

WHAT IS MANYLAWS?

ManyLaws is a platform that will facilitate access to legal information and improve the effectiveness of decision-making in legislative practices.

Specifically, it will deliver a suite of services for the public, businesses and governments, capitalising on text mining, semantic extraction and advanced visualisation of EU, Austrian and Greek laws.

HOW DOES MANYLAWS WORK?

ManyLaws consists of a multi-service ICT architecture to support the back-end processing and frontend visualisation and integration of its envisioned services with legal data sources as well as available open services. As such, the platform is made up of a set of backend services, operating in an offline mode, and frontend services responding to user interactions in a real-time mode.

All data sources listed and social opinions:

Greek National Printing Office

Hellenic Parliament Portal

RIS/Austrian Parliament Portal

e-consultation platforms

eTranslation DSI – Machine Translation

Text Mining

Semantic Annotation

ManyLaws metadata (the latter three over HPC infrastructure)

Opinion Mining/Analysis:

Sentiment Analysis

Topics Extraction

Legal Data Search & Retrieval

Interactive Information Visualization

IATE API – Legal Keyword Translation

European Data Portal Harvester and MQA

Manual Annotation

Big Open Legal Data

Legal Data Analytics & Annotation

Advanced and semantically annotated search and retrieval techniques

MANYLAWS CONSORTIUM



UNIVERSITY OF THE AEGEAN
Information and Communication Systems Department (ICSD)
Digital Governance Research Centre
■ established in Greece



HELLENIC PARLIAMENT
European Programmes Implementation Service
■ established in Greece



AUSTRIAN PARLIAMENTARY ADMINISTRATION
■ established in Austria



DANUBE UNIVERSITY KREMS
■ established in Austria



INTRASOFT INTERNATIONAL S.A.
■ established in Luxembourg

CONTACT DETAILS

Project Coordinator
Yannis Charalabidis
Professor, Information and Communication Systems Department (ICSD)
Digital Governance Research Centre
University of the Aegean
yannisx@aegean.gr

Technical Coordinator
Dr. Sofia Tsekeridou
Senior Research and Innovation Manager
INTRASOFT International S.A.
sofia.tsekeridou@intrasoft-intl.com

Communication Leader
Dr. Alexandros Stylianou
Lead Communications Consultant
INTRASOFT International S.A.
alexandros.stylianou@intrasoft-intl.com

www.manylaws.eu
info@manylaws.eu
www.facebook.com/manylaws
[@ManyLaws_EU](https://twitter.com/ManyLaws_EU)
www.linkedin.com/company/manylaws



The contents of this leaflet are the sole responsibility of the ManyLaws consortium and do not necessarily reflect the opinion of the European Union.

Co-financed by the Connecting Europe Facility of the European Union

Making EU legal data easily accessible

for public administrations, businesses and citizens

ManyLaws

BACKEND SERVICES

- Retrieve information when available or produce new information from retrieved data to be consumed by frontend services when ready
- Operate periodically at fixed intervals on top of high-performance computing infrastructures, as they are time- and processing-demanding
- Are transparent to users of the ManyLaws platform

1 Data source crawling and integration services, to retrieve all necessary legal data from currently five legal data sources:

- Greek National Printing Office (NPO)
- Hellenic Parliament
- RIS Austrian Parliament
- EUR-Lex
- social media and blog posts

2 Data processing and metadata extraction services on legal data.

Retrieved legal data are fed to the backend text mining mechanisms for processing and semantic analysis to extract the necessary structural and semantic metadata.

3 Batch language translation services, metadata update and triple store storage.

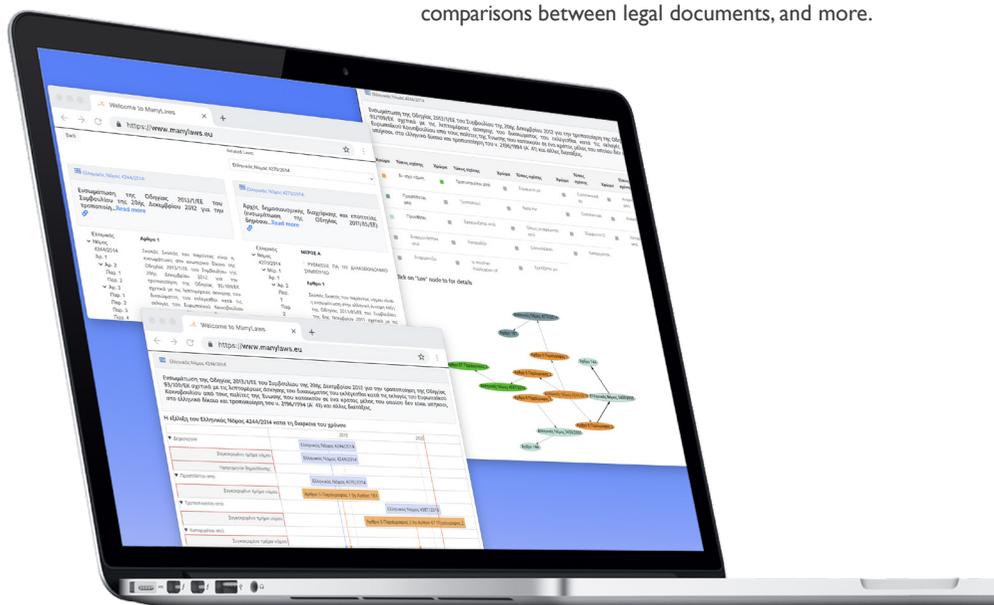
In parallel, legal data are submitted for batch machine translation into the supported languages (English, Greek, Austrian/German). Once batch translation is completed, legal document metadata are updated and stored for use by the frontend services.

4 Social media mining services.

Social media data from Twitter and Blogger are analysed through sentiment analysis to understand citizens' opinions on a law.

FRONTEND SERVICES

- Operate in near-real time
 - Respond to end-user requests through their interactions with the ManyLaws user interface
 - Retrieve the requested information and visualise them in multiple interactive and intuitive formats
 - Multilingual support (Greek, German, English)
- Keyword-based search and support** in English, Greek and German, with potential for expanding to more languages in the future.
 - Semantic-based queries** allow the user to retrieve semantically annotated legal data.
 - Retrieved results are **visualised** in conventional ranked lists as well as in **multiple interactive and intuitive formats**, including timeline charts, graphs, highlighted text comparisons between legal documents, and more.



UNIFIED METADATA SCHEMA

- Data Catalogue Vocabulary (DCAT):** converts legal documents into open data that can be directly harvested by the European Data Portal (EDP) and made openly accessible to interested third parties.
- European Legislation Identifier (ELI):** describes links between laws and EU Directives and imprints all included references in a legal document. EU Member States increasingly use this ontology for legal documents.
- Akoma Ntoso (AKN):** covers all parliamentary supporting documents and steps required for publication and adoption of a law. It has a flexible way of capturing the lifecycle of a legal document.

The ManyLaws metadata schema and ontology defines a standardised, unified way of representing structural and semantic metadata of legal documents. It consists of three existing tools that all together address the specific needs of the platform.

HOW DO KEY STAKEHOLDERS BENEFIT?

CITIZEN



- Easily access national and European legal information.
- Identify and compare similar legal frameworks across Member States.
- Locate different national laws that target the same event.
- Access basic legal information in English and national languages.
- Compare and visualise connections, correlations and conflicts between laws.

BUSINESS PERSON



- Search within parallel national legal frameworks across the EU.
- Assess the degree and status of transpositions of EU Directives into national law.
- Perform comparative analyses of equivalent or related laws from one or more Member States.
- Visualise the evolution over time of a specific piece of legislation.
- Explore correlations, dependencies and conflicts to support decision-making processes.

SCIENTIST (NON-LEGAL)



- Search within multiple Member States' legal frameworks.
- Perform comparative analyses of equivalent or related laws from different Member States.
- Assess the degree to which national legislation is compatible with EU legislation.
- Analyse references to European legislation within national laws.
- Access a visual timeline for all relevant legal texts.

PUBLIC SECTOR OFFICIAL



- Retrieve current legal information from multiple legal frameworks across the EU.
- Assess the degree and status of EU Directive transpositions into national law.
- Perform comparative analyses of equivalent or related laws from one or more Member States.
- Use visual timeline analysis of all legal texts, from preparatory acts to their formal adoption into law.
- Access targeted visualisations to support decision-making services in law-making procedures.

