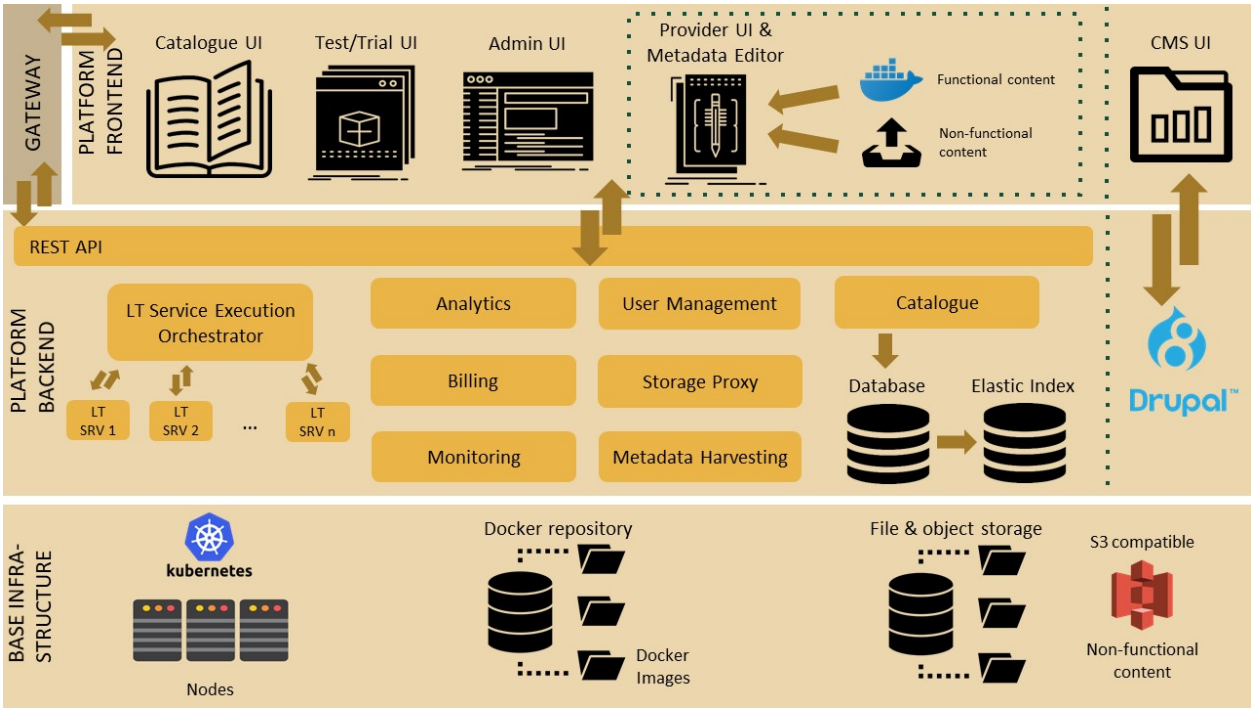
This page describes how to contribute a language technology *service* to run on the cloud platform of the European Language Grid.

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

- **Information Extraction** (IE) : Services that take text and annotate it with metadata on specific segments, e.g. Named Entity Recognition (NER), the task of extracting persons, locations, and organisations from a given text.
- **Text Classification** (TC) : Services that take text and return a classification for the given text from a finite set of classes, e.g. Text Categorization which is the task of categorizing text into (usually labelled) organized categories.
- **Machine Translation** (MT) : Services that take text in one language and translate it into text in another language, possibly with additional metadata associated with each segment (sentence, phrase, etc.).
- **Automatic Speech Recognition** (ASR) : Services that take audio as input and produce text (e.g., a transcription) as output, possibly with metadata associated with each segment.
- **Text-to-Speech Generation** (TTS) : Services that take text as input and produce audio as output.

10.1 Overview: 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 containerised applications.
- All LT Services are integrated into ELG via the LT Service Execution Orchestrator/Server. This server exposes a **common public REST API** (Representational state transfer) 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 *Use 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 *Step 2: register the service with 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 *Step 2: register the service with 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.

10.2 Before you start

- Please make sure that the service you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.
- Please make sure that your service meets the technical requirements below, and choose one of the three integration options.

10.2.1 Technical requirements and integration options

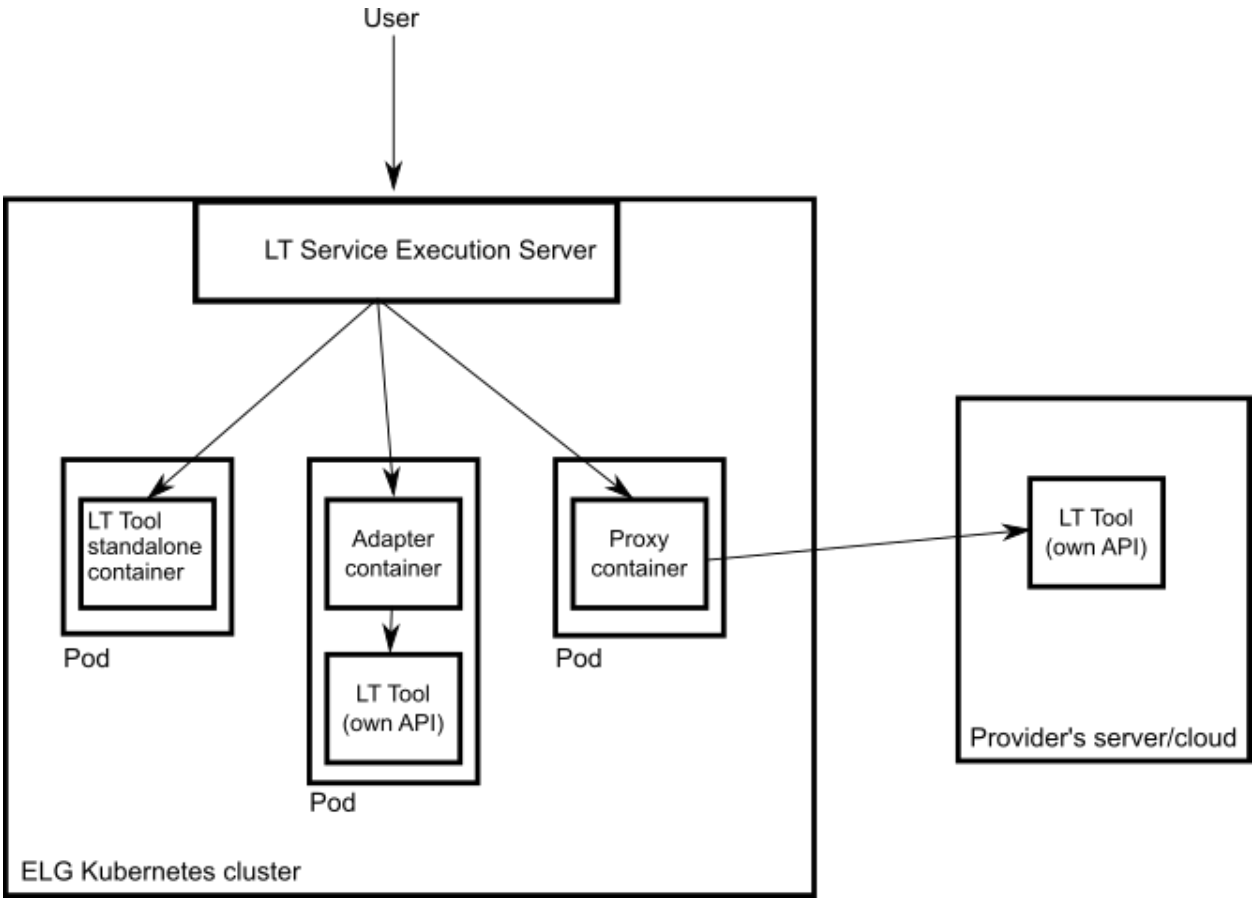
The requirements for integrating an LT tool/service are the following:

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*.

Dockerisation: You MUST dockerise 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:



10.3 Step 0: Dockerize your service

10.3.1 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.

10.3.2 Dockerization of a Python-based LT service/tool

From Python script to Service

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

In Python, this can easily be done via `print`.

Note: Example to be added soon.

From Python Service to Docker image

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 (see also: Official Docker images)
- 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"]
```

10.3.3 Dockerization of a Java-based tool

A Spring Boot starter to make it as easy as possible to create ELG-compliant tools in Java using is provided at: ELG Spring Boot Starter

10.4 Step 1: create metadata

The first step is to describe your software using ELG's metadata format, ELG-SHARE. Future releases of ELG will include an interactive editor for this. However, for now, you must create an XML file. Refer to the examples below for how to do this.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for all language resources and technologies*
- *Minimal elements for tools/services*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

10.4.1 Example 1: information extraction service

ANNIE's Named Entity Recognizer published at: https://live.european-language-grid.eu/catalogue/#/resource/service/tool/512

```
<?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>
```

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```
                        <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>
                                        <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>
```

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```
                                                    </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>
                                                    <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 service is stored at the GitLab registry.

10.4.2 Example 2: machine translation service

Edinburgh's German to English engine published at: https://live.european-language-grid.eu/catalogue/#/resource/service/tool/623

```
<?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>
                <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>
```

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```
                                        <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>
                                <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>
```

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```
                                                        <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>
                                                </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 service is stored at DockerHub.

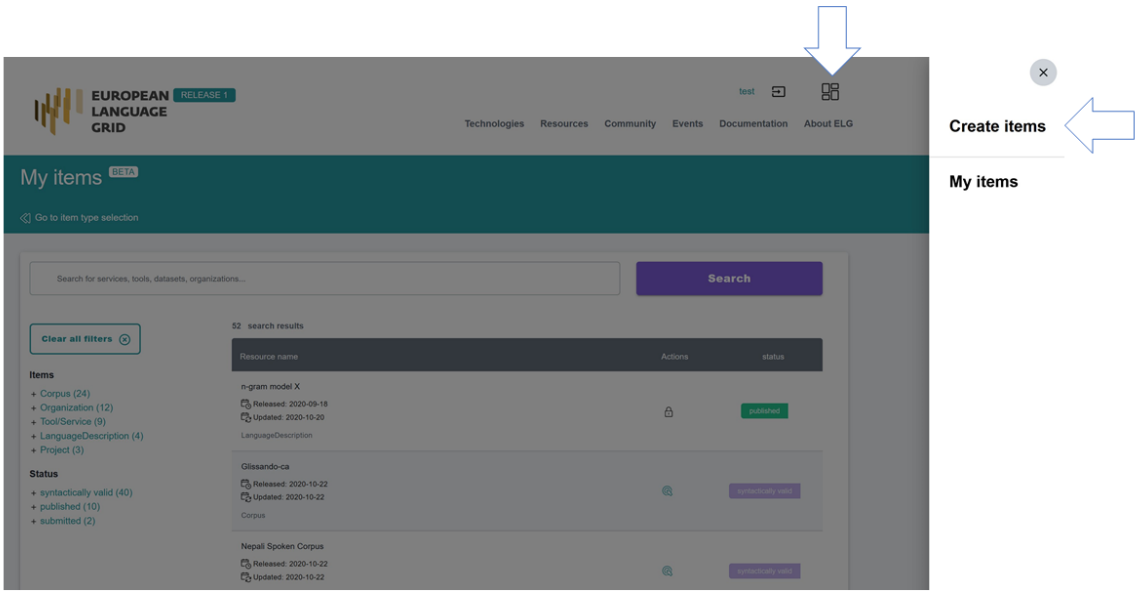
10.5 Step 2: register the service with the platform

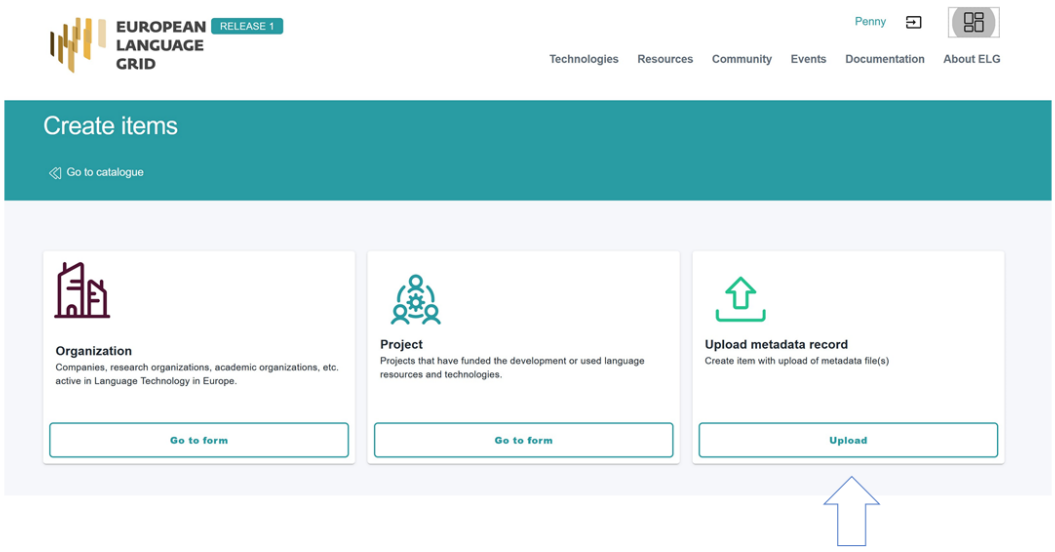
Sign in to ELG, click on the Dashboard and select the “Create item” option as below:

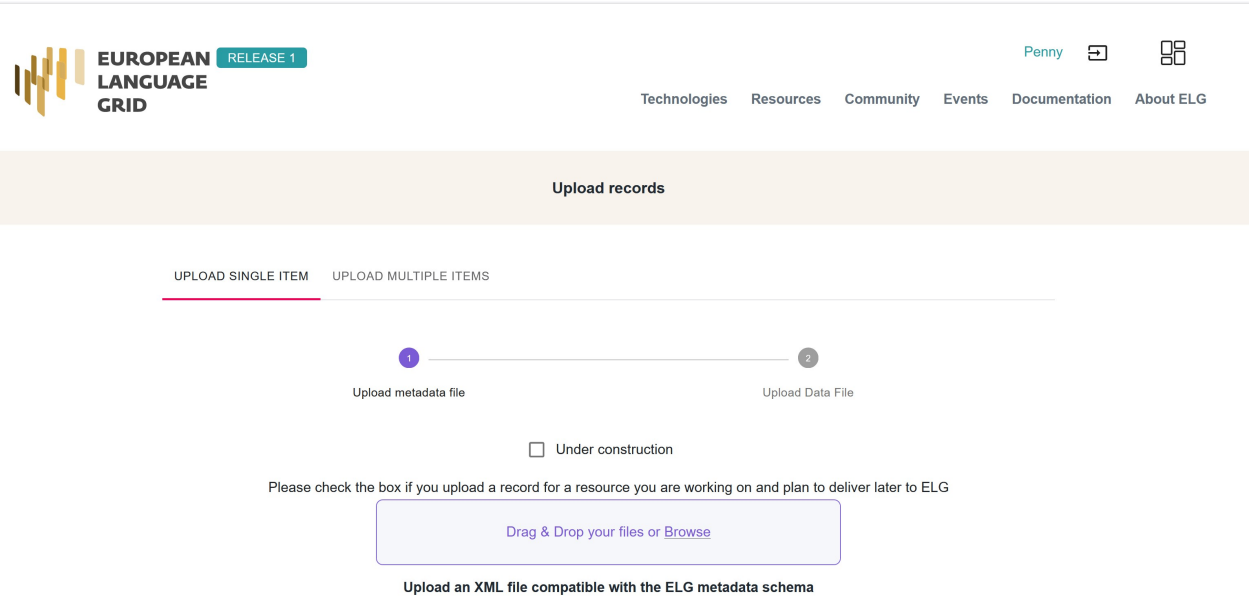
On the item type selection page, click on “Upload” as below:

Now upload the file you created in Step 1:

If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
My items
My items
BETA
Go to item type selection
Search for services, tools, datasets, organizations...
Search
Clear all filters
52 search results
Resource name
Actions
status
Items
+ Corpus (24)
+ Organization (12)
+ Tool/Service (9)
+ LanguageDescription (4)
+ Project (3)
Status
+ syntactically valid (40)
+ published (10)
+ submitted (2)
n-gram model X
Released: 2020-09-18
Updated: 2020-10-20
LanguageDescription
published
Glissando-ca
Released: 2020-10-22
Updated: 2020-10-22
Corpus
Nepali Spoken Corpus
Released: 2020-10-22
Updated: 2020-10-22


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload

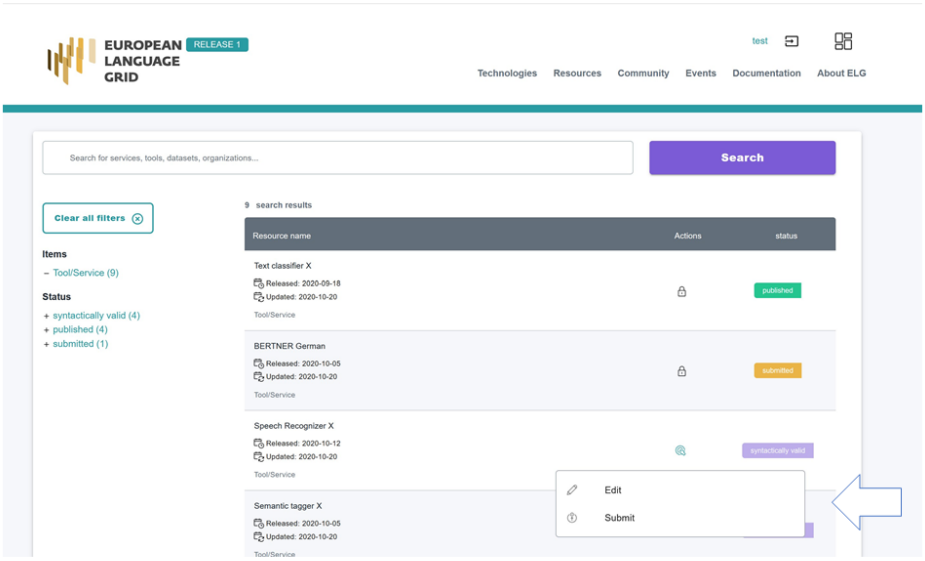


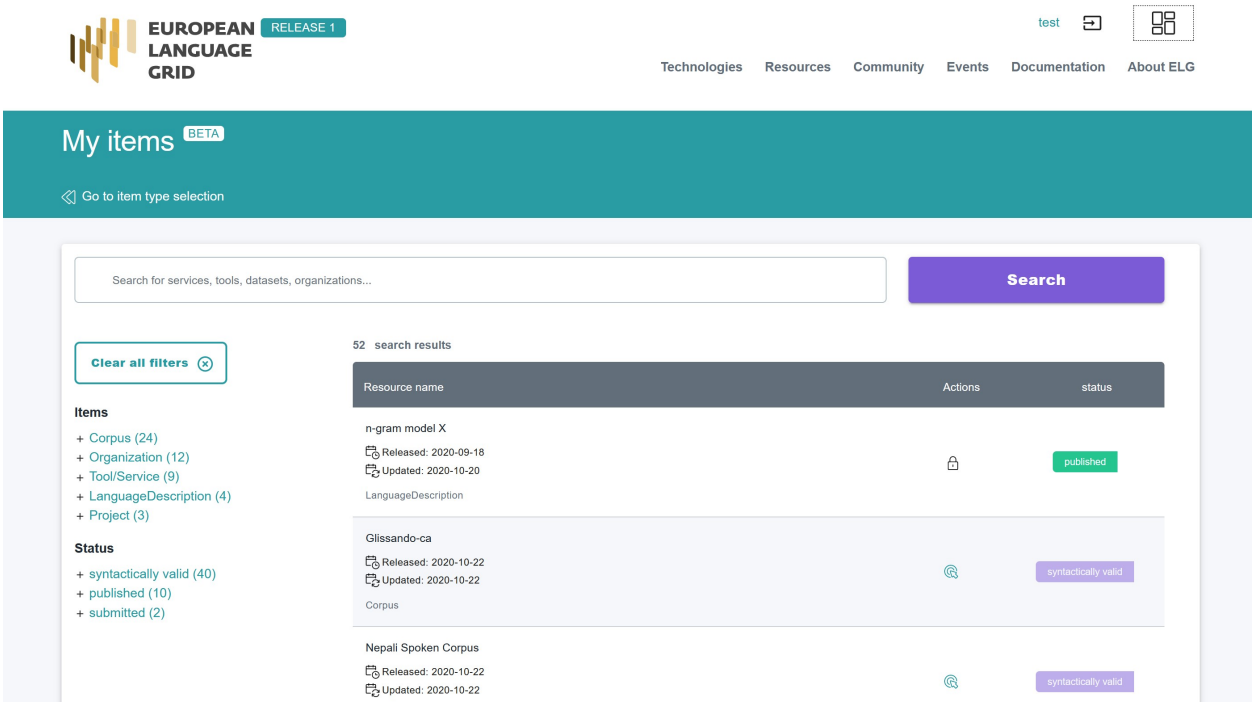
10.6 Step 3: submit for publication

Your metadata record is now accessible via the "my items" page. We will soon make available an interactive editor where you will be able to view and edit the uploaded metadata. For now, on this page, you can select to view it and submit for publication

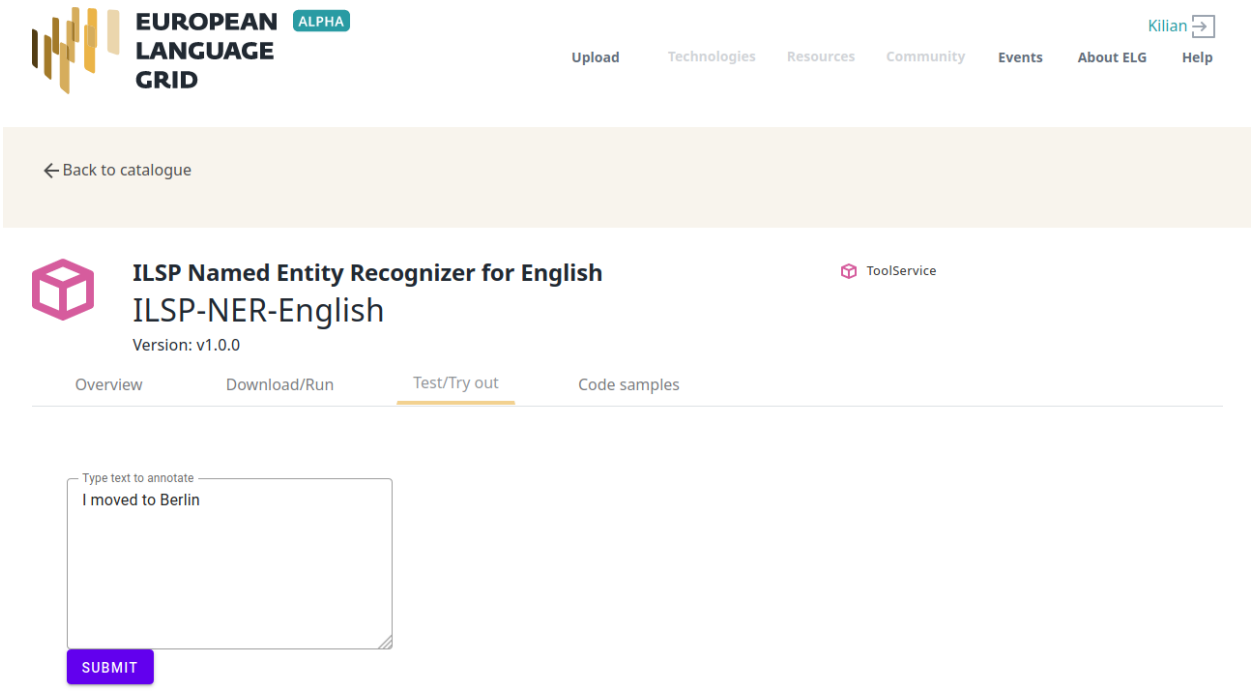
10.7 Step 4: wait for approval

- **LT Service is assigned to a validator**: The service is assigned to a validator (from the ELG team) that will check mainly the metadata and technical compliance of the service; during the validation process, the metadata record is visible only to you (LT provider) and the validator.
- **LT Service is deployed to ELG and configured**: The LT service is deployed (by the validator) 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 validator 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 *Use an LT service* section. The validator can help you identify integration issues and resolve them. This process is continued until the LT service is correctly integrated to


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
9 search results
Resource name
Actions
status
Items
Tool/Service (9)
Status
syntactically valid (4)
published (4)
submitted (1)
Text classifier X
Released: 2020-09-18
Updated: 2020-10-20
Tool/Service
published
BERTNER German
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
submitted
Speech Recognizer X
Released: 2020-10-12
Updated: 2020-10-20
Tool/Service
syntactically valid
Semantic tagger X
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
Edit
Submit


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
My items
BETA
Go to item type selection
Search for services, tools, datasets, organizations...
Search
Clear all filters
52 search results
Resource name
Actions
status
Items
Corpus (24)
Organization (12)
Tool/Service (9)
LanguageDescription (4)
Project (3)
Status
syntactically valid (40)
published (10)
submitted (2)
n-gram model X
Released: 2020-09-18
Updated: 2020-10-20
LanguageDescription
published
Glissando-ca
Released: 2020-10-22
Updated: 2020-10-22
Corpus
syntactically valid
Nepali Spoken Corpus
Released: 2020-10-22
Updated: 2020-10-22
syntactically valid

the platform. The procedure may require access to the k8s cluster for the validator (e.g., to check containers start-up/failures, logs, etc.).



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

10.8 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?

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.

Question: What is a YAML file and what does it contain?

Answer: Each service has a YAML file which contains information about the allocated resources in the k8s cluster (see question above) and the scaling parameters (whether it is readily available at all times or started on demand).

CHAPTER

ELEVEN

CONTRIBUTE DOWNLOADABLE SOFTWARE

This page describes how to contribute *downloadable software* to the European Language Grid.

11.1 Before you start

- Please make sure that the software you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.

11.2 Step 1: create metadata

The first step is to describe your software using ELG's metadata format, ELG-SHARE. Future releases of ELG will include an interactive editor for this. However, for now, you must create an XML file.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for all language resources and technologies*
- *Minimal elements for tools/services*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

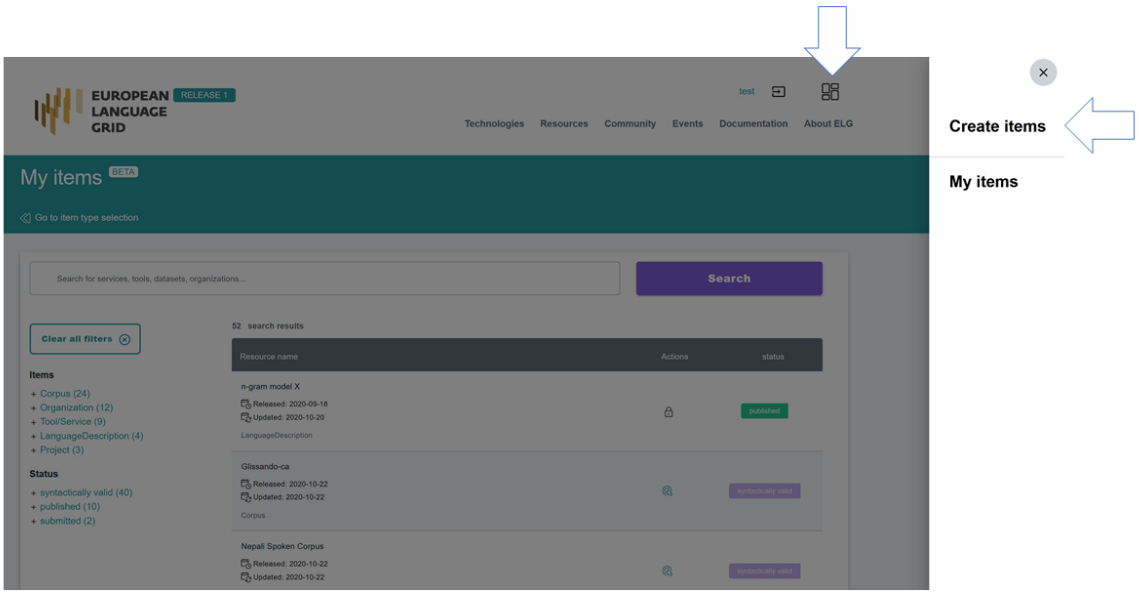
11.3 Step 2: upload

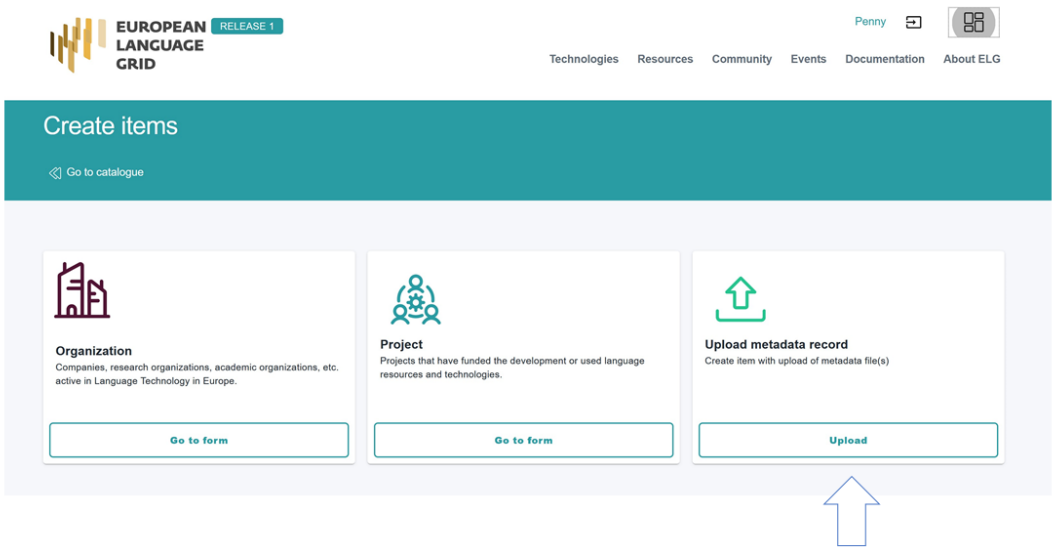
Sign in to ELG, click on the Dashboard and select the "Create item" option as below:

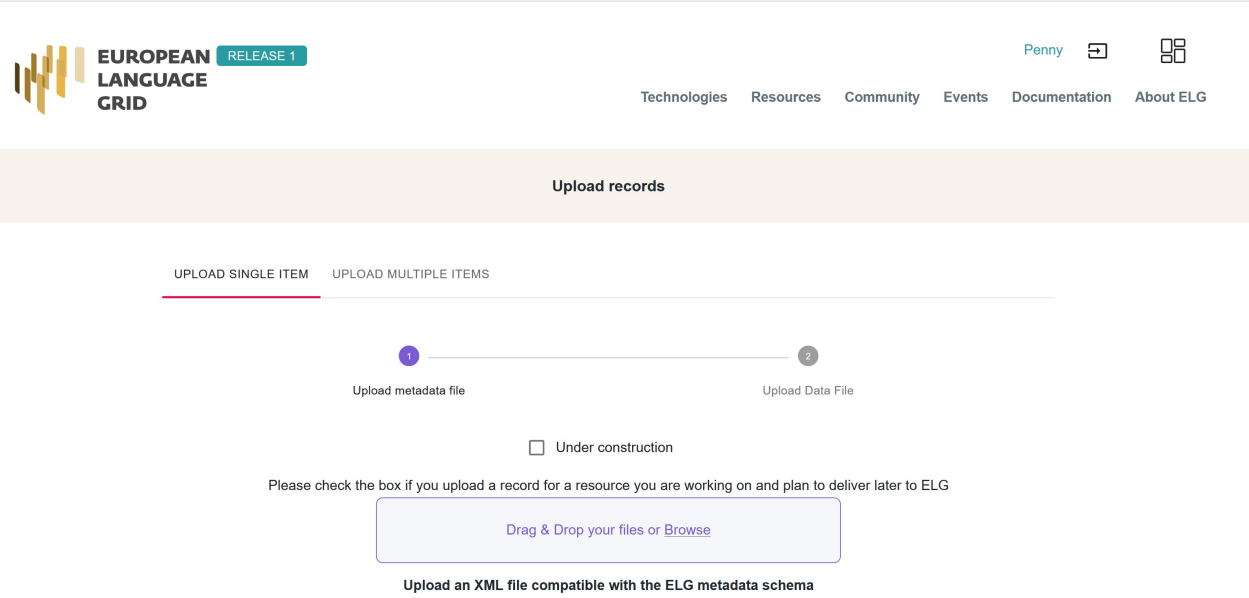
On the item type selection page, click on "Upload" as below:

Now upload the file you created in Step 1:

If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
My items
BETA
Go to item type selection
Search for services, tools, datasets, organizations...
Search
Clear all filters
52 search results
Resource name
Actions
status
Items
+ Corpus (24)
+ Organization (12)
+ Tool/Service (9)
+ LanguageDescription (4)
+ Project (3)
Status
+ syntactically valid (40)
+ published (10)
+ submitted (2)
n-gram model X
Released: 2020-09-18
Updated: 2020-10-20
LanguageDescription
published
Glissando-ca
Released: 2020-10-22
Updated: 2020-10-22
Corpus
Nepali Spoken Corpus
Released: 2020-10-22
Updated: 2020-10-22
Create items
My items


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload

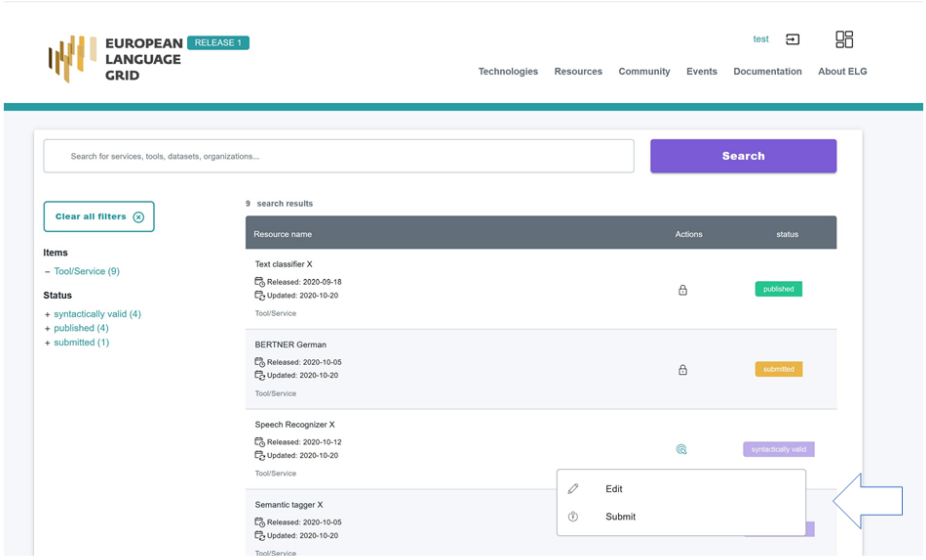


11.4 Step 3: submit for publication

Your metadata record is now accessible via the "my items" page. We will soon make available an interactive editor where you will be able to view and edit the uploaded metadata. For now, on this page, you can select to view it and submit for publication

11.5 Step 4: wait for approval

At this stage, the metadata record is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
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Documentation
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
Items
– Tool/Service (9)
Status
+ syntactically valid (4)
+ published (4)
+ submitted (1)
9 search results
Resource name
Actions
status
Text classifier X
Released: 2020-09-18
Updated: 2020-10-20
Tool/Service
published
BERTNER German
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
submitted
Speech Recognizer X
Released: 2020-10-12
Updated: 2020-10-20
Tool/Service
syntactically valid
Edit
Submit
Semantic tagger X
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service

CHAPTER

TWELVE

CONTRIBUTE A CORPUS/DATASET

This page describes how to contribute a *corpus* to the European Language Grid.

12.1 Before you start

- Please make sure that the corpus you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.
- For this release, you can provide the data files of the corpus
  - at a remote URL and include this information in the relevant metadata element (accessLocation), or
  - if you want us to upload it at the ELG cloud area, contact us through the ELG contact form.

12.2 Step 1: create metadata

The first step is to describe your corpus using ELG's metadata format, ELG-SHARE. Future releases of ELG will include an interactive editor for this. However, for now, you must create an XML file. Refer to the examples below for how to do this.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for all language resources and technologies*
- *Minimal elements for corpora*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

12.2.1 Example 1: 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>
        <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 1.5292979138402</ms:description>
```

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```
                        <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>
                        </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>
```

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```
                        </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>
                                    <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>
```

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```
                                                    <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>
                                                            <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>
```

12.2.2 Example 2: 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>
```

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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>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>
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCreator>
        <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>
```

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```
                        <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>
                        </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>
```

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```
                                                        <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>
                                                    <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>
```

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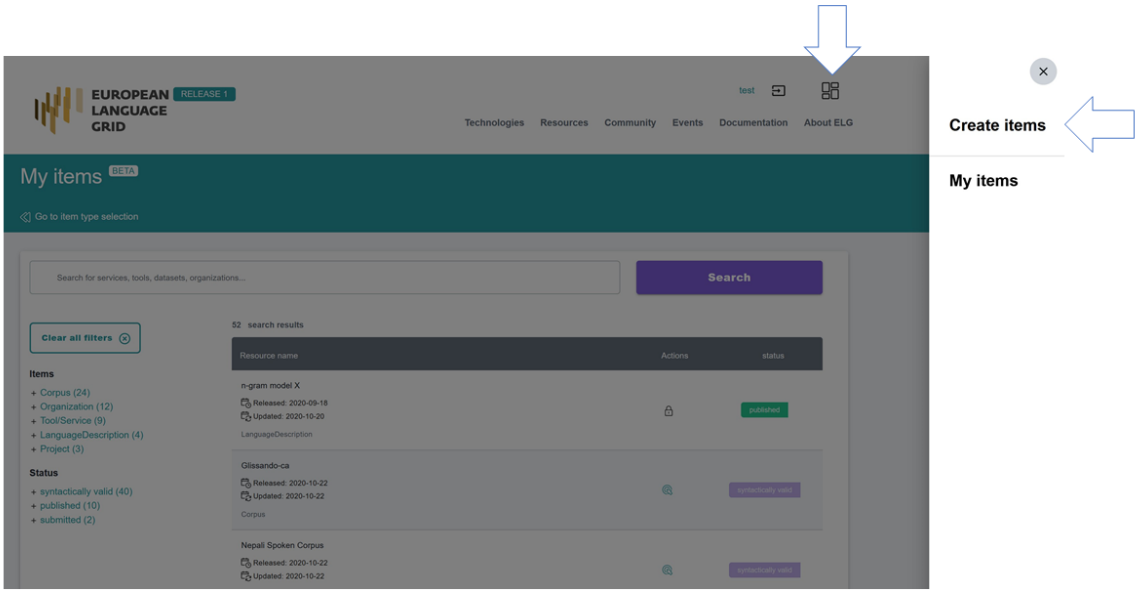
```
                                                    <ms:tagset>
                                                        <ms:resourceName xml:lang="en
↪">ILSP/PAROLE tagset</ms:resourceName>
                                                    </ms:tagset>
                                                    <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>
                                                        <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>
```

12.3 Step 2: upload

Sign in to ELG, click on the Dashboard and select the "Create item" option as below:



On the item type selection page, click on "Upload" as below:

Now upload the file you created in Step 1:

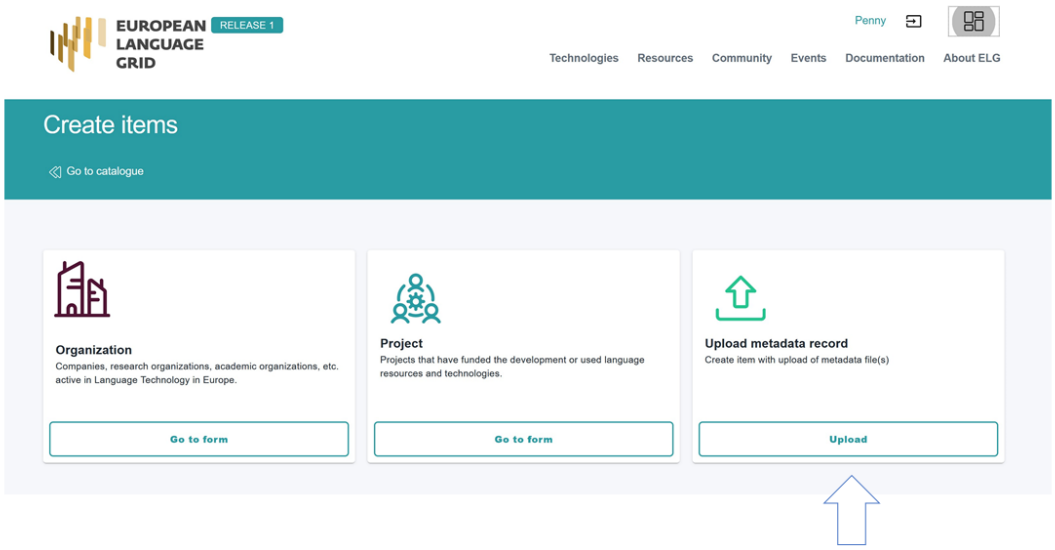
If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.

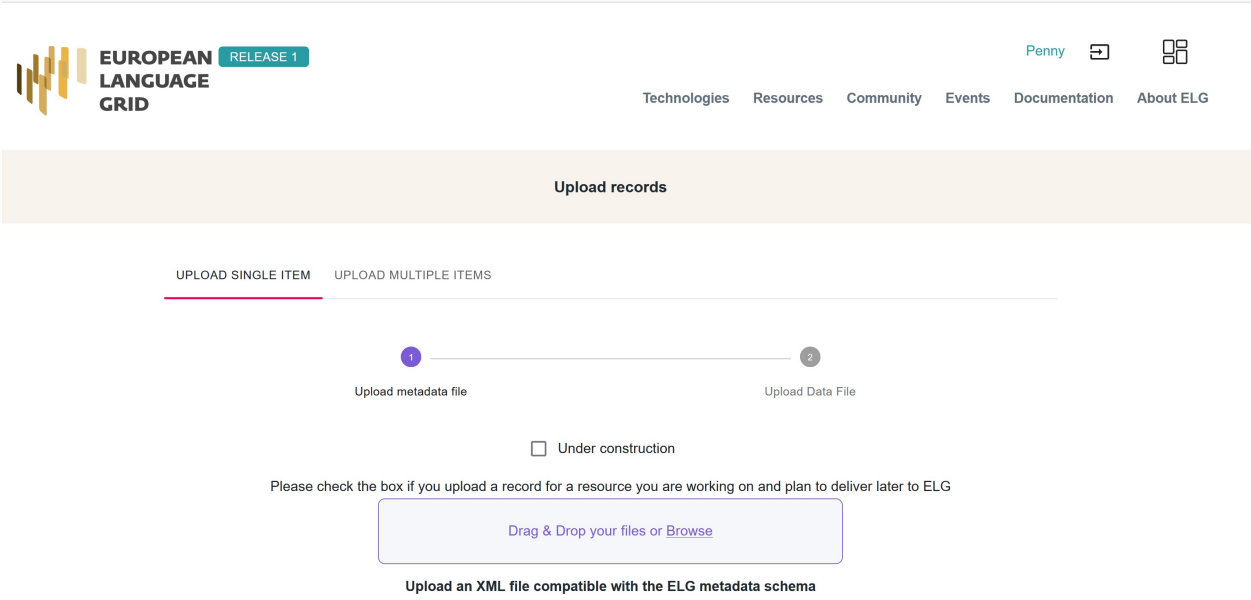
12.4 Step 3: submit for publication

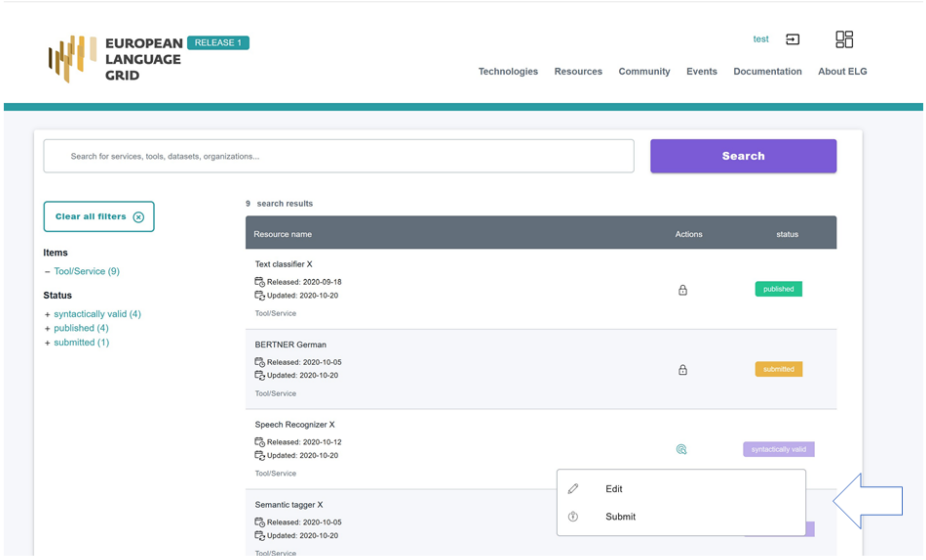
Your metadata record is now accessible via the "my items" page. We will soon make available an interactive editor where you will be able to view and edit the uploaded metadata. For now, on this page, you can select to view it and submit for publication

12.5 Step 4: wait for approval

At this stage, the metadata record is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Upload records
UPLOAD SINGLE ITEM
UPLOAD MULTIPLE ITEMS
1
2
Upload metadata file
Upload Data File
Under construction
Please check the box if you upload a record for a resource you are working on and plan to deliver later to ELG
Drag & Drop your files or Browse
Upload an XML file compatible with the ELG metadata schema


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
Items
– Tool/Service (9)
Status
+ syntactically valid (4)
+ published (4)
+ submitted (1)
9 search results
Resource name
Actions
status
Text classifier X
Released: 2020-09-18
Updated: 2020-10-20
Tool/Service
published
BERTNER German
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
submitted
Speech Recognizer X
Released: 2020-10-12
Updated: 2020-10-20
Tool/Service
syntactically valid
Edit
Submit
Semantic tagger X
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service

CHAPTER

THIRTEEN

CONTRIBUTE A MODEL

This page describes how to contribute a *model* to the European Language Grid.

13.1 Before you start

- Please make sure that the model you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.
- For this release, you can provide the data files of the model
  - at a remote URL and include this information in the relevant metadata element (accessLocation), or
  - if you want us to upload it at the ELG cloud area, contact us through the ELG contact form.

13.2 Step 1: create metadata

The first step is to describe your model using ELG's metadata format, ELG-SHARE. Future releases of ELG will include an interactive editor for this. However, for now, you must create an XML file. Refer to the example below for how to do this.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for all language resources and technologies*
- *Minimal elements for language descriptions*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

13.2.1 Example: N-gram model

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>
                <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>
```

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```
                                        <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>
                        <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>
```

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```
                                                        <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;amp; tagging)</ms:creationDetails>
                                                </ms:LanguageDescriptionTextPart>
                                            </ms:LanguageDescriptionMediaPart>
                                            <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>
```

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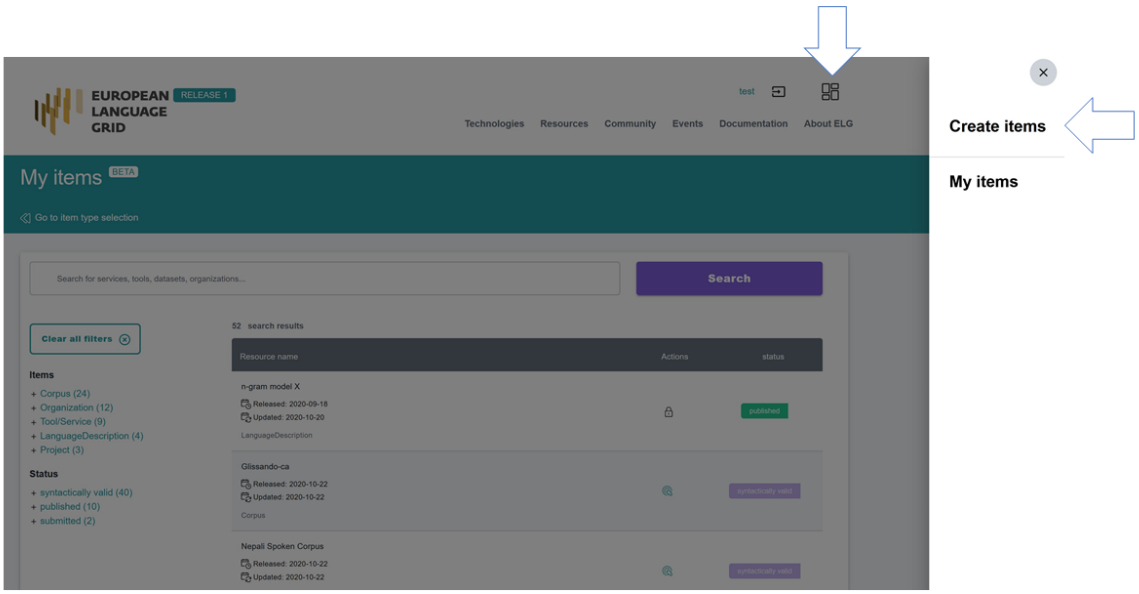
```
                                                    <ms:licenceTermsURL>https://
↪spdx.org/licenses/CC-BY-SA-4.0.html</ms:licenceTermsURL>
                                                </ms:licenceTerms>
                                                <ms:attributionText xml:lang="en">
↪This LR 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>
                            </ms:DescribedEntity>
</ms:MetadataRecord>
```

13.3 Step 2: upload

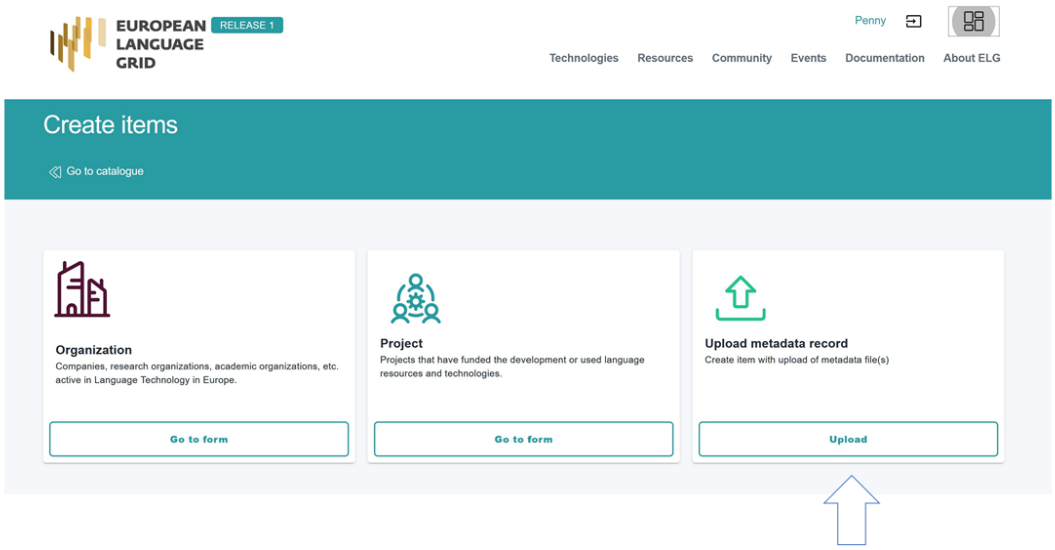
Sign in to ELG, click on the Dashboard and select the “Create item” option as below:

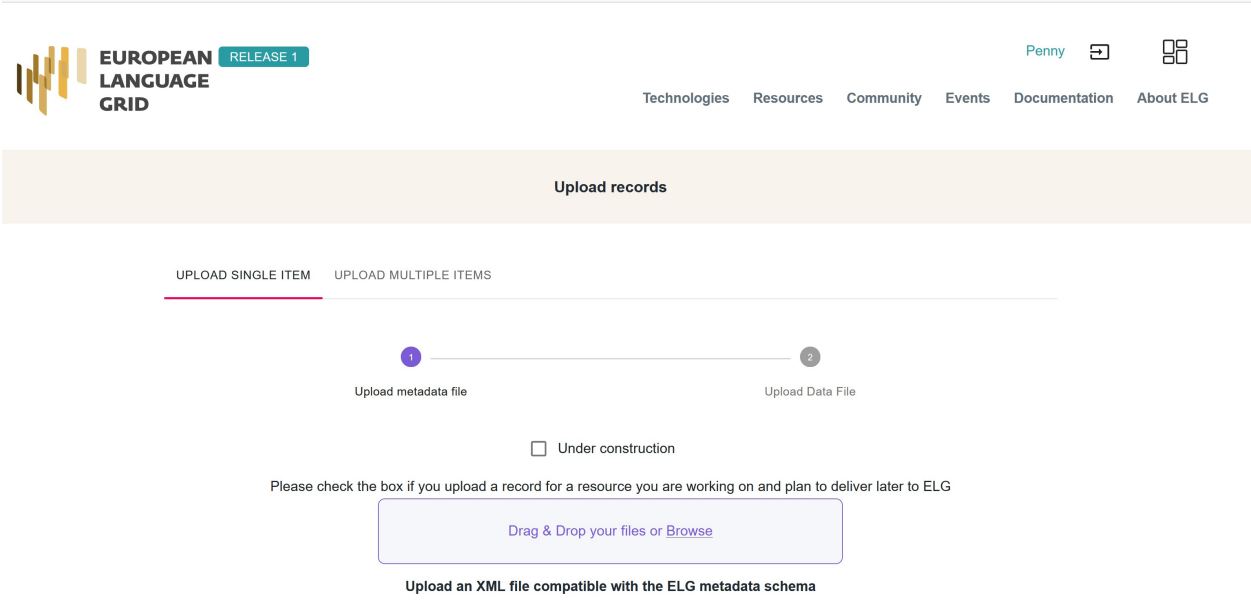


On the item type selection page, click on “Upload” as below:

Now upload the file you created in Step 1:

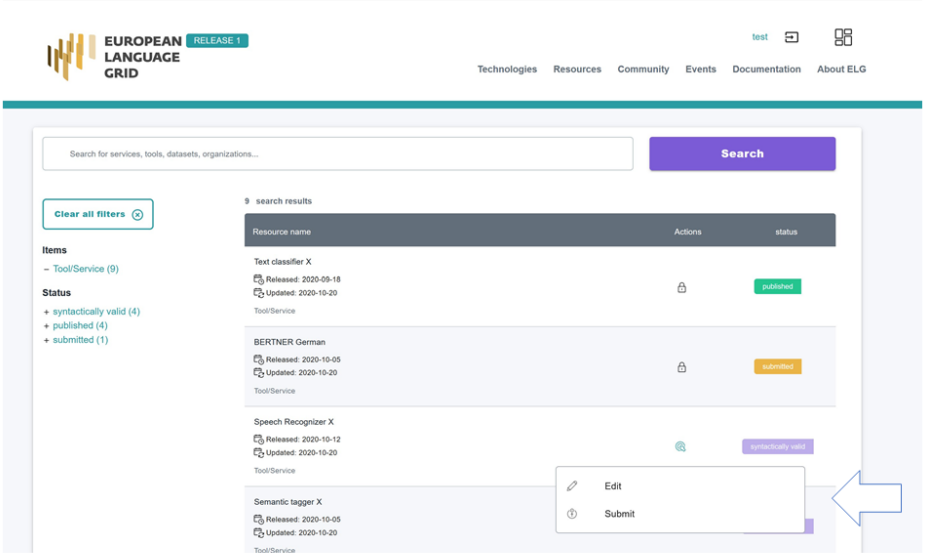
If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Upload records
UPLOAD SINGLE ITEM
UPLOAD MULTIPLE ITEMS
1
Upload metadata file
2
Upload Data File
Under construction
Please check the box if you upload a record for a resource you are working on and plan to deliver later to ELG
Drag & Drop your files or Browse
Upload an XML file compatible with the ELG metadata schema

13.4 Step 3: submit for publication

Your metadata record is now accessible via the "my items" page. We will soon make available an interactive editor where you will be able to view and edit the uploaded metadata. For now, on this page, you can select to view it and submit for publication



13.5 Step 4: wait for approval

At this stage, the metadata record is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.

CHAPTER

FOURTEEN

CONTRIBUTE A GRAMMAR

This page describes how to contribute a *grammar* to the European Language Grid.

14.1 Before you start

- Please make sure that the grammar you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.
- For this release, you can provide the data files of the grammar
  - at a remote URL and include this information in the relevant metadata element (accessLocation), or
  - if you want us to upload it at the ELG cloud area, contact us through the ELG contact form.

14.2 Step 1: create metadata

The first step is to describe your grammar using ELG's metadata format, ELG-SHARE. Future releases of ELG will include an interactive editor for this. However, for now, you must create an XML file. Refer to the examples below for how to do this.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for all language resources and technologies*
- *Minimal elements for language descriptions*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

14.2.1 Example: 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>
                <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>
```

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```
                        <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>
                                                        <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>
```

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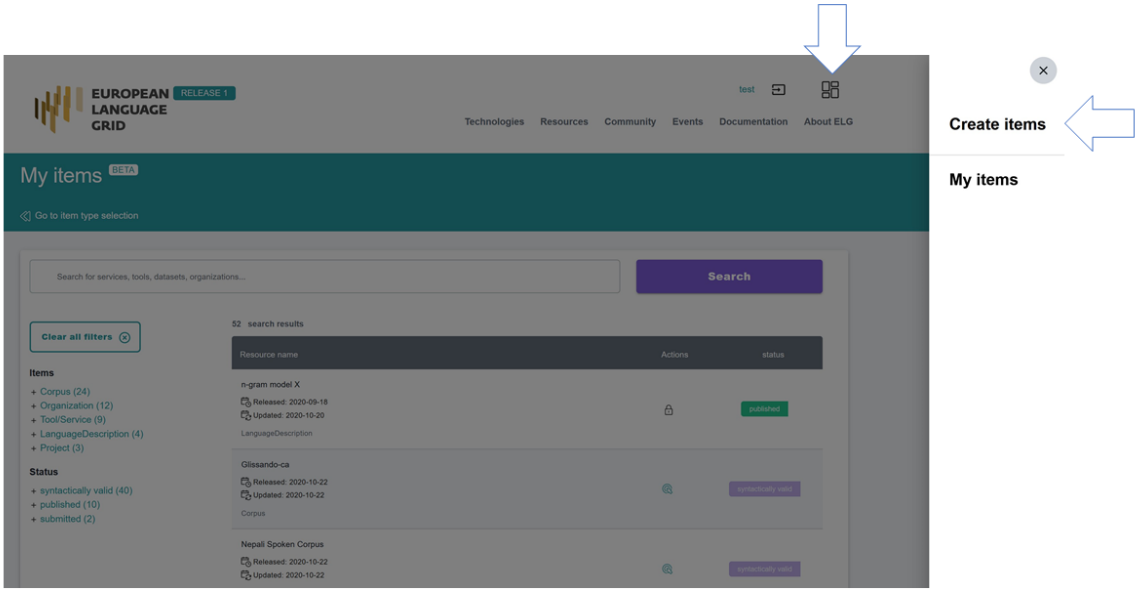
```
        </ms:DescribedEntity>
</ms:MetadataRecord>
```

14.3 Step 2: upload

Sign in to ELG, click on the Dashboard and select the “Create item” option as below:



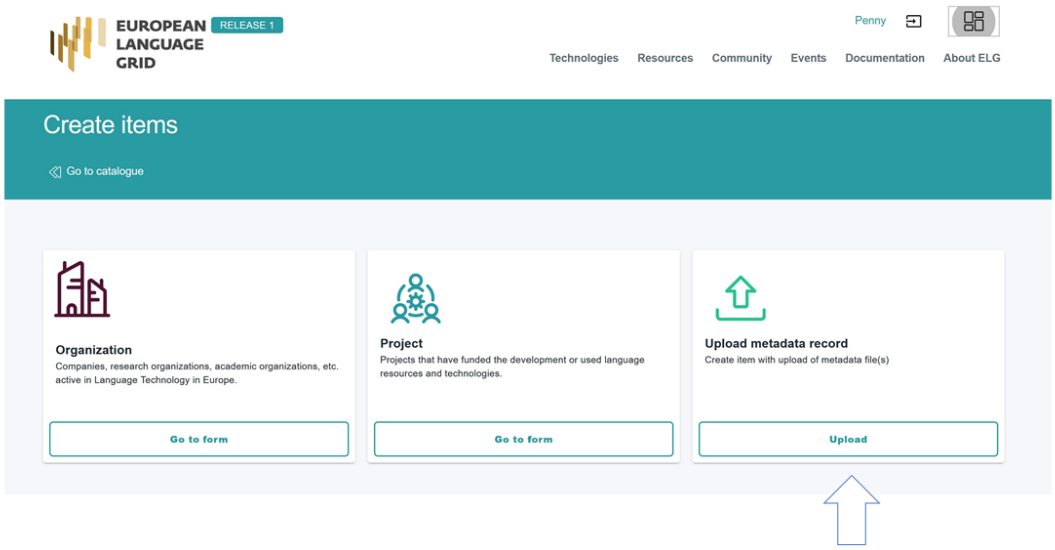
On the item type selection page, click on “Upload” as below:

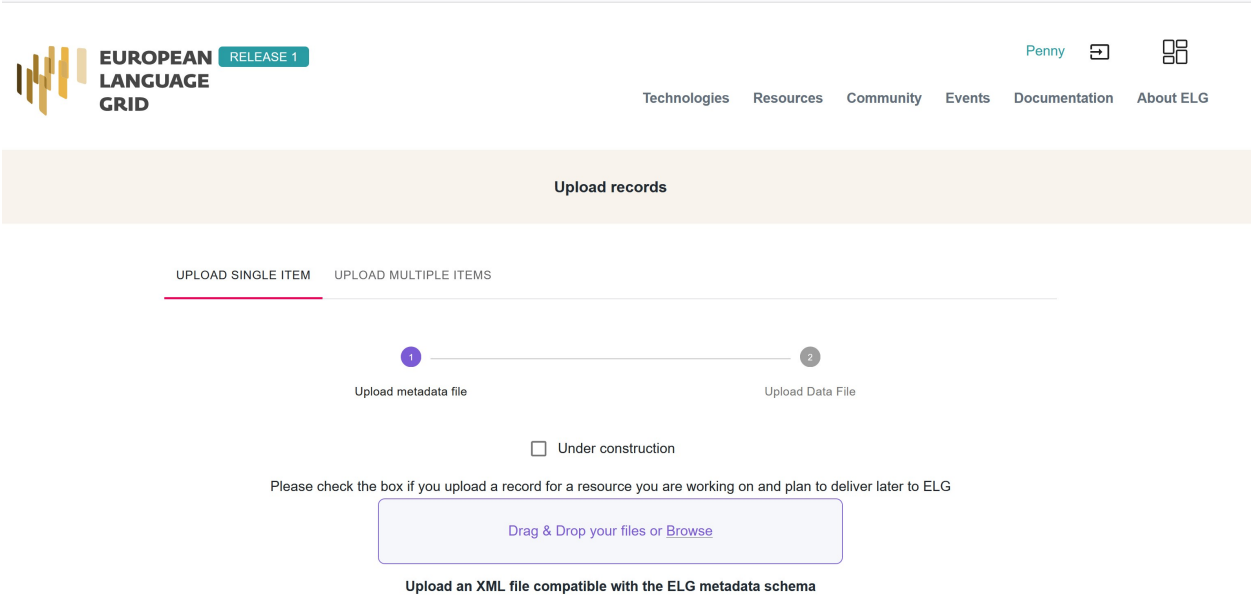
Now upload the file you created in Step 1:

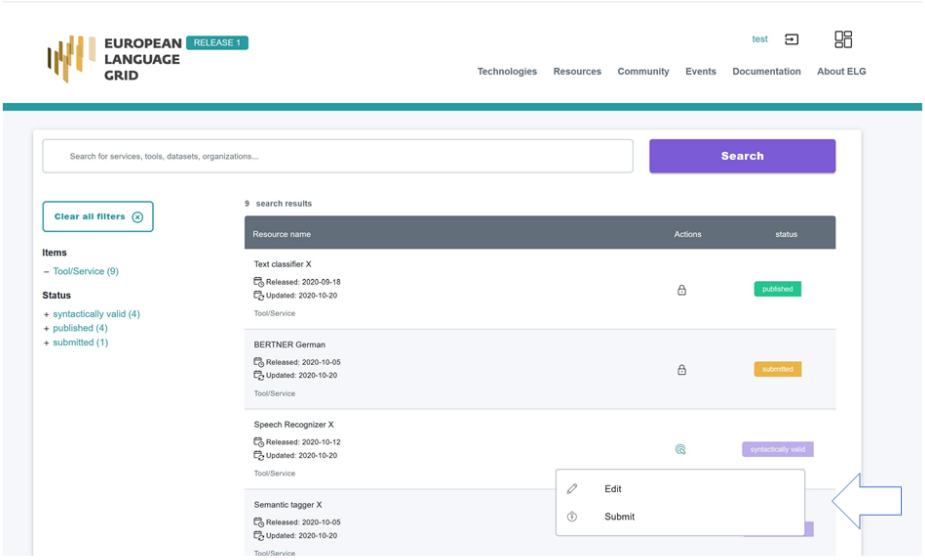
If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.

14.4 Step 3: submit for publication

Your metadata record is now accessible via the “my items” page. We will soon make available an interactive editor where you will be able to view and edit the uploaded metadata. For now, on this page, you can select to view it and submit for publication


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Upload records
UPLOAD SINGLE ITEM
UPLOAD MULTIPLE ITEMS
1
Upload metadata file
2
Upload Data File
Under construction
Please check the box if you upload a record for a resource you are working on and plan to deliver later to ELG
Drag & Drop your files or Browse
Upload an XML file compatible with the ELG metadata schema



14.5 Step 4: wait for approval

At this stage, the metadata record is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.

CHAPTER

FIFTEEN

CONTRIBUTE A LEXICAL/CONCEPTUAL RESOURCE

This page describes how to contribute a *lexical/conceptual resource* to the European Language Grid.

15.1 Before you start

- Please make sure that the lexical/conceptual resources you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.
- For this release, you can provide the data files of the lexical/conceptual resource
  - at a remote URL and include this information in the relevant metadata element (accessLocation), or
  - if you want us to upload it at the ELG cloud area, contact us through the ELG contact form.

15.2 Step 1: create metadata

The first step is to describe your lexical/conceptual resource using ELG's metadata format, ELG-SHARE. Future releases of ELG will include an interactive editor for this. However, for now, you must create an XML file. Refer to the examples below for how to do this.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for all language resources and technologies*
- *Minimal elements for lexical/conceptual resources*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

15.2.1 Example 1: 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">
        <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>
                <ms:email>curator@somedomain.com</ms:email>
        </ms:metadataCreator>
        <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>
```

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```
                        </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>
                                <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>
```

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```
                                        <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>
                                                                <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>
```

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

15.2.2 Example 2: 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:compliesWith>http://w3id.org/meta-share/meta-share/ELG-SHARE</
↪ms:compliesWith>
        <ms:metadataCreator>
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                <ms:surname xml:lang="en">Smith</ms:surname>
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↪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␣
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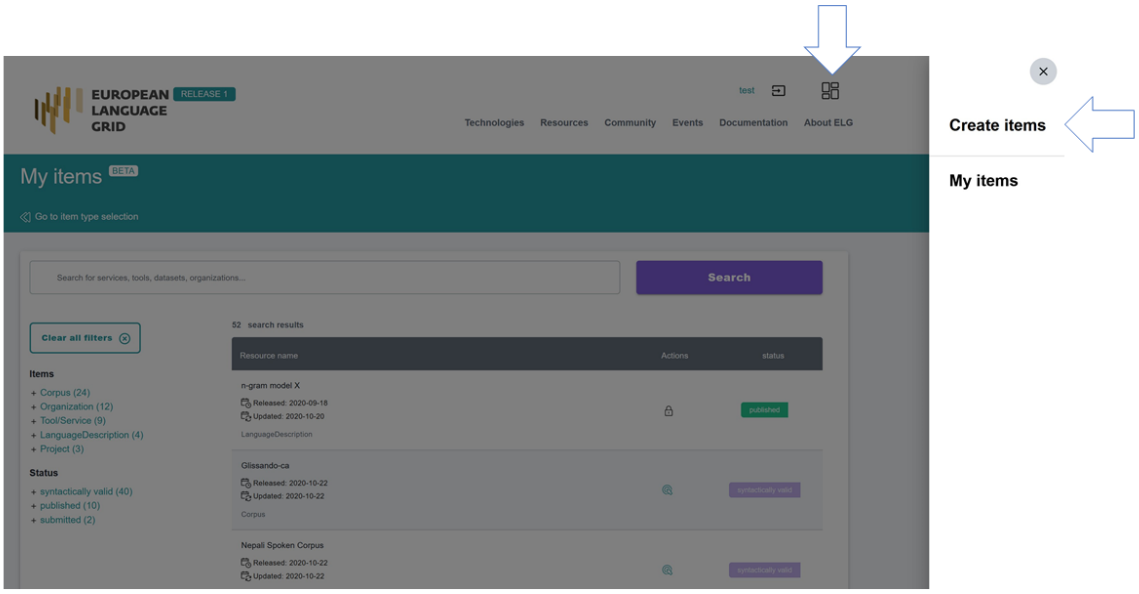
15.3 Step 2: upload

Sign in to ELG, click on the Dashboard and select the “Create item” option as below:



On the item type selection page, click on “Upload” as below:

Now upload the file you created in Step 1:

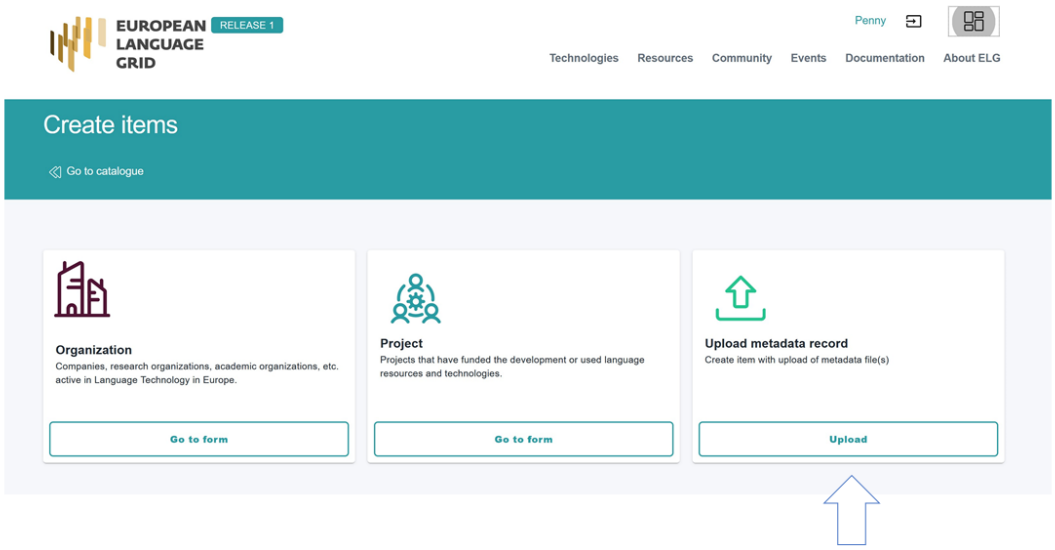
If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.

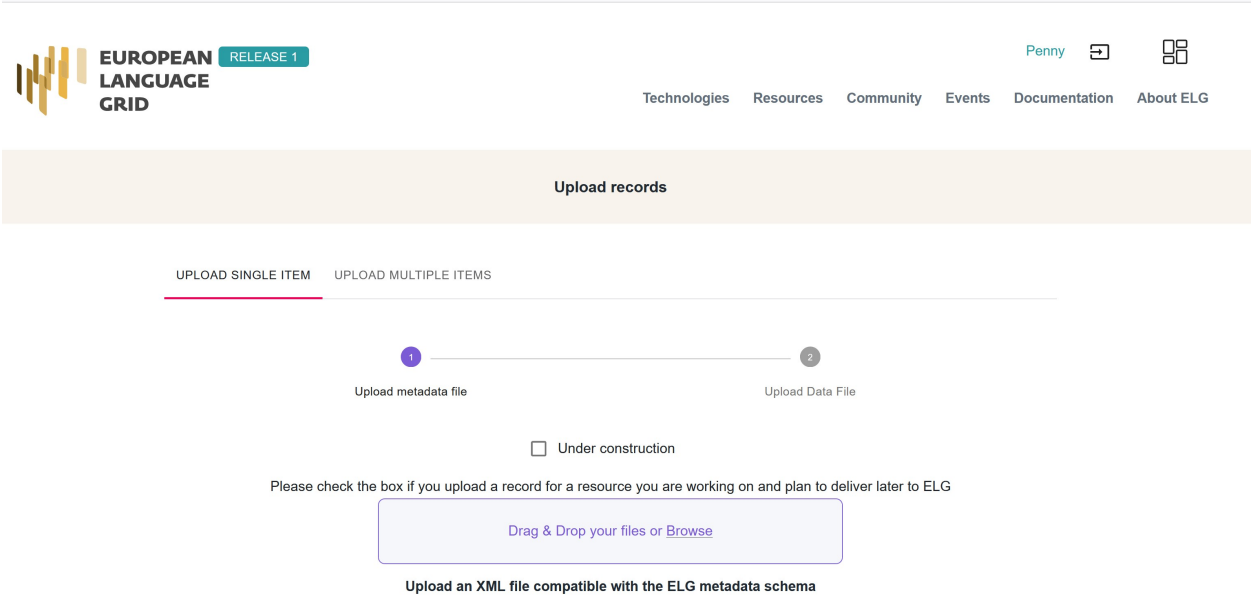
15.4 Step 3: submit for publication

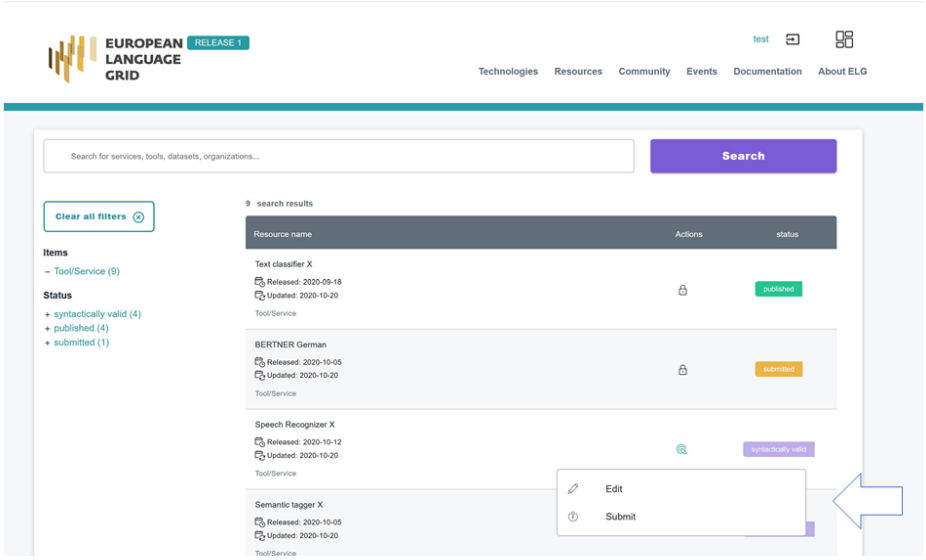
Your metadata record is now accessible via the “my items” page. We will soon make available an interactive editor where you will be able to view and edit the uploaded metadata. For now, on this page, you can select to view it and submit for publication

15.5 Step 4: wait for approval

At this stage, the metadata record is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Upload records
UPLOAD SINGLE ITEM
UPLOAD MULTIPLE ITEMS
1
Upload metadata file
2
Upload Data File
Under construction
Please check the box if you upload a record for a resource you are working on and plan to deliver later to ELG
Drag & Drop your files or Browse
Upload an XML file compatible with the ELG metadata schema


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
Items
– Tool/Service (9)
Status
+ syntactically valid (4)
+ published (4)
+ submitted (1)
9 search results
Resource name
Actions
status
Text classifier X
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Updated: 2020-10-20
Tool/Service
published
BERTNER German
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
submitted
Speech Recognizer X
Released: 2020-10-12
Updated: 2020-10-20
Tool/Service
syntactically valid
Edit
Submit
Semantic tagger X
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service

CHAPTER

SIXTEEN

CONTRIBUTE A PROJECT

This page describes how to contribute information for a *project* to the European Language Grid.

16.1 Before you start

- Please make sure that the information you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.

The current release of ELG offers two functionalities for registering a project: a. an interactive editor b. the upload of an XML file that conforms to the ELG schema.

16.2 Option A: interactive editor

16.2.1 Step 1: describe the project with the editor form

To access the editor form, sign in to ELG, click on the Dashboard and select the "Create item" option as below:

On the item type selection page, select the Project as below:

Follow the instructions that appear in order to create a new item. On the editor form, you can fill in the elements in any order you wish. To save the form, click on "Save" – at least the required elements must have been filled in:

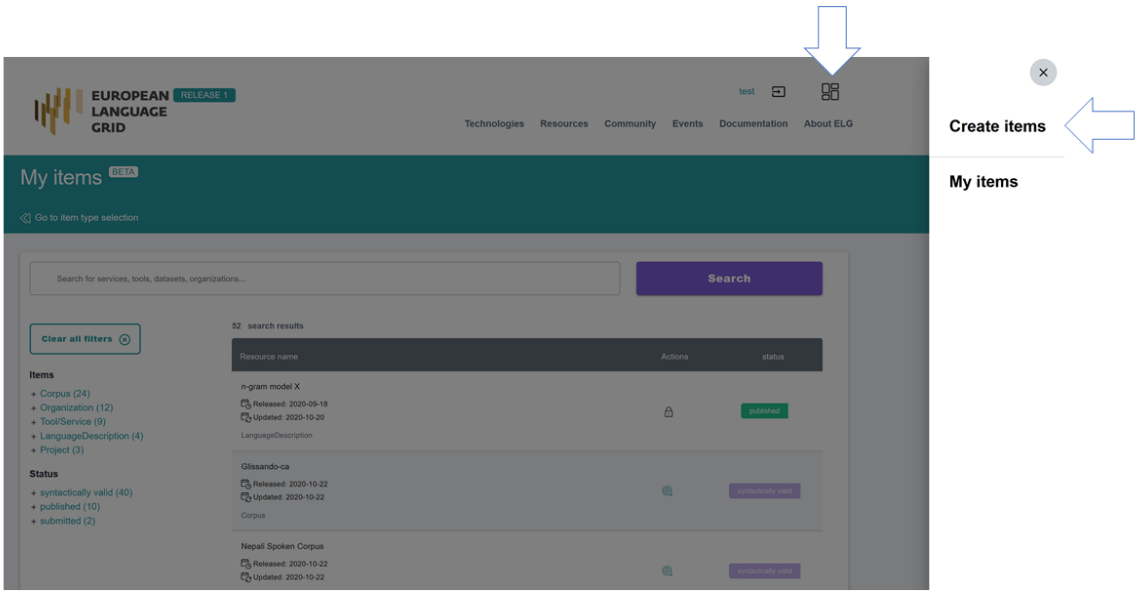
You can view all the items you have created by clicking on "My items" on the dashboard icon. The "my items" page looks as follows:

From this page, you can select it and edit it again.

When you are satisfied with the description, you can sumbit it for publication from the "my items" page or the view item page as below:

16.2.2 Step 2: wait for approval

At this stage, the metadata record can no longer be edited and is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
My items
BETA
Go to item type selection
Search for services, tools, datasets, organizations...
Search
Clear all filters
52 search results
Resource name
Actions
status
Items
+ Corpus (24)
+ Organization (12)
+ Tool/Service (9)
+ LanguageDescription (4)
+ Project (3)
Status
+ syntactically valid (40)
+ published (10)
+ submitted (2)
n-gram model X
Released: 2020-09-18
Updated: 2020-10-20
LanguageDescription
published
Glissando-ca
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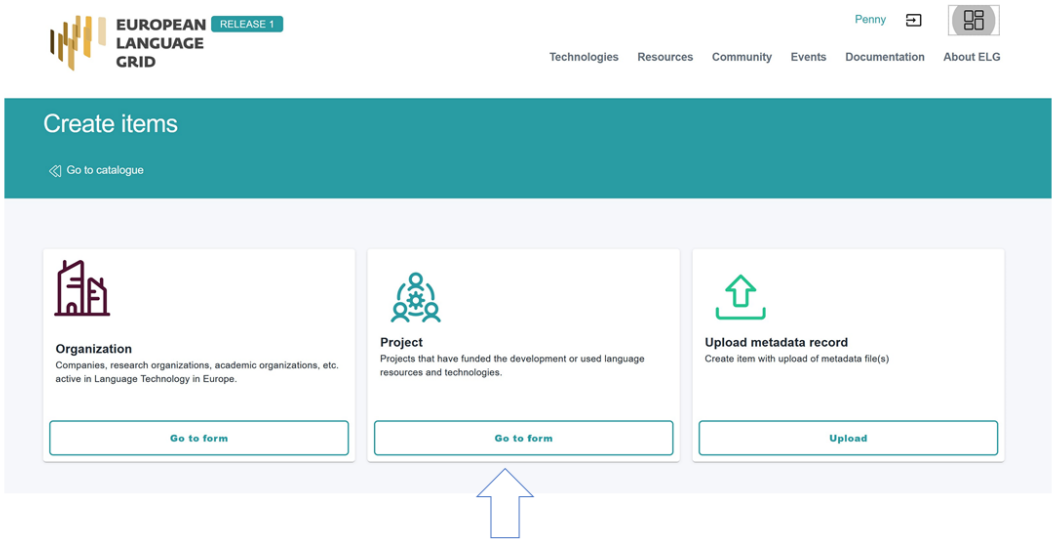
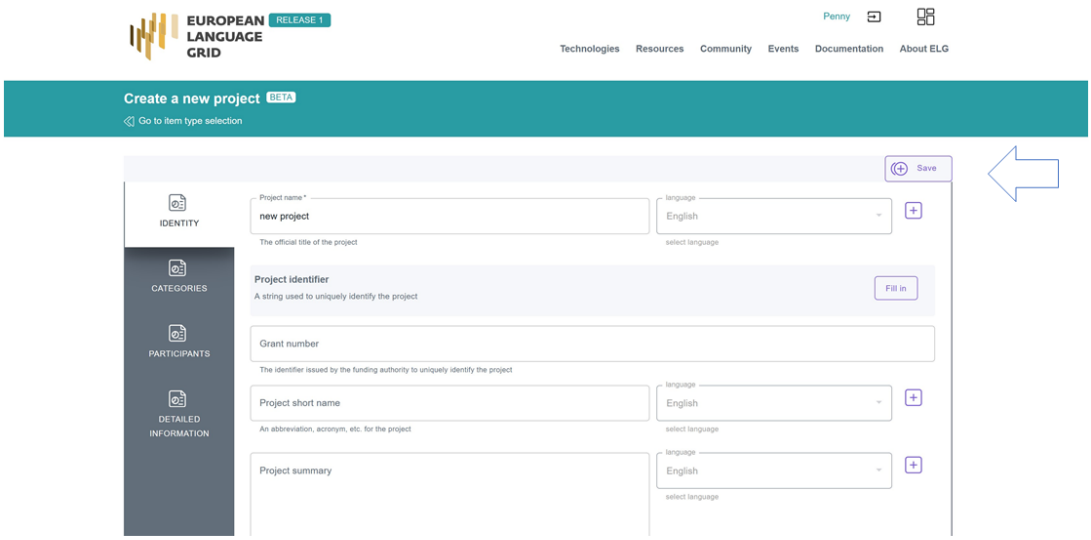
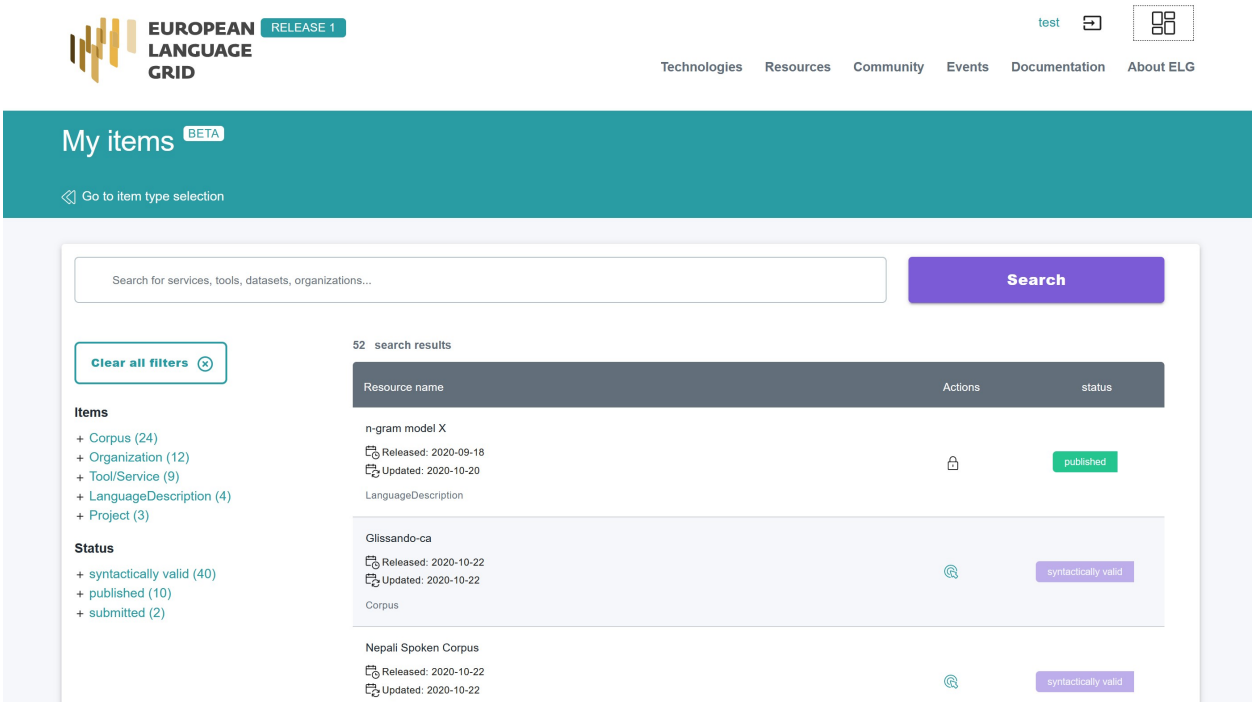
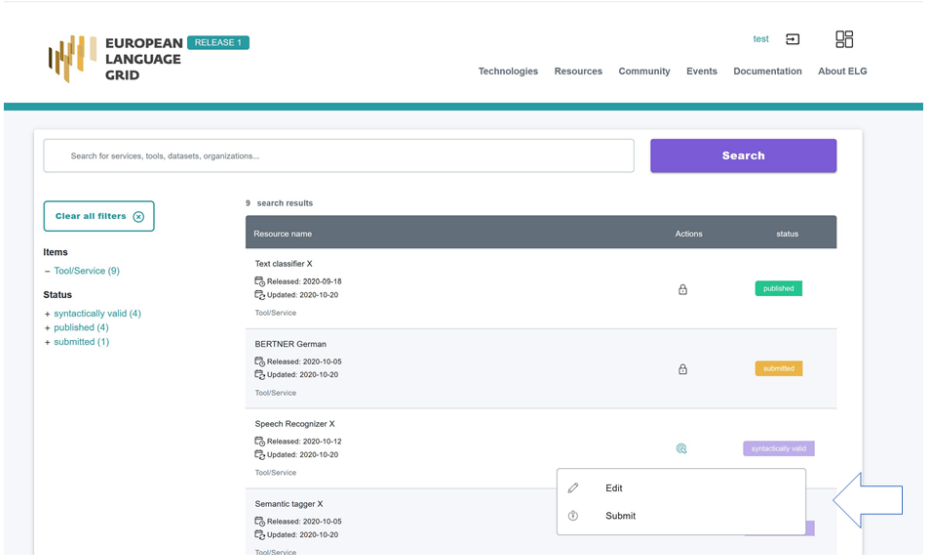
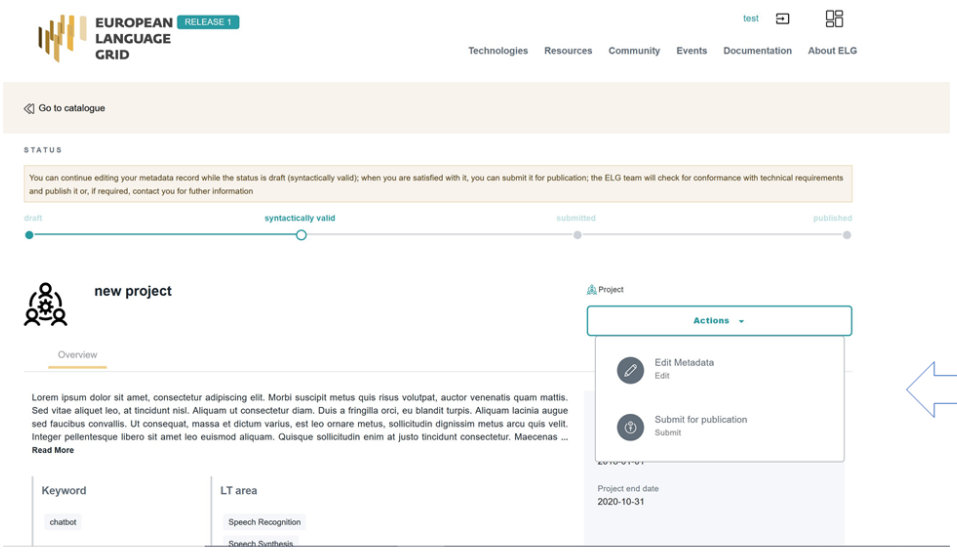
Create items
My items


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create a new project
BETA
Go to item type selection
Save
IDENTITY
CATEGORIES
PARTICIPANTS
DETAILED INFORMATION
Project name *
new project
The official title of the project
language
English
select language
Project identifier
A string used to uniquely identify the project
Fill in
Grant number
The identifier issued by the funding authority to uniquely identify the project
Project short name
An abbreviation, acronym, etc. for the project
Project summary


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
My items
BETA
Go to item type selection
Search for services, tools, datasets, organizations...
Search
Clear all filters
Items
+ Corpus (24)
+ Organization (12)
+ Tool/Service (9)
+ LanguageDescription (4)
+ Project (3)
Status
+ syntactically valid (40)
+ published (10)
+ submitted (2)
52 search results
Resource name
Actions
status
n-gram model X
Released: 2020-09-18
Updated: 2020-10-20
LanguageDescription
published
Glissando-ca
Released: 2020-10-22
Updated: 2020-10-22
Corpus
syntactically valid
Nepali Spoken Corpus
Released: 2020-10-22
Updated: 2020-10-22
syntactically valid


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
9 search results
Items
– Tool/Service (9)
Status
+ syntactically valid (4)
+ published (4)
+ submitted (1)
Resource name
Actions
status
Text classifier X
Released: 2020-09-18
Updated: 2020-10-20
Tool/Service
published
BERTNER German
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
submitted
Speech Recognizer X
Released: 2020-10-12
Updated: 2020-10-20
Tool/Service
syntactically valid
Semantic tagger X
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
Edit
Submit


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Go to catalogue
STATUS
You can continue editing your metadata record while the status is draft (syntactically valid); when you are satisfied with it, you can submit it for publication; the ELG team will check for conformance with technical requirements and publish it or, if required, contact you for futher information
draft
syntactically valid
submitted
published
new project
Project
Actions
Edit Metadata
Edit
Submit for publication
Submit
Overview
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi suscipit metus quis risus volutpat, auctor venenatis quam mattis. Sed vitae aliquet leo, at tincidunt nisl. Aliquam ut consectetur diam. Duis a fringilla orci, eu blandit turpis. Aliquam lacinia augue sed faucibus convallis. Ut consequat, massa et dictum varius, est leo ornare metus, sollicitudin dignissim metus arcu quis velit. Integer pellentesque libero sit amet leo euismod aliquam. Quisque sollicitudin enim at justo tincidunt consectetur. Maecenas ...
Read More
Keyword
chatbot
LT area
Speech Recognition
Speech Synthesis
Project end date
2020-10-31

16.3 Option B: upload XML metadata file

16.3.1 Step 1: create metadata

The first step is to describe your project using ELG's metadata format, ELG-SHARE in the form of an XML file. Refer to the examples below for how to do this.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for projects*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

Example 1

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>
        <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>
```

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```
                <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">http://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>
                        <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␣
```

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```
                        <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>
                        <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 2

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>
                        <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>
```

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```
                        </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 €" 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 €language technologies for␣
↪Europe built in Europe€, 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>
                        </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>
```

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```
                        <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>
                                <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>
```

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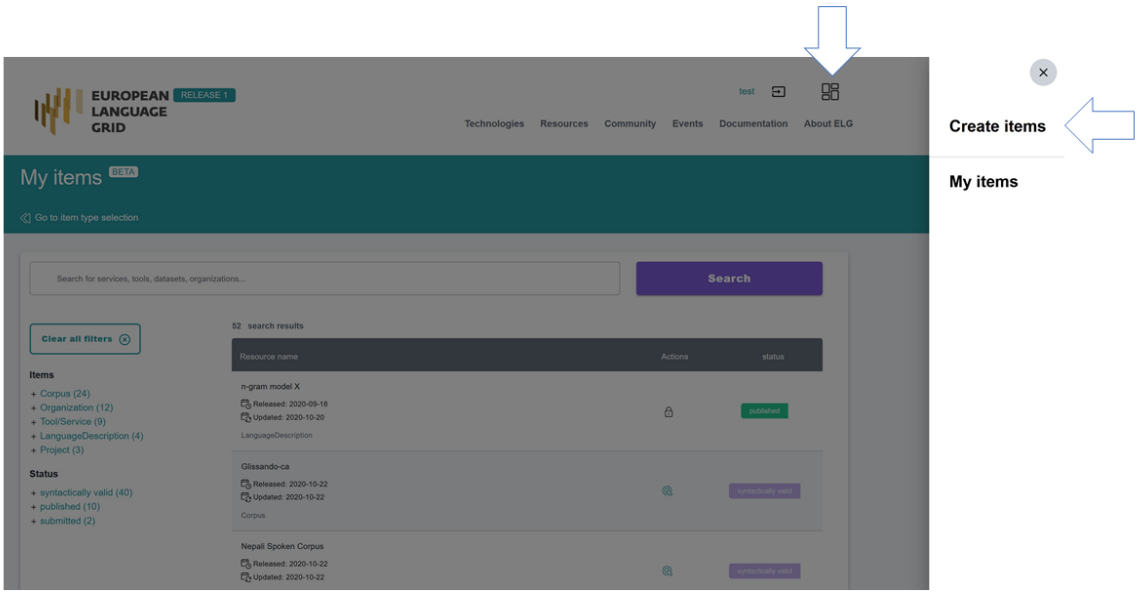
```
                        </ms:participatingOrganization>
                    </ms:Project>
                </ms:DescribedEntity>
</ms:MetadataRecord>
```

16.3.2 Step 2: upload

Sign in to ELG, click on the Dashboard and select the "Create item" option as below:



On the item type selection page, click on "Upload" as below:

Now upload the file you created in Step 1:

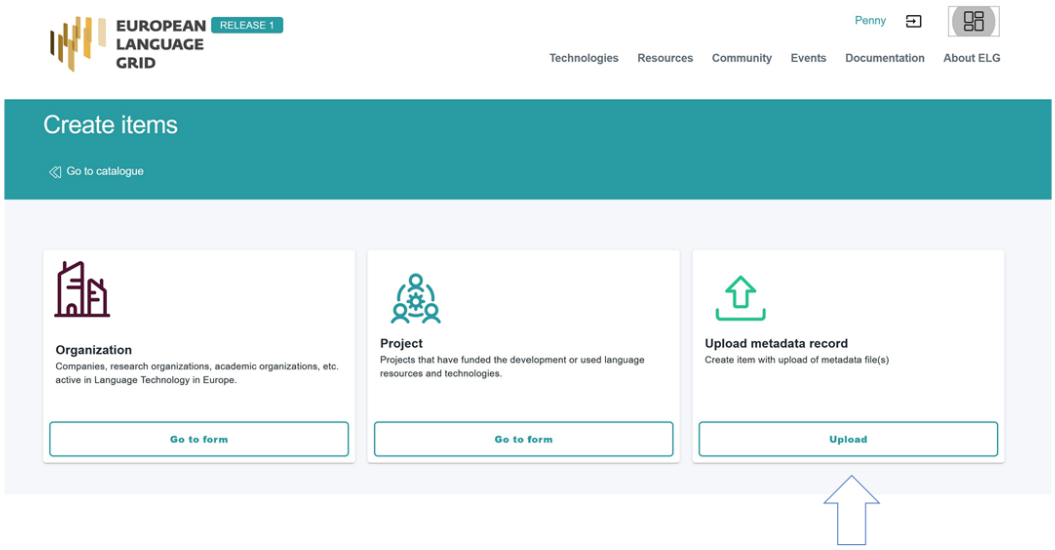
If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.

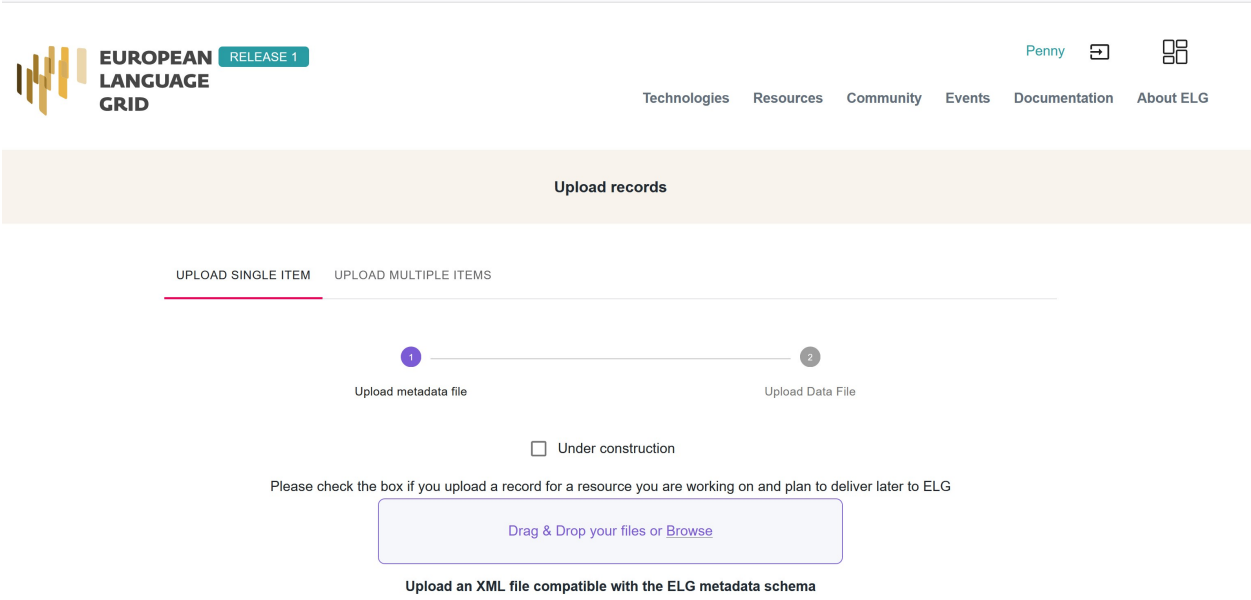
16.3.3 Step 3: edit and submit for publication

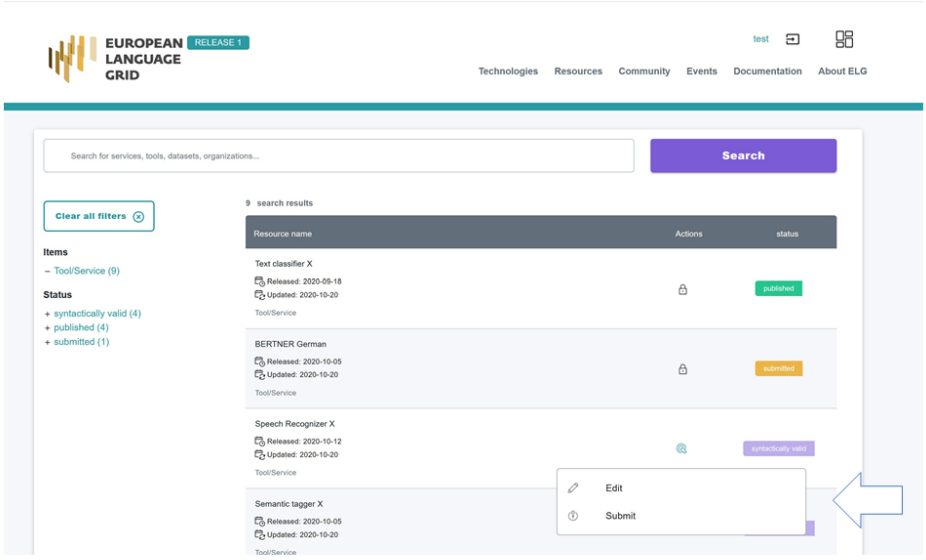
Your metadata record is now accessible via the "my items" page; you can select to edit or submit for publication.

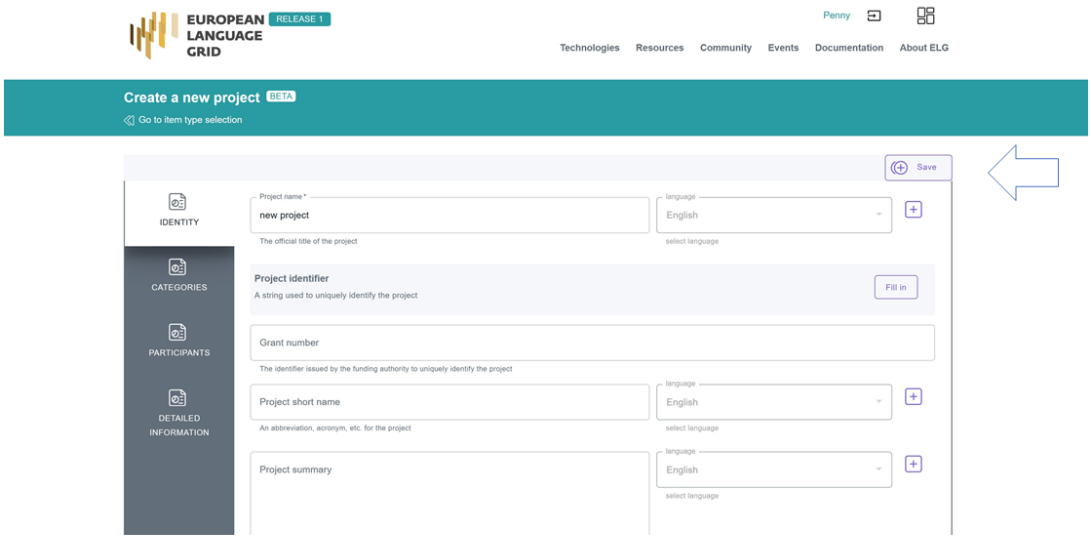
Using the editor form, you can update the record. To save it, click on "Save":

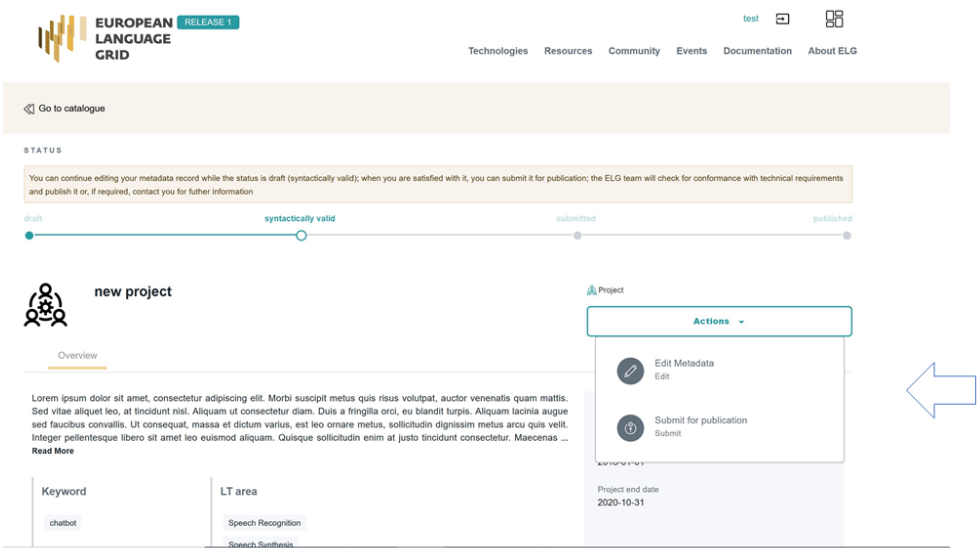
When you are satisfied with the description, you can sumbit it for publication from the "my items" page or the view item page as below:


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Upload records
UPLOAD SINGLE ITEM
UPLOAD MULTIPLE ITEMS
1
Upload metadata file
2
Upload Data File
Under construction
Please check the box if you upload a record for a resource you are working on and plan to deliver later to ELG
Drag & Drop your files or Browse
Upload an XML file compatible with the ELG metadata schema


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
9 search results
Items
Tool/Service (9)
Status
syntactically valid (4)
published (4)
submitted (1)
Resource name
Actions
status
Text classifier X
Released: 2020-09-18
Updated: 2020-10-20
Tool/Service
published
BERTNER German
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
submitted
Speech Recognizer X
Released: 2020-10-12
Updated: 2020-10-20
Tool/Service
syntactically valid
Semantic tagger X
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
Edit
Submit


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create a new project
BETA
Go to item type selection
Save
IDENTITY
CATEGORIES
PARTICIPANTS
DETAILED INFORMATION
Project name *
new project
The official title of the project
language
English
select language
Project identifier
A string used to uniquely identify the project
Fill in
Grant number
The identifier issued by the funding authority to uniquely identify the project
Project short name
An abbreviation, acronym, etc. for the project
Project summary



16.3.4 Step 4: wait for approval

At this stage, the metadata record cannot be edited and is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.

CHAPTER

SEVENTEEN

CONTRIBUTE AN ORGANISATION

This page describes how to contribute information on an *organisation* to the European Language Grid.

17.1 Before you start

- Please make sure that the metadata record you want to contribute complies with our *terms of use*.
- Please make sure you have *registered* and been assigned the *provider role*.

The current release of ELG offers two functionalities for registering a project: a. an interactive editor b. the upload of an XML file that conforms to the ELG schema.

17.2 Option A: interactive editor

17.2.1 Step 1: describe the organisation with the editor form

To access the editor form, sign in to ELG, click on the Dashboard and select the "Create item" option as below:

On the item type selection page, select the "Organization" as below:

Follow the instructions that appear in order to create a new item. On the editor form, you can fill in the elements in any order you wish. To save the form, click on "Save" – at least the required elements must have been filled in:

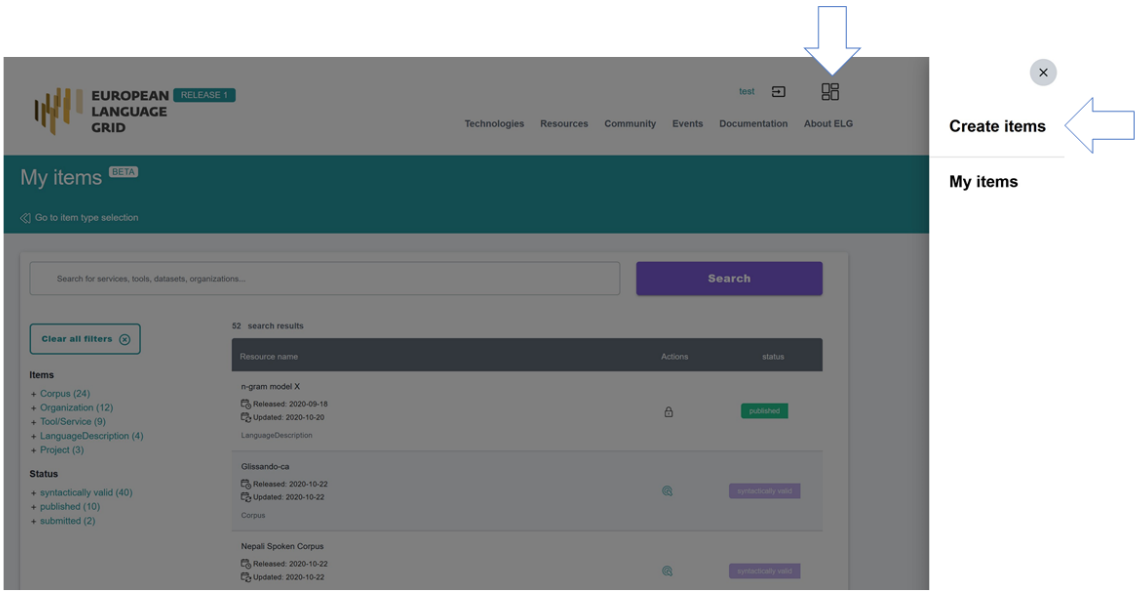
You can view all the items you have created by clicking on "My items" on the dashboard icon. The "my items" page looks as follows:

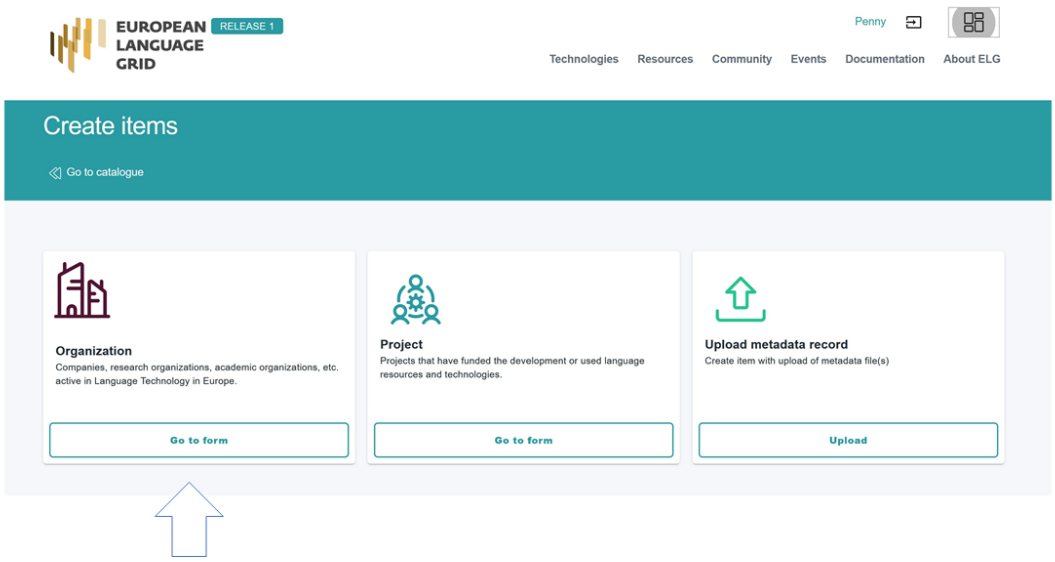
From this page, you can select it and edit it again.

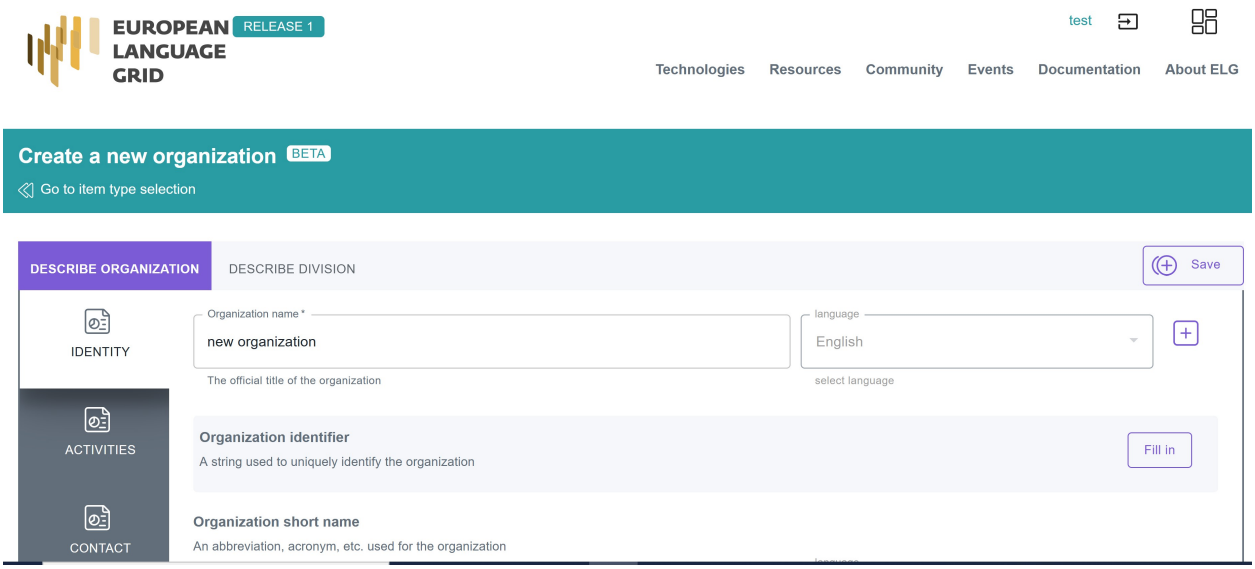
When you are satisfied with the description, you can sumbit it for publication from the "my items" page or the view item page as below:

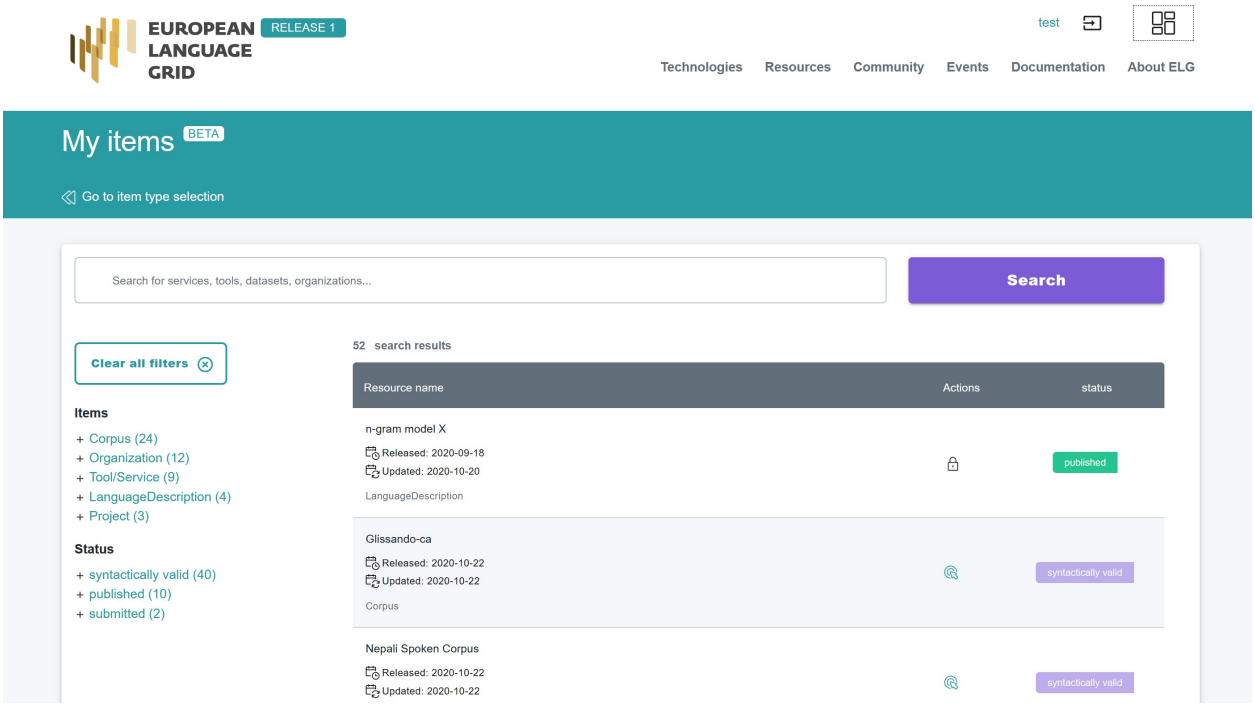
17.2.2 Step 2: wait for approval

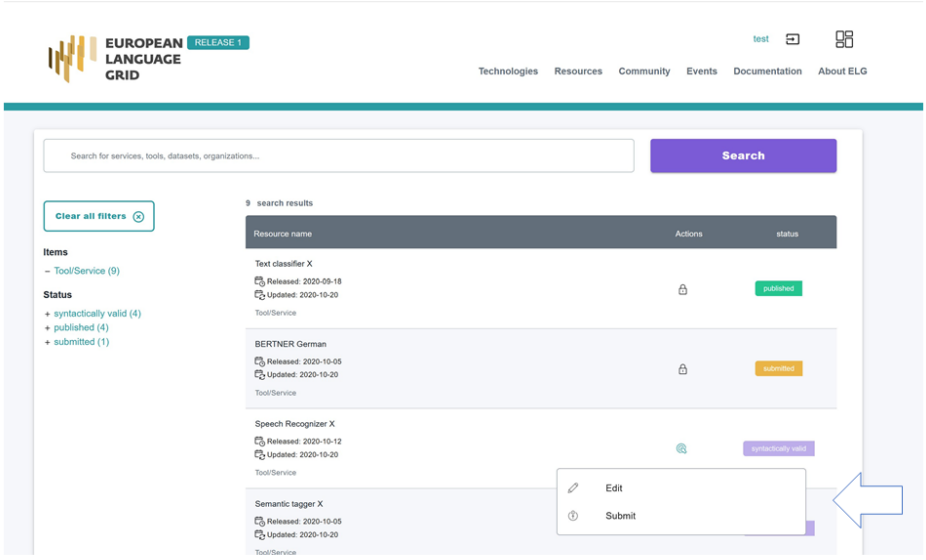
At this stage, the metadata record can no longer be edited and is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.

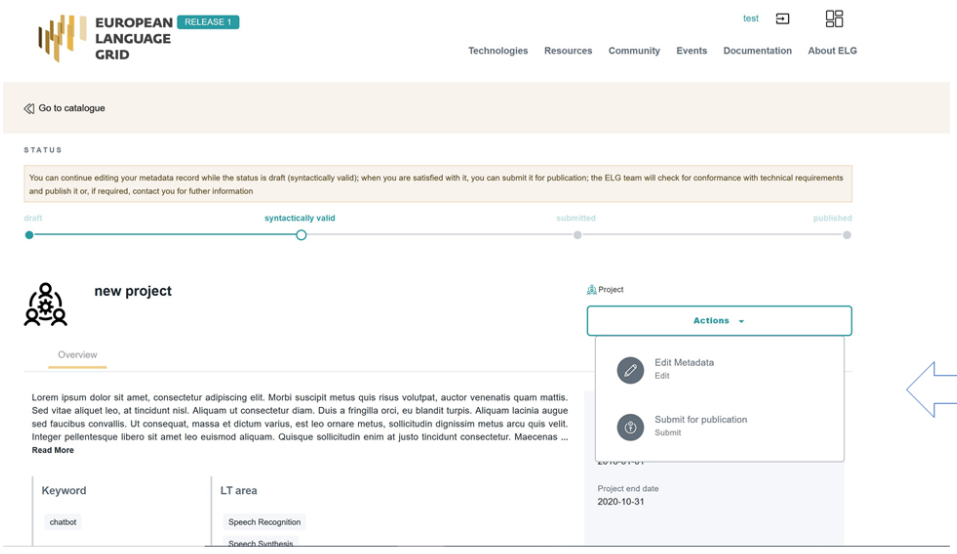

EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
My items
BETA
Go to item type selection
Search for services, tools, datasets, organizations...
Search
Clear all filters
52 search results
Resource name
Actions
status
Items
+ Corpus (24)
+ Organization (12)
+ Tool/Service (9)
+ LanguageDescription (4)
+ Project (3)
Status
+ syntactically valid (40)
+ published (10)
+ submitted (2)
n-gram model X
Released: 2020-09-18
Updated: 2020-10-20
LanguageDescription
published
Glissando-ca
Released: 2020-10-22
Updated: 2020-10-22
Corpus
Nepali Spoken Corpus
Released: 2020-10-22
Updated: 2020-10-22
Create items
My items


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Create a new organization
BETA
Go to item type selection
DESCRIBE ORGANIZATION
DESCRIBE DIVISION
Save
IDENTITY
ACTIVITIES
CONTACT
Organization name *
new organization
The official title of the organization
language
English
select language
Organization identifier
A string used to uniquely identify the organization
Fill in
Organization short name
An abbreviation, acronym, etc. used for the organization


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
My items
BETA
Go to item type selection
Search for services, tools, datasets, organizations...
Search
Clear all filters
Items
+ Corpus (24)
+ Organization (12)
+ Tool/Service (9)
+ LanguageDescription (4)
+ Project (3)
Status
+ syntactically valid (40)
+ published (10)
+ submitted (2)
52 search results
Resource name
Actions
status
n-gram model X
Released: 2020-09-18
Updated: 2020-10-20
LanguageDescription
published
Glissando-ca
Released: 2020-10-22
Updated: 2020-10-22
Corpus
syntactically valid
Nepali Spoken Corpus
Released: 2020-10-22
Updated: 2020-10-22
syntactically valid


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Search for services, tools, datasets, organizations...
Search
Clear all filters
9 search results
Items
– Tool/Service (9)
Status
+ syntactically valid (4)
+ published (4)
+ submitted (1)
Resource name
Actions
status
Text classifier X
Released: 2020-09-18
Updated: 2020-10-20
Tool/Service
published
BERTNER German
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
submitted
Speech Recognizer X
Released: 2020-10-12
Updated: 2020-10-20
Tool/Service
syntactically valid
Semantic tagger X
Released: 2020-10-05
Updated: 2020-10-20
Tool/Service
Edit
Submit


EUROPEAN LANGUAGE GRID
RELEASE 1
test
Technologies
Resources
Community
Events
Documentation
About ELG
Go to catalogue
STATUS
You can continue editing your metadata record while the status is draft (syntactically valid); when you are satisfied with it, you can submit it for publication; the ELG team will check for conformance with technical requirements and publish it or, if required, contact you for futher information
draft
syntactically valid
submitted
published
new project
Project
Actions
Edit Metadata
Edit
Submit for publication
Submit
Overview
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi suscipit metus quis risus volutpat, auctor venenatis quam mattis. Sed vitae aliquet leo, at tincidunt nisl. Aliquam ut consectetur diam. Duis a fringilla orci, eu blandit turpis. Aliquam lacinia augue sed faucibus convallis. Ut consequat, massa et dictum varius, est leo ornare metus, sollicitudin dignissim metus arcu quis velit. Integer pellentesque libero sit amet leo euismod aliquam. Quisque sollicitudin enim at justo tincidunt consectetur. Maecenas ...
Read More
Keyword
chatbot
LT area
Speech Recognition
Speech Synthesis
Project end date
2020-10-31

17.3 Option B: upload XML metadata file

17.3.1 Step 1: create metadata

The first step is to describe your organisation using ELG's metadata format, ELG-SHARE. Future releases of ELG will include an interactive editor for this. However, for now, you must create an XML file. Refer to the examples below for how to do this.

The elements you need are documented on the following pages:

- *Minimal elements for all entities*
- *Minimal elements for organisations*

For more information about ELG-SHARE, see:

- *Metadata schema*

At the ELG GitLab, you will find templates (that you can use to create new metadata records) and examples in XML format.

Example 1: University

Charles University, Prague

Published at: https://live.european-language-grid.eu/catalogue/#/resource/organizations/385

```
<?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>
        <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>
```

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```
        <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: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 Krlov© and 1 in Plze), 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>
        <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:headOfficeAddress>
                <ms:address xml:lang="en">OVOCNY TRH 560/5</ms:address>
                <ms:zipCode>116 36</ms:zipCode>
```

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```
                <ms:city xml:lang="en">PRAHA 1</ms:city>
                <ms:country>CZ</ms:country>
        </ms:headOfficeAddress>
        <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 (FAL) 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>
        <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>
```

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```
        <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:headOfficeAddress>
                        <ms:address xml:lang="en">Malostransk© nm. 25</ms:address>
                        <ms:zipCode>11800</ms:zipCode>
                        <ms:city xml:lang="en">Praha 1</ms:city>
                        <ms:country>CZ</ms:country>
                </ms:headOfficeAddress>
        </ms:hasDivision>
        </ms:Organization>
</ms:DescribedEntity>
</ms:MetadataRecord>
```

Example 2: SME

SME: Evaluation and Language Resources Distribution Agency (ELDA)

Published at: https://live.european-language-grid.eu/catalogue/#/resource/organizations/646

```
<?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>
        <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>
```

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(continued from previous page)

```
        <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: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>
        </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:headOfficeAddress>
```

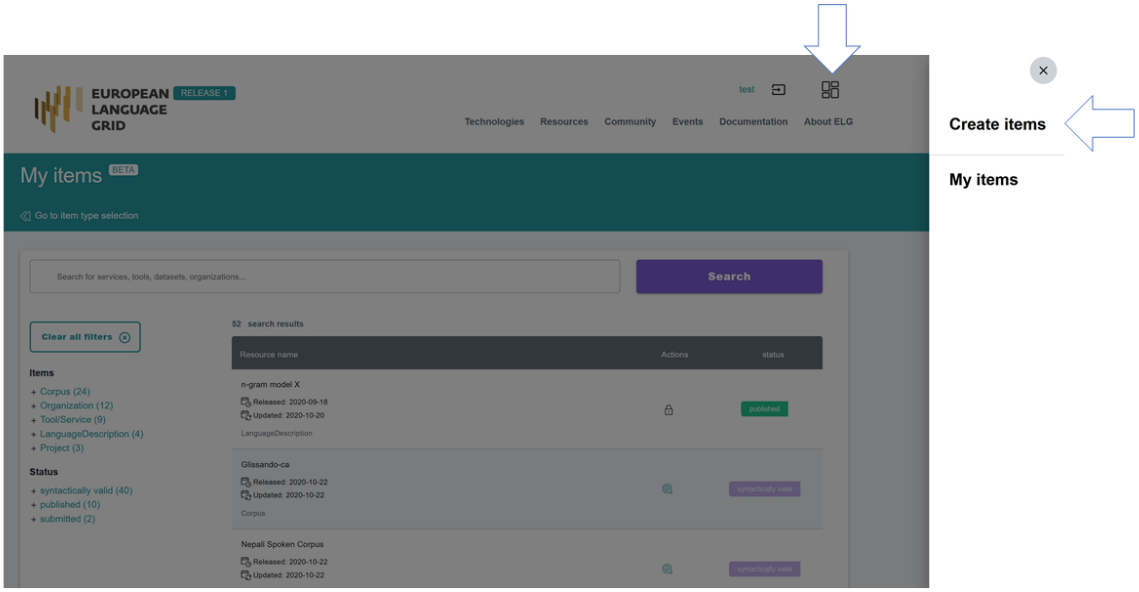
(continues on next page)

(continued from previous page)

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

17.3.2 Step 2: upload

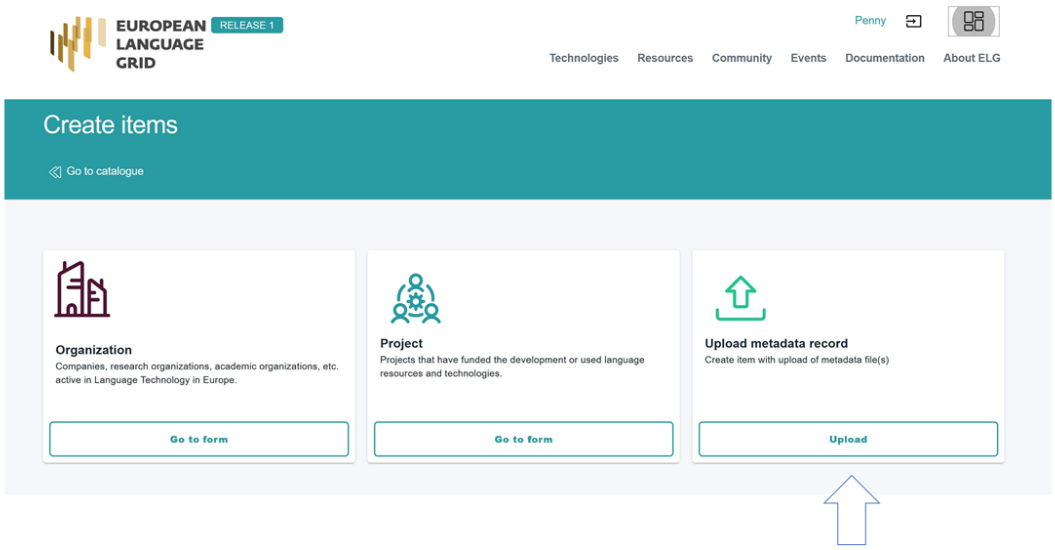
Sign in to ELG, click on the Dashboard and select the “Create item” option as below:

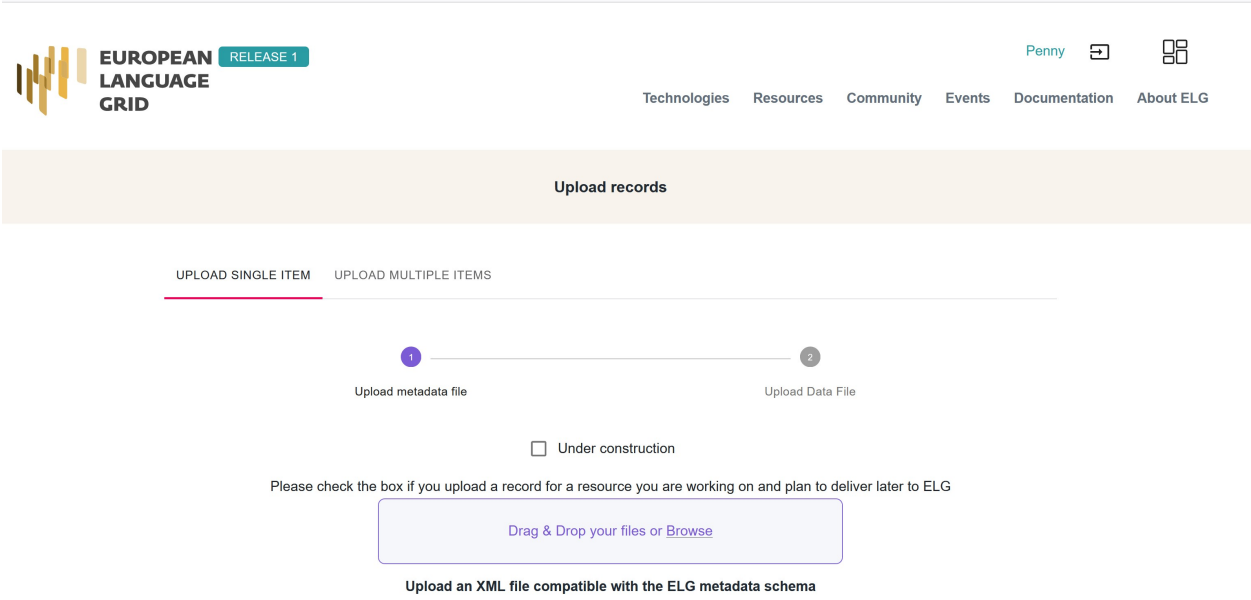


On the item type selection page, click on “Upload” as below:

Now upload the file you created in Step 1:

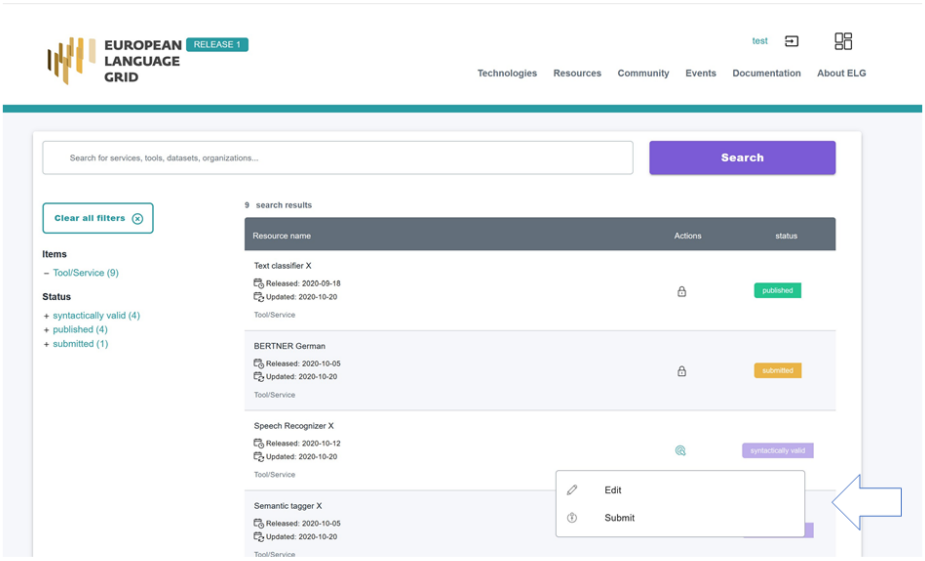
If there are any errors in your XML file, these will be shown to you. Fix them and try the upload again. Eventually, a success message will be shown to you and the metadata will be imported into the database.


EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Create items
Go to catalogue
Organization
Companies, research organizations, academic organizations, etc. active in Language Technology in Europe.
Go to form
Project
Projects that have funded the development or used language resources and technologies.
Go to form
Upload metadata record
Create item with upload of metadata file(s)
Upload

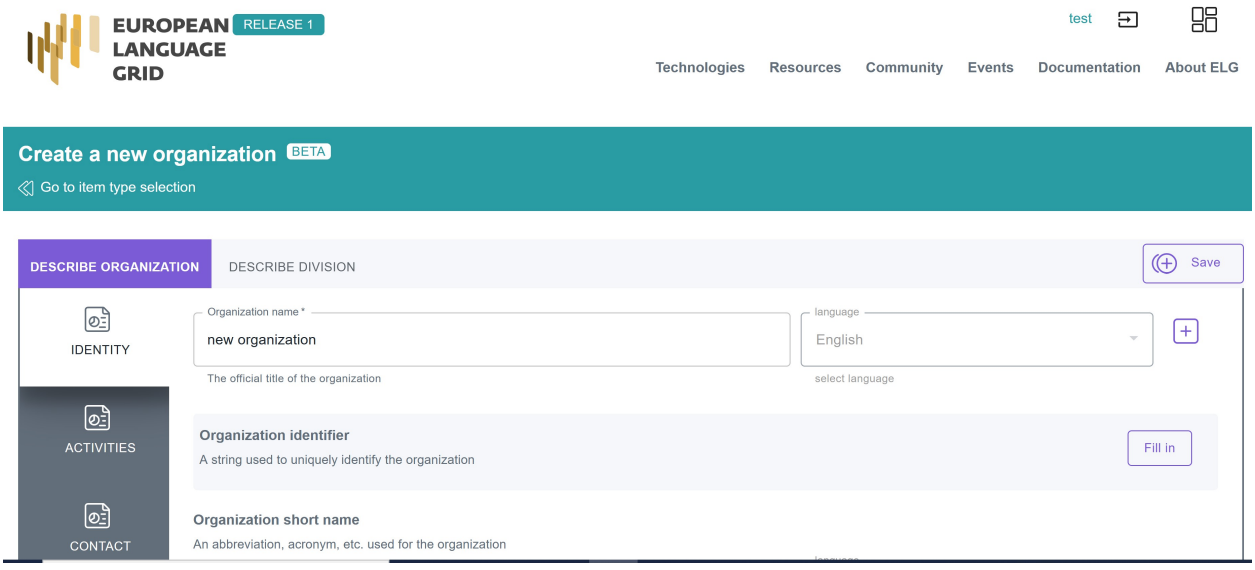

EUROPEAN LANGUAGE GRID
RELEASE 1
Penny
Technologies
Resources
Community
Events
Documentation
About ELG
Upload records
UPLOAD SINGLE ITEM
UPLOAD MULTIPLE ITEMS
1
2
Upload metadata file
Upload Data File
Under construction
Please check the box if you upload a record for a resource you are working on and plan to deliver later to ELG
Drag & Drop your files or Browse
Upload an XML file compatible with the ELG metadata schema

17.3.3 Step 3: edit and submit for publication

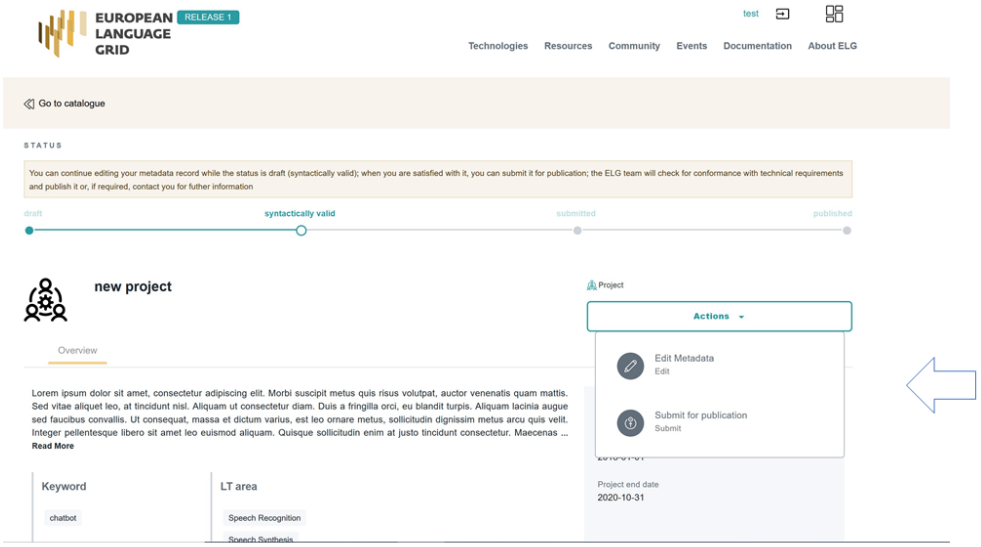
Your metadata record is now accessible via the “my items” page; you can select to edit or submit for publication.



Using the editor form, you can update the record. To save it, click on “Save”:



When you are satisfied with the description, you can sumbit it for publication from the “my items” page or the view item page as below:



17.3.4 Step 4: wait for approval

At this stage, the metadata record cannot be edited and is only visible to you and to us, the ELG platform administrators. We will check your contribution and integrate it into the ELG catalogue if everything is in order, and contact you otherwise.

CHAPTER

EIGHTEEN

UPDATE / DELETE A CATALOGUE ENTRY

Note: Instructions on how to update or delete entries in the ELG catalogue will be provided shortly.

CHAPTER

NINETEEN

CONTRIBUTE VIA AN EXTERNAL REPOSITORY

19.1 Metadata harvesting

Note: Instructions on harvesting metadata from external repositories will be provided shortly.

CHAPTER

TWENTY

VALIDATING ITEMS CONTRIBUTED TO ELG

This chapter is for **validators**, i.e. users that have been assigned to validate items submitted for publication. Depending on the type and source of the contributed item, a validation process is foreseen as follows:

- for functional services, validation is performed at the metadata and technical level by the same individual (see *Validate a functional LT service (at technical/metadata level)*) and at the legal level (see *Validate a functional LT service or ELG hosted LRT at legal level*); all validators are assigned manually by an administrator of the ELG platform
- for resources hosted at ELG, validation is performed at the metadata and technical level by the same individual (see *Validate an LRT hosted in ELG (at technical/metadata level)*) and at the legal level (see *Validate a functional LT service or ELG hosted LRT at legal level*); all validators are automatically assigned by the system (based on work overload) but can also be manually re-assigned by the administrator
- for items with metadata only (e.g., projects, organizations, corpora accessible through other repositories), validation is performed at the metadata level only (see *Validate a "metadata record only" (at metadata level)*); the validator is automatically assigned by the system (based on work overload) but can also be manually re-assigned by the administrator
- for harvested metadata records, no validation is performed.

When approved by all validators, the item is published at the ELG catalogue.

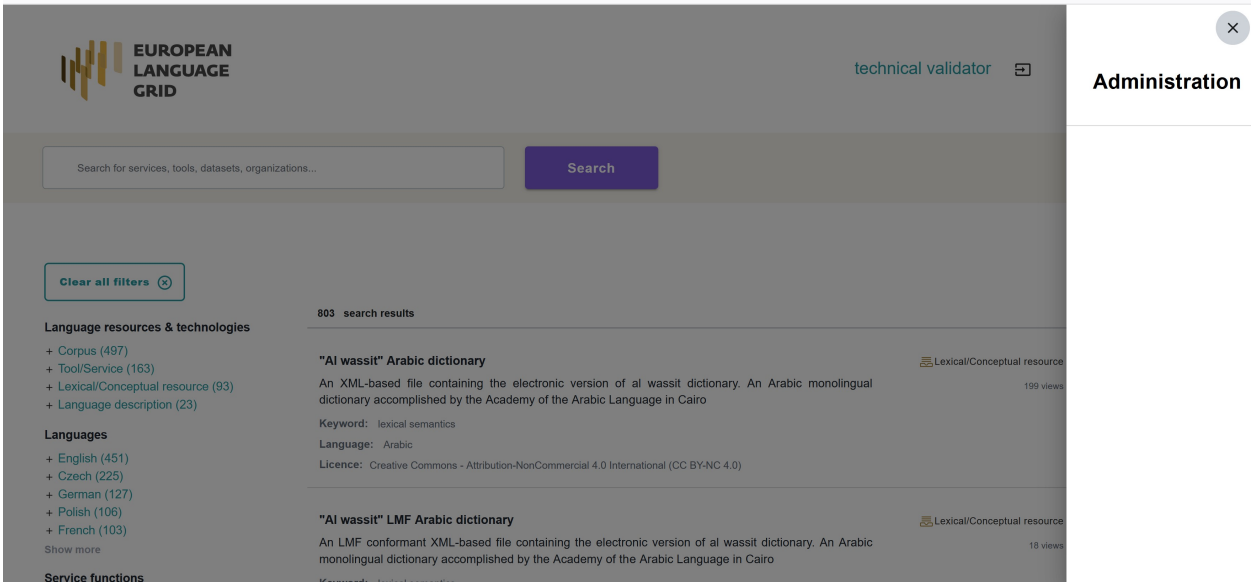
At present, only members of the ELG consortium can assume the validator role.

CHAPTER

TWENTYONE

VALIDATE A FUNCTIONAL LT SERVICE (AT TECHNICAL/METADATA LEVEL)

When you have been assigned to validate a functional service, at the technical/metadata level, you will receive a notification via email. To access the validation form, log in at the ELG platform and select "Administration" at the menu that pops up when you click on the dashboard icon:



You will be re-directed to the backend administration pages.

Click on `Technical validations` to view the catalogue of metadata records that have been assigned to you:

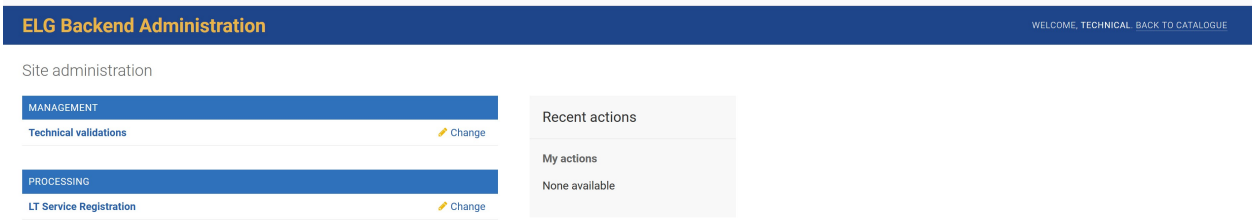
Click on the title of the metadata record that you have been assigned to access the validation form:

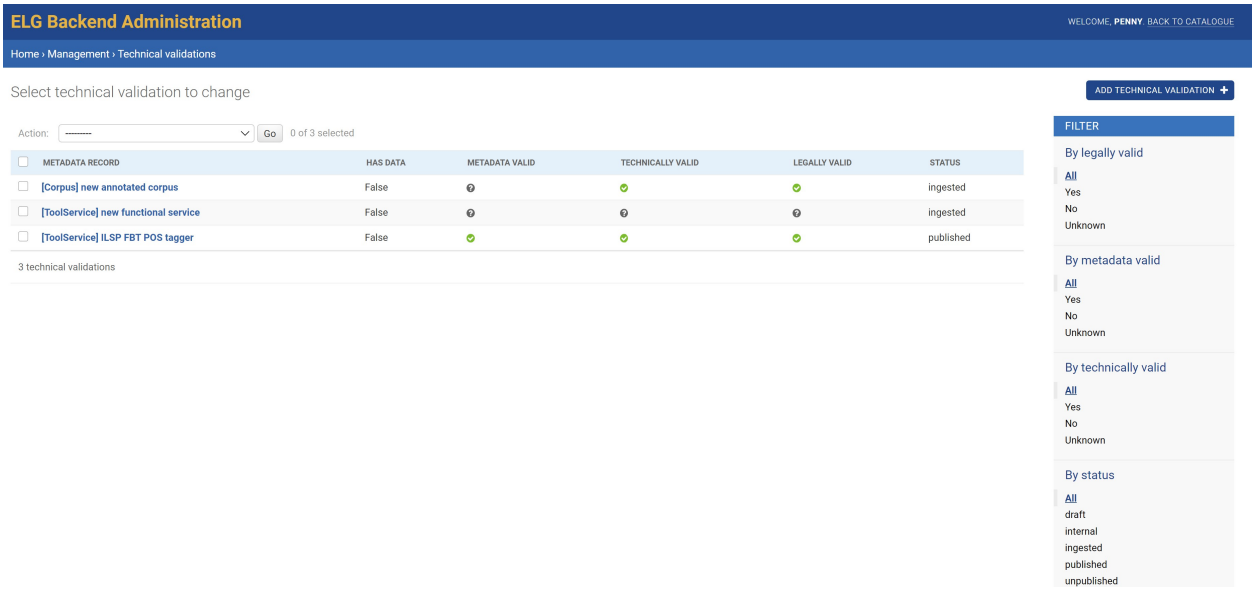
On this form, the values of `Technically valid` and `Metadata valid` fields are set to `Uknnown`; do not change them yet.

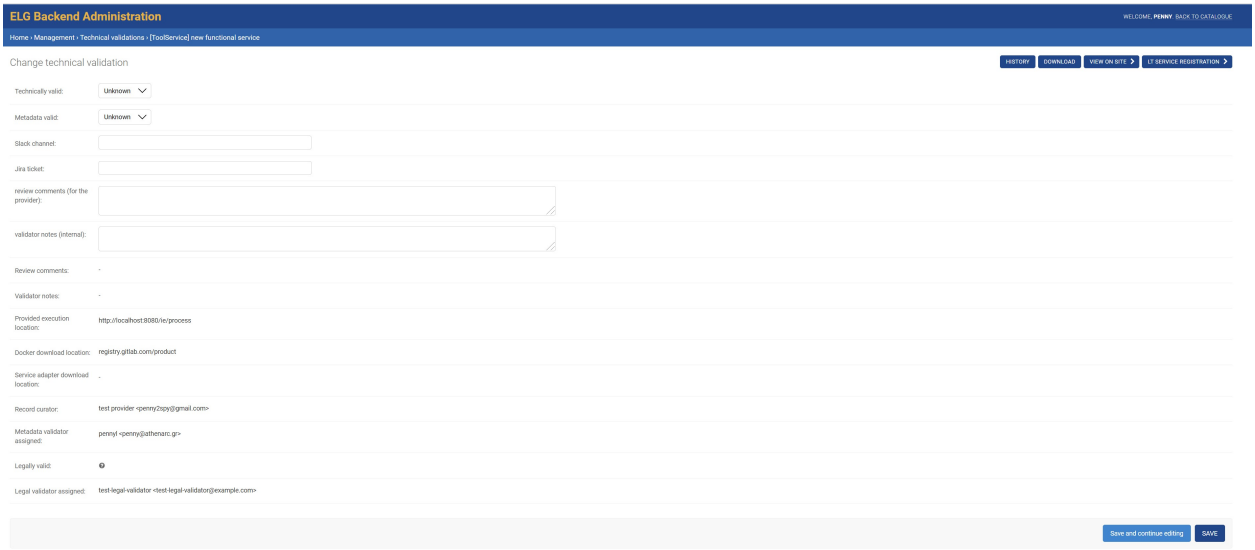
Fill in the `Slack channel` and `Jira ticket` fields and click on "Save" at the right bottom corner of the page.

Before filling-in the rest of the validation form, you must first:

- **Deploy the LT service into the ELG kubernetes cluster**: For this you have to create the required yaml file in the respective GitLab repository and branch; e.g. https://gitlab.com/european-language-grid/platform/infra/-/blob/master/elg-srv/srv/dev/srv-legal-er-dfki.yaml file on master branch. To create the yaml file, you will need the `docker_download_location`, `service_adapter_download_location`, `execution_location` metadata element values, that you will find on the form. When the yaml file is commited/pushed, the automatic CI/CD deployment pipeline of ELG will be notified and install the LT service to


ELG Backend Administration
WELCOME, TECHNICAL. BACK TO CATALOGUE
Site administration
MANAGEMENT
Technical validations
Change
PROCESSING
LT Service Registration
Change
Recent actions
My actions
None available

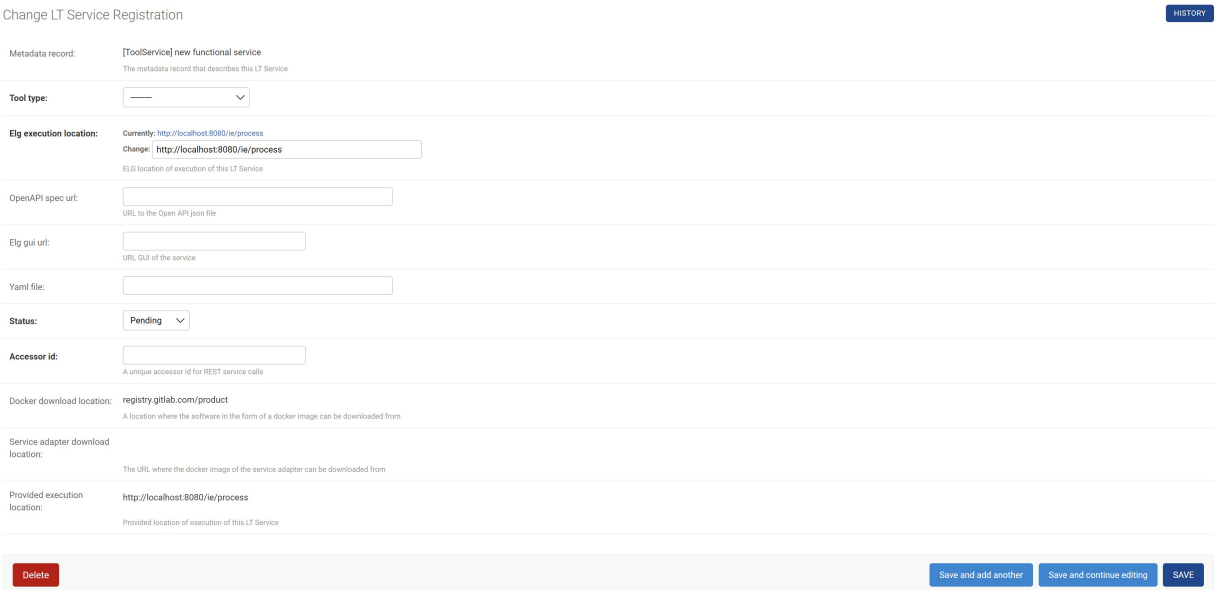

ELG Backend Administration
WELCOME, PENNY. BACK TO CATALOGUE
Home › Management › Technical validations
Select technical validation to change
ADD TECHNICAL VALIDATION
Action:
Go
0 of 3 selected
METADATA RECORD
HAS DATA
METADATA VALID
TECHNICALLY VALID
LEGALLY VALID
STATUS
[Corpus] new annotated corpus
False
ingested
[ToolService] new functional service
False
ingested
[ToolService] ILSP FBT POS tagger
False
published
3 technical validations
FILTER
By legally valid
All
Yes
No
Unknown
By metadata valid
All
Yes
No
Unknown
By technically valid
All
Yes
No
Unknown
By status
All
draft
internal
ingested
published
unpublished


ELG Backend Administration
Home › Management › Technical validations › [ToolService] new functional service
Change technical validation
HISTORY
DOWNLOAD
VIEW ON SITE
LT SERVICE REGISTRATION
Technically valid:
Unknown
Metadata valid:
Unknown
Slack channel:
Jira ticket:
review comments (for the provider):
validator notes (internal):
Review comments:
Validator notes:
Provided execution location:
http://localhost:8080/ie/process
Docker download location:
registry.gitlab.com/product
Service adapter download location:
Record curator:
test provider <penny2spy@gmail.com>
Metadata validator assigned:
pennyl <penny@athenarc.gr>
Legally valid:
Legal validator assigned:
test-legal-validator <test-legal-validator@example.com>
Save and continue editing
SAVE

the respective kubernetes cluster; for instance, the master branch is used for the production ELG cluster, while the develop branch is used for the development cluster. You will also need access to the cluster so that you can check which containers/pods are running, inpect the logs and statuses of the containers, etc.; for this, you will receive the required information and credentials from the ELG technical team.

- **Register/integrate the running LT service at the ELG catalogue**: Click on the "LT Service Registration" button at the right top corner of the validation form.

The form will open at a new tab of your browser:



On this form:

- select the `Tool type` value (IE, MT, ASR, etc.), depending on the type of service you validate. The metadata of the service will help you decide which is the appropriate value; you can view the metadata record by clicking on the "VIEW ON SITE" button on the top right corner of the validation form.
- fill in the `ELG execution location`; the value of this field depends on how the LT service is deployed into the cluster; e.g. knative vs. non-knative (kubernetes) service, which namespace was used, etc. As described *here*, this field 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 filled based on the `executionLocation` element value of the metadata record. For this reason, the `ELG execution location` field id pre-filled with the `executionLocation` value, so that you can change only the part that is required.
- set the `Elg gui url`; use `/dev/gui-ie/index-mt.html` for MT services, `/dev/gui-udpipe/` for dependency parsers, `/dev/gui-ie/` for IE tools, `/dev/gui-tts/` for TTS services, and `/dev/gui-ie/index-asr.html` for ASRs. For specifying the text direction of the results in the try out UIs you should use the appropriate parameters; e.g. for ASRs use `/dev/gui-ie/index-asr.html?dir=ltr` or `/dev/gui-ie/index-asr.html?dir=rtl` for left-to-right and right-to-left directions, respectively. Similarly, `/dev/gui-ie/?dir=ltr` or `/dev/gui-ie/?dir=rtl` for IE services. For MT services use `srcdir` and `targetdir` parameters (e.g. `index-mt.html?srcdir=ltr&targetdir=rtl`) to specify the text direction of input/output. Depending on the value that you have set, the appropriate try out UI will be displayed in the respective tab of the landing page of the LT service. If there is no

available/appropriate try out UI for the specific service or for any other reason you can disable/hide the try out UI tab by setting `none` to the `Elg gui url` field.

- add the yaml file location in the respective field; it is the URL of the file that you have created in the previous step. This will help you easily locate in the future which yaml file specifies how the service is deployed into the cluster.
- set the `Accessor id` of the service. This id is unique and it is used for calling the service via the ELG public LT REST API. For a brief overview of the LT REST API, see *this section*.
- set the value of `status` to `completed` and click on "Save" at the bottom right corner of the page in order to activate the service

- **est the deployed service**: You have to use the Test/Try out tab of the service page ("VIEW ON SITE" will lead you there) or with any other available clients/tools. You must ensure that the service follows the ELG specifications and works as expected. For any issues that arise, you can use the specified slack channel to communicate with the provider of the service.

Now that the service is tested and integrated into ELG you can return to the technical/metadata validation form and set `Technically valid` to `Yes`.

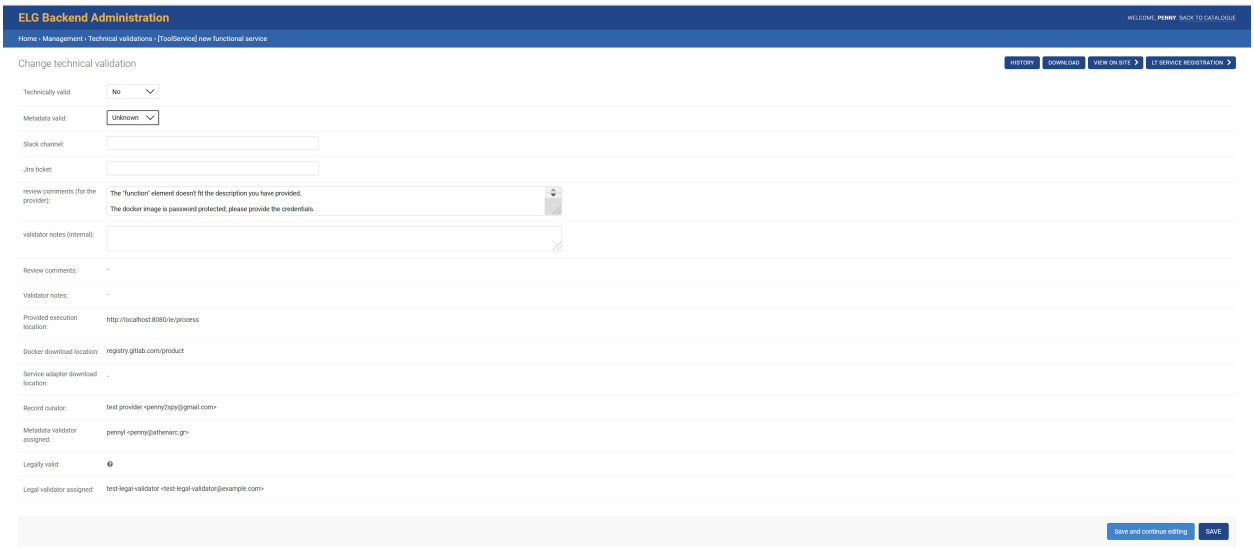
Then you have to check the metadata of the service. As already mentioned you can see the record by clicking the "VIEW ON SITE" button. You are asked to check whether the values of the following elements are correct according to the description of the service:

- function
- input & output language(s)
- annotation type(s): if the tool is of the IE type, it's recommended that this element has values for the types of information annotated/extracted.
- ...

Note: More information to be provided later.

If you are satisfied, set the values of `Metadata valid` to `Yes` and click on "Save".

If not, add your comments and recommendations at the `Review comments` field and set the value of `Metadata valid` to `No` and click on "Save", as below:



The provider will be notified by email (containing the review comments) in order to update the record. Once finished, the provider will re-submit the record for publication and you will be notified to perform the validation again.

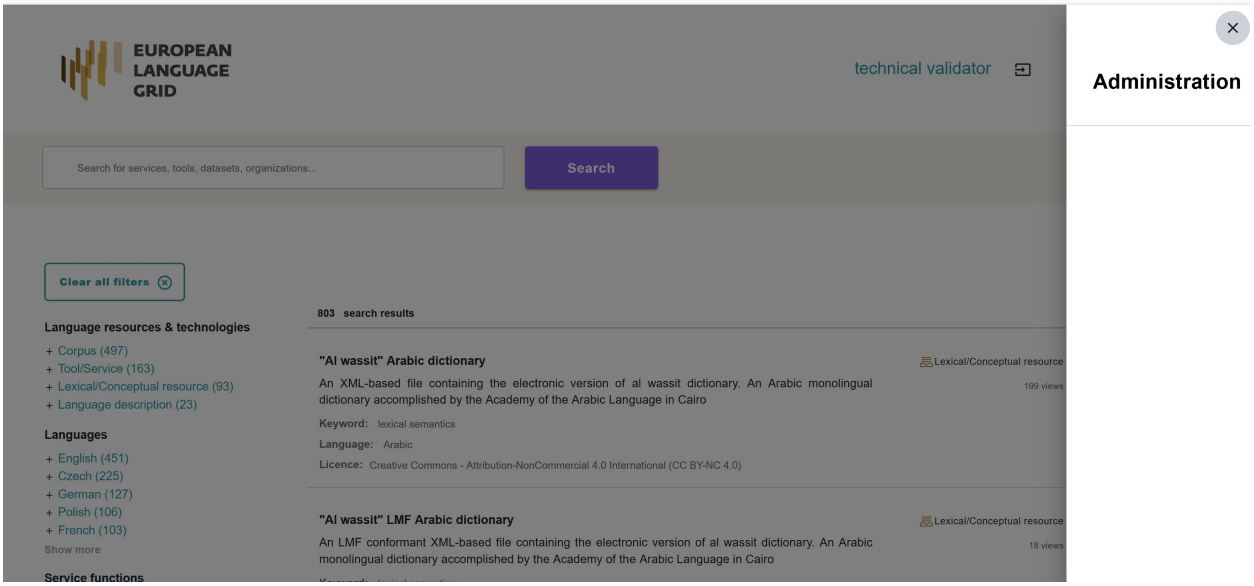
Note: This section is under development and continuously updated with new information. In addition, the forms included in the current release are implemented with Django. New forms will be provided later.

CHAPTER

TWENTYTWO

VALIDATE AN LRT HOSTED IN ELG (AT TECHNICAL/METADATA LEVEL)

When you have been assigned to validate a hosted LRT, at the technical/metadata level, you will receive a notification via email. To access the validation form, log in at the ELG platform and select "Administration" at the menu that pops up when you click on the dashboard icon:



You will be re-directed to the backend administration pages. Click on `Technical validations` to view the catalogue of metadata records that have been assigned to you:

Click on the title of the metadata record that you have been assigned to access the validation form.

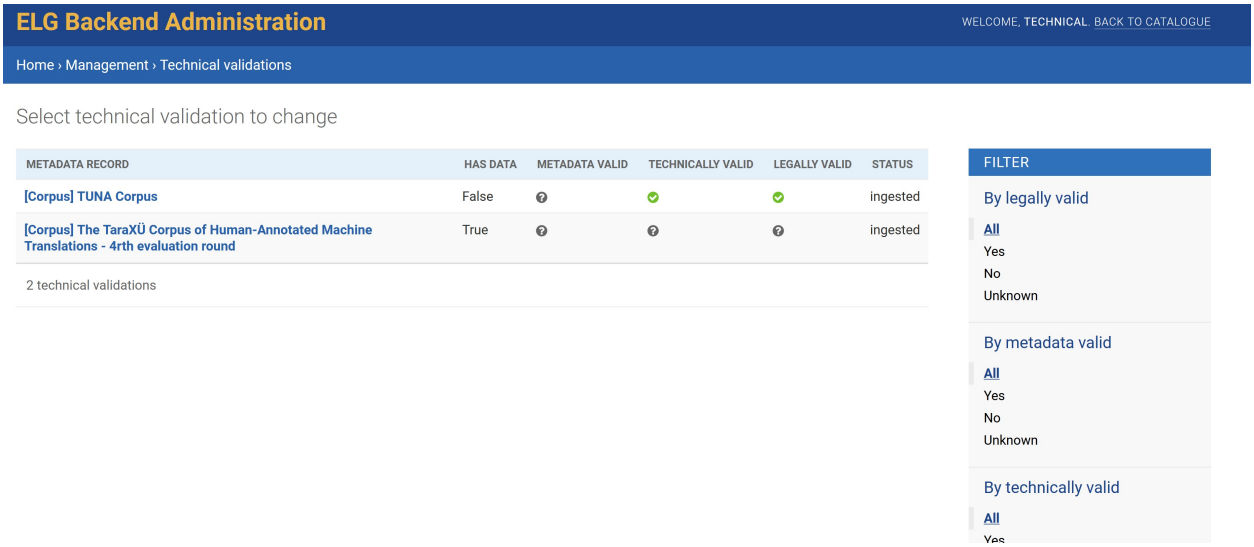
On this form, you can click on "DOWNLOAD" to download the uploaded files and "VIEW ON SITE" to view the metadata record.

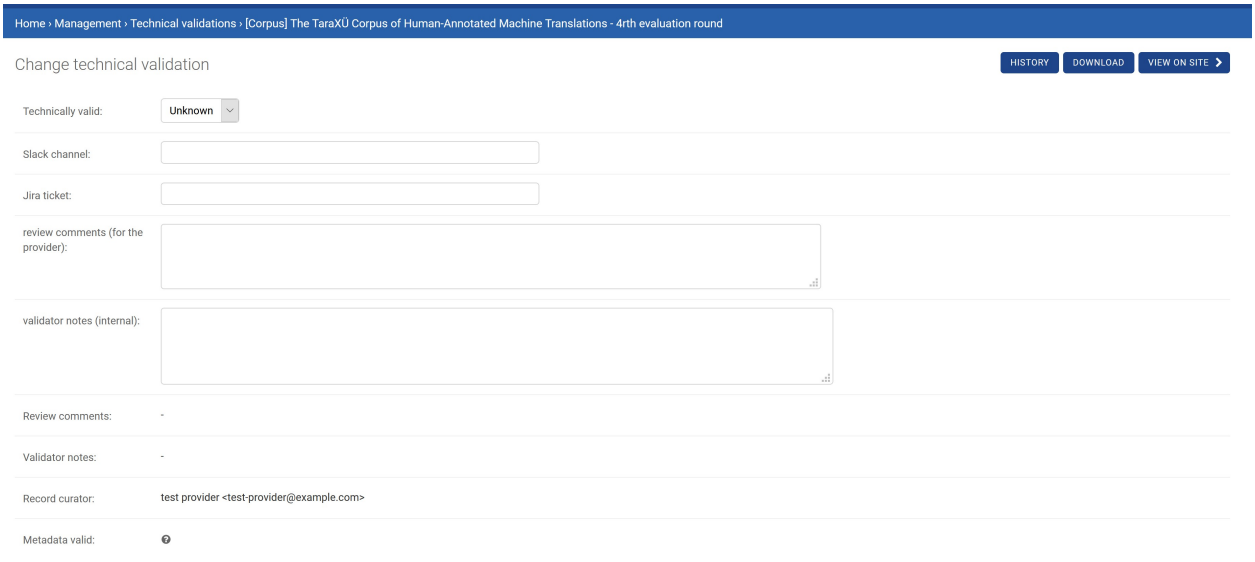
Please, check that the LRT is as expected, i.e. - no malicious files are contained

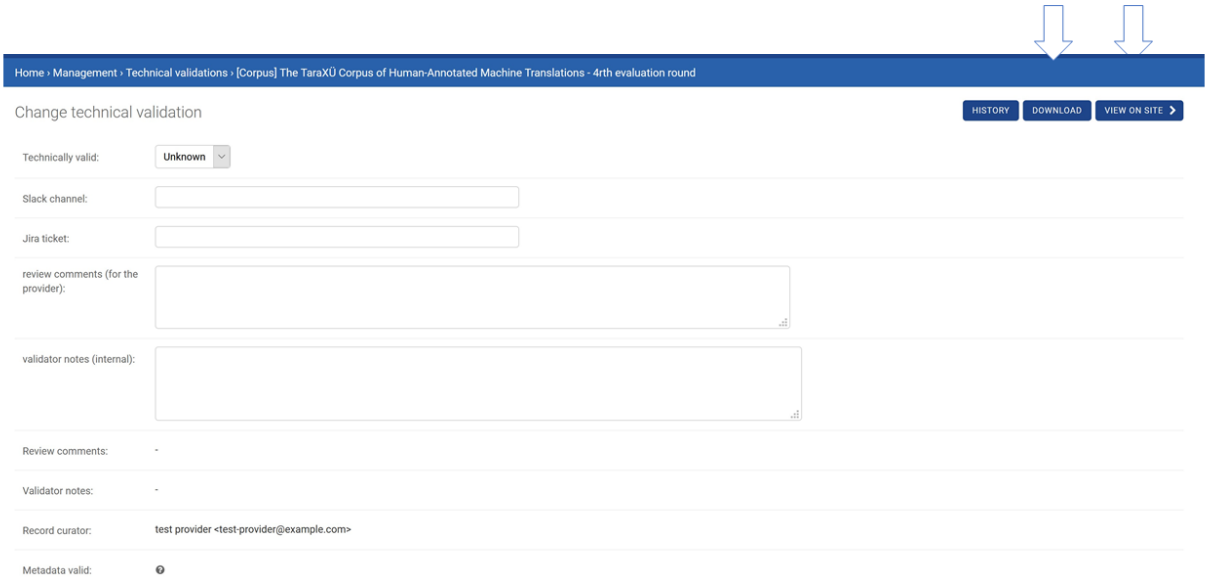
- the data format is as set in the metadata record
- the language value(s) are correct
- ...

You must also check the metadata elements and values to identify potential issues, such as:

- the value for language(s) corresponds to that in the description;
- if it's a tool/service, the function value(s) are as in the description;


ELG Backend Administration
WELCOME, TECHNICAL. BACK TO CATALOGUE
Home › Management › Technical validations
Select technical validation to change
METADATA RECORD
HAS DATA
METADATA VALID
TECHNICALLY VALID
LEGALLY VALID
STATUS
[Corpus] TUNA Corpus
False
ingested
[Corpus] The TaraXÜ Corpus of Human-Annotated Machine Translations - 4rth evaluation round
True
ingested
2 technical validations
FILTER
By legally valid
All
Yes
No
Unknown
By metadata valid
All
Yes
No
Unknown
By technically valid
All
Yes


Home › Management › Technical validations › [Corpus] The TaraXÜ Corpus of Human-Annotated Machine Translations - 4rth evaluation round
Change technical validation
HISTORY
DOWNLOAD
VIEW ON SITE
Technically valid:
Unknown
Slack channel:
Jira ticket:
review comments (for the provider):
validator notes (internal):
Review comments:
-
Validator notes:
-
Record curator:
test provider <test-provider@example.com>
Metadata valid:

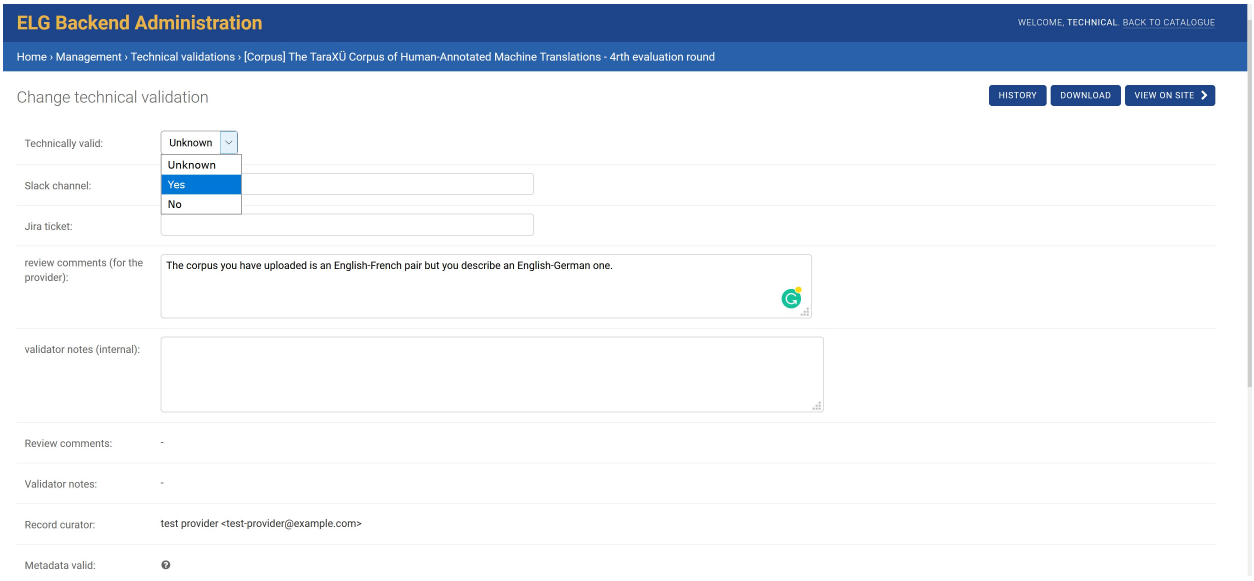


- the description provides helpful information,
- ...

Note: More information to be provided later.

If you are satisfied, set the values of `Technically valid` and `Metadata valid` to `Yes` and click on "Save".

If not, add your comments and recommendations at the `Review comments` field and set the value of `Technically valid` and/or `Metadata valid` (depending on the source of the issue) to `No` and click on "Save", as below:



The provider will be notified by email (containing the review comments) in order to update the record. Once finished, the provider will re-submit the record for publication and you will be notified to perform the validation again.

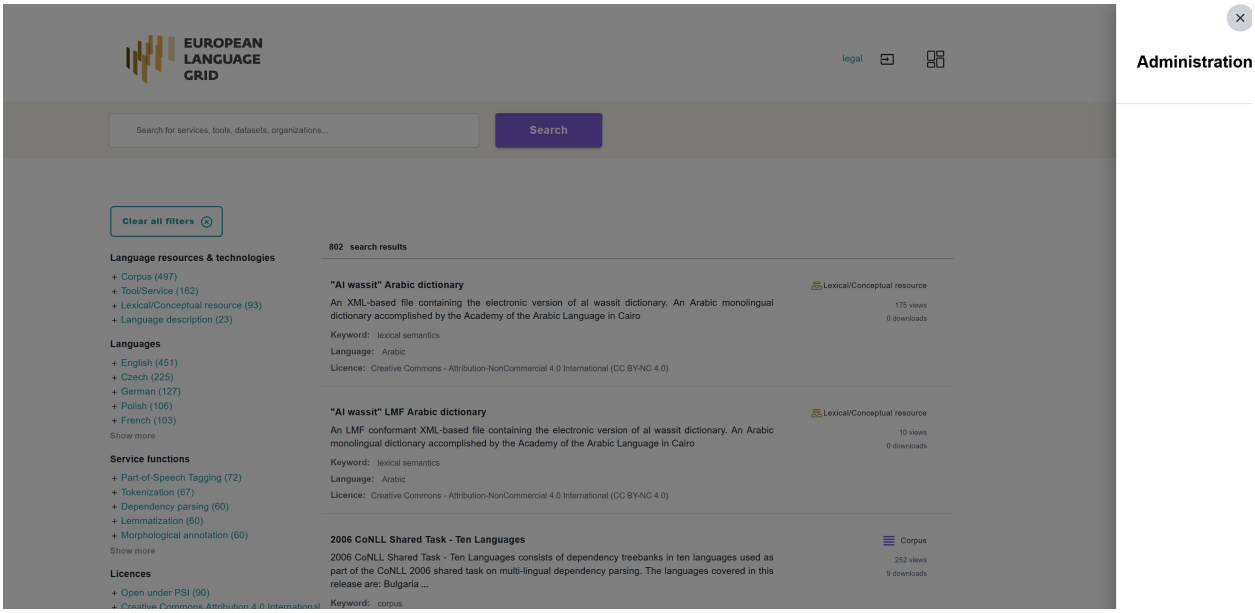
Note: This section is under development and continuously updated with new information. In addition, the forms included in the current release are implemented with Django. New forms will be provided later.

CHAPTER

TWENTYTHREE

VALIDATE A FUNCTIONAL LT SERVICE OR ELG HOSTED LRT AT LEGAL LEVEL

When you have been assigned to validate an item at the legal level, you will receive a notification via email. To access the validation form, log in at the ELG platform and select “Administration” at the menu that pops up when you click on the dashboard icon:



You will be re-directed to the backend administration pages. Click on `Legal validations` to view the catalogue of metadata records that have been assigned to you:

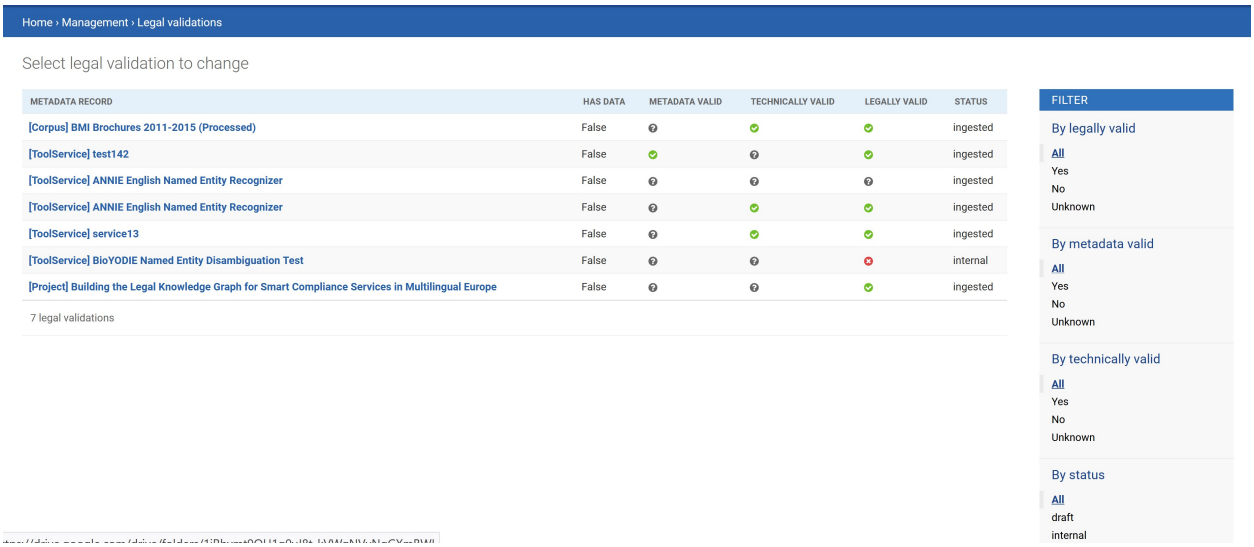
Click on the title of the metadata record that you have been assigned to access the validation form.

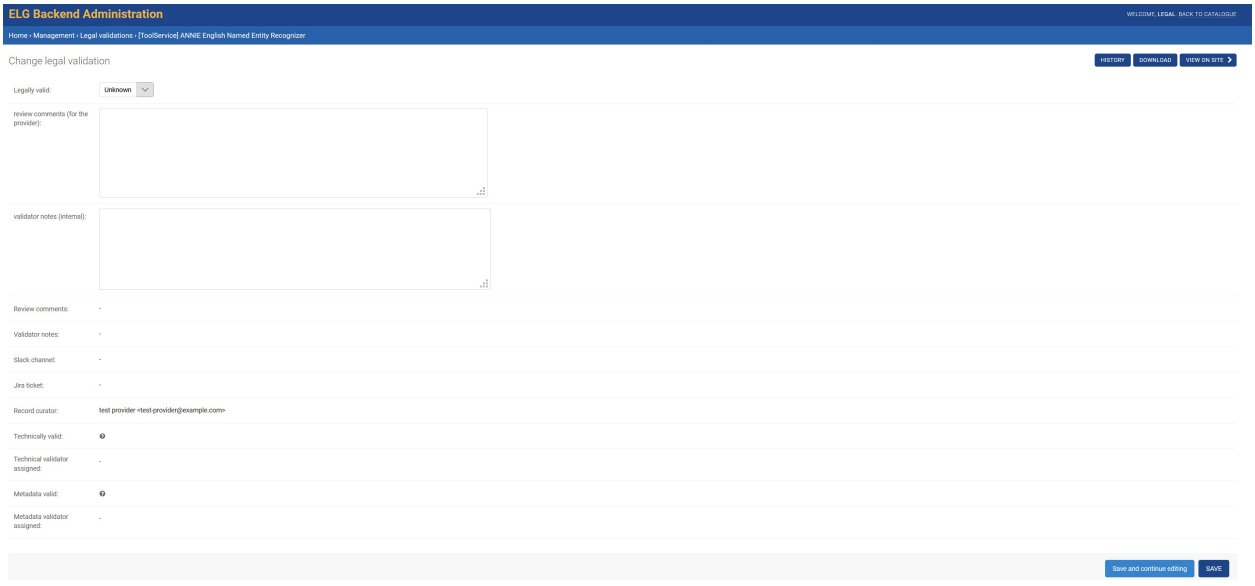
On this form, you can click on “DOWNLOAD” to download the uploaded files and “VIEW ON SITE” to view the metadata record.

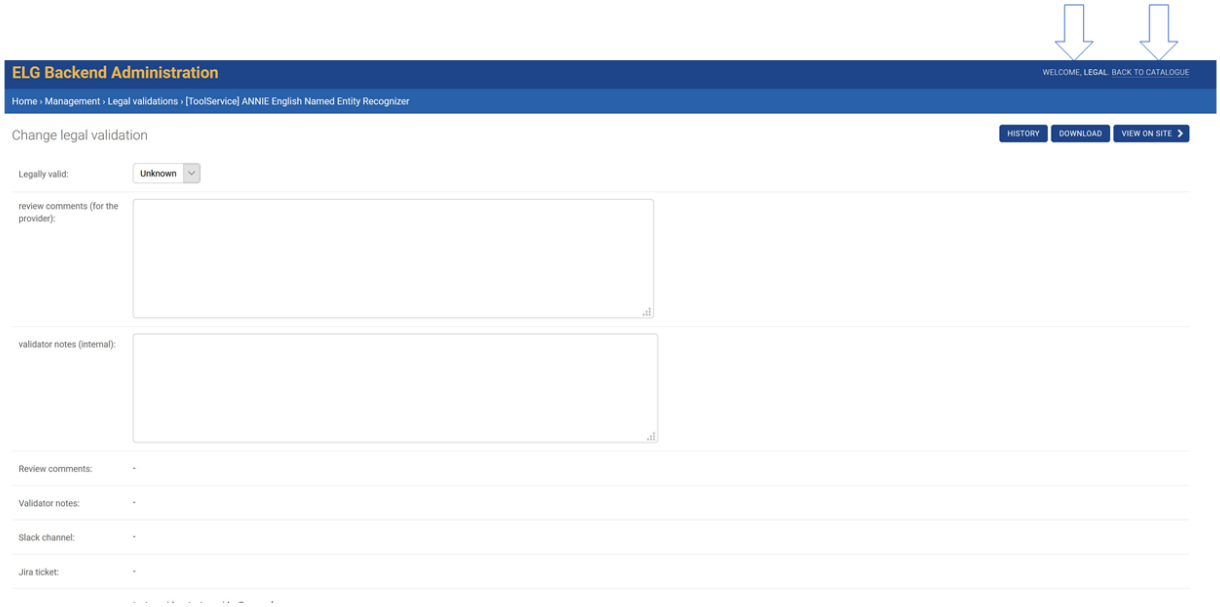
Please, check the value(s) of the `Licence` element on the metadata record to identify potential legal issues, such as:

- if the LRT comes from a pilot project, whether it fulfils the legal oblications, i.e. that it has been assigned an open licence, or, at least, a licence that allows free use for academic and research purposes,
- in case of LRTs with multiple licences, that the licences are consistently used,
- ...

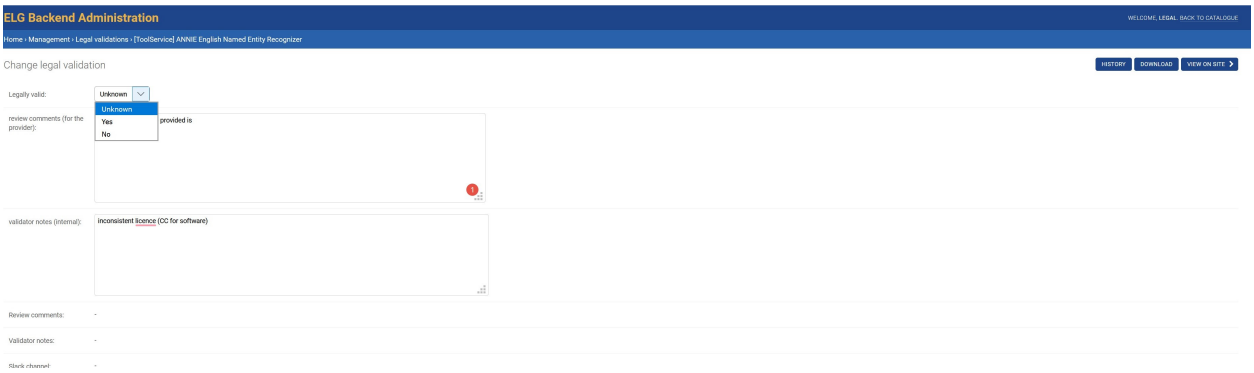
If you are satisfied, set the value of `Legally valid` to `Yes` and click on “Save”.


Home › Management › Legal validations
Select legal validation to change
METADATA RECORD
HAS DATA
METADATA VALID
TECHNICALLY VALID
LEGALLY VALID
STATUS
[Corpus] BMI Brochures 2011-2015 (Processed) False ingested
[ToolService] test142 False ingested
[ToolService] ANNIE English Named Entity Recognizer False ingested
[ToolService] ANNIE English Named Entity Recognizer False ingested
[ToolService] service13 False ingested
[ToolService] BioYODIE Named Entity Disambiguation Test False internal
[Project] Building the Legal Knowledge Graph for Smart Compliance Services in Multilingual Europe False ingested
7 legal validations
FILTER
By legally valid
All
Yes
No
Unknown
By metadata valid
All
Yes
No
Unknown
By technically valid
All
Yes
No
Unknown
By status
All
draft
internal


ELG Backend Administration
WELCOME, LEGAL BACK TO CATALOGUE
Home › Management › Legal validations › [ToolService] ANNIE English Named Entity Recognizer
Change legal validation
HISTORY
DOWNLOAD
VIEW ON SITE
Legally valid:
Unknown
review comments (for the provider):
validator notes (internal):
Review comments:
Validator notes:
Slack channel:
Jira ticket:
Record curator:
test provider <test-provider@example.com>
Technically valid:
Technical validator assigned:
Metadata valid:
Metadata validator assigned:
Save and continue editing
SAVE



If not, add your comments and recommendations at the `Review comments` field and set the value of `Legally valid` to `No` and click on "Save", as below:



The provider will be notified by email (containing the review comments) in order to update the record. Once finished, the provider will re-submit the record for publication and you will be notified to perform the validation again.

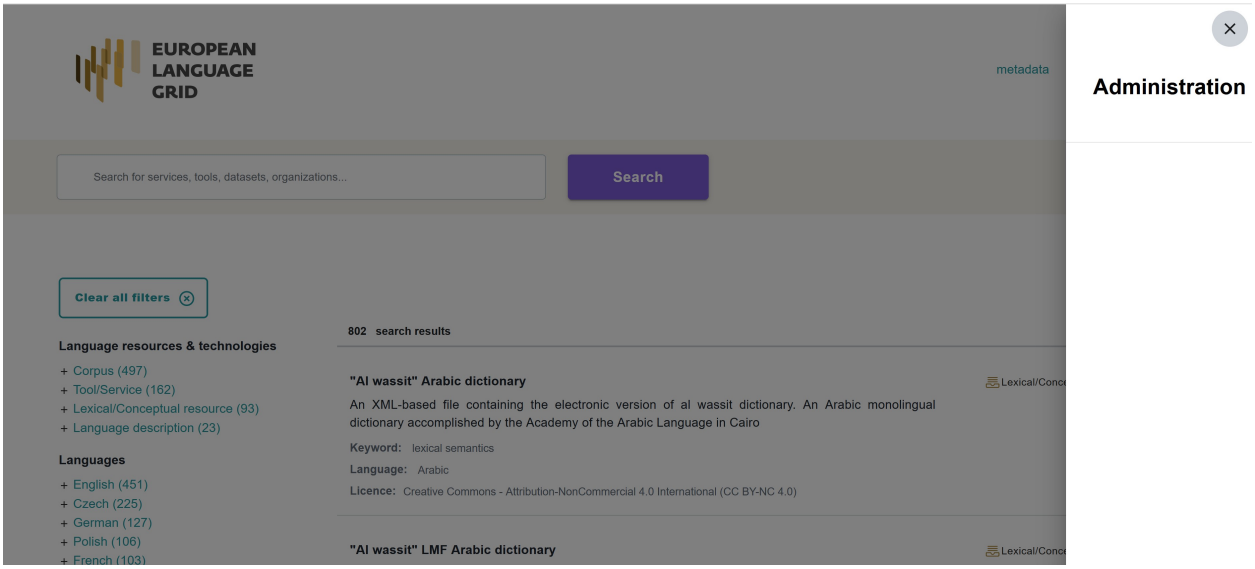
Note: This section is under development and continuously updated with new information. In addition, the forms included in the current release are implemented with Django. New forms will be provided later.

CHAPTER

TWENTYFOUR

VALIDATE A "METADATA RECORD ONLY" (AT METADATA LEVEL)

When you have been assigned to validate an item at the metadata level, you will receive a notification via email. To access the validation form, log in at the ELG platform and select "Administration" at the menu that pops up when you click on the dashboard icon:



You will be re-directed to the backend administration pages. Click on `Metadata validations` to view the catalogue of metadata records that have been assigned to you:

Click on the title of the metadata record that you have been assigned to access the validation form.

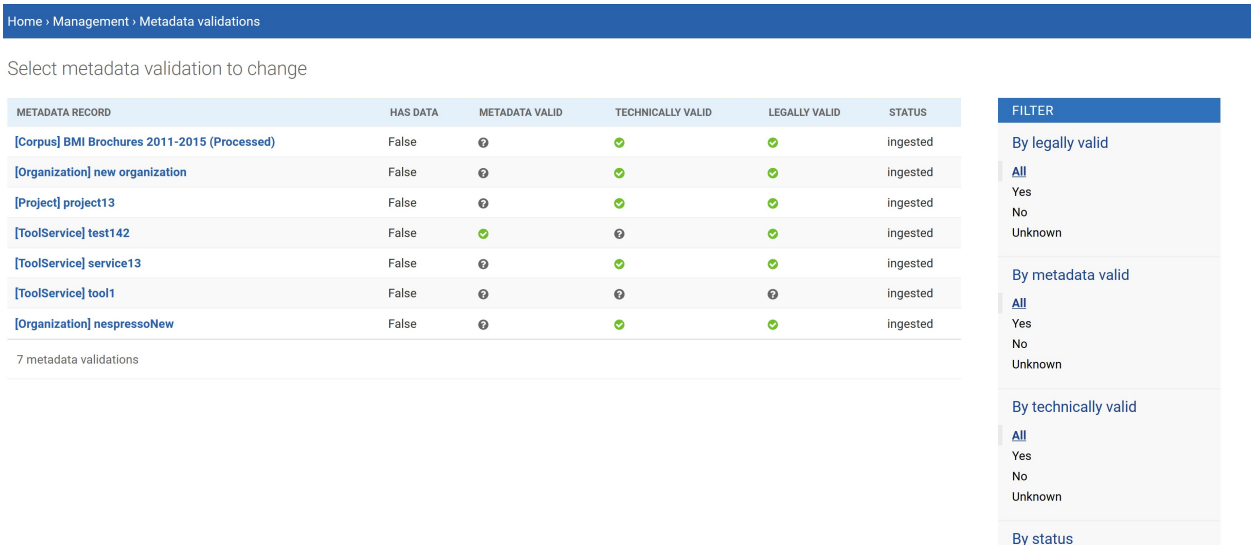
On this form, you can click on "VIEW ON SITE" to view the metadata record.

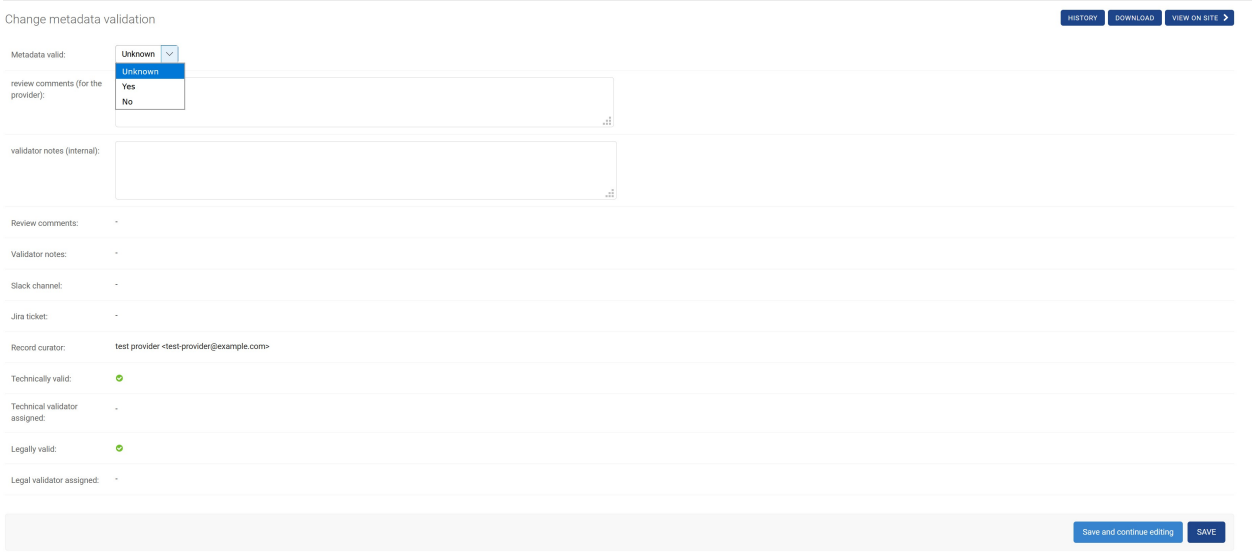
Please, check the metadata elements and values to identify potential issues, such as:

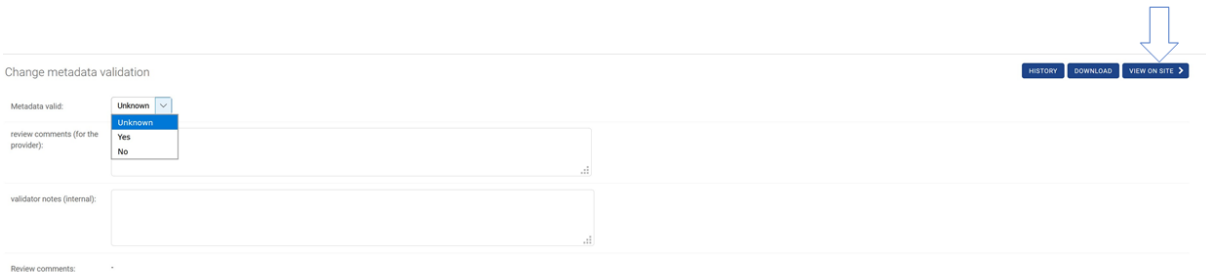
- the value for language(s) corresponds to that in the description;
- if it's a tool/service, the function value(s) are as in the description;
- the "description" provides helpful information,
- ...

Note: More information to be provided later.

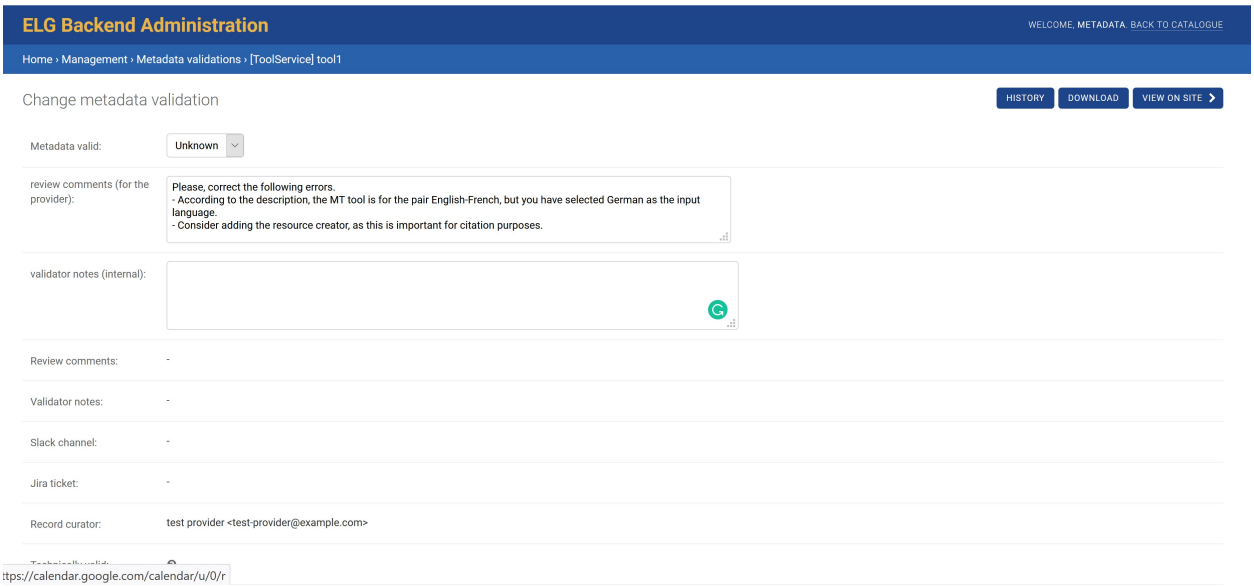
If you are satisfied, set the value of `Metadata valid` to `Yes` and click on "Save".


Home › Management › Metadata validations
Select metadata validation to change
METADATA RECORD
HAS DATA
METADATA VALID
TECHNICALLY VALID
LEGALLY VALID
STATUS
[Corpus] BMI Brochures 2011-2015 (Processed) False ingested
[Organization] new organization False ingested
[Project] project13 False ingested
[ToolService] test142 False ingested
[ToolService] service13 False ingested
[ToolService] tool1 False ingested
[Organization] nespressoNew False ingested
7 metadata validations
FILTER
By legally valid
All
Yes
No
Unknown
By metadata valid
All
Yes
No
Unknown
By technically valid
All
Yes
No
Unknown
By status


Change metadata validation
HISTORY
DOWNLOAD
VIEW ON SITE
Metadata valid:
Unknown
Unknown
Yes
No
review comments (for the provider):
validator notes (internal):
Review comments:
Validator notes:
Slack channel:
Jira ticket:
Record curator:
test provider <test-provider@example.com>
Technically valid:
Technical validator assigned:
Legally valid:
Legal validator assigned:
Save and continue editing
SAVE



If not, add your comments and recommendations at the `Review comments` field and set the value of `Metadata valid` to `No` and click on "Save", as below:



The provider will be notified by email (containing the review comments) in order to update the record. Once finished, the provider will re-submit the record for publication and you will be notified to perform the validation again.

When you have approved the metadata record, it will be automatically published on the ELG catalogue.

Note: This section is under development and continuously updated with new information. In addition, the forms included in the current release are implemented with Django. New forms will be provided later.

CHAPTER

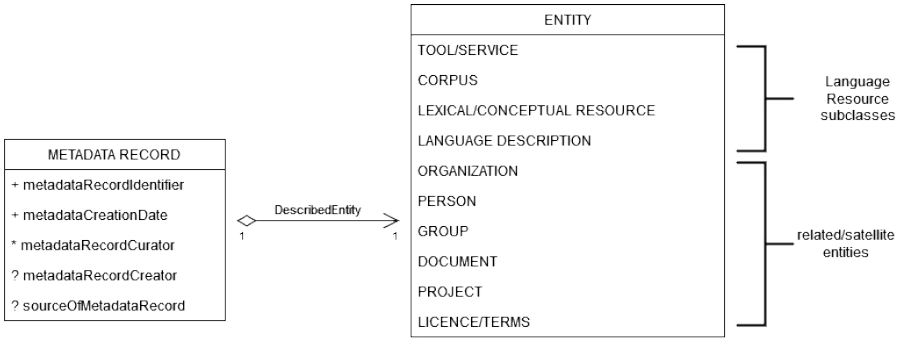
TWENTYFIVE

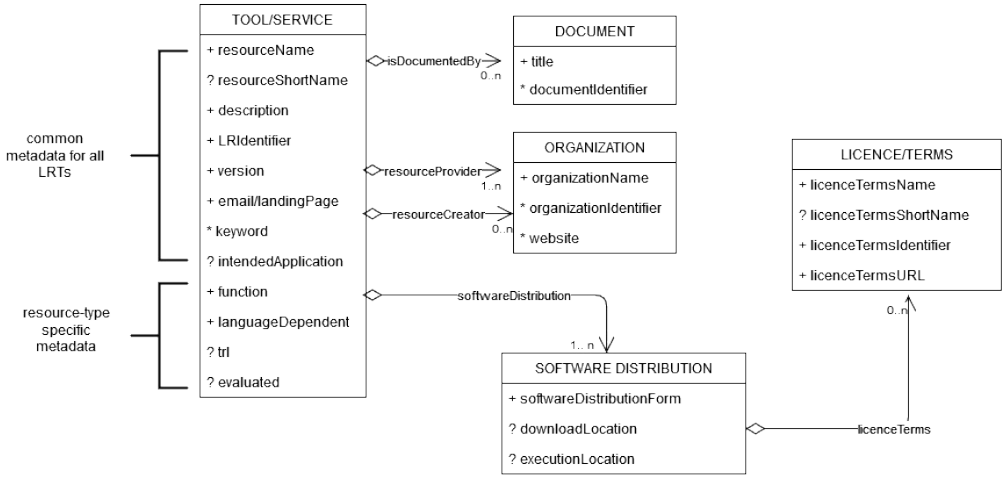
METADATA SCHEMA

This annex provides an overview of ELG's metadata schema, ELG-SHARE. We describe the basic concepts, provide links to the full schema documentation, and finally present the "minimal version" of the schema, consisting only of required and recommended elements.

25.1 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. *Types of catalogue entries*).
- `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.

25.2 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 full schema 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

25.3 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.

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** (): 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

TWENTYSIX

MINIMAL ELEMENTS FOR ALL ENTITIES

This page describes the minimal metadata elements common to all types of entities.

26.1 MetadataRecord

Path `MetadataRecord`

Data type component

Optionality Mandatory

Explanation & Instructions

A set of formalized structured information used to describe the contents, structure, function, etc. of an entity, usually according to a specific set of rules (metadata schema)

The `MetadataRecord` element includes a set of administrative data, of which the main elements (**automatically assigned by the ELG software**) for metadata records registered by individuals are:

- `metadataCreator`: the person that has created the metadata record
- `metadataCurator`: the person that will be assigned the responsibility to update the metadata record when imported in the ELG database; it is usually the same peroson as the metadataCreator
- `metadataCreationDate`: the date when the metadata record was created
- `compliesWith`: for ELG metadata records, this is by default the ELG-SHARE metadata schema

Example

```
<ms:MetadataRecord>
    <ms:MetadataRecordIdentifier ms:MetadataRecordIdentifierScheme="http://w3id.org/
↪meta-share/meta-share/elg">default id</ms:MetadataRecordIdentifier>
    <ms:metadataCreationDate>2020-02-28</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: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">Brown</ms:surname>
            <ms:givenName xml:lang="en">George</ms:givenName>
```

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```
    </ms:metadataCreator>
</ms:metadataRecord>
```

CHAPTER

TWENTYSEVEN

MINIMAL ELEMENTS FOR ALL LANGUAGE RESOURCES AND TECHNOLOGIES

This page describes the minimal metadata elements common to **all language resources and technologies**.

27.1 resourceName

Path `MetadataRecord.DescribedEntity.LanguageResource.resourceName`

Data type multilingual string

Optionality Mandatory

Explanation & Instructions

Introduces a human-readable name or title by which the resource is known

This is the "brand name" of your resource; try to use a name that is unique.

Example

```
<ms:resourceName xml:lang="en">GATE: English Named Entity Recognizer</ms:resourceName>
```

27.2 resourceShortName

Path `MetadataRecord.DescribedEntity.LanguageResource.resourceShortName`

Data type multilingual string

Optionality Recommended

Explanation & Instructions

Introduces a short form (e.g., abbreviation, acronym , etc.) used to refer to a language resource

Example

```
<ms:resourceShortName xml:lang="en">annie-named-entity-recognizer</
↪ms:resourceShortName>
```

27.3 description

Path `MetadataRecord.DescribedEntity.LanguageResource.description`

Data type multilingual string

Optionality Mandatory

Explanation & Instructions

Introduces a short free-text account that provides information about the resource (e.g., service function, contents of a data resource, technical information , etc.)

Example

```
<ms:description xml:lang="en">Identifies names of persons, locations, organizations,␣
↪as well as money amounts, time and date expressions in English texts automatically.
↪</ms:description>
```

27.4 LRIdentifier

Path `MetadataRecord.DescribedEntity.LanguageResource.LRIdentifier`

Data type string with attribute

Optionality Recommended when applicable

Explanation & Instructions

A string (e.g., PID, DOI, internal to an organization , etc.) used to uniquely identify a language resource

You must also use the attribute `LRIdentifierScheme` to specify the identifier scheme (e.g., DOI, Hanldle, . . .)

If the resource is already described in another resource and has a PID, please add it with the appropriate attribute.

Example

```
<ms:LRIdentifier ms:LRIdentifierScheme="http://w3id.org/meta-share/meta-share/elg">
↪ELG id automatically assigned</ms:LRIdentifier>
```

27.5 logo

Path `MetadataRecord.DescribedEntity.LanguageResource.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

The logo is like a brand name for the resource; it is displayed next to the resource name in the catalogue.

Example

```
<logo>https://gate.ac.uk/plugins/gau-0.1/images/logo-gate.png</logo>
```

27.6 version

Path `MetadataRecord.DescribedEntity.LanguageResource.version`

Data type string

Optionality Mandatory

Explanation & Instructions

Associates a language resource with a pattern that indicates its version; the recommended way is to follow the semantic versioning guidelines (http://semver.org) and use a numeric pattern of the form major_version.minor_version.patch

If no version is provided, the system will automatically assign the resource a 'v1.0.0 (automatically assigned)' value

Example

```
<ms:version>v8.6</ms:version>
```

27.7 additionalInfo

Path `MetadataRecord.DescribedEntity.LanguageResource.additionalInfo`

Data type component

Optionality Mandatory

Explanation & Instructions

Introduces a point that can be used for further information (e.g. a landing page with a more detailed description of the resource or a general email that can be contacted for further queries)

It's a recommended practice to give at least a landing page (`landingPage`) or a general email addresss (`email`); if you want, you can also specify a contact person (see full schema for `contactPerson`)

Example

```
<ms:additionalInfo>
            <ms:landingPage>https://provider.example.com/product</ms:landingPage>
</ms:additionalInfo>

<ms:additionalInfo>
            <ms:email>product@example.com</ms:email>
</ms:additionalInfo>
```

27.8 keyword

Path `MetadataRecord.DescribedEntity.LanguageResource.keyword`

Data type multilingual string

Optionality Mandatory

Explanation & Instructions

Introduces a word or phrase considered important for the description of a language resource, person or organization and thus used to index or classify it

You can repeat the element if you want to add more keywords. Keywords are used for discovery purposes; so, try to use words or phrases that you think users will use to find similar resources to yours.

Example

```
<ms:keyword xml:lang="en">Named entity recognition</ms:keyword>
<ms:keyword xml:lang="en">person</ms:keyword>
<ms:keyword xml:lang="en">location</ms:keyword>
<ms:keyword xml:lang="en">fake news</ms:keyword>
<ms:keyword xml:lang="en">tweets</ms:keyword>
```

27.9 domain

Path `MetadataRecord.DescribedEntity.LanguageResource.domain`

Data type component

Optionality Recommended

Explanation & Instructions

Identifies the domain according to which a resource is classified

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">EDUCATION &amp; COMMUNICATIONS</
↪ms:categoryLabel>
        <ms:DomainIdentifier ms:DomainClassificationScheme="http://w3id.org/meta-
↪share/meta-share/EUROVOC">32</ms:DomainIdentifier>
</ms:domain>

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

27.10 resourceProvider

Path `MetadataRecord.DescribedEntity.LanguageResource.resourceProvider`

Data type component

Optionality Recommended

Explanation & Instructions

The person/organization responsible for providing, curating, maintaining and making available (publishing) the resource

The resource provider is very similar to the publisher of scientific articles; it can be an individual or an organization.

For organizations you must add the name of the organizations (`organizationName`) and, if possible, the website.

For persons, you must add the given name and surname and, if possible, an email address or an identifier (such as ORCID id) to help uniquely identify them.

Example

```
    <ms:resourceProvider>
            <ms:Organization>
                    <ms:actorType>Organization</ms:actorType>
                    <ms:organizationName xml:lang="en">Organization</
↪ms:organizationName>
                    <ms:website>https://provider.org/</ms:website>
            </ms:Organization>
</ms:resourceProvider>

<ms:resourceProvider>
            <ms:Person>
                    <ms:actorType>Person</ms:actorType>
                    <ms:surname xml:lang="en">Smith</ms:surname>
                    <ms:givenName xml:lang="en">John</ms:givenName>
            </ms:Person>
</ms:resourceProvider>
```

27.11 publicationDate

Path `MetadataRecord.DescribedEntity.LanguageResource.publicationDate`

Data type date

Optionality Recommended

Explanation & Instructions

Specifies the date when a language resource has been made available to the public

Publication date is important for citation purposes, just as for scientific articles. If this is the first time your resource is published, please use the same date as for `metadataCrationDate`. If the resource has been previously published in another repository, please add the date it was first provided there.

Example

```
<ms:publicationDate>2015-12-17</ms:publicationDate>
```

27.12 resourceCreator

Path `MetadataRecord.DescribedEntity.LanguageResource.resourceCreator`

Data type component

Optionality Recommended

Explanation & Instructions

Links a resource to the person, group or organisation that has created the resource

The element is important for citation and acknowledgement purposes.

For organizations you must add the name of the organizations (`organizationName`) and, if possible, the website.

For persons, you must add the given name and surname and, if possible, an email address or an identifier (such as ORCID id) to help uniquely identify them.

Example

```
<ms:resourceCreator>
            <ms:Organization>
                    <ms:actorType>Organization</ms:actorType>
                    <ms:organizationName xml:lang="en">example organization</
↪ms:organizationName>
                    <ms:website>https://provider.org/</ms:website>
            </ms:Organization>
</ms:resourceCreator>

<ms:resourceCreator>
            <ms:Person>
                    <ms:actorType>Person</ms:actorType>
                    <ms:surname xml:lang="en">Smith</ms:surname>
                    <ms:givenName xml:lang="en">John</ms:givenName>
            </ms:Person>
    </ms:resourceCreator>
```

27.13 fundingProject (RA)

Path `MetadataRecord.DescribedEntity.LanguageResource.fundingProject`

Data type component

Optionality Recommended when applicable

Explanation & Instructions

Links a language resource to the project that has funded its creation, enrichment, extension , etc.

Funding information is important for acknowledgement purposes.

For projects, you must provide the name of the project (`projectName`) and, if possible, a website (`website`) and/or an identifier (`ProjectIdentifier`).

Example

```
<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">SMART 2015/1091 - 30-CE-0816766/00-92</ms:ProjectIdentifier>
            <ms:website>http://www.lr-coordination.eu</ms:website>
</ms:fundingProject>
```

27.14 intendedApplication

Path `MetadataRecord.DescribedEntity.LanguageResource.`

Data type component

Optionality Recommended

Explanation & Instructions

Specifies an LT application for which the language resource has been created or for which it can be used or is recommended to be used

The element is important for discovery purposes.

You can use the element `LTClassRecommended` with one of the recommended values from the LT taxonomy (class 'Function' of the OMTD-SHARE ontology at http://w3id.org/meta-share/omtd-share/), or add a free text at the `LTClassOther` element.

You can repeat the element if the resource can be used for various applications. For instance, a part-of-speech tagger can be used as a component for Named entity recognition, for sentiment analysis, etc.

Example

```
<ms:intendedApplication>
            <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪NamedEntityRecognition</ms:LTClassRecommended>
</ms:intendedApplication>

<ms:intendedApplication>
            <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪SentimentAnalysis</ms:LTClassRecommended>
</ms:intendedApplication>

<ms:intendedApplication>
            <ms:LTClassOther>face recognition</ms:LTClassRecommended>
</ms:intendedApplication>
```

27.15 isDocumentedBy

Path `MetadataRecord.DescribedEntity.LanguageResource.`

Data type component

Optionality Recommended

Explanation & Instructions

Links a language resource to a document (e.g., research paper describing its contents or its use in a project, user manual, etc.) or any other form of documentation (e.g., a URL with support information) that is related to the resource

You can use this element to add

- supporting documentation (user manuals, training material, etc.) for the installation and use of your resource
- scientific publications that describe the resource.

If you want, you can use one of the more fine-grained relations to documents (see full schema).

You can repeat the element if you want to add more documents.

You must fill in the `title` element with the title of the document (or even an entire bibliographic record). When available, it's also recommended to add the `DocumentIdentifier` with the DOI of the document, or any other link to the document; if you do, use the attribute `DocumentIdentifierScheme` to indicate the identifier type.'

Example

```
<ms:isDocumentedBy>
        <ms:title xml:lang="en">Product User Manual</ms:title>
        <ms:DocumentIdentifier ms:DocumentIdentifierScheme="http://purl.org/spar/
↪datacite/url">https://www.company.org/product.pdf</ms:DocumentIdentifier>
</ms:isDocumentedBy>
```

CHAPTER

TWENTYEIGHT

MINIMAL ELEMENTS FOR TOOLS/SERVICES

This page describes the minimal metadata elements specific to **tools/services**.

28.1 ToolService

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService`

Data type component

Optionality Mandatory

Explanation & Instructions

Introduces the set of elements that is specific to tools/services

Example

```
<ms:LRSubclass>
        <ms:ToolService>
                <ms:lrType>toolService</ms:lrType>
                ...
        </ms:ToolService>
</ms:LRSubclass>
```

28.2 function

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.function`

Data type component

Optionality Mandatory

Explanation & Instructions

Specifies the operation/function/task that a software object performs

The element is important for discovery purposes. You can fill in:

- the `LTClassRecommended` element with one of the recommended values from the LT taxonomy, or
- the `LTClassOther` element with a free text.

For services that perform multiple functions (e.g., syntactic and semantic annotation) you can repeat the element.

Example

```
<ms:function>
        <ms:LTClassRecommended>http://w3id.org/meta-share/omtd-share/
↪NamedEntityRecognition</ms:LTClassRecommended>
</ms:function>

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

<ms:function>
        <ms:LTClassOther>video segmentation</ms:LTClassRecommended>
</ms:function>
```

28.3 SoftwareDistribution

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.SoftwareDistribution`

Data type component

Optionality Mandatory

Explanation & Instructions

Any form with which software is distributed (e.g., web services, executable or code files, etc.)

This element groups together information that pertains to the physical form of a tool/service that is made available through the catalogue. For software that is distributed with multiple forms (e.g., as source code, as a web service, etc.), you can repeat this group of elements. The access location and the licensing conditions may differ for each distribution.

The following list includes the mandatory and recommended elements:

- `SoftwareDistributionForm` (Mandatory): The medium, delivery channel or form (e.g., source code, API, web service, etc.) through which a software object is distributed. Use the value `http://w3id.org/meta-share/meta-share/dockerImage`.
- `dockerDownloadLocation` (Mandatory if applicable): A location where the the LT tool docker image is stored. Add the location from where the ELG team can download the docker image in order to test it.
- `serviceAdapterDownloadLocation` (Mandatory if applicable): he URL where the docker image of the service adapter can be downloaded from. Required only for ELG functional services implemented with an adapter.
- `executionLocation` (Mandatory): A URL where the resource (mainly software) can be directly executed. Add here the REST endpoint at which the LT tool is exposed within the Docker image.
- `additionalHwRequirements` (Mandatory if applicable): A short text where you specify additional requirements for running the service, e.g. memory requirements, etc. The recommended format for this is: 'limits_memory: X limits_cpu: Y'
- `licenceTerms` (Mandatory): See *licenceTerms*

28.4 licenceTerms

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.SoftwareDistribution.licenceTerms`

Data type component

Optionality Mandatory

Explanation & Instructions

Links the distribution (distributable form) of a language resource to the licence or terms of use/service (a specific legal document) with which it is distributed

The recommended practice is to add a licence name and identifier from the SPDX list of licences (https://spdx.org/licenses/). For proprietary licences or licences not included in the above list, please add a (unique) licence name and the URL where the text of the licence can be found.

Example

```
<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:licenceTerms>

<ms:licenceTerms>
        <ms:licenceTermsName xml:lang="en">publicDomain</ms:licenceTermsName>
        <ms:licenceTermsURL>https://elrc-share.eu/terms/publicDomain.html</
↪ms:licenceTermsURL>
</ms:licenceTerms>

<ms:licenceTerms>
        <ms:licenceTermsName xml:lang="en">Creative Commons Attribution 4.0␣
↪International</ms:licenceTermsName>
        <ms:licenceTermsURL>https://creativecommons.org/licenses/by/4.0/legalcodel</
↪ms:licenceTermsURL>
        <ms:LicenceIdentifier ms:LicenceIdentifierScheme="http://w3id.org/meta-share/
↪meta-share/SPDX">CC-BY-4.0</ms:LicenceIdentifier>
</ms:licenceTerms>
```

28.5 languageDependent

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.languageDependent`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Indicates whether the operation of the tool or service is language dependent or not

For language-dependent tools/services, you will be asked to also provide the language of the input and output resources.

Example

```
<ms:languageDependent>true</ms:languageDependent>
```

28.6 inputContentResource

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.inputContentResource`

Data type component

Optionality Mandatory

Explanation & Instructions

Specifies the requirements set by a tool/service for the (content) resource that it processes

The following elements are mandatory or recommended:

- `processingResourceType` (Mandatory): Specifies the resource type that a tool/service takes as input or produces as output; you must specify, for instance, if the tool/service can process a single file, or set of files, or processes a string typed in by the users.
- `language` (Mandatory if applicable): Specifies the language that is used in the resource or supported by the tool/service, expressed according to the BCP47 recommendation. See *language*
- `mediaType` (Recommended): Specifies the media type of the input/output of a language processing tool/service. For ELG functional services, this will be used to fit the appropriate GUI (e.g. "audio" for ASR applications, vs. "text" for Machine Translation applications)
- `dataFormat` (Recommended): Indicates the format(s) of a data resource Please, use to indicate the data format of the resource supported by the tool/service. The dataFormat controlled vocabulary lists data formats, with their mimetype and documentation on the particularities, thus catering for variations of formats, e.g. GATE XML, TEI variants, etc.
- `characterEncoding` (Recommended if applicable): Specifies the character encoding used for the input/output text resource of an LT service
- `annotationType` (Recommended if applicable): Specifies the annotation type of the annotated version(s) of a resource or the annotation type a tool/ service requires or produces as an output. Use this element only if the tool/service processes pre-annotated corpora; for tools/services processing raw files, do not use. The element takes a value from a controlled vocabulary, see annotationType.

Example

```
<!-- example for a tool with textual input -->
<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>
```

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```
        <ms:characterEncoding>http://w3id.org/meta-share/meta-share/UTF-8</
↪ms:characterEncoding>
</ms:inputContentResource>

<!-- example for an Automatic Speech Recognizer -->
<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/audio</ms:mediaType>
        <ms:dataFormat>http://w3id.org/meta-share/omtd-share/mp3</ms:dataFormat>
        <ms:dataFormat>http://w3id.org/meta-share/omtd-share/wav</ms:dataFormat>
</ms:inputContentResource>
```

28.7 outputResource

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.outputResource`

Data type component

Optionality Recommended if applicable

Explanation & Instructions

Describes the features of the output resource processed by a tool/service.

The set of elements are the same as for the *inputContentResource*.

Make sure that you add here what is relevant for your application. For instance,

- for annotation and information extraction tools/services, use the `annotationType` to indicate the results of your processing; you can repeat it to indicate mutliple annotation types (e.g., part of speech, person, amount, location, etc.)
- for Machine Translation tools, indicate the input and output languages respectively.

Example

```
<!-- example for an Information Extraction tool -->
<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>
        <ms:annotationType>http://w3id.org/meta-share/omtd-share/Person</
↪ms:annotationType>
        <ms:annotationType>http://w3id.org/meta-share/omtd-share/Location</
↪ms:annotationType>
```

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```
        <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>

<!-- example for a Machine Translation tool -->
<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>
</ms:outputResource>
```

28.8 language

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.language`

Data type component

Optionality Mandatory if applicable

Explanation & Instructions

Specifies the language that is used in the resource or supported by the tool/service, expressed according to the BCP47 recommendation

The element `languageTag` is composed of the `languageId`, and optionally `scriptId`, `regionId` and `variantId`; you can use those elements that best describe the language(s) of your resource.

Example

```
<ms:language>
        <ms:languageTag>en</ms:languageTag>
        <ms:languageId>en</ms:languageId>
</ms:language>

<ms:language>
        <ms:languageTag>en-US</ms:languageTag>
        <ms:languageId>en</ms:languageId>
        <ms:regionId>US</ms:regionId>
</ms:language>
```

28.9 framework

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.framework`

Data type CV (framework)

Optionality Recommended

Explanation & Instructions

Specifies the implementation framework used for developing and running a tool/service

Example

```
<ms:framework>http://w3id.org/meta-share/meta-share/TensorFlow</ms:framework>
```

28.10 implementationLanguage

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.implementationLanguage`

Data type string

Optionality Recommended

Explanation & Instructions

The programming language(s) used for the development of a tool/service

Example

```
<ms:implementationLanguage>Java v8.1</ms:implementationLanguage>
```

28.11 requiredHardware

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.requiredHardware`

Data type CV (requiredHardware)

Optionality Recommended

Explanation & Instructions

Specifies the type of hardware required for running a tool and/or computational grammar

Example

```
<ms:requiredHardware>http://w3id.org/meta-share/meta-share/ocrSystem</
↪ms:requiredHardware>
```

28.12 trl

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.trl`

Data type CV (TRL)

Optionality Recommended

Explanation & Instructions

Specifies the TRL (Technology Readiness Level) of the technology according to the measurement system defined by the EC (https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf)

Example

```
<ms:trl>http://w3id.org/meta-share/meta-share/trl4</ms:trl>
```

28.13 evaluated

Path `MetadataRecord.DescribedEntity.LanguageResource.LRSubclass.ToolService.evaluated`

Data type boolean

Optionality Mandatory

Explanation & Instructions

Indicates whether the tool or service has been evaluated

If the tool/service has been evaluated, you can use the 'evaluation' component to give more detailed information; see here for the relevant elements.

Example

```
<ms:evaluated>false</ms:evaluated>
```

CHAPTER

TWENTYNINE

MINIMAL ELEMENTS FOR CORPORA

This page describes the minimal metadata elements specific to **corpora**.

29.1 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>
```

29.2 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>
```

29.3 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>
```

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

29.4 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>
        </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>
```

29.5 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>
```

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```
<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>
```

29.6 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>
```

29.7 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>
```

29.8 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>
```

29.9 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>
```

29.10 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>
```

29.11 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>
```

29.12 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 *licenceTerms*
- `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>
```

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```
<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>
```

29.13 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>
```

29.14 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 for dataFormat) 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>
```

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```
        <ms:audioFormat>
                <ms:dataFormat>http://w3id.org/meta-share/omtd-share/wav</
↪ms:dataFormat>
                <ms:compressed>true</ms:compressed>
        </ms:audioFormat>
</ms:distributionAudioFeature>
```

29.15 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 for dataFormat) 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>
        <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>
```

29.16 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 for dataFormat) 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>
```

29.17 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>
```

29.18 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>
```

29.19 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>
```

29.20 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

THIRTY

MINIMAL ELEMENTS FOR LANGUAGE DESCRIPTIONS

This page describes the minimal metadata elements specific to **language descriptions**, a type of language resource under which we subsume both models and grammars.

30.1 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>
```

30.2 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>
```

30.3 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>
```

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```
        <ms:mlFramework>tensorflow</ms:mlFramework>
        <ms:trainingCorpusDetails xml:lang="en">Trained on a corpus of tweets</
↪ms:trainingCorpusDetails>
</ms:MLModel>
```

30.4 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>
```

30.5 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>
```

CHAPTER

THIRTYONE

MINIMAL ELEMENTS FOR LEXICAL/CONCEPTUAL RESOURCES

This page describes the minimal metadata elements specific to **lexical/conceptual resources**.

31.1 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>
```

31.2 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>
```

31.3 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>
```

31.4 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>
```

31.5 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>
```

31.6 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>
                        <ms:languageTag>en-US</ms:languageTag>
                        <ms:languageId>en</ms:languageId>
                        <ms:regionId>US</ms:regionId>
                </ms:language>
                <ms:language>
                        <ms:languageTag>es</ms:languageTag>
                        <ms:languageId>es</ms:languageId>
                </ms:language>
                <ms:metalanguage>
                        <ms:languageTag>es</ms:languageTag>
                        <ms:languageId>es</ms:languageId>
                </metalanguage>
                </ms:language>
        </ms:LexicalConceptualResourceTextPart>
</ms:LexicalConceptualResourceMediaPart>
```

CHAPTER

THIRTYTWO

MINIMAL ELEMENTS FOR PROJECTS

This page describes the minimal metadata elements specific to **projects**.

32.1 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>
```

32.2 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. 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>
```

32.3 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>
```

32.4 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>
```

32.5 projectAlternativeName

Path `MetadataRecord.DescribedEntity.Project.projectAlternativeName`

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>
```

32.6 fundingType

Path `MetadataRecord.DescribedEntity.Project.fundingType`

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>
```

32.7 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>
        </ms:Organization>
</ms:funder>
```

32.8 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>
```

32.9 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>
```

32.10 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>
```

32.11 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 LTArea More specifically, you can fill in:

- the `LTClassRecommended` element with one of the recommended values from the LT taxonomy, or
- the `LTClassOther` element with a free text.

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>
```

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

32.13 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>
```

32.14 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 socialMediaOccupationalAccountType for details.

Example

Note: TODO: add example

32.15 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 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␣
```

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CHAPTER

THIRTYTHREE

MINIMAL ELEMENTS FOR ORGANISATIONS

This page describes the minimal metadata elements specific to **organisations**.

33.1 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>
```

33.2 OrganizationIdentifier

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 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>
```

33.3 organizationName

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>
```

33.4 organizationShortName

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>
```

33.5 organizationAlternativeName

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>
```

33.6 organizationBio

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 Krlov© and 1 in Plze), 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>
```

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33.7 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>
```

33.8 LTArea

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 LTArea More specifically, you can fill in:

- the `LTClassRecommended` element with one of the recommended values from the LT taxonomy, or
- the `LTClassOther` element with a free text.

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>
```

33.9 serviceOffered

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>
```

33.10 domain

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>
```

33.11 keyword

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>
```

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```
<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>
```

33.12 email

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>
```

33.13 website

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>
```

33.14 headOfficeAddress

Path `MetadataRecord.DescribedEntity.Organization.headOfficeAddress`

Data type component

Optionality Recommended

Explanation & Instructions

Links to a set of elements that describe the full address of the head office of an or organization (i.e. including street address, zip code, etc.). The only mandatory element in this set is `country`.

Example

```
<ms:headOfficeAddress>
        <ms:address xml:lang="en">OLD COLLEGE, SOUTH BRIDGE</ms:address>
        <ms:zipCode>EH8 9YL</ms:zipCode>
        <ms:city xml:lang="en">EDINBURGH</ms:city>
        <ms:country>GB</ms:country>
</ms:headOfficeAddress>
```

33.15 socialMediaOccupationalAccount

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/release1.1.0/Documentation/ELG-SHARE_xsd.html#socialMediaOccupationalAccountType for details.

Example

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

33.16 hasDivision

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 (FAL) 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>
<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>
```

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```
<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">Malostransk© nm. 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

THIRTYFOUR

API SPECIFICATIONS

This annex contains the specifications of ELG's internal and public application programming interfaces (APIs).

CHAPTER

THIRTYFIVE

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.

35.1 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`.

35.2 Utility datatypes

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

35.2.1 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.

35.2.2 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.

35.3 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*.

35.3.1 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.

35.3.2 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"}
      ]
    },
    {
      "texts":[
        {"content":"An"},{"content":"API"},{"content":"example"}
      ]
    }
  ]
}
```

35.3.3 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.

35.4 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.

35.4.1 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.

35.4.2 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.

35.4.3 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 */
    "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.

35.4.4 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.

35.4.5 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 */
    "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.

35.4.6 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.

35.5 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`.

35.6 Appendix: Standard status message codes

```
#
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#   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

THIRTYSIX

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>`

36.1 Input formats

36.1.1 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`

36.1.2 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.

36.1.3 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.

36.2 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.

36.3 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

THIRTYSEVEN

TERMS OF USE

Use of the European Language Grid is subject to its terms of use.

CHAPTER

THIRTYEIGHT

PUBLICATIONS AND REPORTS

This annex contains research papers, reports and other documents that describe various aspects of the work carried out in the ELG project in detail.

38.1 Scientific publications

If you'd like to refer to the **European Language Grid initiative and platform** in a general way, please cite the following article.

Georg Rehm, Maria Berger, Ela Elsholz, Stefanie Hegele, Florian Kintzel, Katrin Marheinecke, Stelios Piperidis, Miltos Deligiannis, Dimitris Galanis, Katerina Gkirtzou, Penny Labropoulou, Kalina Bontcheva, David Jones, Ian Roberts, Jan Hajic, Jana Hamrlová, Lukáš Kačena, Khalid Choukri, Victoria Arranz, Andrejs Vasiļjevs, Orians Anvari, Andis Lagzdiņš, Jūlija Meļņika, Gerhard Backfried, Erinç Dikici, Miroslav Janosik, Katja Prinz, Christoph Prinz, Severin Stampler, Dorothea Thomas-Aniola, José Manuel Gómez Pérez, Andres Garcia Silva, Christian Berrío, Ulrich Germann, Steve Renals, Ondrej Klejch. European Language Grid: An Overview. In Nicoletta Calzolari, Frédéric Béchet, Philippe Blache, Christopher Cieri, Khalid Choukri, Thierry Declerck, Hitoshi Isahara, Bente Maegaard, Joseph Mariani, Asuncion Moreno, Jan Odijk, and Stelios Piperidis, editors, Proceedings of the 12th Language Resources and Evaluation Conference (LREC 2020), pages 3359-3373, Marseille, France, 2020. European Language Resources Association (ELRA). [.bib | .pdf]

If you'd like to refer to the **metadata schema developed for and used in the European Language Grid platform**, please cite the following article.

Penny Labropoulou, Katerina Gkirtzou, Maria Gavriilidou, Miltos Deligiannis, Dimitris Galanis, Stelios Piperidis, Georg Rehm, Maria Berger, Valérie Mapelli, Michael Rigault, Victoria Arranz, Khalid Choukri, Gerhard Backfried, José Manuel Gómez Pérez, and Andres Garcia-Silva. Making Metadata Fit for Next Generation Language Technology Platforms: The Metadata Schema of the European Language Grid. In Nicoletta Calzolari, Frédéric Béchet, Philippe Blache, Christopher Cieri, Khalid Choukri, Thierry Declerck, Hitoshi Isahara, Bente Maegaard, Joseph Mariani, Asuncion Moreno, Jan Odijk, and Stelios Piperidis, editors, Proceedings of the 12th Language Resources and Evaluation Conference (LREC 2020), pages 3421-3430, Marseille, France, 2020. European Language Resources Association (ELRA). [.bib | .pdf]

If you'd like to refer to a current description of the **situation of the wider Multilingual Europe community**, please cite the following article.

Georg Rehm, Katrin Marheinecke, Stefanie Hegele, Stelios Piperidis, Kalina Bontcheva, Jan Hajic, Khalid Choukri, Andrejs Vasiļjevs, Gerhard Backfried, Christoph Prinz, José Manuel Gómez Pérez, Luc Meertens, Paul Lukowicz, Josef van Genabith, Andrea Lösch, Philipp Slusallek, Morten Irgens, Patrick Gatellier, Joachim Köhler, Laure Le Bars, Dimitra Anastasiou, Albina Auksoriūtė, Núria Bel, António Branco, Gerhard Budin, Walter Daelemans, Koenraad De Smedt, Radovan Garabík, Maria Gavriilidou, Dagmar Gromann, Svetla Koeva, Simon Krek, Cvetana Krstev, Krister Lindén, Bernardo Magnini, Jan Odijk, Maciej Ogrodniczuk, Eiríkur Rögnvaldsson, Mike Rosner, Bolette Pedersen, Inguna Skadina, Marko Tadić, Dan Tufiș, Tamás Váradi, Kadri Vider, Andy Way, and François Yvon. The European Language Technology Landscape in 2020: Language-Centric and Human-Centric AI for Cross-Cultural

Communication in Multilingual Europe. In Nicoletta Calzolari, Frédéric Béchet, Philippe Blache, Christopher Cieri, Khalid Choukri, Thierry Declerck, Hitoshi Isahara, Bente Maegaard, Joseph Mariani, Asuncion Moreno, Jan Odijk, and Stelios Piperidis, editors, Proceedings of the 12th Language Resources and Evaluation Conference (LREC 2020), pages 3315-3325, Marseille, France, 2020. European Language Resources Association (ELRA). [.bib | .pdf]

Proceedings of the 1st International Workshop on Language Technology Platforms

Georg Rehm, Kalina Bontcheva, Khalid Choukri, Jan Hajic, Stelios Piperidis, and Andrejs Vasiljevs, editors. Proceedings of the 1st International Workshop on Language Technology Platforms (IWLTP 2020, co-located with LREC 2020), Marseille, France, 2020. 16 May 2020. [.bib | .pdf]

If you'd like to refer to our initial thoughts and plans **how to make a number of European AI platforms interoperable**, please cite the following article.

Georg Rehm, Dimitrios Galanis, Penny Labropoulou, Stelios Piperidis, Martin Welß, Ricardo Usbeck, Joachim Köhler, Miltos Deligiannis, Katerina Gkirtzou, Johannes Fischer, Christian Chiarcos, Nils Feldhus, Julián Moreno-Schneider, Florian Kintzel, Elena Montiel, Víctor Rodríguez Doncel, John P. McCrae, David Laqua, Irina Patricia Theile, Christian Dittmar, Kalina Bontcheva, Ian Roberts, Andrejs Vasiljevs, and Andis Lagzdiņš. Towards an Interoperable Ecosystem of AI and LT Platforms: A Roadmap for the Implementation of Different Levels of Interoperability. In Georg Rehm, Kalina Bontcheva, Khalid Choukri, Jan Hajic, Stelios Piperidis, and Andrejs Vasiljevs, editors, Proceedings of the 1st International Workshop on Language Technology Platforms (IWLTP 2020, co-located with LREC 2020), pages 96-107, Marseille, France, 2020. 16 May 2020. [.bib | .pdf]

38.2 Related publications

Andrus Ansip. How multilingual is Europe's Digital Single Market?. 2016.

Communication from the commission to the European Parliament, the coucil, the European econimic and social committee and the committee of the reagions. A Digital Single Market Strategy for Europe. COM (Communication), 192. Brussels, Belgium, 2015.

European Parliament. Report on language equality in the digital age.. Jill Evans, rapporteur, Committee on Culture and Education (CULT), Committee on Industry, Research and Energy (ITRE). Strasbourg, France, 2018.

Eurostat. Internet access and use statistics – households and individuals.. 2016.

Andreás Kornai. Digital Language Death. In PLoS ONE, volume 8, 2013.

Georg Rehm and Stefanie Hegele. Language Technology for Multilingual Europe: An Analysis of a Large-Scale Survey regarding Challenges, Demands, Gaps and Needs. In Nicoletta Calzolari, Khalid Choukri, Christopher Cieri, Thierry Declerck, Sara Goggi, Koiti Hasida, Hitoshi Isahara, Bente Maegaard, Joseph Mariani, Hélène Mazo, Asuncion Moreno, Jan Odijk, Stelios Piperidis, Takenobu Tokunaga, editors, Proceedings of the 11th Language Resources and Evaluation Conference (LREC 2018), pages 3282–3289, Miyazaki, Japan, 2018. European Language Resources Association (ELRA). [.bib | .pdf]

Georg Rehm, Hans Uszkoreit, editors. META-NET White Paper Series: Europe's Languages in the Digital Age, 32 volumes on 31 European languages. 2012. Springer, Heidelberg.

Georg Rehm and Hans Uszkoreit, editors. The META-NET Strategic Research Agenda for Multilingual Europe 2020. Dodrecht, New York, London, 2013. Springer, Heidelberg.

Georg Rehm, Hans Uszkoreit, Ido Dagan, Vartkes Goetcherian, Mehmet Ugur Dogan, Coskun Mermer, Tamás Váradi, Sabine Kirchmeier-Andersen, Gerhard Stickel, Meirion Prys Jones, Stefan Oeter and Sigve Gramstad. An Update and Extension of the META-NET Study "Europe's Languages in the Digital Age". In Laurette Pretorius, Claudia Soria, Paola Baroni, editors, Proceedings of the Workshop on Collaboration and Computing for Under-Resourced Languages in the Linked Open Data Era (CCURL 2014), pages 30–37, Reykjavik, Iceland, 2014.

Georg Rehm, Jan Hajič, Josef van Genabith and Andrejs Vasiljevs. Fostering the Next Generation of European Language Technology: Recent Developments – Emerging Initiatives – Challenges and Opportunities. Nicoletta Calzolari,

Khalid Choukri, Thierry Declerck, Sara Goggi, Marko Grobelnik, Bente Maegaard, Joseph Mariani, Helene Mazo, Asuncion Moreno, Jan Odijk, Stelios Piperidis, editors, Proceedings of the 10th Language Resources and Evaluation Conference (LREC 2016), pages 1586–1592, Portorož, Slovenia, 2016. European Language Resources Association (ELRA). [.bib | .pdf]

Rehm, G., editor. Language Technologies for Multilingual Europe: Towards a Human Language Project. Strategic Research and Innovation Agenda. Unveiled at META-FORUM 2017. Prepared by the Cracking the Language Barrier federation, supported by the EU project CRACKER. Brussels, Belgium, 2017.

Georg Rehm, Hans Uszkoreit, Sophia Ananiadou, Núria Bel, Audronė Bielevičienė, Lars Borin, António Branco, Gerhard Budin, Nicoletta Calzolari, Walter Daelemans, Radovan Garabík, Marko Grobelnik, Carmen García-Mateo, Josef van Genabith, Jan Hajič, Inma Hernáez, John Judge, Svetla Koeva, Simon Krek, Cvetana Krstev, Krister Lindén, Bernardo Magnini, Joseph Mariani, John McNaught, Maite Melero, Monica Monachini, Asunción Moreno, Jan Odijk, Maciej Ogrodniczuk, Piotr Pęzik, Stelios Piperidis, Adam Przepiórkowski, Eiríkur Rögnvaldsson, Michael Rosner, Bolette Pedersen, Inguna Skadiņa, Koenraad De Smedt, Marko Tadić, Paul Thompson, Dan Tufiş, Tamás Váradi, Andrejs Vasiljevs, Kadri Vider and Jolanta Zabarskaite. The strategic impact of META-NET on the regional, national and international level. Lang. Resour. Evaluation, 50(2), In Nicoletta Calzolari, Khalid Choukri, Thierry Declerck, Hrafn Loftsson, Bente Maegaard, Joseph Mariani, Asuncion Moreno, Jan Odijk, Stelios Piperidis, Editors. Proceedings of the Ninth International Conference on Language Resources and Evaluation 2014 (LREC'14),. pages 1517–1524, Reykjavik, Iceland, 2014. European Language Resources Association (ELRA). [.bib | .pdf]

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Benjamin Sargent. The 116 Most Economically Active Languages Online. CommonSenseAdvisory. 2013.

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Andrejs Vasiljevs, Khalid Choukri, Luc Meertens and Stefani Aguzzi. Final study report on CEF Automated Translation value proposition in the context of the European LT market/ecosystem. A study prepared for the European Commission, DG Communications Networks, Content & Technology by Crosslang, Tilde, ELDA, IDC. Luxembourg. 2019.

Roberto Viola and Rytis Martikonis. Multilingualism in the Digital Age: a barrier or an opportunity. 2017.

38.3 Deliverables

Note: These publications will be provided shortly.

CHAPTER

THIRTYNINE

INDICES AND TABLES

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- modindex
- search

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