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ALIADA Exploitation plan v1

Work Package 4

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Table of contents

TABLE OF CONTENTS	3
1 INTRODUCTION	4
1.1 PURPOSE OF THE DOCUMENT	4
1.2 DETAILED OVERVIEW OF OBJECTIVES	4
1.3 AUDIENCE	4
2 EXPLOITATION PLAN V1	5
2.1 EXPLOITATION STRATEGY	5
2.2 INITIAL BUSINESS CASE.....	6
2.3 EXPLOTATION OF ALIADA AFTER THE FIRST RELEASE.....	7
2.4 MANAGEMENT OF INTELLECTUAL RIGHTS	8
3 CONCLUSIONS	10

1 Introduction

1.1 Purpose of the document

The jointly evaluation of the foreseen prototypes and deployments in the cultural institutions with the community (IT SMEs, libraries, museums and organizations holding public data) during task 4.5 (Impact generation and assessment) will allow assessing the impact and driving exploitation plans to be delivered. The initial business case presented to the EC in the project proposal will be revised according to the results of the impact assessment.

This deliverable is the first one for task 4.6 Exploitation.

1.2 Detailed overview of objectives

The exploitation activities are aimed at using the assessment of outcomes of impact generation task to update the business case for ALIADA and create an exploitation plan. The key objectives of this task are:

- to outline ALIADA's exploitation strategy
- to plan and to ensure adequate protection of Intellectual Property Rights (IPR).

This document is structured in the following sections:

- Introduction. The purpose and audience of the document are described in this section.
- Exploitation plan v 1. This section includes: Exploitation strategy, Initial business case, Exploitation of ALIADA after the first release and Management of intellectual rights
- Conclusions. It contains an overview of the conclusions.

1.3 Audience

The intended audience of this document are the ALIADA Consortium, particularly the SMEs involved in the project, ALIADA-certified partners and the European Commission who supports and partial funds the ALIADA project. Libraries and museums interested in the project can read in this document the services for ALIADA offered by the SMEs in the Consortium.

2 Exploitation plan v1

The Consortium has assessed the impact of ALIADA after the first 12 months from the beginning of the project. This assessment of the generated impact has been done using the feedback received from other professionals contacted in relevant conferences, workshops and meetings on LAM (Libraries, Archives and Museums), from the customers asked by the SMEs in the Consortium and from other librarians and curators in the professional networks of the museums involved in the project. All these results have been considered to update the initial business plan proposed in the project.

ALIADA is an innovative and research project funded by the EC under the EU's Seventh Framework Programme (FP7), which is to improve the competitiveness of European industry. The technical partners in the Consortium that have developed the first prototype of ALIADA (Scanbit, @Cult and Tecnalía) have high technological degree and experience in developing products at industrial level. More specifically, the SMEs have extensive experience as library services providers, and Tecnalía contributes to the project as research agency expert in Semantic Technology. Nevertheless, the partners estimate that commercial development will require some years of further development/improvement/refinement after project completion. Those results will be added to the open source code repository, but institutions may ask for other developments or customizations that require additional professional services such as consultancy, specific or more advanced developments, technical support, training, cloud storage or yearly maintenance. Technical partners in the Consortium will be able to provide these additional services due to the previous experience in library services and IT technologies and due to the new knowledge and skills on Linked Data acquired during the project.

2.1 Exploitation strategy

As expected in the beginning of the project, the exploitation strategy relies in the open source software (OSS) paradigm, basing its success in the community creation and growing rate. The exploitation strategy will therefore be as follows:

- the **ALIADA community will guarantee the continuous evolution** of the open source version of the system. This will allow to any company to use it for free, and to adapt the system to its own needs.
- In parallel, the **development of a full version of the software** is foreseen, which will ensure a supported, bug-free and added features product. A company of the ALIADA consortium, interested in the product exploitation, will take the leading role in the evolution of this professional version. This version will be available under a license fee, that includes maintenance.
- **Integration and customization services** will be needed for specific deployments. These pay services will be initially supported directly by ALIADA project developers team, but it will be a pay service to be supported mainly by partners of the ALIADA community (ALIADA-certified partners) in the future (to avoid generating a huge developers team all over the world). The attraction of companies and freelances to the ALIADA community will be based on dissemination actions where success stories, business plans and ROI are clearly demonstrated.
- In addition, the community of ALIADA-certified partners will offer **Training and Advice to companies wishing to be ALIADA-certified partners**. The so certified partners will be authorised

to develop, with a certain guarantee, specific professional extensions or vertical solutions based in ALIADA. These solutions can be marketed and sold, even by third parties, with the ALIADA-certified stamp.

2.2 Initial business case

The foreseen business case for ALIADA is intended to solve the current situation of libraries and museums (cultural heritage institutions) that want to publish their data in the Linked Data Cloud but that don't have the required specialized knowledge and technology to perform it in a efficient and effective way. Moreover, individual and independent efforts carried out by these institutions require high financial resources and investment that may consume all the budget for innovation issues without achieving good enough results in the short-term.

The information available on the Web has resulted in an exponential increase, favoured by the Internet growth, contents digitalization and social media diffusion. By 2015 it is foreseen that 3 billion people will be online, pushing the data created and shared to nearly 8 zettabytes. It is evident that the key factor is to be ready to process all this data and to generate value. This assumption is also valid for other business market sectors as (for instance but not limited to) e-Learning, Knowledge Management, Health, Financial and Environment. In this context, libraries and museums strive to preserve cultural heritage and to provide universal and equitable access to information about them to people, communities and organizations. High quality library and information services would help to guarantee such access. As memory institutions they provide evidence of comparable cultural features in held documents and objects but, libraries and museums, have their own data codification and representation method (as MARC21, Z3950, ISO 2709, LIDO, CIDOC-CRM, etc.). If that information and objects were open or accessible by standard web applications, these institutions could be more efficient because they could reuse related published information and datasets from the web to describe and catalogue their collections, and, likewise, other institutions will avoid the duplication of data already created by these specialized institutions. Also web (semantic web) and open access to this information would avoid geographical access and language limitations to information and cultural heritage around the world.

Against this background, the linked data paradigm appears as promising information visualisation, interchange and association but not only for humans but also for machines. Linked Data lies at the heart of what Semantic Web is all about: large scale integration of, and reasoning on data on the Web thanks to RDF as formatting language, dereferenced URIs for its identification and HTTP protocol for access. In order data be understandable by machines (and so processed), ontologies appear to give sense to data and to represent the domain knowledge the data belongs to.

Therefore, ALIADA is intended as a solution to overcome the current limitations of current Library or Collection Management Software to share their contents when used in libraries, archives and museums, ALIADA proposes the accomplishment of a tool implementing a novel approach to automatically publish, under the Linked Data paradigm, the contents they host. Thus, achieving contents interoperability and 74 http://esto.nasa.gov/files/trl_definitions.pdf thereof added value to the collections and stored funds, favouring the reuse of public data, opening it to the world in a format that can be processed by machines and linked to other existing datasets. ALIADA will be an extension to library and museums systems (ILS), offered as an open source tool, allowing expansion and customization by third parties. ALIADA will be multilingual: English, Spanish, Italian and Hungarian are the initially foreseen languages. ALIADA will provide a unique access point to the

published datasets offering a RESTful interface that can be invoked from multi-device platforms willing to use the linked datasets for innovative applications. ALIADA will rely on existing library and museum standards, initially MARCXML and LIDO. ALIADA will perform semantic treatment of textual content, by enrichment via natural language processing through relevant entities (named entities) recognition and extraction, linking to appropriate open datasets, reasoning to retrieve additional semantic information based on those retrieved via content enhancement and inferring additional knowledge.

2.3 Exploitation of ALIADA after the first release

After assessing the impact of the project at the end of the first year of project, the companies in the Consortium have updated the initial business model adding or modifying the definition of the pay services and products that technical partners in the Consortium or new ALIADA-certified partners could provide. These new additional pay services and products respect to the initial exploitation plan are the following:

- **Consultancy services about Linked Open Data in libraries and museums**

The new skills and knowledge acquired by the companies in the Consortium will allow this companies to provide consultancy services about the best way to publish library or museum data in the Linked Data Cloud. These services will be necessary to create the need of this new technology in the GLAM sector

- **ALIADA as SaaS**

Target institutions to install ALIADA might not have enough resources to maintain a local installation due the high level requirements of ALIADA. In that context, the companies involved in the project could offer a SaaS (software as a service) service to those institutions to reduce the investment in the task of publishing data in the LODC. The company will maintain updated the installation of the software and will be able to provide access and support to one or more institutions (only if the institutions have similar data). The company will also ensure the quality in the management, conversion and publication processes and will apply the confidentiality and other institution rights over the data.

- **Content and storage services (ALIADA in hosting)**

In addition to the hosting services for ALIADA, the company can provide storage services to maintain a repository containing the triples database that will be able to be queried using SPARQL. Moreover, the company could maintain and manage data from several libraries with similar aims (for example, a network of libraries of the chemical-pharmaceutical sector). This service is related to the big data management)

- **Support for publishing in the LOD for non-GLAM cultural industries**

The skills and knowledge acquired during the project could be used to apply them to other type of data in other cultural industries such as education.

- **Advanced developments in the full version of ALIADA (under license fee)**

Full version of ALIADA will be a premium version that will integrate the ALIADA's open source code and additional advanced features for ALIADA developed by the companies in the Consortium. Customizations of ALIADA done by these companies will be added to the full version.

- **Related products**

Visualization widgets or APIS are possible ALIADA related products that could be developed by the ALIADA Community for free distribution, or by the companies for the full version. Services of installation, training, consultancy and so on, are also expected as services that can be provided for those related products.

2.4 Management of intellectual rights

There's a Consortium Agreement signed by the partners that set out the rules for all aspects of the project operation that are not completely specified in the Contract and that includes some exploitation issues. The principles related to the exploitation are the following:

- No partner will divulge technical or scientific information belonging to other partners if this information is not already in the public domain.
- Partners will maintain the confidentiality of all information contained in deliverables classified as confidential. Any partner wanting to publish results will seek prior clearance from the others.
- The Consortium Agreement will specify which existing background IPR ('know-how') that partners will make freely available to Partners for access and/or for use, and that which is subject to commercial restrictions or payment of licence fees. The Consortium Agreement will draw attention to any areas or items of know-how that are specifically excluded from the project.
- Research results should be patentable (or susceptible of registration under copyright or trademark law), the partner who developed them will choose whether to deposit the patents or intellectual property. They must inform the other partners of their decision.
- Patents or intellectual property filed by any of the Partners will mention the name of the inventors or the authors, who will be required to satisfy the formalities necessary for the filing, maintenance and prosecution of these patents.
- Specific licensing terms and conditions for knowledge created will be negotiated case by case.

Management of the intellectual rights for the ALIADA's outcomes:

- ALIADA open source edition tool will be maintained and developed by the ALIADA community and will be offered for free under GPL licence.
- All the materials, documentation and tools for installing, understanding or disseminating ALIADA will have a creative commons license <http://creativecommons.org/licenses/by-nc-sa/3.0/>



- ALIADA full version will be originally developed and distributed by the companies in the Consortium under a license fee

3 Conclusions

Exploitation plan should be updated after monitoring and assessing the results of the workshops, the dissemination activities and the feedback from the open source community, in order to adapt it to the impact of the tool in the community and in the target market. For example, after finishing the first prototype of ALIADA, technical partners have concluded that a local installation of the tool might require the investment of too many resources for a library department of a cultural institution. To overcome this, the companies could provide SaaS or hosting solutions. This new service has been added to the exploitation plan.

Other issue to have in account is that, at this moment, the Linked Data technology is an innovation objective in relevant libraries and museums of the art sector, but there's not a strong demand from those libraries because they don't know about the technology and the profit of the publication in the LOD cloud. Therefore, it's necessary to provide previous consultancy services and to disseminate the project to show libraries and museums the possibility of having their data in the Semantic web without big efforts.

