

# **IMOLA III TENDER**

**For the conclusion of a service contract concerning the semantic and technical realization of the IMOLA III project**

**The IMOLA III project is subsidized by the EC Civil Justice Program  
Project number: JUST-JACC-EJU-AG-2019/ 881570**

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## 1. BACKGROUND INFORMATION

### 1.1. Subcontracting Authority: ELRA

ELRA (European Land Registry Association) is an international association without lucrative purpose (AISBL: *Association internationale sans but lucratif*). The mission and primary purpose of the European Land Registry Association may be described as: “the development and understanding of the role of land registration in real property and capital markets”. Equally, ELRA is fully committed to work on behalf of Land Registries in Europe in cooperating with the EU institutions.

ELRA integrates 33 organizations representing the land registries of 25 European Countries. It aims to underline the significance of Land Registries in Europe as juridical institutions and the scope of the effects of registration pronouncements as a fundamental tool for progress and change in the rule of law in the field of property and rights on immovables.

It is known that the rules governing the Land Registration Systems are very closely related to those laws governing the property and real estate rights in every country. However, at the present moment in the evolution of European Community Law, the European role of the Land Registration Systems cannot be ignored, and so Land Registries are a fundamental tool for the good functioning of basic community freedoms, such as the free movement of people and capital and the freedom of establishment.

Land Registries are an essential instrument to secure property rights and other real rights, and they can provide help to judicial cooperation in the EU providing a secure playing field in this matter when immovables are involved. Also, the Land Registry institutions play a significant part in the creation of a real European mortgage market.

In this context, ELRA wants to promote the mutual knowledge of the different Land Registry Systems throughout Europe as well as to lay the conditions for a profitable cooperation with the European institutions. This collaboration with the EU by ELRA as the official representative body of the Land Registries in the European Union has been the main achievement of the Association to date.

The subcontracting authority shall be ELRA, authorized by the beneficiaries within the meaning of Directive 2014/24/EC of the European Parliament and of the Council of 26 February 2014 on the coordination of procedures for the award of public work contracts, public supply contracts and public service contracts or contracting entities within the meaning of Directive 2014/25/EC of the European Parliament and of the Council of 26 February 2014 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors shall abide by the applicable national public procurement rules.

ELRA working language is English.

## **1.2. Current situation of Land Registry Information**

The increased demand for Land Registers information (LRI) to registration of foreign documents and judicial decisions, establishing local equivalents for foreign legal rights, in order to get an efficient implementation of EU Regulations on civil and commercial matters, makes new demands on registrars, judges, academics, solicitors, notaries, lawyers, and citizens. They will need to have improved knowledge of foreign property rights, registration systems and legislation and to provide understandable information through e-Justice portal.

This ELRA's project, IMOLA III, arises from the need to promote and get an effective model of reference information accessible from e-Justice Portal and shared by most Member States, as a mean to facilitate the creation of a semantic common area of justice in civil and commercial matters, consolidating and extending the previous results achieved in IMOLA I and II, making possible the harmonization of Land Registry information based on the European Land Registry Document (ELRD), as common template defining a Land Registry context specific domain aligned with ISA Core Vocabularies within the European Interoperability Framework (EIF). The harmonization of LR information has been set out as a key issue of the interconnection established by the EU Directive 843/2018 in article 32.b), as one of the measures to prevent money laundering.

The current scenario can be very inadequate as to get access, to obtain, to reuse and to understand Land Registry information and more specifically, to take advantage of the implicit knowledge encoded in the different registries. Possible solutions should imply the creation of a real collaborative environment, supported by European Land Registers Net - ELRN- where tools and data can be exchanged, information and knowledge shared, providing a permanent and effective platform for training. Moreover, to develop and to keep updated a Land Registry semantic model hosted on specific Knowledge Repositories, what at present moment it is hard when not impossible to reach without the support of semantic web technologies. This targeting has been in part attained on IMOLA II, developing the ELRN input system and the I.KOS repository. But the next step to be accomplish must be to improve and consolidate the information system, developing new services in order to get its reuse and integration at national level, to provide a harmonized and enriched information built upon the ELRD common structure and ontology.

### **1.3. Related programs**

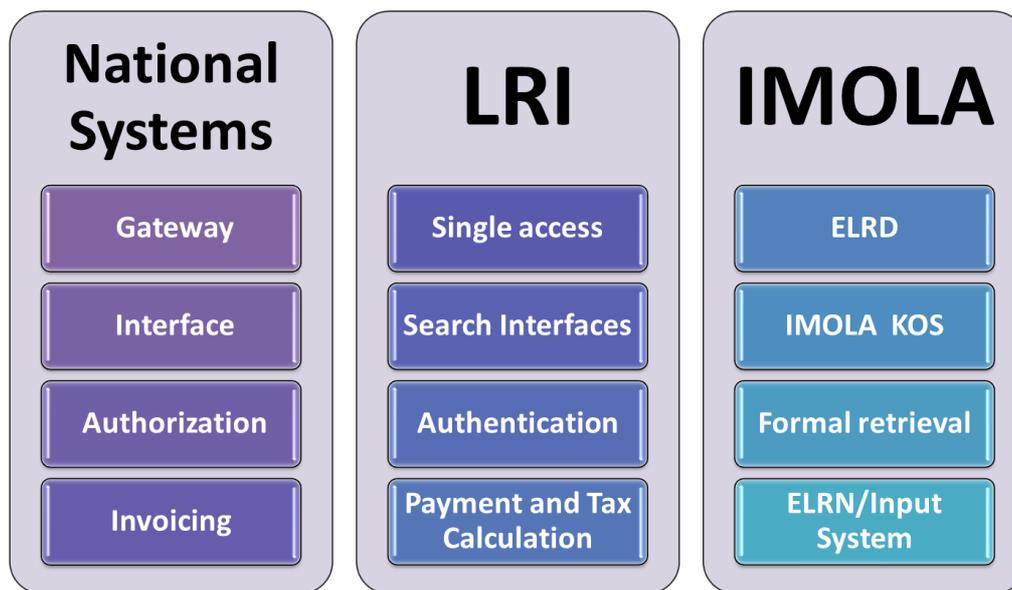
IMOLA III, as has been detailed, should be considered as IMOLA I and II a follow up project. But there is also a very strong relationship of complementarity with the large scale project, developed by the European Commission: Land Register Interconnection, -LRI-, which is a part of the program promoting the interoperability of juridical registers in the Member States and the other project related to the LR interconnection, the LRI Member States 2, (LRI MS 2), which is meant to carry out the necessary adaptations at national level to achieve the integration of services on the European platform.

IMOLA III is an approach conceived to deploy its effects within the scope of LRI project and as such to interoperate through e-Justice Portal, which furthermore would support the effectiveness of Judicial Cooperation Network on civil and commercials matters, which opens possibilities to EU citizens or residents and in general terms to any Land Registry customers asking for information on property rights.

As well LRI and LRI MS 2 as IMOLA III aim to open new horizons to cross border transactions, developing an harmonized LR information accessible from e-Justice portal as

single access point to Land Registers information, based on a common template -ELRD- and semantic model, (LR context specific domain like property rights common vocabulary), making the land registry information understandable.

**Figure 1: The LRI schema, summarizing the role of different actors involved.**



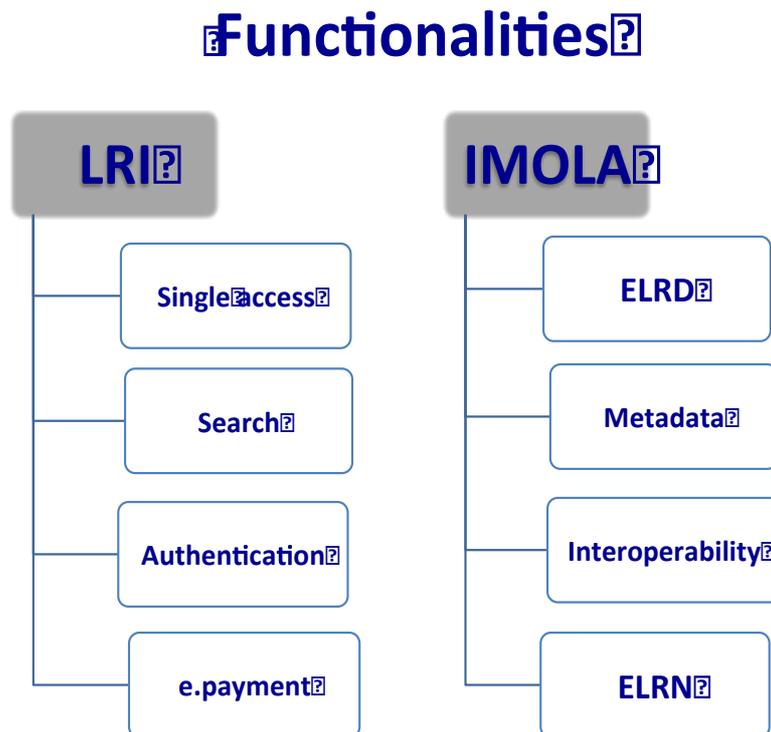
- The **EU centralized platform -LRI-** will provide through the e-Justice portal a module with basic services.
- **ELRA/ IMOLA III project** will develop a common model to share LR information and juridical metadata according to the ELRD format.
- **LRI MS 2 will make internal adaptations** to connect and implement at the national level the basic services provided by the Commission: basically, authorization and identification schema, e-payment solutions and invoicing, and the connection with IMOLA web services based on ELRD as flexible common interface.

**The expected outcome of the project is a common and shared semantic model**, based on the ELRD, which is a necessary and preliminary objective to achieve the harmonization of LR information.

IMOLA III project will facilitate the implementation of EU regulation, improving and extending the ELRD schema, linked with the I-KOS repository and developing a centralized platform managed by ELRA, along with different web services to assure the traffic of data.

IMOLA III complements the LRI project for sake of implementation of EU regulation, enhancing the development of a common area in civil and commercial matters, supporting prevention on money laundering policies, among others.

**Figure 2: LRI/IMOLA III interaction and functionalities**



#### **1.4. Partners**

IMOLA III is a project developed and coordinated by ELRA as applicant and beneficiary, which is funding by the EU (90%) and supported by the Consortium of beneficiaries (10%), whom have accumulated an extensive experience by their participation in other European projects such as CROBECO, IMOLA I/II and BRIS.

1. European Land Registry Association (ELRA)
2. Colegio de Registradores de España (CORPME)
3. Instituto dos Registos de Portugal (IRN)
4. Registry Agency of Bulgaria (RAB)
5. Romania National Agency for Cadastre and Land Registration (ANCP)

The internal role of the partners and beneficiaries is defining in the Consortium Agreement.

## **2. OBJECTIVES, PURPOSE AND EXPECTED RESULTS**

### **2.1. Overall objective and relevance**

IMOLA approach as a whole is a very innovative project based on semantic web architecture and technology, with as objective an increasingly improvement of level of understanding and interoperability of existing web information. It has been designed to fit within the scope of the LRI project, through a common and shared data model, (graphs), and underlying semantics based on different logic formalisms (Thesauri and Ontologies).

With IMOLA II, ELRA pursued to develop a real and complete Land Registry Information semantic model, as controlled vocabulary, in order to get the interoperability of metadata related to the juridical information supplied by ELRD, what is crucial to make property rights information more accessible and understandable within the scope of LRI project, creating the IMOLA Knowledge Organization System, (I.KOS).

In IMOLA III are aimed more ambitious objectives built upon the previous Corpus Semantic background and technical developments:

- Consolidate the objectives reached with IMOLA I / II projects, to close the semantic model of the interconnection of the Property Registry, based on the ELRD, as a fundamental basis, and the I-KOS as specific context vocabulary of Land Registry domain.
- Extend the ELRD ontology with new pivot terms and semantic relationships, along with a more comprehensive list of national concepts and management of their attributes.
- Design new technical developments oriented to services including Artificial Intelligence algorithms and a centralized platform for the management and hosting of IMOLA information system.

## 2.2. Purpose

The European Land Registry Association, (ELRA), developed the IMOLA I project aiming to produce a model for standardized land registry output, connected to explanatory material in different languages, and to provide training to improve understanding of the different legal systems involved. ELRA has also worked closely with other associations and networks working in this area. It uses the resources of ELRA's European Land Registry Network (ELRN).

IMOLA II has been an ELRA's follow-up project which, as Semantic Web initiative, in which was achieved the creation of public specifications (data shapes) to exchange information generated on the framework of Land Registers Information Systems, based on the ELRD common structure by applying the principles of the Linked Data initiative and Knowledge Organization Systems (KOS).

It was aimed to describe the data managed by the system (metadata), using concepts or keywords (pivots terms) as starting point for achieving a semantic shared knowledge Repository, developed as thesaurus of terms/concepts.

In IMOLA III are expected the following results:

- The consolidation and extension of this common and shared semantic model, in order to facilitate the implementation of EU Regulations, foster and to consolidate the European single market within the frame of a Digital Administration.
- Develop a centralized platform and new web services facilitating a common ELRD interface to assuring the LRI integration.
- Transparency and a better understanding of property rights and LR national systems and legal effects.
- Mapping property rights concepts schemes and aggregation of a different set of data (clustering).

### **2.3. Results to be achieved by the Contractor**

According to it the results expected by the Contractor are:

- A deeper analyze to enhance the semantic interoperability among the Land Registers Information, to facilitate the implementation of the ELRD as standardized common output document.
- Improve the ELRD as a common template to share LR information extending pivots, relationships and introducing the management of attributes.
- Standardized and customizable web services adapted to ELRD schema, to facilitate the harmonization of LRI
- Accessibility to metadata improving the usability of interfaces
- New web services and artificial intelligence algorithms to create a Land Registers juridical ecosystem
- Centralized platform to host the I.KOS repository and the knowledge manager application.
- New developments to increase the usability of input system knowledge manager (KM) and to model and serialize data according to semantic web languages.
- Improve the Knowledge Repository accessible from e-Justice portal as LR context specific domain.
- Use controlled vocabularies as part of the descriptive metadata to characterize the content of the information objects of the Land Registries.
- Assessment and consultancy to the beneficiary's partners

- Support and training work for Land Registries Experts.

### **3. ASSUMPTIONS AND RISKS**

#### **3.1. Assumptions underlying the project.**

One of the main principles reflected on IMOLA approach is the absolute respect to legal and national diversity across Europe. Practices and legislations in this matter, intrinsically related to Property Rights, are truly different, legal diversity is huge. It always has been the intention of ELRA to find consensus, with respect for the own legal identity of each Member State. As to the IMOLA III project it is important to point out that this, as one of the main goals of the project, is almost achieved.

#### **3.2. Risks**

IMOLA III presents different risks:

- It is an innovative project (low)
- Different actors must be coordinated: CPs as Land Registry experts and semantic technicians (low)
- Implementation at the national level the ELRD format (high).
- Maintain and support of ELRA platform to host I-KOS and ELRN input system technological tool (medium)

Actions scheduled to prevent these hazards:

- Detailed identification on the different activities to be accomplished by Contractor and Land Registry Experts.
- Reinforcing training activities, using the IMOLA web platform as a permanent virtual training site. CPs are getting used and familiarized as regards semantics issues and specific languages like SKOS.
- The complexity of dealing with property rights on immovable assets has been partially solved by ELRD template, but it is necessary to go deeper inside using the new semantic proposed measure: Knowledge Repository.

- The participation of ELRN (a network of legal professional experts in the field of property rights and registration law in the different MS will facilitate the task).
- Detailed management infrastructure on the Governance Plan in order to enhance and coordinate the activities of different work packages.
- Collaboration and coordination with other stakeholders in the LR interconnection. To this effect a very important aspect of the project shall be to make up a coordination planning with the LRI MS 2 project, also involved in the implementation of the LR interconnection action, defining common strategies aligned with LRI Commission action. So that, it should be deemed like an activity within the scope of the project.
- Flexibility: MSs will be able to customize these WSs
- Reducing implementation costs, (technical and financial), using standard architecture and a common and adaptable ELRD interface and an analysis and consultancy activity, ensuring the integration with e-Justice services module and the I-KOS repository.
- It will be necessary an annual maintenance contract to provide technical support and evolving the IMOLA platform, which should be considered as a commodity.

## **4. SCOPE OF THE WORK AND TECHNICAL CONDITIONS**

### **4.1. General**

IMOLA III arises from the need to consolidate an effective model of reference information accessible from e-Justice Portal and by national information systems, shared by most Member States, as a mean to facilitate the creation of a common area of justice in civil and commercial matters.

IMOLA I and II created a standard Land Registry output document in order to share information, ELRD, but the next step to deal with is to improve, consolidate and disseminate it within the scope of the LRI project and the judicial cooperation framework, defining and developing a Knowledge Repository as controlled vocabulary, (metadata),

necessary to solve the interoperability and understanding problems between different Land Registry Systems in a more efficient way, developing a new centralized platform and services to achieve the interconnection of I.KOS at national level in order to provide an harmonized and enriched LR information built upon the ELRD common semantic model.

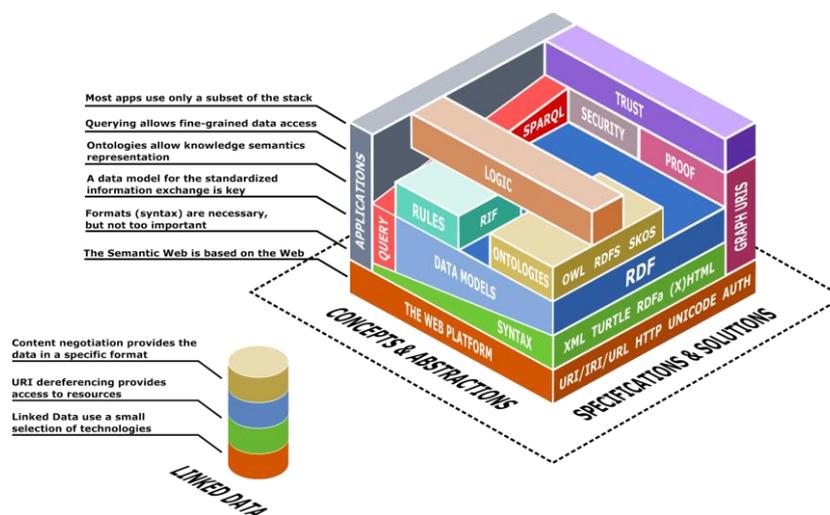
## 4.2. Specific work: activities and technical conditions

### 4.2.1. Introduction

IMOLA III is a Semantic Web initiative, which pursues to go deeply into the creation of public specifications (data shapes) to exchange any information generated on the LRI field, by applying the principles of the Linked Data initiative and Knowledge Organization Systems (KOS). More specifically, the use of the Resource Description Framework (RDF) and SKOS (Simple Knowledge Organization System), as an input/output interface to share and exchange resources among services and people, is considered to be a key aspect onwards the standardization and collaboration of information/knowledge-related systems.

**Figure 3: overview semantic web architecture**

## Architecture of the Semantic Web



#### 4.2.2. Methodology

This project is fundamentally a juridical and semantic approach, but IT aspects are also crucial as well, since it is conceived to be a turn-key project to attain the interconnection and harmonization of Land Registry information, accessible from on the e-Justice Portal and by national information systems, although its effects also spreads to the judicial cooperation framework in the field of civil justice. The methodology proposed to develop IMOLA Knowledge Organization System (I-KOS), is summarized on the following schema, which continues with the best practices gained on previous IMOLA I/II projects to achieve the next steps for interoperability; once the I-KOS basement has been established the next goal to be accomplished is the the semantic and interoperability improvement, according to the following stages:

- a) **To get deeper into identification, extension and consolidation of Land Registry Specific Context Domain within the European Interoperability Framework:**  
In this stage of the methodology needed in IMOLA, the domain must be studied and the risks and requirements must be specified and fulfilled.
- b) **Deeper analysis about the language syntax and semantics used in IMOLA II:**  
It is important to improve the Natural Language Processing (NLP) techniques for the diverse languages used in the context of this EU project. Several countries are involved and diverse languages must be included in the I-KOS.
- c) **Extract knowledge:** Techniques must be specified in order to accomplish the correct indexing of knowledge based on the previous NLP rules.
- d) **Improve and consolidate the I-KOS:** Conceptualization, new pivots, semantic relationships, attributes and formalizations must be identified, indexed and implemented in the I-KOS.
- e) **Evaluate the results:** Quality analysis of results must be done after the construction of the I-KOS. It implies validation and verification of requirements,

quality check of semantic content in the I-KOS and extraction of content based on test cases.

- f) **New technical developments:** Following the methodology for the project means construction of tools for supporting the whole processes for NLP techniques, semantic indexing and retrieval, multilingual tools, semantic repositories with high quality of results based on retrieval parameters and the quality check to be performed. Updating the knowledge manager to be used by ELRN Contact Points is a remarkable goal.
- g) **The evolution to a centralized platform** to host the input system and I.KOS repository.
- h) **Analysis, development and implementation of new services** to make possible de interconnection and interoperability of metadata at national level
- i) **AI technical solution for set of data aggregation, facilitating the modelling and serializing of data.**
- j) **Training and customized consultancy** will be a corner stone of the project.
- k) **Creation of a project office to coordinate the activities** to be developed, delivery deadlines, budget execution, quality, and documentation.

#### 4.2.3. Milestones

The main goal to be followed for the development of this new approach of IMOLA III consists on the improvement, consolidation and implementation the incremental construction of the I.KOS repository. The Project aims to improve the interoperability among Land Registries around EU Members States within 24 months built upon the ELRD as common template to provide and harmonized and enriched LR information.

The milestones of project are summarized hereafter:

- **Consolidate the objectives reached with IMOLA I/II** projects, to close the semantic model of the interconnection of the Property Registry, based on the ELRD as a fundamental basis and the I-KOS with a specific content repository of the LR domain.
- **Extend the ELRD ontology** with new pivot terms and semantic relationships, along with a more comprehensive list of national concepts attributes.

- **Effective implementation of ELRD at the national level** to provide LR information based on IMOLA contain the specific domain, aligned with ISA core vocabularies and enriched with I-KOS metadata, **developing new web services to facilitate the extraction of national information in ELRD format, (“get ELRD document”)**, and thus guaranteeing the harmonization of the information enriching with I-KOS metadata in a flexible manner for each MS. This target will facilitate and reduce the works to be accomplished at the national level due to a flexible design, making easy their customization to different national systems and defining a common ELRD interface to assuring the LRI integration, such as indicated in the section 2, under the Needs assessment of the Analysis report.
- **Centralized web platform to host and maintenance the I-KOS repository and knowledge manager application.**
- **Improve interfaces** of management tools to adapt it to the accessibility needed for Member States. Improve the search interface to the citizen through the e-Justice portal.
- **Artificial intelligence algorithms** for the aggregation of other datasets to enrich the I-KOS: ELI, ECLI, TJEU, national legislation, fact sheets.
- **Disseminate and create a structure for the maintenance and management of the repository permanently in ELRA.**

**IMOLA I/II outputs can be used as baseline value/target for benchmarking.**

The progress of **the project will be monitored by means of Milestones indicated for the WP 3 activities in section 4**, which should be included in the intermediate report and indicators listed.

#### **4.2.4.- Work Package 3: technology, services, and objectives**

- **Effective implementation of ELRD at national level** to provide LR information based on IMOLA Land Registry context specific domain, aligned with ISA core vocabularies and enriched with I-KOS metadata. **Developing new web services to facilitate the extraction of national information in ELRD format (get the ELRD).**

- **Analysis, Design and Development of the webservice and managers associated in order to connect the MS, the ELRD and the I-KOS platform:**
  - WS1: Web service for the reception of information requests from e-justice and response with the new ELRD document enriched
  - WS2: Enrichment of the information extracted by the MS with the I-KOS metadata
  - WS3: Member State information extraction system according to the harmonized scheme of the ELRD:
  - ELRD manager / flexibilization broker at national level in order to permit the creation of customized ELRD based on the elements of the XSD schema
  - Assessment and consultancy to the beneficiaries partners, as a result a customized report will be facilitated to each of them. The report will indicate all the issues and mitigation plans observed. Also, it will be provided assistance to the beneficiaries on the technical aspects related to the interconnection with the WS3 by one week of presential activities on each beneficiaries partner, plus additional support needed in case of doubt after that week (one more week)
  
- **Centralized web platform to host and maintenance the I-KOS repository and knowledge manager application.** Functional and technical analysis of the platform to be managed by ELRA. **Analysis, Design and Development of a multiuser web-based platform for maintenance of the ELRD and I-KOS.**
  - Usability as a core requirement
  
- **Improve interfaces** of management tools to adapt it to the accessibility needed for MS. Improve the search interface to the citizen through the e-Justice portal.
- **Artificial intelligence algorithm** for the aggregation of other datasets to enrich the I-KOS: ELI, ECLI, TJEU, national legislation, fact sheets.
- **Analysis, Design and Development of the new ELRD schema** and its support plugin on the web-based platform
- **Analysis, Design, Support, and presentation of the training activities and e-learning web platform design**

- Preparation of the material and virtual sessions, including the management of the IMOLA e-learning web platform to be given to MS interested to participate in the follow-up project

**4.2.5.- Activities to be accomplished by the contractor:**

Task number	Task name	Description
3.1	Usability and web platform	<p><b>Analysis of the management tool, to guarantee its suitability to the project, and to improve its usability and multi-user management for the networks of the registries systems:</b></p> <ul style="list-style-type: none"> <li>○ Allowing indexing and conceptualization of the information</li> <li>○ Analysis of the usability requirements to be used in the interfaces and adaptable to the judicial domain</li> <li>○ Integrate new semantic information: dictionaries, hyperlinks</li> <li>○ Include new types of attributes and relationships</li> <li>○ Include a complete interface for creating attributes from scratch</li> </ul>
3.2	Adaptation of the ELRD at Member States level	<p><b>Design and implementation of the management and generation of the ELRD, based on the Land Registry information</b></p> <ul style="list-style-type: none"> <li>○ Creation of a web-based management system</li> <li>○ Adapt and receive information for the ELRD generation</li> <li>○ Manager for customizing and save ELRD preferences for each Member State</li> <li>○ Interface for accessing the information available in the I-KOS</li> <li>○ Artificial Intelligence algorithms for integrating sets of information from diverse resources into the I-KOS</li> </ul>
3.3	ELRD functional technology	<p><b>Functional and technical analysis of the platform to facilitate its permanent maintenance adapted to the operation of ELRA and Contact Points, as well as security measures and accessibility through accommodation in CPDs under the management of ELRA. Design of the maintenance plan, accommodation and security of the platform and tools after the first year of project start-up.</b></p>

3.4	ELRD technological enrichment	<p><b>Generation of enriched ELRD using XML/XSD technological languages to be send to the requester through e-justice, to facilitate the extraction of information at the national level:</b></p> <ul style="list-style-type: none"> <li>○ ELRD structure review based on new requirements and juridical concepts</li> <li>○ Creation of an ELRD set of tests based on the ISA2 Test Bed</li> <li>○ Semantic Corpus: evolve and improve the list of terms, relationships, and attributes</li> <li>○ Improve the set of formants used to join the judicial concepts among the Member States</li> <li>○ Include new attributes that apply new relationships among Member States</li> <li>○ Create a new schema XSD/XML for the ELRD using the new web-based platform</li> </ul>
3.5	Content of juridical ecosystem evolution on the I-KOS	<p><b>Integration and evolution of the content of the juridical ecosystem and the Context Specific Land Registry Vocabulary</b></p> <ul style="list-style-type: none"> <li>○ Integrate IMOLA Knowledge Organization System (I-KOS) by natural language processing, indexing, conceptualization and formalization techniques: Fact Sheets, guidelines</li> <li>○ Interoperability solution for joining concepts related to the Court of Justice of the EU (CJEU), the European Case Law Identifier (ECLI), and the European Legislation Identifier (ELI)</li> <li>○ Integrate doctrine and other resources to facilitate cross border transactions</li> <li>○ Facilitate the knowledge of the judicial ecosystems at each Member State by indexing its legislation and available national descriptions links</li> <li>○ Establish links to the national repositories and thesauri</li> <li>○ Integrate other resources like ISA Core Vocabularies, INSPIRE, FAO, etc.</li> </ul>
3.6	IMOLA web-based multiuser manager of the content and I-KOS	<p><b>Platform design and implementation.</b></p> <ul style="list-style-type: none"> <li>○ Design and implementation of the management tool.</li> <li>○ Technical analysis of the platform to facilitate the operation of ELRA and Member States with the IMOLA platform to be installed and set into operations at the end of the project</li> <li>○ Support available during the project</li> <li>○ Technical Documentation</li> <li>○ Integration tests with LRI and I-KOS web services</li> </ul>

3.7	Web services for interconnection	<p><b>Design and implementation of the interconnection web services for the Member States and the ELRD enriched document generation</b></p> <ul style="list-style-type: none"> <li>○ Design and implementation of the web service for the reception of information requests coming from e-justice.</li> <li>○ Design and implementation of the enrichment of this information with the I-KOS metadata.</li> <li>○ Design and implementation of the ELRD manager/flexibilization broker at national level.</li> <li>○ Improvement of the web service generated during IMOLA II (WS2).</li> <li>○ Create a shared and flexible broker that will disseminate an effective implementation of the ELRD at Member States level. Adaptive manager for customizing the ELRD parts to be used for each Member State.</li> </ul>
3.8	e-learning platform, technical and didactical support for virtual training and seminars	<p><b>Analysis, design, and implementation of the e-learning IMOLA web platform.</b></p> <ul style="list-style-type: none"> <li>○ Design and implementation of the training and dissemination website.</li> <li>○ Planning and performance of the training.</li> <li>○ Training technical and semantic material preparation for all the seminars, including guides, guidelines, conferences, and virtual sessions by video-conferences.</li> <li>○ Also, includes continuous and dedicated support to the Contact Points and the IMOLA team.</li> </ul>
3.9	IMOLA web for public access in a SMART way	<p><b>Design and implementation of the Website to review the public information of the ELRD</b></p> <ul style="list-style-type: none"> <li>○ Analysis of the improvements and needs of the current website available.</li> <li>○ Design and implementation of the I-KOS dissemination public website.</li> </ul>
3.10	Beneficiaries Consultancy and Analysis	<p><b>Analysis and consultancy in the beneficiary's partners to facilitate the member state data extraction for assembling the ELRD document</b></p> <ul style="list-style-type: none"> <li>○ Analysis to be performed during one week at each beneficiary side plus support</li> <li>○ Report will be facilitated with detailed information regarding the use of the IMOLA webservices</li> <li>○ An specific report of the analysis performed on each of the beneficiaries of the project</li> </ul>

		○ Based on the specific reports, an anonymous summary of the scenarios will be disseminated to all the interested member states.
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### 4.3.- Specific work: Deliverables

The contractor will be committed to produce and delivery the following outputs:

Deliverable number (continuous numbering)	Deliverable name	Type	Due date (month number)	Description (including format and language)
D3.1	IMOLA platform report for ELRA	R	M12	Report of activities to be performed by ELRA as ELRD provider (PDF / EN)
D3.2	ELRD web-based multiuser platform for maintenance based on users	DE M	M8, M21	Multi-user Website to maintain the I-KOS including AI algorithms (EN)
D3.3	Web services: Interconnect National Systems, and ELRD I-KOS	DE M	M18	Web services to interoperate and generate the enriched ELRD documents (PDF / EN)
D3.4	Flexible manager of the ELRD that customize the ELRD structure, by adapting the ELRD structure	DE M	M15	Website to manage the ELRD structure at each Member State (EN)
D3.5	IMOLA web service/web to the public in a SMART way	DE M	M10	Website to review the public information of the ELRD (EN)
D3.6	Training documentation and web platform	DEC , R	M6, M11, M18	Presentations/guides/ videos of the training activities and e-learning Website (PDF / EN)
D3.7	ELRD solution	DAT A	M18	XSD schema document of the improved ELRD agreed by the Member States (XML / EN)
D3.8	I-KOS enriched solution	DAT A	M18	I-KOS information using SKOS language to be shared at ISA platform and among Member States and related projects to LRI (EN)
D3.9	Analysis report of the IMOLA web usability issues	R	M12	Analysis report of the usability issues found and the improvements in the follow-up project based on the input given by the Contact Points, WP coordinators and the Project Manager (EN)

D3.10	Analysis report of the webservices developed	R	M18	Analysis report of the four webservices: I-KOS knowledge extraction, national interconnection, customization manager of the national ELRD and its enrichment with the I-KOS, Member State interconnection for extraction of data (EN)
D3.11	Analysis report of the training activities performed, and results achieved during all the sessions	R	M20	Analysis report of the trainings performed, activities done and e-learning platform structure and documentation available for current and future Member States joining the project (EN)
D3.12	Analysis of the ELRD evolution	R	M12	Analysis of the ELRD structure and its evolution based on new semantics and formants included by Contact Points (EN)
D3.13	Knowledge Manager Manual	R	M8, M15, M20	Knowledge Manager manual for the new web-based platform, including revisions in M15 and M20 in case of evolution of the Knowledge Manager during the follow-up project (EN)
D3.14	Content Specific Land Registry Vocabulary evolution	R	M18	Content specific vocabulary for the domain of Land Registry adapted to the evolution of the I-KOS schema (EN)
D3.15	Beneficiaries Consultancy and Analysis Report	R	M18	One report will be facilitated with detailed information regarding the use of the IMOLA webservices, an specific report of the analysis performed on each of the four beneficiaries of the project. Assessment and consultancy to the beneficiaries, as a result a customized report will be facilitated to each of them. The report will indicate all the issues and mitigation plans observed. Also, it will be provided assistance to the beneficiaries on the technical aspects related to the interconnection with the WS3 by one week of presential activities on each beneficiary, plus additional support needed in case of doubt after that week (one more week). Other report with detailed information regarding the use of the IMOLA webservices, based on the specific reports, an anonymous summary of the scenarios will be disseminated to all the interested member states. (EN).
D3.16	Maintenance web service multiuser platform contract	Other	M 22	A maintenace services contrat after the conclusion of the project, (one year), tu assure the operability and sustainability of centralized platform, I.KOS repository and WSs, referred on above mentioned deliverables, including corrective, adaptative and evolutive works.

**Deadline date for each deliverable, (including evolutive versions), is detailed in the payment schema**

#### **4.4. Project management**

##### **4.4.1. Responsible body**

ELRA is the Coordinator of IMOLA III project according to the Grant Agreement and the Consortium Agreement for the proper management of this single services contract.

Person and body responsible for managing the contract:

**ELRA Secretariat:** [secretariat@elra.eu](mailto:secretariat@elra.eu)

**Jesus Camy:** [jcamy@elra.eu](mailto:jcamy@elra.eu)

*IMOLA II Project Manager*

#### **4.4.2. Management structure**

According to IMOLA III Governance Plan the management structure of the contracting authority is made up of:

- Envision, Applicant and Coordinator of project: ELRA by means of its President and ELRA Secretariat
- Project Manager
- Steering Committee
- Executive Committee
- Works Packages Coordinators

#### **4.4.3. Facilities to be provided by ELRA**

- Controlled vocabularies
- Support of LR experts (ELRN)
- The venue for training sessions or technological tool for video-conferences.
- ELRD v3.1 Schema attached as Annex I to this tender.

## **5. LOGISTIC AND TIMING**

### **5.1. Location**

The project will be managed and coordinated by ELRA, whose domicile is held at Brussels, and conducted in English.

Venues to hold face-to face training sessions -anywhere in EU- will be decided by ELRA Board and communicated to the contractor at least three months in advance. According to the circumstances some of them could be replaced by video-conferences and customized training sessions for different groups of CPs and other scholars.

## 5.2. Starting & Timing

The aim of the tender is the conclusion of a service contract for the technical realization of the IMOLA III project and platform maintenance services contract. The contract will be concluded for a period of **nineteenth months, from 1<sup>st</sup> July 2020 to 1<sup>st</sup> February 2022.**

Deadline to hand over the deliverables, (include evolutive versions when appropriate), is detailed on itemized table related to them in paragraph 6.7

# 6. REQUIREMENTS

## 6.1. General

In order to enable an effective evaluation of the submitted offers, the following requirements will be applicable:

- The offer should be released in the period from **18th May 2020 until 23rd June 2020 (17h)**. A prior announcement will be made at ELRA web site on **11th May 2020**.
- The offer will specify which means are used, (architecture, software, number of technical experts, possible risk repositories etc.), to accomplish semantic and technical conditions, aligned with the content of paragraphs related to methodology, activities to be deployed and deliverables to be produced, (4.2 and 4.3).
- The offer indicates whether the mentioned prices will be recurring or non-recurring. All mentioned prices include VAT and are indicated in Euros.
- The offer consists of a cover letter including the name of the applicant legal entity, digitally signed by a legally empowered representative of the legal entity.

It will be accompanied by a digital copy of the offer, **with the maximum length determined for each of the blocks, annexes, references and CVs. The offer and annexes must also be digitally signed by the applicant's legal representative.**

The complete offer must be submitted by e-mail to ELRA Secretariat in PDF format no later than 17.00 (CET) hours of the deadline.

- The applicant will provide the necessary references and CV's to deliver proof of its technical experience and skills and give a summary of the staff and resources he will provide, necessary to hand over the required deliveries, within time limit, with a professional degree of quality.
- The applicant will provide specific references to deliver proof of its financial solvency to accomplish this project.
- Previous experience in a legal domain and specifically in IMOLA Land Registry specific context domain will be taken into consideration.

## **6.2. Contact Persons:**

### **Applicant**

ELRA will communicate with the contact person, assigned by the applying company. Please indicate in your offer the contact person's:

First and last name  
Address  
Responsible position  
Phone number  
E-mail

For urgent matters, in which the selected contact person cannot be reached, please indicate a second contact person together with their personal information as enumerated above.

### **ELRA**

Jesús Camy  
[jcamy@elra.eu](mailto:jcamy@elra.eu)

## **6.3. Reservation and General Provisions.**

By submitting the application, the applicant accepts the following provisions:

- The applicant accepts the content of the tender.

- Terms and conditions included by the applicant will not be taken into consideration and be regarded as nonexistent.
- If the applicant bases his application on assumptions, which later appear to be incorrect, he and he alone will be entirely responsible for the consequences.
- The responsibility for submitting the application in time and in accordance with the requirements outlined in this tender, rests with the applicant.
- The application will contain a fixed price and a fixed processing time.
- If, on the basis of the submitted applications, ELRA concludes that more in-depth information is necessary, they may ask applicants additional questions. These questions will be sent to all parties who submitted an application.
- If the applicant is of the opinion that the tender or the relevant documents contain contradictions, mistakes, or uncertainties, or if the applicants have other objections, the applicants have to consult ELRA's contact person as soon as possible, anyway before the indicated deadline for submitting the questions has passed. After this point in time, the applicant cannot appeal against contradictions, mistakes, uncertainties, or bring forward objections anymore.
- All outcomes, deliverables and products including program source code and libraries that result from this tender will be exclusively owned by ELRA.
- Applicants are not entitled to compensation of any costs made for the preparing the application itself.
- ELRA will treat the information contained in the offer confidentially, except if a legal obligation or a judicial decision otherwise requires.
- The contractor will have to work side by side with Project Manager and WPs Coordinators and other actors involved in the project. Particularly must be highlighted the importance of the role to be deployed on training activities to Land Registers Experts.
- In case of late completion contract, penalties may be imposed and/or price may be reduced according to paragraph 8.
- Subcontracting is carried out solely under ELRA liability as referred on Grant Agreement, who is specially authorized to this effect by the Consortium beneficiaries. Therefore, the Commission won't be party of contract derived of this tender, what is especially accepted by applicant.

#### 6.4. Questions

ELRA invites applicants to submit questions in case of uncertainty. Questions should indicate the name of this tender and shall be submitted via e-mail to ELRA's contact person before **5th June 2020**.

Questions will be answered anonymously and only be published on the ELRA website. These questions and answers will be treated as being part of the tender.

#### 6.5. Staff and key experts

Key experts have a crucial role in implementing the contract. These terms of reference contain the required key experts' profiles. The tender shall submit as Annexes CVs and Statements of Availability at least for the following key experts:

- Contractor Technical Director
- Analyst
- Designer
- Semantic web experts
- Graphic Designer
- Programmer
- Tester

#### 6.6. Price

The maximum budget is 538.200,00 Euros, (five hundred thirty-eight thousand two hundred), amount which is distributed in two main blocks:

- **1°.- 495.000,00 Euros** covering all costs necessary to accomplish all activities and produce all deliverables detailed in paragraph 4.3.2 and 4.3.3, **included** travel expenses that the contractor considers necessary for the realization of the expected project results outlined in this tender, what comprises training and special consultancy report for beneficiaries. This global amount also encompassed licensed system costs if necessary.

- 2°.- **43.200,00 Euros** for a contract services maintenance, including corrective, adaptative and evolutive works of IMOLA centralized platform for the period of one year after the conclusion and delivery of the outputs committed, including licensed system costs if necessary.

**The bid has to include not only the global amount offered, but also the unitary prices, properly detailed and justified, which have been used to get the final bidding price.**

The contractor may be requested, when necessary, to attend some of the Work Package sessions, regarding technical issues, for which travel expenses will not be paid separately.

Contractor Technical Director will work side by side with the Project Manager and other actors involved in the project and must attend the Executive Committee meetings providing assistance and support for making decisions, for which travel expenses, if necessary, will be charging on the project, (scrum team)

**6.7.- Contractual framework, payment schema and invoicing:**

**6.7.1.- Contractual framework:**

According to the Grant Agreement and Consortium Agreement, ELRA is authorized by all beneficiaries on IMOLA III project to open a single services contract for tender, to pull of all the activities and deliverables made up of in the Grant Agreement for subcontracting, provided that the action to be implemented has to be considered as a whole, not been possible to execute separately the different activities and developments scheduled in the project.

**6.7.2.- Payment schema:**

Payment will be split in nine installments such as detailed in the following schema, which includes the deadline date for each of them and deliverables or previous evolutive versions, linked to each of them:

**Total Tender** = 495.000 (project *developments*) + 43.200 (*web platform maintenance*) = **538.200€**

Payment	Amount	Date	Deliverables

<b>1</b>	<b>25.000 €</b>	<b>30/08/2020</b>	<b>D 3.5</b> <b>D 3.6</b>
<b>2</b>	<b>75.000 €</b>	<b>30/10/2020</b>	<b>D 3.2</b> <b>D 3.6</b> <b>D 3.9</b> <b>D 3.13</b>
<b>3</b>	<b>75.000 €</b>	<b>31/12/2020</b>	<b>D 3.1</b> <b>D 3.2</b> <b>D 3.6</b> <b>D 3.9</b> <b>D 3.13</b>
<b>4</b>	<b>75.000 €</b>	<b>31/03/2021</b>	<b>D 3.2</b> <b>D 3.5</b> <b>D 3.6</b> <b>D 3.9</b> <b>D 3.13</b>
<b>5</b>	<b>75.000 €</b>	<b>31/06/2021</b>	<b>D 3.2</b> <b>D 3.4</b> <b>D 3.6</b> <b>D 3.9</b> <b>D 3.13</b>
<b>6</b>	<b>75.000 €</b>	<b>30/09/2021</b>	<b>D 3.2</b> <b>D 3.3</b> <b>D 3.6</b> <b>D 3.7</b> <b>D 3.9</b> <b>D 3.12</b>
<b>7</b>	<b>75.000 €</b>	<b>31/12/2021</b>	<b>D 3.8</b> <b>D 3.10</b> <b>D 3.11</b> <b>D 3.14</b>
<b>8</b>	<b>20.000 €</b>	<b>31/01/2022</b>	<b>D 3.2</b> <b>D 3.3</b> <b>D 3.4</b> <b>D 3.5</b>

			<b>D 3.6</b> <b>D 3.7</b> <b>D 3.8</b> <b>D 3.9</b> <b>D 3.10</b> <b>D 3.11</b> <b>D 3.13</b> <b>D 3.14</b> <b>D 3.15</b>
<b>9</b>	<b>43.200 €</b>	<b>31/01/2022</b>	<b>D 3.2,</b> <b>D 3.3</b> <b>D 3.4</b> <b>D 3.5</b> <b>D 3.7</b> <b>D 3.16</b>
<b>Total Payments</b>	<b>538.200 €</b>		

Deliverables linked to any of partial payments are considered an incremental output. So that they are referred to evolutive versions gradually released of each of them until final version, according to GA provisions.

**All payments will be formalized according to this schema whenever the contractor has fulfilled its contractual obligations accomplishing the activities and delivering the outputs according to the tables includes in the paragraph 4.3.2 and 4.3.3 and at any case the deliverables have to be released two weeks before the deadline in order to manage the payment in time according to the invoicing procedure, with the exception of first delivery.**

**Contractor will guaranty the functionality of all deliverables during the period the contract is pending and after completion, for a period of one year starting with the date of delivery of the result of the contract.**

### **6.7.3.- Invoicing.**

The invoices will be without VAT, given that ELRA is a non-profit association resident in Belgium without VAT number. The procedure for invoicing will be the following:

- The different invoices will be addressed to ELRA, as subcontracting authority and Coordinator of the project to their payment. These payments will be made within two weeks after the reception of the invoices and once it has been verified that the activities and his corresponding deliverables have been successfully completed.
- ELRA Secretariat will proceed to a formal validation of invoices according to the EC financial rules (description of the activity, amount, dates, etc.), previously to make the transfer to contractor within two weeks period.
- When ELRA Secretariat appreciates some invoicing error or other kind of problem that may prevent the payment, shall communicate it immediately to contractor to be solved as soon as possible.

## 7. EVALUATION CRITERIUM

### 7.1. Selection procedure

As general term, the subcontract will be awarded to the contractor who submitted the most advantageous economic offer, **which does not automatically entail the lowest price, because the principle of best value for money must be assured.** Consequently, in the evaluation, in order to award the fairest offer, will be also taken into account some additional criteria, such as it is detailed hereafter.

**So that, the bid has to include not only the global amount offered, but also the unitary prices, properly detailed and justified, which has been used to get the final bidding price.**

**The applicants will be evaluated in relation to each other.** The applicant who convinces ELRA that he/she is the most suitable party to carry out the task will be rated as best.

The selection will take place on basis of the set of evaluation criteria outlined in this tender, paragraph 7.3.

Documents and references must be written in the English language

### 7.2. Evaluation process overview.

The procedure overview is detailed in this table:

11 <sup>th</sup> May 2020	Prior Announcement at ELRA web site
18 <sup>th</sup> May 2020	Tender invitation
18 <sup>th</sup> May 2020 - 5 <sup>th</sup> June 2020	Possibility to ask for clarifications
18 <sup>th</sup> May 2020 - 23 <sup>rd</sup> June 2020	Submission of offers
24 <sup>th</sup> June 2020 – 3 <sup>rd</sup> July 2020	Selection of best offer
6 <sup>th</sup> July 2020 – 25 <sup>th</sup> July 2020	Contracting phase & Signing of contract
27 <sup>th</sup> July 2020	Start of technical activities
1 <sup>st</sup> February 2022	End of technical activities

### 7.3. Evaluation criteria

The evaluation criteria and weight coefficient of each block are laid down on the following table:

<b>Price</b>	30%
<b>Activities: Methodology and design of activities</b> aligned with the tasks determined in the table on paragraph 4.2.5, for the effective implementation of ELRD at national level. Extension, consolidation and management of ELRD ontology and IMOLA I.KOS	20%
<b>Deliverables: Methodology, activities and technical developments of software needed</b> to accomplish the deliverables listed in the tables on paragraph 4.3.	25%
<b>Professional Qualification</b> of Applicant, experience in related projects and demonstration of affinity with legal domains and specially regarding IMOLA Land Registry Specific Context Domain.	20%

<b>Contract of services for maintenance</b> and updated of centralized platform during one year after the conclusion of project	5%
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The applicant can receive a maximum of 500 points, (100 points for each Block of categories), such as it is characterized on each one of following tables. The conclusion of the service contract is dependent on a minimum score of 350 points.

**7.3.1. Block 1: Price**

The subcontract will be awarded according to selection procedure detailed on paragraph 7.1. The bid has to include not only the global amount offered, but also the unitary prices, properly detailed and justified, (even licensed software if necessary and travel expenses to face-to-face training sessions and consultancy reports), which has been used to get the final bidding price, to assure the coherence and feasibility of bid.

The applicants will be evaluated in relation to each other according to the following criteria.

<p><b>Block 1</b></p> <p><b>Price</b></p> <p><b>(Maximum extension 2 pages A-4).</b></p>	
<b>Best bidder.....</b>	<b>60 points</b>
<b>Second bidder.....</b>	<b>40 points</b>
<b>Third bidder.....</b>	<b>30 points</b>
<b>Four bidder.....</b>	<b>20 points</b>
<b>Other bidders.....</b>	<b>15 points</b>
<b>Expense items specification and justifying.....</b>	<b>20 points</b>
<b>Proof of coherence and feasibility of the bid.....</b>	<b>20 points</b>

### 7.3.2. Block 2 Activities: Methodology and design of activities

The applicant has to describe his/her methodology along with the detailed design of activities envisaged in this tender, to produce the outputs contemplated on the project, specifically referred to the extension, consolidation and management of ELRD ontology and IMOLA I.KOS, provided that IMOLA III is a follow up project that aimed to consolidate and extend the previous results obtained in IMOLA I/II.

Methodology Guidelines:

- The methodology and description of activities shall be set down aligned with sorting included in the tables about the activities and deliverables detailed on paragraph 4.2 and 4.3 to guarantee the transparency and competitiveness of bids.
- An analysis and project planning with an indication of the relevant milestones and the activities to be accomplished.
- Explanation of how the described general and technical requirements will be fulfilled
- Demonstration that the requested results can be achieved within the given timeframe
- An insight into the offered semantic solution to consolidate and extend the ELRD ontology, with new pivots, relationships, concepts and attributes of them.
- Usability of multi-user platform.
- An insight into the offered technical solutions, including artificial intelligence algorithms proposed and developments.
- When necessary the replacement of the current used licensed software should be proved, detailing the process for a smooth and secure migration of data. If the case this necessity should be based on a benchmark including at list five other products, with special justification in the case that an open source one was not fit in best.
- Description of the efforts required by land registers experts -contact points of ELRN-
- Further relevant topics as deemed necessary by applicant.

The applicants will be evaluated in relation to each other according to the following criteria. The score detailed for each concept must be considered up to a maximum.

## **BLOCK 2: Activities**

### **Methodology and design of activities**

**(Maximum extension 5 pages A-4)**

**Description of methodology proposed and activities aligned with the tasks determined in the table on paragraph 4.2.5 for the effective implementation of ELRD at national level. Extension, consolidation and management of ELRD ontology and IMOLA I.KOS.**

**This scope is referred to all the activities itemized hereafter, aligned with the content of table included in paragraph 4.2.5, which must be described separately, with indication regarding quality check methodology and measures envisaged.**

**The maximum score for each of them will be 10 points, insofar as the maximum score for this block 2 should be 100 points.**

- 1.- Usability and web platform**
- 2.- Adaptation of the ELRD at Member States level**
- 3.- ELRD functional technology**
- 4.- ELRD technological enrichment**
- 5.- Content of juridical ecosystem evolution on the I-KOS**
- 6.- IMOLA web-based multiuser manager of the content and I-KOS**
- 7.- Web services for interconnection**
- 8.- e-learning platform, technical and didactical support for virtual training and seminars. Material proposed and FAQ**
- 9.- IMOLA web for public access in a SMART way**
- 10.- Consultancy and Analysis customized to beneficiaries**

### **7.3.3.- Block 3 Deliverables: Technical developments of the needed software.**

#### **Achievements expected:**

- To serve as a complementary project to the institutional action deployed by the Commission with the LRI project, in order to implement the EU legislation. Land**

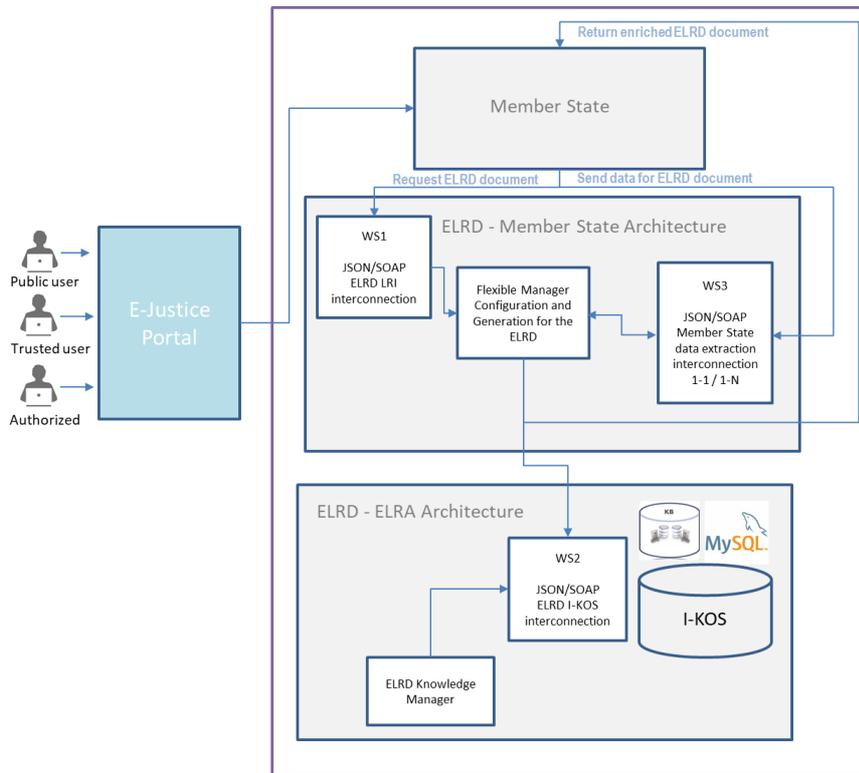
Registers interconnection is the latest objective to close the EU interoperability schema regarding juridical and commercial Registers.

- **The harmonization of LR information** has been set out as a key issue of the interconnection established by the EU Directive 843/2018 in article 32.b), as one of the measures to prevent money laundering. The ELRD should be considered like a common interface to achieve this goal, by means of a new services to be accomplished in this project.

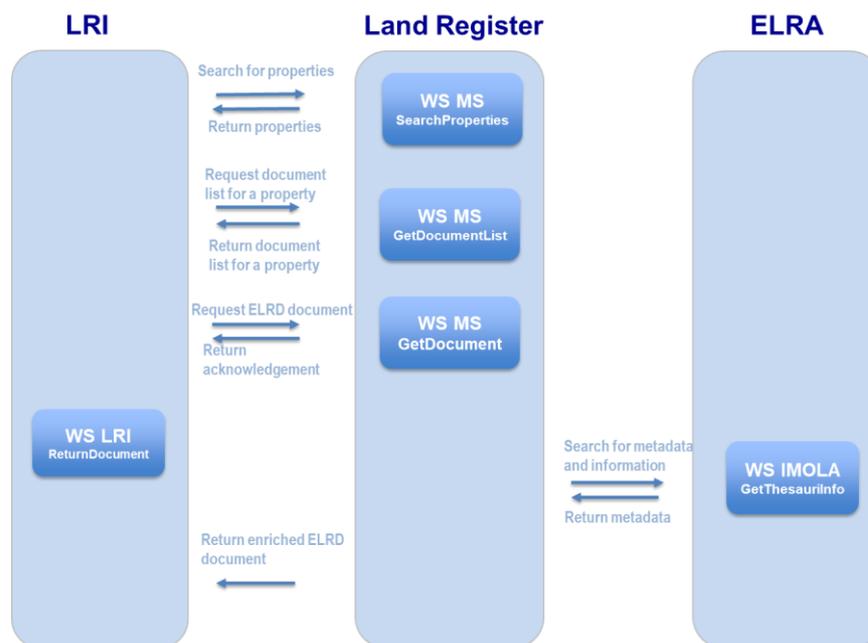
#### **Activities:**

These extensive juridical, semantic and training activities must be supported by a wide-range use of new technologies, aiming efficiency and spread out the IMOLA Knowledge Organization System.

- **Virtual platform to host I-KOS centralized database and to keep updated the input system technological tool**, overcoming the typical problems associated to the lack of administrator user powers or the technical limitations of CPs to tackle by themselves with technological issues, so that they have only be concerned in your specific field of knowledge.
- **New online services for the semantic integration with the e-justice portal.** A common broker (WS2) and standard connector to extract, assemble and publish the harmonized and enriched **ELRD** format information, accessible on the I-KOS platform, by means of dedicated web services.
- **Artificial intelligence solutions for the aggregation of new set of data**, built upon new developments to improve the modelling and serialization of data, ( natural language transformation process).



**Fig 4: IMOLA III architecture**



**Fig 5: IMOLA ELRD Web Services schema**

## **BLOCK 3: Deliverables**

### **Technical development of the needed software**

**(Maximum extension 5 pages A-4)**

**This block is aiming to know the propose methodology, activities to accomplish the technical developments of software needed to the analysis, design and implementation of the deliverables 1 to 15 listed in the table on paragraph 4.3.**

**This scope is referred to all deliverables itemized hereafter, aligned with the content of table of outputs included in paragraph 4.3, which must be described separately, with indication regarding quality check and validation measures envisaged to test the software and systems developed in this block**

**The maximum score for deliverables identified with numbers 2,3,4,5 will be 15 points for each one.**

**The maximum score for deliverables identified with numbers 7,8 will be 8 points for each one.**

**The maximum score for deliverables identified with numbers 1, 6,15 will be 4 points for each one.**

**The score for the rest of deliverables identified with numbers 9,10,11,12,13,14 will be 2 points for each of them.**

**So that, maximum score for this block 2 should be 100 points.**

- 1.- IMOLA platform report for ELRA**
- 2.- ELRD web-based multiuser platform for maintenance based on users**
- 3.- Web services: Interconnect National Systems and ELRD I-KOS**
- 4.- Flexible manager of the ELRD that customize the ELRD structure, by adapting the ELRD structure**
- 5.- IMOLA web service/web to the public in a SMART way**
- 6.- Training documentation and web platform**
- 7.- ELRD solution**
- 8.- I-KOS enriched solution**
- 9.- Analysis report of the IMOLA web usability issues**
- 10.- Analysis report of the webservices developed**
- 11.- Analysis report of the training activities performed, and results achieved during all the sessions**
- 12.- Analysis of the ELRD evolution**
- 13.- Knowledge Manager Manual**
- 14.- Content Specific Land Registry Vocabulary evolution**
- 15.- Beneficiaries Consultancy and Analysis Report**

**7.3.4. Professional Qualification of Applicant, experience in related projects and demonstration of affinity with legal domains and specially regarding IMOLA Land Registry context specific Domain.**

**7.3.4.1. Bloc 4: Professional Qualification of the Applicant and affinity with semantic web technologies/architecture.**

The applicants should explain why they are qualified to carry out the task outlined in this tender. This includes a description of the applicant's qualifications that are deemed necessary to successfully complete the activities and deliverables outlined in this tender.

The applicant has to demonstrate his/her affinity with semantic web architecture and technologies. Hereby, the applicant describes and explains his knowledge and experience in

this field. This includes for example a description of the relevant project(s) that the applicant has been involved in and the technical model(s) that the applicant has developed in the past.

In addition, the applicant guarantees that he/she as well as the legal person that he/she represents, is not subject to an insolvency proceeding and that they will not be subject to such a proceeding in the foreseeable future. Further, the applicant includes a copy of his CV.

#### **7.3.4.2. Experience in related projects.**

The applicant shall attach a minimum of three relevant European projects related to the tasks of this tender, as references, which are able to give evidence of the applicant's qualifications and working method.

Additionally, the skill of applicant to explain semantic and technical issues to non-technicians will be appreciated, as well as the ability of creating a collaborative environment that enhances the efficiency of training and the input system. As it is an innovative project, academic experience and competence to provided and certified this technical and semantic knowledge to LR experts will be also be a criterion of assessment.

#### **7.3.4.3 Demonstration of affinity with legal domains and specially regarding IMOLA Land Registry Specific Context Domain**

The applicant should demonstrate his/her affinity with legal domains, concerning semantic web architecture and technologies. Hereby, the applicant describes and explains his knowledge and experience in this field. This includes for example a description of the relevant project(s) that the applicant has been involved in and the technical model(s) that the applicant has developed in the past. The applicant shall attach a minimum of one relevant projects related to the legal domain, as reference, which will give evidence of the applicant's qualifications and working method in related domains.

Regarding IMOLA ontology is expected that applicant details his knowledge about the use of pivot terms, their relationships with national concept according to SKOS semantic language and the management and assignation of attributes using "formants" methodology, within the European Interoperability Framework.

The applicants will be evaluated in relation to each other according to the following criteria.

The score detailed for each concept must be considered up to a maximum.

<p><b>BLOC 4</b></p> <p><b>Professional Qualification of the Applicant</b></p> <p><b>Experience in related project and affinity with legal domains and specially regarding IMOLA Land Registry Specific Context Domain</b></p> <p><b>(Maximum extension 5- A.4)</b></p>
<p><b>Professional qualification of applicant and affinity with semantic web technologies and architecture</b></p> <ul style="list-style-type: none"> <li>- Description of the applicant’s qualifications and CVs.....20 points</li> <li>- Certified training and innovation experience .....20 points</li> </ul>
<p style="text-align: center;"><b>Experience in related projects</b></p> <ul style="list-style-type: none"> <li>- Minimum of three relevant European projects related to the task of this tender.....20 points <ul style="list-style-type: none"> <li>○ <i>The degree of importance and similarity and quantity will be taken into account.</i></li> <li>⊖ <i>Additional projects will be evaluated in case of draw on this partial score</i></li> </ul> </li> </ul>
<p><b>Demonstration of affinity with legal domains and specially regarding IMOLA Land Registry Specific context Domain.</b></p> <ul style="list-style-type: none"> <li>- Knowledge and experience in this field.....40 points</li> </ul>

**7.3.5. Block 5: Contract of services for maintenance, including corrective and evolutive works to keep update the centralized platform during one year after the conclusion of project.**

The IMOLA centralized platform will be tackled by ELRA creating an internal and permanent infrastructure, (back office) to cope with all issues related to the maintenance of it, updating and evolving the I-KOS repository and input system and the coordination of ELRN activities. So that, a maintenance services contract to provide technical support and evolving the IMOLA platform is required.

<p><b>BLOC 5</b></p> <p><b>Contract of services for maintenance and update of IMOLA centralized platform</b></p> <p><b>(Maximum extension 2- A.4)</b></p>
<ul style="list-style-type: none"> <li>- Analysis, design and execute a plan regarding functionalities and requirements for maintenance of the IMOLA platform, including corrective, adaptative and evolutive measures .....60 points</li> <li>- Disseminate and create a structure for the maintenance and management of the repository permanently in ELRA.....10 points</li> <li>- Security and accessibility of data 24/365.....30 points</li> </ul>

**7.4. Award of contractor**

The members of Steering Committee will be involved in the analysis, evaluation of bids and selection of contractor. In order to support and facilitate this activity the Executive Committee will make up a report regarding the bids submitted two weeks after the deadline to apply.

On the basis of this analysis and evaluation process a ranking will be set up. This ranking will not be published; applicants did not award the contract will be informed on the shortcomings with regard to the assigned Contractor.

The applicants will be evaluated in relation to each other. The applicant who convinces ELRA that he/she is the most suitable party to carry out the task will be rated as best.

The Board of ELRA will carry full responsibility for the determination of the winning party.

## **8. CLAUSES IN RESPECT TO NOT FULFILLING OR LATE COMPLETION OF CONTRACT**

### **8.1.- Breach of contract**

Either party commits a breach of contract where it fails to perform its obligations in accordance with the provisions of the contract. Where a breach of contract occurs, the party injured by the breach is entitled to the following remedies: damages; and/or termination of the contract. Damages may be either general damages or liquidated damages.

Should the Contractor fail to perform any of its obligations in accordance with the provisions of the contract, the Contracting Authority is without prejudice to its right to claim for damages, also entitled to the following remedies: suspension of payments, and/or reduction or recovery of payments in proportion to the failure's extent.

The Contracting Authority is entitled to deduct such damages from any sums due to the Contractor or call on the appropriate guarantee.

The Contracting Authority shall be entitled to compensation for any damage which comes to light after the contract is completed in accordance with the law governing the contract.

The Contracting Authority is entitled to impose financial penalties. It may deduct such financial penalties from any sums due to the Contractor or call on the appropriate

guarantee. These financial penalties may represent a 3% by each month of delay, up to 10% of the total value of the contract, without prejudice the possibility of termination of contract.

#### **7.5.2. Termination by the contracting authority**

The Contracting Authority may, by giving seven days' notice to the Contractor, terminate the contract in any of the following cases:

- (a) the Contractor is in serious breach of contract for failure to perform its contractual obligations;
- (b) the Contractor fails to comply within a reasonable time with the notice given by the Project Manager requiring it to make good the neglect or failure to perform its obligations under the contract which seriously affects the proper and timely performance of the services.
- (c) the Contractor refuses or neglects to carry out any administrative orders given by the Project Manager;
- (d) the Contractor assigns the contract or subcontracts without the authorization of the Contracting Authority;
- (e) the Contractor is bankrupt, subject to insolvency or winding up procedures, is having its assets administered by a liquidator or by the courts, has entered into an arrangement with creditors, has suspended business activities, or is in any analogous situation arising from a similar procedure provided for under any national law or regulations relevant to that Contractor;
- (f) any organizational modification occurs involving a change in the legal personality, nature or control of the Contractor, unless such modification is recorded in an addendum to the contract;
- (g) any other legal disability hindering performance of the contract occurs;
- (h) the Contractor fails to provide the required guarantees or insurance, or the person providing the earlier guarantee or insurance is not able to abide by its commitments;
- (i) the Contractor has been guilty of grave professional misconduct proven by any means which the Contracting Authority can justify;

(j) it has been established by a final judgment or a final administrative decision or by proof in possession of the Contracting Authority that the Contractor has been guilty of fraud, corruption, involvement in a criminal organization, money laundering or terrorist financing, terrorist related offences, child labor or other forms of trafficking in human beings or has committed an irregularity;

(k) the Contractor, in the performance of another contract financed by the EU budget/EDF funds, has been declared to be in serious breach of contract, which has led to its early termination or the application of liquidated damages or other contractual penalties or which has been discovered following checks, audits or investigations by the European Commission, the Contracting Authority, OLAF or the Court of Auditors;

(l) after the award of the contract, the award procedure or the performance of the contract proves to have been subject to substantial errors, irregularities or fraud;

(m) the award procedure or the performance of another contract financed by the EU budget/EDF funds proves to have been subject to substantial errors, irregularities or fraud which are likely to affect the performance of the present contract;

(n) the Contractor fails to perform its obligation in accordance with conduct code or conflict of interest

(o) the Contractor is unable to provide a suitable replacement to an expert, the absence of which affects the proper performance of the contract.

The cases of termination under points (e), (i), (j), (l), (m) and (n) may refer also to persons who are members of the administrative, management or supervisory body of the Contractor and/or to persons having powers of representation, decision or control with regard to the Contractor.

The cases of termination under points (a), (e), (f), (g), (i), (j), (k), (l), (m) and (n) may refer also to persons jointly and severally liable for the performance of the contract.

## **9. SETTLEMENT OF DISPUTES**

The parties shall make every effort to settle amicably any dispute relating to the contract which may arise between them.

Once a dispute has arisen, a party shall notify the other party of the dispute, stating its position on the dispute and any solution which it envisages, and requesting an amicable settlement. The other party shall respond to this request for amicable settlement within 30 days, stating its position on the dispute. Unless the parties agree otherwise, the maximum time period laid down for reaching an amicable settlement shall be 120 days from the date of the notification requesting such a procedure. Should a party not agree to the other party's request for amicable settlement, should a party not respond in time to that request or should no amicable settlement be reached within the maximum time period, the amicable settlement procedure is considered to have failed.

In the absence of an amicable settlement, a party may notify the other party requesting a settlement through conciliation by a third person. If the European Commission is not a party to the contract, it may accept to intervene as conciliator. The other party shall respond to the request for conciliation within 30 days. Unless the parties agree otherwise, the maximum time period laid down for reaching a settlement through conciliation shall be 120 days from the notification requesting such a procedure. Should a party not agree to the other party's request for conciliation, should a party not respond in time to that request or should no settlement be reached within the maximum time period, the conciliation procedure is considered to have failed.

If the amicable settlement procedure and, if so requested, the conciliation procedure fails, each party may refer the dispute to either the decision of the national jurisdiction or arbitration according to it this contract is governed.

## **10. APLICABLE LAW**

This contract shall be governed by the Belgium law given that it is the country of the Contracting Authority.

## **11. DATA PROTECTION**

Any personal data included in the contract shall be processed pursuant to Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of personal data

by the Community institutions and bodies and on the free movement of such data. The data shall be processed solely for the purposes of the performance, management and monitoring of the contract by the Contracting Authority without prejudice to possible transmission to the bodies charged with monitoring or inspection in application of EU law. The Contractor shall have the right to access his/her personal data and to rectify any such data. Should the Contractor have any queries concerning the processing of his/her personal data, s/he shall address them to the Contracting Authority. The Contractor shall have right of recourse at any time to the European Data Protection Supervisor.

Where the contract requires processing personal data, the Contractor may act only under the supervision of the data controller, in particular with regard to the purposes of processing, the categories of data which may be processed, the recipients of the data, and the means by which the data subject may exercise his/her rights.

The data shall be confidential within the meaning of Regulation (EU) 2016/679 General Data Protection Regulation of the European Parliament and of the Council on the protection of individuals regarding the processing of personal data by Community institutions and bodies and on the free movement of such data. The Contractor shall limit access to the data to staff strictly needed to perform, manage and monitor the contract.

The Contractor undertakes to adopt technical and organizational security measures to address the risks inherent in processing and in the nature of the personal data concerned in order to:

- a) prevent any unauthorized person from having access to computer systems processing personal data, and especially:
  - aa) unauthorized reading, copying, alteration or removal of storage media.
  - ab) unauthorized data input, unauthorized disclosure, alteration or erasure of stored personal data.
  - ac) unauthorized persons from using data-processing systems by means of data transmission facilities.
- b) ensure that authorized users of a data-processing system can access only the personal data

to which their access right refers.

c) record which personal data have been communicated, when and to whom.

d) ensure that personal data processed on behalf of third parties can be processed only in the manner prescribed by the contracting institution or body.

e) ensure that, during communication of personal data and transport of storage media, the data cannot be read, copied or erased without authorization.

f) design its organisational structure in such a way that it meets data protection requirements.