



FP7-SME-1  
Project no. 262289

## **HARMOSEARCH**

Harmonised Semantic Meta-Search in  
Distributed Heterogeneous Databases



## **D5.3 V1.0**

### **Registry Evaluation Report**

Due date of deliverable: 2013-02-28  
Actual submission date: 2013-03-08

Start date of project: 2010-12-01

Duration: 27 month

Project funded by the European Commission within the Seventh Framework Programme		
Dissemination Level		
<b>PU</b>	Public	X
<b>PP</b>	Restricted to other participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the Consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the Consortium (including the Commission Services)	

## PROJECT ACRONYM: **HARMOSEARCH**

**Project Title:** Harmonised Semantic Meta-Search in Distributed Heterogeneous Databases

**Grant Agreement:** 262289

**Starting date:** December 2010    **Ending date:** February 2013

**Deliverable Number:** D5.3, Version 1.0

**Title of the Deliverable:** Registry Evaluation Report

**Lead Beneficiary:** Promoter

**Task/WP related to the Deliverable:** WP 5, Task 5.3

**Type (Internal or Restricted or Public):** Public

**Author(s):** Claudio Prandoni, Marlis Valentini

**Partner(s) Contributing:** Promoter, TU-Wien, SPK, Afidium, Museumsmedien, HarmoNET, [X+O], eCTRL, EC3 Networks, CPR

**Contractual Date of Delivery to the CEC:** February 28<sup>th</sup> 2013

**Actual Date of Delivery to the CEC:** March 8<sup>th</sup> 2013

## PROJECT CO-ORDINATOR

Company name: [X+O]  
Name of representative: Manfred Hackl  
Address: Siebensterngasse 4/22, A-1070 Vienna, Austria  
Phone number: +43-676-842755-100  
Fax number: +43-676-842755-599  
E-mail: manfred.hackl@xpluso.com  
Project WEB site address: [www.harmosearch.org](http://www.harmosearch.org)

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>4</b>
1.1	PURPOSE OF THE DOCUMENT.....	4
1.2	DEFINITION OF TERMS AND ABBREVIATIONS .....	4
1.3	RELATIONSHIP WITH OTHER DOCUMENTS .....	5
1.4	STRUCTURE OF THE DOCUMENT .....	5
<b>2</b>	<b>CONTEXT .....</b>	<b>6</b>
2.1	OVERVIEW OF THE SEMANTIC REGISTRY FUNCTIONALITIES .....	6
2.2	OVERVIEW OF THE EVALUATION METHODOLOGY .....	6
2.3	TESTING THE SEMANTIC REGISTRY .....	7
<b>3</b>	<b>EVALUATION SESSIONS .....</b>	<b>12</b>
3.1	THE FIVE RELEASE CANDIDATES .....	12
3.2	EVALUATION OF RC1 .....	12
3.3	EVALUATION OF RC2 .....	12
3.4	EVALUATION OF RC3 .....	13
3.5	EVALUATION OF RC4 .....	13
3.6	EVALUATION OF RC5 .....	13
3.7	EVALUATION WITH EXTERNAL DOMAIN EXPERTS .....	14
<b>4</b>	<b>APPENDIX .....</b>	<b>15</b>
APPENDIX A.	LIST OF REQUIREMENTS .....	16
APPENDIX B.	TEST CASE DOCUMENTS .....	17
APPENDIX C.	ACCEPTANCE NOTES .....	18

# 1 INTRODUCTION

## 1.1 PURPOSE OF THE DOCUMENT

The document is the final report on the evaluation process performed during the development of the Semantic Registry component. The overall goal of the evaluation process is to incrementally improve the quality of the component.

At the beginning of the project a basic evaluation procedure was defined with a set of dedicated activities that have been performed every time a new prototypical release candidate has been released. Overall 5 release candidates have been developed. The evaluation procedure covered internal and external evaluations. The internal evaluation was done by the developers, and was focused on testing the developed software artifacts (technical tests), whereas the external evaluation addressed the functional quality of this component (functional tests).

It is important to keep in mind that the Semantic Registry is a backend, even if stand-alone, component of the HarmoSearch system, and therefore its functions are mostly transparent to the final and non-expert user of the portal.

## 1.2 DEFINITION OF TERMS AND ABBREVIATIONS

The following terms and definitions are used throughout this document:

- **HarmoSearch system:** The system gathers all the components, tools and features developed during the project. It includes, the HarmoSearch platform (a web-portal), the stand-alone Semantic Registry component, the Mapping Tool and the Harmonise ontology.
- **Platform:** The HarmoSearch platform is the graphical interface allowing non-technical users to benefit from the HarmoSearch system's features. It is realized as a Web portal that uses profiles, roles, mapping files, and service subscription to let user import, publish or search data using the system.
- **Semantic Registry:** The Semantic Registry is a semantic index which contains knowledge about the HarmoSearch participants, in particular about the data and the services they provide.
- **HarmoSearch Participant:** A HarmoSearch participant is an actor in the HarmoSearch network, typically an organization, who can provide or consume data and services. One HarmoSearch participant (organization) may correspond to several users registered on the platform (web portal).
- **Data Provider:** A source providing data in one of the subdomains of the Harmonise ontology (at present, events and accommodations). Each HarmoSearch participant can operate several data providers.
- **Service Provider:** A service provider offers an external service that can be integrated into a HarmoSearch workflow. Such a service normally operates on the results of a HarmoSearch search query. Each HarmoSearch participant can operate several service providers.
- **Data Registry:** The part of the semantic registry concerned with describing data providers, the content they offer and matching it against search queries.
- **Service Registry:** The part of the semantic registry concerned with registering information about service providers.

- **Release candidate:** The development of the HarmoSearch semantic registry component followed an iterative approach. Accordingly, several versions of the semantic registry have been developed. A release candidate denotes to the most recent version of the prototypical implementation of the component ready to be evaluated.
- **Internal evaluation [Technical evaluation]:** Defined in details in this document, this evaluation consists of technical unit tests performed by developers in order to ensure the robustness of the developed software artifacts.
- **External evaluation [Functional evaluation]:** Defined in details in this document, this evaluation consists in using the components of the HarmoSearch system in order to ensure that they meet the established requirements and can be used by non-technical users.

### 1.3 RELATIONSHIP WITH OTHER DOCUMENTS

Inputs to this document come from:

- *D2.1 Use Case Specification:* defines the main functionalities and requirements of the overall HarmoSearch system
- *D2.2 Architectural Design:* describes the basic architecture of the overall HarmoSearch system
- *D5.1 Registry Requirements Analysis:* provides a detailed requirements analysis for the Semantic Registry, the chosen base technology and framework, and gives an architectural overview of the Semantic Registry
- *D3.2 Ontology for the registry model:* documents the ontology developed to model the information managed by the Semantic Registry (knowledge about data and services provided by HarmoSearch participants)
- *D5.2 Registry Component:* reports on the implementation and deployment of the registry component within the HarmoSearch system.
- *D7.1 Compiled Collection of Acceptance Notes:* addresses the evaluation of the HarmoSearch platform (web portal). The Semantic Registry is a stand-alone component, which is however involved in all main user operations on the portal. For that reason, parts of the evaluation outcomes of the Semantic Registry may occur also in D7.1. This document, instead, focuses on the specific incremental development and evaluation iterations of the Registry.

### 1.4 STRUCTURE OF THE DOCUMENT

The document is structured as follows:

- Section 2 describes the context: first an introduction to the Semantic Registry is given, then the evaluation process is summarized (the complete description is provided in D7.1 – Compiled Collection of Acceptance Notes) and finally the specific definition and interpretation of the test cases for the Semantic Registry are explained with some examples.
- Section 3 summarizes the content of each release candidate.
- Appendix A provides the list of requirements for each release candidate.
- Appendix B contains the compiled evaluation documents.
- Appendix C contains the acceptance reports.

## 2 CONTEXT

### 2.1 OVERVIEW OF THE SEMANTIC REGISTRY FUNCTIONALITIES

The Semantic Registry deals with describing on a metadata level what actual information or services are provided by the different Harmonise participants. It consists of two main sub-components, the Data Registry and the Service Registry.

The Data Registry is responsible for capturing information about the content provided by data providers. This is done by storing metadata describing the content and associating it to the respective data providers. The main task of the Data Registry is to be able to find HarmoSearch participants associated to specific data, thus identifying the data providers who have content that can possibly satisfy a given search query inside a metasearch process.

The Service Registry has the primary function to register, describe and manage the external services offered by Harmonise participants. The service itself and its basic effects are described at the time of service registration. At this point the service provider makes the service and its technical implementation known to the Harmonise system. A user interface integrated into the Harmonise platform is used for registering the service. Furthermore, a specialised user interface allows Harmonise participants to look up, subscribe and use these services within specific workflows. The Service Registry cooperates with the HarmoSearch Access Control component to handle the permissions to use such services.

To summarise, the Semantic Registry has two primary functions:

- **To facilitate searches by storing information about HarmoSearch data providers:** once a search query is issued to the HarmoSearch system, the semantic registry matches the data provider descriptions against the search criteria specified in the query and returns all candidate data providers which may have relevant data with respect to this query.
- **To allow to include external services, at run time, into the process workflow:** to refine the results of HarmoSearch queries (metasearch scenario) or to post-process the data before being published (publishing scenario).

### 2.2 OVERVIEW OF THE EVALUATION METHODOLOGY

The purpose of this evaluation report is to define the evaluation procedure for the Semantic Registry component. Since HarmoSearch is an information and communication technology (ICT) research project the main deliverables are software artifacts.

Specific evaluation activities were used to determine if the HarmoSearch Semantic Registry met the expectations in regard of project execution, usability, and user satisfaction. The activities that were performed during the entire project had been used to determine if the evaluation was effective and how the actual users felt about the final release.

The following activities have been performed during the project:

- During the development phase, unit tests have been used evaluating dedicated parts of the developed source code
- At the end of each development phase, expert users performed a testing to evaluate the software quality perceived by the expert and end user

The HarmoSearch Semantic Registry has been evaluated from two distinct perspectives:

- Internal evaluation
  - The internal evaluation is a technical evaluation, which consists in unit tests and bug fixing, and is conducted by the developers (RTD partners).
- External evaluation
  - The external evaluation is a functional evaluation, and aims at measuring the success and usability of the Semantic Registry. It is conducted by three kind of users: expert users that are internal project partners (SME partners), real users that are internal project partners (class OTHER partners in HarmoSearch) and domain-experts that are not participating in the HarmoSearch project.

All partners of the project have been involved as participants in the external (functional) evaluation of the various Semantic Registry release candidates, following the evaluation methodology described in details in the Deliverable D7.1 "Compiled collection of acceptance note".

Moreover, the final, fifth, release was presented also to external domain-experts who were asked to provide their feedback.

## **2.3 TESTING THE SEMANTIC REGISTRY**

### **2.3.1 Test cases**

The Semantic Registry, target of this evaluation, is a backend component, which implements specialized functionalities that the final user, in many cases, only indirectly perceives. Thus, it is useful to clarify how the quality and success of this component has been tested.

There are several aspects that have been evaluated

- Functional aspects: defects or other issues that occurred during the test
- Usability of the Semantic Registry
- Look and feel
- Documentation

All of them have been evaluated through the External Evaluation Document (an Excel file). Among these, the functional aspects have been tested through precise user operations on the portal, based on a concrete business scenario. The document contains a detailed description of the input as well as the expected output necessary to perform each step successfully. In some cases, the sequence of steps had to be done necessarily in the given order and without skipping anyone of them.

The functional tests can be further classified as follows:

- **Data management tests:** they refer to the registration, update and deletion of either data or service providers
- **Integrated workflow tests:** they correspond to the workflow operations on the portal, namely metasearch, import, push and publishing, which involve the Semantic Registry in a transparent way
- **Stand-alone reaction tests:** they are realized through an ad-hoc user interface that allows the user to query directly the Registry, simulating an invocation to the component within a HarmoSearch workflow (metasearch, etc.), in order to check how it reacts to a given input

Some examples may be:

- Data management tests:
  - Registration of a new external service
  - Update of a data provider's access parameters
- Integrated workflow tests:
  - Launch an import on all providers, restricted to a given category of events and to a particular location, and the actual workflow only involves a selection of providers
  - Execute a metasearch without restrictions (the Data Registry does not exclude any provider in that case), and the system is able to connect to all providers' query services (having the Data Registry the access information stored in it)
  - Execute a push including an external service into the workflow process
- Stand-alone reaction tests:
  - Insert a query in the 'Browse Data Providers' user interface and get the providers that the Data Registry has selected to be relevant for the given query

For each step the participant had to compare his outcome with the expected outcome that was provided in the document, reporting if these did correspond.

The interpretation of the results has then been done by the release provider at the end of the evaluation session. In fact, only the developers could identify the source of the defect, which might have occurred either within the operation that failed, but could also be a consequence of some misbehaviour in the sequence of steps done before.

For each failed test, it was identified if the problem was a functional defect, excluding cases of server-down, incorrectness of the test execution, misinterpretation of the result by the participant, etc.

Each functional defect was then inserted into the bug tracking system, so that the various issues were traced and the other partners were informed on the evolution of the bugs they had found. 'False' bugs were instead explained within the Excel file itself, with a note.



In the end, also an interview-based evaluation was done involving domain-experts, which are external to the project. They were introduced to the overall HarmoSearch system, and through a show case they were made familiar with a HarmoSearch workflow and with the role of the Semantic Registry. At the end, they were asked to provide some feedback. Section 3.7 describes who was contacted and how this feedback was collected. The results are reported in Appendix B.6.

### 2.3.2 Examples

In the following some examples from the Appendixes are reported to clarify how the functional tests were structured, and also to understand why sometimes a single step is not enough, but a sequence of steps is needed to build up a complete functional test (e.g. changing provider's configuration, and then executing a metasearch).

#### Stand-alone reaction test on the Data Registry

(from Appendix B.6)

Premise: The data provider 'Test' is registered in the Registry having 'events in Berlin'. The other data providers would have events in Germany, thus in Berlin, but they have other categories of events, not 'cultural'.

Id	Name	Description	Expected Output	Notes/Explanation
SR4	Browse Registry (cultural events in Berlin)	go on 'Search Data' -> 'Browse Data Providers' - select 'cultural events in Berlin'	only 1 provider returned  'Test' is the only relevant data provider listed by the semantic registry	'events in Berlin' is more generic than 'cultural events in Berlin', thus 'Test' is considered relevant for the query.

#### Integrated workflow test on the Data Registry

(from Appendix B.6)

Premise: The data provider 'Test' is registered in the Registry having 'events in Berlin'. 'euromuse' and 'euromusemf' are registered having events in a number of European countries, and belonging to various categories, among these, also 'modern art exhibitions'.

Id	Name	Description	Expected Output	Notes/Explanation
SR9	Metasearch ( <u>modern art exhibitions</u> )	go on 'Search Data' -> 'Metasearch' - select 'modern art exhibitions' as category - click on 'Search'	Message says: Contacted providers 3 (Test, euromuse and euromusemf)	'euromuse' and 'euromusemf' are involved because in the registry's data description (see * below) it states that

			Total results: 50 (25 from Test and 25 from euromuse, 0 from euromusemf)	<i>they have modern art exhibitions. This does not mean that they necessarily have instances of such events (in fact, euromusemf has not).</i>
--	--	--	--	--

### Data management test on the Data Registry

(from Appendix B.3)

This test case consists in a number of user operations, which must be executed in sequence to verify that the registry behaves correctly.

P.3.12 and P.3.14 represent two *data management tests*, while the sequence P.3.12, P.3.13, P.3.14, P.3.15 represents a *workflow integration test*.

Id	Sequence	Name	Description	Expected Output	Notes/Explanation
P.3.12 (links to P.14.5)	P.3.12, P.3.13, P.3.14, P.3.15	Modify euromuse configuration in the semantic registry: change a category	login with user euromuse (euromuse@harmonet.org, ***) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider click on 'EDIT Data Description' edit the text displayed in the text area changing 'exhibition music' with 'exhibition pop music'	Data provider configuration saved	<i>A data provider's configuration is modified in the semantic registry</i>
P.3.13	P.3.12, P.3.13, P.3.14, P.3.15	Metasearch on unregistered category	go in the 'Metasearch' tab execute a simple search on euromuse selecting 'exhibition music' as category	Error message: "There is no provider that matches your search criteria."	<i>Registry filters out the data provider(s) to be involved in the search process</i>

P.3.14 (links to P.14.6)	P.3.12, P.3.13, P.3.14, P.3.15	Modify euromuse configuration in the semantic registry: restore the category	login with user euromuse (euromuse@harmonet.org, ***) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider click on 'EDIT Data Description' edit the text displayed in the text area changing 'exhibition pop music' with 'exhibition music'	Data provider configuration saved	<i>A data provider's configuration is modified in the semantic registry</i>
P.3.15	P.3.12, P.3.13, P.3.14, P.3.15	Metasearch on registered category	go in the 'Metasearch' tab execute a simple search on euromuse selecting 'exhibition music' as category	returned 43 results (the number may vary - it is an online search)	<i>Registry filters out the data provider(s) to be involved in the search process</i>

### Integrated workflow test on the Service Registry

(from Appendix B.5 – Import role)

Id	Name	Description	Expected Output	Notes/Explanation
I4.4	Use external service in import	<ul style="list-style-type: none"> <li>- log in with your account</li> <li>- go on 'Exchange Data'-&gt;'Import Data'</li> <li>- select 'euromuse' as data provider</li> <li>- 'Austria' as country</li> <li>- 'exhibition archeology' as category</li> <li>- include 'Permanet Events Filter' as external service (click on 'Add' button)</li> <li>- click on 'Search'</li> </ul>	<p>Screen message and 'Operation Status' report success of the import.</p> <p>In 'Data Repository' -&gt; 'Querybox' the just received file contains only 3 events out of 9 (which would be returned without including the external service); they all are permanent exhibitions.</p> <p>In 'Subscribe to Service' the 'max number of times' is updated to 2.</p>	<i>Access information to use the external service is held by the Semantic registry</i>

## 3 EVALUATION SESSIONS

### 3.1 THE FIVE RELEASE CANDIDATES

This section gives a brief description of each release, reporting the incremental development of the Semantic Registry. Altogether 5 releases of the Semantic Registry have been provided.

Apart from the first release, the evaluation of this component has always been done jointly with the evaluation of the HarmoSearch platform (web portal) release candidates. The main reason for this is that the Semantic Registry is a backend, even if stand-alone, component within the HarmoSearch system. It addresses support functionalities that are aimed at improving the accuracy of the results and at reducing the response time of the system. The functional tests, which are based on concrete business scenarios, i.e. realized as sequences of user operations on the portal, must therefore be done in a broader context of a whole HarmoSearch workflow.

For the first releases, when the component was not yet completely integrated into the overall HarmoSearch system, a specific user interface, i.e. a web portlet, was provided, which allowed to test the feedback of the registry directly by submitting some queries.

Later on, some of the Semantic Registry test cases became “transparent” (indirect) tests within single steps of more complete scenarios, which are reported in their completeness in *D7.1 Compiled Collection of Acceptance Notes*. Here, only excerpts of the overall evaluation document are reported and commented. The ‘transparent’ tests are those that refer to the filtering out of data providers that have to be involved in a search process. The ‘direct’ tests are those that refer to the registration and update of data providers and of service providers.

### 3.2 EVALUATION OF RC1

RC1 consisted in the implementation of a selection of components in the HarmoSearch system, among these the first Semantic Registry prototype. They were not yet integrated, and a complete search was not yet possible.

With regards to the Semantic Registry, the query language for the registry was implemented.

The functional test of this release candidate was done only by the release provider (CPR) and by the evaluation leader (Afidium). RC2 instead was the first time that other partners were involved in testing the Semantic Registry.

The results of the evaluation are attached in Appendix B.1 - Test cases for release candidate 1.

The Acceptance notes for RC1 are attached in Appendix C.1.

### 3.3 EVALUATION OF RC2

RC2 consisted in the first release with integration of different components, included the Semantic Registry, in order to have a complete process of metasearch running.

The Semantic Registry component has been tested as part of the metasearch process and three data providers were registered to this purpose in the Semantic Registry: Biella event portal, Euromuse portal and a particular webpage made available by Euromuse, which contains events tagged via microformats and indexed by HarmoSearch crawler.

All partners participated to the evaluation. The release provider was CPR.

With regards to the Semantic Registry, the query language was tested again, but from all partners. This was also an integration test for this component.

The results of the evaluation are attached in Appendix B.2 - Test cases for release candidate 2.

The Acceptance notes for RC2 are attached in Appendix C.2.

### **3.4 EVALUATION OF RC3**

In RC3 the evolution of the Semantic Registry included:

- the development of a basic user interface for registering a data provider and updating its configuration (description of provided data and parameters to access its query service)
- the registration (also within the Semantic Registry) of a new organization when a new user account is created

The results of the evaluation are attached in Appendix B.3 - Test cases for release candidate 3. Release provider was CPR.

The Acceptance notes for RC3 are attached in Appendix C.3.

### **3.5 EVALUATION OF RC4**

The upgrades of the Semantic Registry in RC4 included:

- the registration of an accommodation data provider (Biella accommodation portal), and related graphical user interface
- the filtering of accommodation data providers within a query process (i.e. in the metasearch, in the on-demand and scheduled import and in the scheduled push and publishing)
- addition of plugging capacity for external services, and integration of the related features in the graphic interface

The results of the evaluation are attached in Appendix B.4 - Test cases for release candidate 4. Release provider was Promoter.

The Acceptance notes for RC4 are attached in Appendix C.4.

### **3.6 EVALUATION OF RC5**

In the last release of the overall system, the Semantic Registry was not modified. Only related usability and outlook were improved:

- improvement of the usability of user interfaces related to the registry ('Browse Data Registry' and 'Query Service' pages)

- improvement of graphical layout

Also external domain-experts were involved in the evaluation of the last release.

The results of the evaluation are attached in Appendix B.5 - Test cases for release candidate 5 and in Appendix B.6 - External evaluation of the Semantic Registry (RC5). Release provider was Promoter.

The Acceptance notes for RC5 are attached in Appendix C.5.

### **3.7 EVALUATION WITH EXTERNAL DOMAIN EXPERTS**

The following domain experts have been involved in providing an external feedback on the final release of the Semantic Registry:

- Saarländischer Museumsverband e.V. (SMV), Museums Association of Federal State Saarland , Saarland; assisted by Museumsmedien
- Guy Frank, Member of EGMUS (European Group on Museum Statistics); assisted by Museumsmedien
- German Resistance Memorial Center (GDW), Berlin; assisted by Museumsmedien
- Andrea Albano, consultant of ATL Biella; assisted by Ectrl

The approach that was adopted to collect such feedback consisted in presenting a show case, which was followed by a short interview. For the show case a sequence of operations on the HarmoSearch portal has been defined, which was aimed at highlighting how the Semantic Registry reacts to given search queries, and which consequences there are when a provider changes the description of the data it provides.

The sequence of operations was also functionally tested by the evaluation leader (Afidium).

To keep the interview short, as requested by the assisting partners, it was decided to focus this external evaluation on the Data Registry. The Service Registry was therefore evaluated only by the expert users (partners of the project) through the RC5 evaluation form.

The show case and results are attached in Appendix B.6.

## 4 APPENDIX

### Table of content of the Appendix section

<b>APPENDIX A.</b>	<b>LIST OF REQUIREMENTS.....</b>	<b>16</b>
<b>APPENDIX B.</b>	<b>TEST CASE DOCUMENTS.....</b>	<b>17</b>
APPENDIX B.1.	TEST CASES FOR RELEASE CANDIDATE 1 .....	17
APPENDIX B.2.	TEST CASES FOR RELEASE CANDIDATE 2 .....	17
APPENDIX B.3.	TEST CASES FOR RELEASE CANDIDATE 3 .....	17
APPENDIX B.4.	TEST CASES FOR RELEASE CANDIDATE 4 .....	17
APPENDIX B.5.	TEST CASES FOR RELEASE CANDIDATE 5 .....	17
APPENDIX B.6.	EXTERNAL EVALUATION OF THE SEMANTIC REGISTRY (RC5) .....	17
<b>APPENDIX C.</b>	<b>ACCEPTANCE NOTES .....</b>	<b>18</b>
APPENDIX C.1.	ACCEPTANCE NOTES FOR RC1 OF THE REGISTRY .....	18
APPENDIX C.2.	ACCEPTANCE NOTES FOR RC2 OF THE REGISTRY .....	19
APPENDIX C.3.	ACCEPTANCE NOTES FOR RC3 OF THE REGISTRY .....	19
APPENDIX C.4.	ACCEPTANCE NOTES FOR RC4 OF THE REGISTRY .....	20
APPENDIX C.5.	ACCEPTANCE NOTES FOR RC5 OF THE REGISTRY .....	21

## **APPENDIX A. LIST OF REQUIREMENTS**

This section contains the final list of requirements that was incrementally built and updated. It was used to validate the actual features of the Semantic Registry against the requirements per release.



# Appendix A - List of requirements for Semantic Registry

1/3

ID	Type	Auth	Group	Action	Requirement	Description	Comment	Release	Implemented
U3	RQ	DF	Account management	User Registration by HS user	Create Organisation and users from HS admin	HS admin can create validated users and associate them to any existing entity	An organisation can have different representatives (corresponding to different logins) having the same right, since the right are associated to the organisation. At present, only admin (harmonet personnel) can create users. People from an organisation cannot create users. The organization is added manually in the Semantic Registry.	1	Y
0	RQ	DF	Service Management	Register service	Add new data source (provide data) to an account or update existing information	Define basic information	Mnemo code, Name, associate keywords, validity period policy (public vs restricted, free vs fee) In case of restriction, provide restriction criteria	1	Y
U14	RQ	DF	Service Management	Configure service	Register data and services	Registers the different types of data that will be made available and the corresponding services.	Data mapping for the query language between internal language and HS ontology can be uploaded Mapping is performed outside the platform	3	Y
	RQ	MH		Data provision	Allow new ways to access or submit data	Microformat HTML wrapper Semantic Cluster Names RSS import (&export?) and mapping	first prototype	1	Y
MS-1	UC		Metasearch Scenario	Harmonise Registration and Setup	The data providers register on Harmonise and set up the data flow.	The data providers register on the Harmonise platform, creating an account each and set it up (i.e. uploading the mappings for data translation and query translation). Furthermore, the data providers also specify what kind of data they can supply (i.e. what kind of search queries they can answer). After setting up the account, all partners with whom a data flow can be established are configured on the Harmonise platform. This means that for the portal the partners to whom a query is sent are specified and for the data providers those partners which are allowed to query are configured.		2	Y
IMPO	UC		Import Scenario	Harmonise Registration and Setup	The data providers and the tourism portal register on Harmonise and setup the data flow. This use case is very similar to the use case MS-1, though it does differ in details.	The data providers register on the Harmonise platform, creating an account each and setting it up (i.e. uploading the mappings for data translation and query translation). Furthermore, the data providers also specify what kind of data they can supply (i.e. what kind of search queries they can answer). After setting up the account, all partners with whom a data flow can be established are configured on the Harmonise platform. In this specific case the setup incorporates the information about what data is to be retrieved (e.g. static accommodation data) and what the requirements are for the transfer (i.e. does not need to be delivered quickly).		3	Y
IMPO	UC		Import Scenario	Batch transfer of static data	The goal of the use case is to transfer static information (e.g. in case of accommodation: accommodation name, description, location, pictures, amenities, etc.) from the data providers to the portal in regular intervals.	The tourism portal sends a specific query to Harmonise in regular intervals asking for batch transfer of static data of a predefined kind. The time at which this batch import is triggered depends on the load of the tourism portal's servers. The query can encompass specific constraints (e.g. "accommodations from Finland"). In addition the query can contain a time when the last update was done, therefore indicating that only changes since this time are of relevance (a so-called delta update). Each data item must have an ID which is unique within the scope of the data provider. Harmonise translates the query to the local data format of the data providers and delivers it to the configured partners. The partners respond to the query with sending the corresponding data, taking the possibility of a delta update into account if possible. The responses are sent back to the tourism portal through Harmonise. Finally the tourism portal imports the data into its CMS and triggers further processing (e.g. local duplicate detection).		3	Y
PS-1	UC		Publishing and Subscription S	Data Hosting Use Case	This is to allow data providers to easily upload once or on a regular basis their data in the Harmonise portal.	A data provider wants to upload his data in the Harmonise network. Data may be uploaded once manually or regularly scheduled. A data provider wants to program regular batch uploads (for static data, for price and availability data, for booking synchronization ...) or allow retrieval via web services, at certain times, on events... Each batch may contain one or several files. There may be several batches of different frequencies. User wants to be able to define batches, events.		3	Y
PS-2	UC		Publishing and Subscription S	Data Publishing Use Case	This is to allow data providers to easily publish once or on a regular basis their data in the Harmonise network.	A data provider wants to publish data in the Harmonise network. This use case is similar to the Data Hosting (PS-1), but in this case what is uploaded and stored in the Harmonise portal are not the real data but some meta-data which are useful to describe what kind of data the data provider has to offer.		2	Y
DM-3			Data Modification Scenario	Data Cleansing	This is to allow data consumers to apply additional filter/cleanse services on raw data.	Data collected from several data providers may contain unwanted or redundant elements for a particular data consumer (unwanted characters, duplicates...). Harmonise system may support additional services as external services. Services will not be provided by Harmosearch		4	Y

ID	Type	Auth	Group	Action	Requirement	Description	Comment	Release	Implemented
DM-4			Data Modification Scenario	Decision support	To allow data consumers to apply additional decision support services on data such as ranking or recommender systems.	In general, search is performed either to become aware of all relevant elements for further processing (as for instance in market research, see Use Case 3, Market Intelligence) or for decision making (see Use Case 1, Accommodation Meta Search). In the latter case, decision support such as ranking of result elements according to some relevance criteria may be provided as external service.		4	Y
DM-5			Data Modification Scenario	Data Enrichment	To allow data consumers to apply additional data enrichment services on data.	Data consumer may want that raw data is augmented with additional input. For instance, accommodation search data may be enriched with data provided from additional services such as rating agencies or user ratings, weather forecast services, or additional images. Data enrichment may change the structure of the data, for instance, by adding additional XML-elements to a result item. This will be supported through the mechanism of external services.		4	Y
DM-6			Data Modification Scenario	Data Translation	To allow data consumers to apply additional translation services on data.	While the former data modification Use cases in general do not change the contents of data elements (purging a result set from unwanted characters changes the content not substantially), translation typically involves a drastic change of content. Examples are translation of textual descriptions to a different natural language, or conversion of price information from a particular currency to another currency. External services may provide such functionality.		4	Y
RL1	RL	HS	RELEASE	Definition of the release	Definition of the key components for the Harmosearch platform	Definition of the Harmosearch Query Language ontology Semantic registry component (implementation of query language for the registry) Metasearch core Engine implementation (login, user and accounts management, file upload and download) Crawler prototype based on microformat semantic annotations Providers: Euromuse (Events), Museollitto (Events), Biella (Events, Attraction), Facebook (Events, Attraction) Consumers: Harmosearch, Labtrip, Euromuse, Teletatlas Subdomains: Attraction, Events Minimal search criteria: Subdomain (0..2), Location (City, Country)(0..1), Date (Range)(0..2), Category(0..*). <i>If no response, remove criteria C&lt;D&lt;L&lt;S.</i> Expected output: HTML result list no paging, Name, summary, date if present, location, media if present ... Whatever is present in response Mapping Tool: first version to be demonstrated: Events only, KHM used for demo, Biella, Museollitto	Biella: XSD provided by Adriano Museollitto: XSD provided by Claudio (already svn: \\Code_Repository\\server\\data\\mapping\\SML) Museollitto ==> No because not ready Facebook ==> No because no answer feedback from Laptrip: until you get us an easier way to get location data, we will not use Teletatlas: not interested in event information Euromuse: no answer yet	1	Y
RL2	RL	HS	RELEASE	Definition of the release	Integration of the different components in order to have a metasearch running and have a first release of the mapping tool			2	Y
RL3	RL	HS	RELEASE	Definition of the release	Have a complete system ready for commercial launch	Subdomain: Events Providers: Biella, Euromuse, Crawler, Consumers: Euromuse, <i>Adriamuse?</i> Content: * Integration of the mapping tool into the system: download install from portal/ Assisted mapping upload and mapping validation * <i>Enhance mapping tool to map the queries as well</i> * <i>Integration of user interface for registry</i> * have complete functional metasearch interface and API (web service) on one domain: events * Implement scheduling capacity including user interface to parameter the scheduler * <i>have reference list mapping methodology with one base reference list for mapping</i> * <i>Define how to manage parameters on mapping (language, currency...)</i> * <i>Integration of Crawler. Setup of semi automatic procedure to periodically update indexes according to the providers configured in the semantic registry.</i> * Register a new provider from the portal (crawler and API) * Scenario and prototype to register and setup a new organisation (providers and consumers) * Scenario and prototype to Improve usability of portal	Feb 2012	3	Partial

ID	Type	Authd	Group	Action	Requirement	Description	Comment	Release	Implemented
RL4	RL	HS	RELEASE	Definition of the release	Apply the tools to enrich the system	<p>Subdomain: Events, Accomodation</p> <p>Providers: Biella, Euromuse, <b>Ec3Networks</b>, <b>Afidium</b></p> <p>* Consumers: Harmosearch Facebook, Twitter, <b>Foursquare</b> (move to release 5, <b>Google Plus</b> (not because proved impossible) only for events from Biella and Euromuse</p> <p>* Extend HS portal to query and display results for hotels (display category according to domain)</p> <p>* push the information to social networks</p> <p>Have a complete commercial portal with 1 operational subdomain (event, )+ <b>user friendly mapping tool</b></p> <p>* Add plugging capacity for external services (impact on user rights, interface and <b>payment</b> and implement the process with validation of subscription and validation of licences). Filtering external services will be added)</p> <p>* <b>Improve graphical interface of portal</b></p> <p>* <b>Improve labels as well and add helpers</b></p> <p>* Allow multiple mappings (event mapping, hotel mapping)</p> <p><b>Mapping Tool: mapping of reference list and editor improvements</b></p> <p>* <b>Simplification to data import by using an excel template for events and one for hotel.</b></p> <p><b>Allow import of ics calendars</b> Upload the file.</p> <p>* <b>Provide simple minimal input format for events and hotels for data publication.</b></p>	June 2012	4	Partial
RL5	RL	HS	RELEASE	Definition of the release	Fine tuning the system	<p>Subdomain: Events</p> <p>Providers: Euromuse, Web provider (using the online form), Biella, Crawler using microformats or ics, Museum Portal Berlin</p> <p>Consumers:</p> <p>* Scenario 1: publish: Facebook (HS and persona) for events and status update, Twitter (HS and personal) , for events from Biella and Euromuse and web provider</p> <p>* Scenario 2: metasearch: B2C user on the event site</p> <p>* Scenario 3: import qualified content: Dummy consumer and later partners such as Pixmeaway, ETC</p> <p>Portal: finalise the basic requirements (like user management) and Expand the event scenario: input from at least 2 sources, have capacity to qualify and enrich, publish in 2 or three distribution channels. Have a cache to distribution ready and minimal scoring notions in place.</p> <p>* Complete Harmosearch Platform including the features and latest graphical layout</p> <p>** data enhancement (addition of keywords, qualification, rating)</p>	February 2013	5	Y
	RQ		Semantic Registry	Integrate in metasearch		<p>Technical interface to integrate</p> <p>Integrate missing information in the response (and config) (mapping id, connector id)</p> <p>\$Todo: complement if required</p> <p>Implement access control</p>		2	Y
	RQ		Semantic Registry	User interface to configure the registry		Editing and entering data (subdomain, data description, provider properties)		3	Y
	RQ		Semantic Registry	Add features for the subscription scenario	Subscribe to external services			4	Y
	RQ	HS	Semantic Registry	User interface to configure the registry	for the user to enter the location, data, category... corresponding to its data	Improve a little, for instance to specialise per users (limit access).		5	y
	RQ	HS	HS Front End	GUI	Improve graphical interface		Start with release 4 and update in release 5	5	Y
	RQ	HS	HS Front End	GUI	Improve labels and helpers	Improve text, allow configurable text via config files?	Start with release 4 and update in release 5	5	Y
	RQ	HS	Service Management	Management	Implement the inclusion of external services	New external service in the portal: define, configure, select consumers to show and licence agreement for service provider		4	Y
	RQ	HS	Crawler	Semi automatic refresh		A new crawler will be used and this will be performed. What is not included is the integration of the crawler configuration into the semantic registry. This will be performed through an xml file (only performed by an expert).		5	Y

## APPENDIX B. TEST CASE DOCUMENTS

This section gathers all the test cases that were filled for each release (PDF files extracted from Excel documents).

### Appendix B.1. Test cases for release candidate 1

Note: The table 'Test cases of RC1 for the Semantic Registry' corresponds to the merged files *Test Case Release 1 - Semantic Registry.xlsx* and *Test Case Release 1 - Query.xlsx*, available in *07\_Demonstration\_Activities\Release 1* on SVN repository.

In the selected test cases the Semantic Registry is invoked to filter out the data providers to be involved in the metasearch process, on the basis of the domain, locations and categories that are specified in the query.

### Appendix B.2. Test cases for release candidate 2

Note: The table 'Test cases of RC2 for the Semantic Registry' corresponds to (an excerpt of) the file *Test Case Release 2 - Meta search.xlsx*, available in *07\_Demonstration\_Activities\Release 2* on SVN repository.

In the selected test cases the Semantic Registry is invoked to filter out the data providers to be involved in the metasearch process, on the basis of the domain, locations and categories that are specified in the query.

### Appendix B.3. Test cases for release candidate 3

Note: The table 'Test cases of RC3 for the Semantic Registry' corresponds to (an excerpt of) the file *Test Case Release 3 - Portal.xlsx*, available in *07\_Demonstration\_Activities\Release 3* on SVN repository.

An extra column has been added to this excerpt, namely the 'Semantic Registry' column, where it is clarified how the Semantic Registry was involved in the test case, and how the release providers interpreted the outcome of the test to check if the Semantic Registry behaved as expected.

### Appendix B.4. Test cases for release candidate 4

Note: The table 'Test cases of RC4 for the Semantic Registry' corresponds to (an excerpt of) the file *Test Case Release 4 - Portal.xlsx*, available in *07\_Demonstration\_Activities\Release 4* on SVN repository.

### Appendix B.5. Test cases for release candidate 5

Note: The table 'Test cases of RC5 for the Semantic Registry' corresponds to (an excerpt of) the file *Test Case Release 5 - Portal.xml*, available in *07\_Demonstration\_Activities\Release 5* on SVN repository.

### Appendix B.6. External evaluation of the Semantic Registry (RC5)

Note: The table 'External evaluation of Semantic Registry' corresponds to (a merge of) the file *External Evaluation Registry - Release 5.xml*, available in *07\_Demonstration\_Activities\Release 5* on SVN repository.

Id	Parent	Action	Name	Description	Comment (and alternatives)	Expected outcome from Semantic Registry	23/08/2011	o/m	Actual Result	05/06/2011	o/m
SQ1		Search Query Language	Search all	Return all possible information for all domains.	Output should contain Name, City, event location, event category, domain and date range. Optional content would be url, telephone, vignette, user rating	Registry returns Euromuse	O	Affidum	We could have a test with all data from one domain as suggested and as well all data for 2 domains with different output list. I am not sure it is very useful though since we already mix subdomains in other tests	O	CPR
SQ2		Search Query Language	Search All events	Return all possible events (restriction on domain)	Output should be result list: Same output as SQ1 Alternative 1: Output should be Detailed EN: contain Name, City, Date range, summary, detailed description, url, precise address and vignette, price range. All text should be English	Registry returns Euromuse, Biella and euromuse/crawler	W	Affidum	What about the optional fields? ==> Added in RQ	O	CPR
SQ2.1	SQ2	Search Query Language	Search All events, Alternative 1	Return all possible events (preferences on output)	Same comment as SQ2	Registry returns Euromuse and euromuse/crawler	O	Affidum		O	CPR
SQ3		Search Query Language	Search All events within time frame	Return all possible events within [Date 1, Date 2]	Output should be result list: Same output as SQ1 Alternative 1: give only Date 1 Alternative 2: give only date 2 Alternative 3: All events during that period and all attractions at that date in the same query Comment from CP - alternative 3: in this first version the query language is not able to handle queries joining different domains (e.g. events and attractions)	Registry returns Euromuse, Biella and euromuse/crawler	W	Affidum	I think there is a mismatch between from, to and start, end. If it is the case, true for all tests with dates In case of flexibility, how would we express the flexibility? ==> Added in RQ	O	CPR
SQ3.1	SQ3	Search Query Language	Search All events within time frame, alternative 1	Return all possible events after Date 1	Same comment as SQ3	Registry returns Euromuse, Biella and euromuse/crawler	O	Affidum	Why do we keep the AND since there is only one criteria	O	CPR
SQ3.2	SQ3	Search Query Language	Search All events within time frame, alternative 2	Return all possible events before Date 2	Same comment as SQ3	Registry returns Euromuse, Biella and euromuse/crawler	O	Affidum		O	CPR
SQ4		Search Query Language	Search All events within locations	Return all possible events in Berlin	Output should be result list: Same output as SQ1 Alternative 1: In France (Country instead of given city) Alternative 2: in FRA (IATA code for Frankfurt) Alternative 3: in IT (ISO code for Italy) Alternative 4: in Berlin or Wien Alternative 5: in Berlin or Wien with a certain period Alternative 6: in Berlin at that date or Wien during that period Alternative 7: in Berlin at that date if there is no attraction (in Berlin at that date) Comment from CP - alternative 2: Harmonet tourism ontology uses the ISO 3166 two-letter (or 'A2') country codes and the full city name (not the IATA code) Comment from CP - alternative 7: in this first version the query language is not able to handle queries joining different domains (e.g. events and attractions)	Registry returns Euromuse and euromuse/crawler	O	Affidum		O	CPR
SQ4.1	SQ4	Search Query Language	Search All events within locations	Return all possible events in France	Same comment as SQ4	Registry returns Euromuse and euromuse/crawler	O	Affidum		O	CPR
SQ4.3	SQ4	Search Query Language	Search All events within locations	Return all possible events in Italy	Same comment as SQ4	Registry returns Biella	O	Affidum	Same as 1 since countries use codes. Remove from subsequent tests	O	CPR
SQ4.4	SQ4	Search Query Language	Search All events within locations	Return all possible events in Berlin or Vienna	Same comment as SQ4	Registry returns euromuse, biella and euromuse/crawler	W	Affidum	Why the logical condition OR where inset probably implies or? Otherwise why use OR here and AND in the next one ==> Test case will be corrected	O	CPR
SQ4.5	SQ4	Search Query Language	Search All events within locations	Return all possible events in Berlin or Vienna within a certain period	Same comment as SQ4	Registry returns euromuse, biella and euromuse/crawler	O	Affidum		O	CPR
SQ4.6	SQ4	Search Query Language	Search All events within locations	Return all possible events in Berlin at that date or Vienna during that period	Same comment as SQ4	Registry returns euromuse, biella and euromuse/crawler	O	Affidum		O	CPR

ID	Parent	Action	Name	Description	Comment (and alternatives)	Expected outcome from Semantic Registry	23/08/2011	O/W	Actual Result	05/06/2011	O/W
SQ5		Search Query Language	Search All events for certain categories	Retun all possible events in Berlin corresponding to modern art exhibitions	Output should be result list: Same output as SQ1 Alternative 1: in Berlin corresponding to modern art exhibitions or classical concerts Alternative 2: in Berlin or Wien corresponding to modern art exhibitions or classical concerts Alternative 3: in Berlin or Wien corresponding to modern art exhibitions or classical concerts during that period Alternative 4: in Berlin during that period or Wien at that date, corresponding to modern art exhibitions or classical concerts Alternative 5: in Berlin during that period corresponding to modern art exhibitions or in Wien at that date concerning classical concerts	Registry returns biella	O	Affidum	Should we not use a thesaurus or something like that for categories. Otherwise, how do we match terms?	O	CPR
SQ5.1	SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Bertlin corresponding to modern art exhibitions or classical concerts	Same comment as SQ5	Registry returns euromuse and euromuse/crawler	O	Affidum		O	CPR
SQ5.2	SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Berlin or Wien corresponding to modern art exhibitions or classical concerts	Same comment as SQ5	Registry returns biella, euromuse and euromuse/crawler	O	Affidum		O	CPR
SQ5.3	SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Berlin or Wien corresponding to modern art exhibitions or classical concerts during that period	Same comment as SQ5	Registry returns biella, euromuse and euromuse/crawler	O	Affidum		O	CPR
SQ5.4	SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Berlin during that period or Wien at that date, corresponding to modern art exhibitions or classical concerts	Same comment as SQ5	Registry returns biella, euromuse and euromuse/crawler	W	Affidum	Could we not express category only once?	O	CPR
SQ5.5	SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Berlin during that period corresponding to modern art exhibitions or in Wien at that date concerning classical concerts	Same comment as SQ5	Registry returns biella, euromuse and euromuse/crawler	O	Affidum		O	CPR

## Annex B.2 - Test cases RC2 Semantic Registry

1/3

						14/12/2011	Who	Actual Result	Output (XML, Screen...)	21/2/2011	Who	Actual Result	16/12/2011	Who	Actual Result	18/12/2011	Who	Actual Result
Id	Parent	Action	Name	Description	Comment (and alternatives)													
SQ1	SQ1	Search Query Language	Search all from Euromuse	Return all possible information for all domains coming from Euromuse.	Output should contain Name, City, event location, event category, domain and date range. Optional content would be url, telephone, vignette, user rating Comment from CP - so far the metasearch engine does handle "context" information (optional result fields, language preferences, etc.) so even if they are present in the query language then they are ignored	O	CPR	Registry: O (returns Euromuse)  Query Processor (selecting 'euromuse' from list): O (1 XML file)  Metasearch: W (10 results - missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen	O	IM	advance search (sq1.xml) returned 10 results with title, short description in local language and english, date range, categories sometimes link but missing Organiser and location simple search sent returns the same Observations: 1- If the query includes Paris, Berlin, Vienna, Biella and Rome, why is there a finnish exhibition in the output? 2- Weblink, why is it not the link to the euromuse.net exhibition link?	W	MN	Metasearch 10 Results: Should city be part of location or separate, because it wasn't explicitly mentioned in the result?	O	ECTRL	Registry returns Euromuse. Query Processor returns the query all euromuse query. Metasearch returns 10 results.
SQ2	SQ2	Search Query Language	Search All events	Return all possible events	Output should be result list: Same output as SQ1	O	CPR	Registry: O (returns Euromuse, Biella and euromuse/crawler)  Query Processor (selecting all three data providers): O (1 XML file each)  Metasearch: W (274 results - missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen				X	MN	Metasearch 274 Results: this is not the same as SQ1 as mentioned in the comment	W	ECTRL	Registry returns all the providers. Query processor converts the three queries. Metasearch returns 274 results from thr three providers. But: search is slow. I tried to remove starting date and ending date from output fields but as output I got dates as well. Output format looks not used, right ?
SQ2.1	SQ2.1	Search Query Language	Search All events, Alternative 1	Return all possible events	Alternative 1: Output should be Detailed EN: contain Name, City, Date range, summary, detailed description, url, precise address and vignette, price range. All text should be English Comment from CP - so far the metasearch engine does handle "context" information (optional result fields, language preferences, etc.) so even if they are present in the query language then they are ignored	O	CPR	Registry: O (returns Euromuse and euromuse/crawler)  Query Processor (selecting both data providers): O (1 XML file each)  Metasearch: W (269 results - missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen				X	MN	Metasearch 269 Results: Missing summary, precise address, price range according to the information given in the comment	W	ECTRL	Registry returns Euromuse and euromuse/crawler.  Query Processor OK  Metasearch: W (269 results - missing city/location and event domain due to incomplete mapping). But Language Preference has some influence ? What is the subdomain testComplianceEvent ?
SQ3	SQ3	Search Query Language	Search All events within time frame	Return all possible events within [1.9.2011, 31.12.2011]	Output should be result list: Same output as SQ1 Comment from CP - if you specify both start and end date you will get events whose time interval overlaps with the specified dates	O	CPR	Registry: O (returns Euromuse, Biella and euromuse/crawler)  Query Processor (selecting all three data providers): O (1 XML file each)  Metasearch: W (274 results - missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen	X	IM	it returned 274 euromuse exhibitions. Also dating in a range outside the query	W	MN	Metasearch 274 Results: Unclear from the description if the result should show exhibitions which are also only partly in the time frame of the search (as it is the case) or if only those should be shown which are open during the whole time of the search	X	ECTRL	Does not look the time criteria are working: searching to= 2011-09-28 and from= 2011-09-28 I get: Pergamon. Panorama of the Ancient City . Pergamon. Which happens in the 30-09-2011 (out of the period). The semantics of the date search should be: events which are available in the given timeframe
SQ3.1	SQ3.1	Search Query Language	Search All events within time frame, alternative 1	Return all possible events starting from 1.9.2011	Output should be result list: Same output as SQ1 Alternative 1: give only Date 1 Comment from CP - if you specify only the start date you will get all events which ends after the specified date (independently from when they start)	O	CPR	Registry: O (returns Euromuse, Biella and euromuse/crawler)  Query Processor (selecting all three data providers): O (1 XML file each)  Metasearch: W (274 results - missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen	X	IM	selected 1.9.2011 results 0 selected from 1.9.2011 to 1.9.2011 (the only way) results: 11. Dates are not in the search range (i.e. ex in the range 19/11/2011 - 23/06/2013 in the output). selected today: 12.12.2011 results 77 (also bugs in the output i.e. ex from 01/12/2012 to 24/02/2013 )	X	MN	Metasearch 274 Results: Showing results which have "Opening" not at the 1.9.2011	X	ECTRL	Comment CP: Pergamon Panorama of Searching endDate from=2013-12-01 I got the event Aboa Vetus permanent exhibition, closing at 31-12-2012
SQ3.2	SQ3.2	Search Query Language	Search All events within time frame, alternative 2	Return all possible events until 31.12.2011	Output should be result list: Same output as SQ1 Alternative 2: give only date 2 Comment from CP - if you specify only the end date you will get all events which starts before the specified date (independently from when they end)	O	CPR	Registry: O (returns Euromuse, Biella and euromuse/crawler)  Query Processor (selecting all three data providers): O (1 XML file each)  Metasearch: W (274 results - missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen	X	IM	results 0	X	MN	Metasearch 274 Results: Showing results which have "Opening" not at the 31.12.2011	X	ECTRL	Searching startDate to 2008-12-31 I got the event Aboa Vetus permanent exhibition starting at 01/01/2011
SQ4	SQ4	Search Query Language	Search All events within locations	Return all possible events in Vienna/Austria	Output should be result list: Same output as SQ1	O	CPR	Registry: O (returns Euromuse and euromuse/crawler)  Query Processor (selecting both data providers): O (1 XML file each)  Metasearch: W (14 results - missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen	O	IM	same as SQ3	W	MN	Metasearch 14 Results: Field location empty -> validation difficult Exhibitions are in german, so probably fine	X		Semantic Registry OK, changed to IT and to Biella worked as well returning biella. But how is configured ? Querying for AT and Innsbruck I got 10 results not in Innsbruck, but for vienna I got correctly 14 results

## Annex B.2 - Test cases RC2 Semantic Registry

2/3

						16/12/2011	Who	Actual Result	Output (XML, Screen ...)	12/02/2011	Who	Actual Result	16/12/2011	Who	Actual Result	18/12/2011	Who	Actual Result
ID	Parent	Action	Name	Description	Comment (and alternatives)													
SQ4.1	SQ4.1	Search Query Language	Search All events within locations	Retun all possible events in Austria	Output should be result list: Same output as SQ1 Alternative 1: In Austria (Country instead of given city)	O	CPR	Registry: O (returns Euromuse and euromuse/crawler)  Query Processor (selecting both data providers): O (1 XML file each)  Metasearch: W (14 results - missing city/location and event domain due to incomplete mapping; same number of results as above because for testing purpose we limit to 10 the max number of results coming from Euromuse)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen	W	IM	Outputs info only if choosing category "exhibition" 10 events in Austria und Vienna from euromuse, but 0 from euromuse-mf. Entries also outside the wished date-range (from 12.12.2011 on, but past exhibitions in output)	W	MN	Metasearch 14 Results: Field location empty -> validation difficult Exhibitions are in german, so probably fine	W		but if searching for DE 0 results
SQ4.3	SQ4.3	Search Query Language	Search All events within locations	Retun all possible events in Italy	Output should be result list: Same output as SQ1 Alternative 3: in IT (ISO code for Italy)	O	CPR	Registry: O (returns Biella)  Query Processor (selecting Biella data provider): O (1 XML file)  Metasearch: W (5 results -missing city/location and event domain due to incomplete mapping)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen		IM	From biella I get no output (selecting event/all categories/italy/biella/daterange: today-empty/provider:Biella)	W	MN	Metasearch 5 Results: Field location empty -> validation difficult Exhibitions are in italian, so probably fine		ECIRL	Semantic Registry OK, query Processor ok. But metasearch 0 results. We are also working in Biella, so maybe there is some unexpected change.  Comment CP: the server was down: can you please retry?
SQ4.4	SQ4.4	Search Query Language	Search All events within locations	Retun all possible events within Biella or Wien	Output should be result list: Same output as SQ1 Alternative 4: in Biella or Wien	W	CPR	Registry: O (returns euromuse, biella and euromuse/crawler)  Query Processor (selecting all three data providers): X (1 XML file each but Euromuse cannot understand multiple cities in the same query, need to be splitted using the OR construct instead of the InSet condition - see following test case)  Metasearch: W (6 results - missing city/location and event domain due to incomplete mapping; less than all events in Vienna because of incorrect query translation - see above)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen		IM	cannot choose 2 criteria in the simple search mask	W	MN	Metasearch 6 Results: Field location empty -> validation difficult Exhibitions are in italian or german, so probably fine		ECIRL	0 results  Comment CP: the server was down: can you please retry?
SQ4.5	SQ4.5	Search Query Language	Search All events within locations	Retun all possible events within Biella or Wien within [1.9.2011,31.12.2011]	Output should be result list: Same output as SQ1 Alternative 5: in Biella or Wien or within a certain period	O	CPR	Registry: O (returns euromuse, biella and euromuse/crawler)  Query Processor (selecting all three data providers): O (1 XML file each)  Metasearch: W (6 results - missing city/location and event domain due to incomplete mapping; wrong dates in the results coming from Euromuse but this seems to be a Euromuse problem)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen	X	IM	cannot choose 2 criteria in the simple search mask, therefore tried two different but related test cases: - Test1: event / exhibition / - / Vienna / 16.02.2012 / euromuse - Test2: event / exhibition / - / Berlin / 16.02.2012 / euromuse and all  Date Range: - Start date = end date (16.02.2012), in that time there are no temporary exhibitions in euromuse for Vienna. The two exhibitions output have no dates "/-/"/, to be expected, as in our system for permanent exhibitions are start and end dates not compulsory. Could the output be tricked into give out "permanent exhibition" or "ongoing"? - Directly related to this: I tried the same for Berlin, but permanent exhibitions are not included in the output. The 13 exhibitions are temporary exhibitions, but in that date (16.02.2012), there are all in all 85 exhibitions. Usability: - When clicking through result pages (i.e. exhibitions in Berlin on 16.02.2012 = 13 entries = 3 result pages), the next page automatically sets at the bottom of the list, could it not be the top?	MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?		ECIRL	0 results  Comment CP: the server was down: can you please retry?	
SQ4.6	SQ4.6	Search Query Language	Search All events within locations	Retun all possible events within Biella within [1.9.2011,31.12.2011] or Wien within [1.1.2012,31.03.2012]	Output should be result list: Same output as SQ1 Alternative 6: in Biella within a certain period or Wien within another period	W	CPR	Registry: O (returns euromuse, biella and euromuse/crawler)  Query Processor (selecting all three data providers): O (2 XML file each)  Metasearch: X (10 results - not all the results of an OR query are displayed - this bug has already been fixed for the third release)	Registry: screen  Query Processor: XML file(s)  Metasearch: screen		IM	cannot choose 2 criteria in the simple search mask		MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?		ECIRL	0 results  Comment CP: the server was down: can you please retry?



						14/12/2011	Who	Actual Result	Output (XML Screen)	12/12/2011	Who	Actual Result	16/12/2011	Who	Actual Result	18/12/2011	Who	Actual Result
Id	Parent	Action	Name	Description	Comment (and alternatives)													
SQ5	SQ5	Search Query Language	Search All events for certain categories	Return all possible events in Biella corresponding to cultural	Output should be result list: Same output as SQ1	O	CPR	Registry: O (returns biella) Query Processor (selecting biella as data provider): O (1 XML file) Metasearch: W (4 results - missing city/location and domain due to incomplete mapping)	Registry: screen Query Processor: XML file(s) Metasearch: screen		IM	no output when I ask for Biella		MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?		CTRL	0 results  Comment CP: the server was down: can you please retry?
SQ5.1	SQ5.1	Search Query Language	Search All events for certain categories	Return all possible events in Wien corresponding to modern art exhibitions or sculpture exhibitions	Output should be result list: Same output as SQ1 Alternative 1: in Wien corresponding to modern art exhibitions or sculpture exhibitions	O	CPR	Registry: O (returns euromuse and euromuse/crawler) Query Processor (selecting both data providers): O (1 XML file each) Metasearch: W (5 results - missing city/location and domain)	Registry: screen Query Processor: XML file(s) Metasearch: screen					MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?			
SQ5.2	SQ5.2	Search Query Language	Search All events for certain categories	Return all possible events in Wien or Biella or corresponding to modern art exhibitions or culture	Output should be result list: Same output as SQ1 Alternative 2: in Wien or Biella or corresponding to modern art exhibitions or culture	W	CPR	Registry: O (returns biella, euromuse and euromuse/crawler) Query Processor (selecting all three data providers): O (2 XML file each) Metasearch: X (11 result - not all the results of an OR query are displayed - this bug has already been fixed for the third release)	Registry: screen Query Processor: XML file(s) Metasearch: screen					MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?			
SQ5.3	SQ5.3	Search Query Language	Search All events for certain categories	Return all possible events in Wien or Biella corresponding to modern art exhibitions or cultural during that period	Output should be result list: Same output as SQ1 Alternative 3: in Wien or Biella corresponding to modern art exhibitions or cultural during that period	W	CPR	Registry: O (returns biella, euromuse and euromuse/crawler) Query Processor (selecting all three data providers): O (2 XML file each) Metasearch: X (11 result - not all the results of an OR query are displayed - this bug has already been fixed for the third release)	Registry: screen Query Processor: XML file(s) Metasearch: screen					MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?			
SQ5.4	SQ5.4	Search Query Language	Search All events for certain categories	Return all possible events in Biella corresponding to sport or cultural in that period and the events in Vienna corresponding to modern art exhibition or sculpture exhibition in the same period	Output should be result list: Same output as SQ1 Alternative 4: in Biella corresponding to sport or cultural in that period and in Vienna corresponding to modern art exhibition or sculpture exhibition in the same period	W	CPR	Registry: O (returns biella, euromuse and euromuse/crawler) Query Processor (selecting all three data providers): O (2 XML file each) Metasearch: X (5 result - not all the results of an OR query are displayed - this bug has already been fixed for the third release)	Registry: screen Query Processor: XML file(s) Metasearch: screen					MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?			
SQ5.5	SQ5.5	Search Query Language	Search All events for certain categories	Return all possible events in Biella corresponding to cultural in that period and the events in Vienna corresponding to modern art exhibition in the same period	Output should be result list: Same output as SQ1 Alternative 5: in Biella corresponding to cultural in that period and in Vienna corresponding to modern art exhibition in the same period	W	CPR	Registry: O (returns biella, euromuse and euromuse/crawler) Query Processor (selecting all three data providers): O (2 XML file each) Metasearch: X (10 result - not all the results of an OR query are displayed - this bug has already been fixed for the third release)	Registry: screen Query Processor: XML file(s) Metasearch: screen					MN	Metasearch 0 Results:  Comment CP: the server was down: can you please retry?			

ID		Par ent	Sequen ce	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry
<b>P1</b>				<b>User.Regist ration</b>	<b>User Registration</b>	<b>A new user creates an account by compiling the "create user" form. He can choose an existing organization to be assigned to or he can create a new one.</b>			<b>Explain how the Semantic Registry is involved</b>
							<i>Email address will be used to send notifications, and should therefore be real and owned by the user.</i>		
							In order to log into the system the new user and organisation need to be activated by an administrator. After the activation, which is notified via email to the user, he can log into the portal and he is ranked as an administrator of the new organization.	Success message on the screen An e-mail is sent to the user to notify the registration and communicate the password.	
P1.4	P1			User.Regist ration	User registrates with valid data to a new organization / user side	insert your own data (names and email address) insert also the organization you belong to (must not be already listed among the registered organizations)	If the user writes a new org in the text box and also selects an existing organization from the combo box, the combo box is not read.		Organization is registered also in the Semantic Registry
P1.5	P1			User.Regist ration	User registrates with valid data to a new organization / administrator side	<u>Prerequisite:</u> the previous test case (user registration with correct data) has been performed with success	<b>This test case can only be tested by the system administrator.</b>	An e-mail is sent to the administrator to notify the new account and new organisation creation.	Organization is registered also in the Semantic Registry
<b>P2</b>				<b>User.Login</b>	<b>User Login</b>	<b>A user logs in into the HarmoSearch portal</b>			
P2.4	P2			User.Login	User takes an overview of the availability of the services	take a look on the Services Board portlet in the home page	You can further check by uploading the mapping file 'HTO_Euromuse.xslt' (available in the test data folder) from within 'Configurations'->'Mapping Store' in the row 'Upload mapping from Harmonise ontology to local system (for importing/receiving data)' and check again on the services board that the Import Data is now Active	Status is 'Not Active' for all services, apart from Metasearch, for which no permissions nor mappings need to be set	The Semantic Registry is invoked to check if the user account (i.e. the organization he belongs to) has a Query Service configured (and is therefore a data provider)
<b>P3</b>				<b>Metasearc h</b>	<b>Metasearch</b>	<b>A user performs metasearch by using the search fields of the user interface or by posting directly HarmoSearch queries in the Advanced Search text area</b>			
P.3.2	P3			Metasearch	Registry is unavailable in metasearch	<u>Prerequisite:</u> the registry has been shut down select any kind of simple or advanced metasearch  <u>Post:</u> start the registry again	<b>This test case can only be tested by the administrator.</b>	Error message is shown: "Impossible to connect to the data registry. Please contact the administrator".	Tests the integration of Semantic Registry in the platform
P.3.12 (links to P.14.5)	P3	P3.12, P3.13, P3.14, P3.15		Metasearch	Metasearch on unregistered category	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider click on 'EDIT Data Description' edit the text displayed in the text area changing 'exhibition music' with 'exhibition pop music'	<b>Please edit test case P.14.5</b>		Description of a data provider is modified within the Semantic Registry
P.3.13	P3	P3.12, P3.13, P3.14, P3.15		Metasearch	Metasearch on unregistered category	go in the 'Metasearch' tab execute a simple search on euromuse selecting 'exhibition music' as category		Error message: "There is no provider to query that matches your search criteria."	Registry filters the data provider(s) to be involved in the search process

# Appendix B.3 - Test cases RC3 Semantic Registry

2/14

Id	3/7/2012			3/12/2012			3/12/2012			3/14/2012			3/15/2012			3/15/2012		
	Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result	
P1													O	IM				
P1.4	O	CPR	Success message Confirmation email has arrived	O	DF	Success message Confirmation email has arrived, but went to spams	O	AV		O	TM	Worked as expected. Mail arrived quickly after the registration (sender: HarmoNET Administrator <support@harmonet.org>) organization: TU Vienna Minor comment: it would be nice to provide my own password	O	IM	as expected activation after notifying Claudio	O	PW	tested last week - after claudio sent us the credentials, we could login. tried to create a new account with an already existing account: werder@museumsmedien after login we get: an-unexpected-system-error-occurred
P1.5	O	CPR	Two emails have arrived: one asking to activate the user and another one asking to configure the new organization	O	DF	Two emails have arrived: one asking to activate the user and another one asking to configure the new organization	O	AV		W	TM	Received only one email informing me that my account has been activated (sender: support@harmonet.org)				W	PW	
P2																		
P2.4	O	CPR	Content of services board as expected	W	DF	Content of services board as expected. I would have like the capacity to use a link to get more information on the different features proposed in the table, like, what is data mapping configuration because description provided minimal information on the row, but nothing on the column. It could just be text for instance.	W	AV		W	TM		O	IM	uploaded original file "museolitto2hto-mapping.xslt" in the Mapping store: Upload mapping for "Museolitto" Upload mapping from local system to Harmonise ontology (for sending data) success: Mapping Files :16508_so.xslt Participant: museolitto type: mapping from local system to HTO	O	PW	
								AV										
P3																		
P.3.2	O	CPR	Error message as expected	-	DF		-	AV		-	TM							
P.3.12 (links to P.14.5)																		
P.3.13	O	CPR	Error message as expected	O	DF	Error message as expected	W	AV	ok but tried on a different provider (euromuse was working)	O	TM	Error message appeared - tried it also with other providers (euromuse, biella, all)	O	IM		O	PW	

								Semantic Registry
ID	Par ent	Sequen ce	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry
P.3.14 (links to P.14.6)	P3	P3.12, P3.13, P3.14, P3.15	Metasearch	Metasearch on unregistered category	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider click on 'EDIT Data Description' edit the text displayed in the text area changing 'exhibition pop music' with 'exhibition music'	<i>Please edit test case P.14.6</i>		Description of a data provider is modified within the Semantic Registry
P.3.15	P3	P3.12, P3.13, P3.14, P3.15	Metasearch	Metasearch on unregistered category	go in the 'Metasearch' tab execute a simple search on euromuse selecting 'exhibition music' as category		returned 43 results (the number may vary - it is an online search)	Registry filters the data provider(s) to be involved in the search process
SQ2			Search Query Language	Search All events	Return all possible events	Output should be result list: see SQ1	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ3			Search Query Language	Search All events within time frame	Return all possible events within [1.4.2012, 30.04.2012 ]	Output should be result list: see SQ1 Comment from CP - if you specify both start and end date you will get events whose time interval overlaps with the specified dates	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ3.1	SQ3		Search Query Language	Search All events within time frame, alternative 1	Return all possible events starting from 1.4.2012	Output should be result list: see SQ1 Alternative 1: give only Date 1 Comment from CP - if you specify only the start date you will get all events which ends after the specified date (independently from when they start)	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ3.2	SQ3		Search Query Language	Search All events within time frame, alternative 2	Return all possible events until 30.04.2012	Output should be result list: see SQ1 Alternative 2: give only date 2 Comment from CP - if you specify only the end date you will get all events which starts before the specified date (independently from when they end) - THEREFORE ALSO PAST EVENTS ARE RETRIEVED	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ4			Search Query Language	Search All events within locations	Return all possible events in Berlin/Germany	Output should be result list: see SQ1	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ4.1	SQ4		Search Query Language	Search All events within locations	Return all possible events in Germany	Output should be result list: see SQ1 Alternative 1: In Germany (Country instead of given city)	Same as SQ1	Registry filters the data provider(s) to be involved in the search process

# Appendix B.3 - Test cases RC3 Semantic Registry

4/14

Id	3/7/2012			3/12/2012			3/12/2012			3/14/2012			3/15/2012			3/15/2012		
	Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result	
P.3.14 (links to P.14.6)	O	CPR		W	DF		W	AV		O	TM		O	IM		O	PW	
P.3.15		1 data providers contacted: euromuse	43 results		I get results (as expected. I think the expected info is wrong CP: you are right, I corrected the expected output			ok but tried on a different provider (euromuse was working) CP: you are right, I corrected the expected output			Received 43 results (selected provider: all) Second search (provider: biella) not results --> message 'There is no provider to query that matches your search criteria.' Third search (provider: euromuse) 43 results			99 results from euromuse (external service) 246 results from euromusemf (local index) CP: possible, if you didn't restrict to search only on euromuse			Results found: 43	
SQ2	O	CPR	3 data providers contacted: euromuse, euromusemf, biella 364 results	O	DF	4 data providers contacted: 364 results	O	AV	ok. Just as a comment, is important search by language	O	TM	3 data providers contacted; results were available as soon as the first provider delivered data; Found results: 364	W	IM	Results found: 345 from 3 data providers	O	PW	Is SQL2.xml the right file? Was not clear to me ... Waiting for results. Completed 2 of 3 contacted providers. Failed : (see Errors) Load available results Results found: 363
SQ3	O	CPR	3 data providers contacted: euromuse, euromusemf, biella 112 results	O	DF	4 data providers contacted: 212 results	O	AV	ok	O	TM	3 data providers contacted (used SQ3 query); 112 results received	O	IM	Date range topic already discussed in RELEASE 2, I think past exhibitions (in the praxis) should be automatically discarded, and not shown (i thought it was a good solution, to set 'today' as default starting date)	O	PW	
SQ3.1	O	CPR	3 data providers contacted: euromuse, euromusemf, biella 113 results	O	DF	4 data providers contacted: 213 results	O	AV	ok	O	TM	3 data providers contacted (used SQ3 alternative 1 query); 112 results received	O	IM		O	PW	
SQ3.2	O	CPR	3 data providers contacted: euromuse, euromusemf, biella 363 results	O	DF	4 data providers contacted: 362 results + 1 error: Failed on CPR: Impossible to connect to provider	O	AV	ok	W	TM	3 providers contacted (used SQ3 alternative 2 query); 102 results; received error message "Failed on euromusemf: Error in translating the query for the provider"	O	IM		O	PW	
SQ4	O	CPR	2 data providers contacted: euromuse, euromusemf 192 results	O	DF	2 data providers contacted: 92 results. This one was quick	O	AV	ok tried also with IT rome and succeed	O	TM	contacted proviers: 2; received results: 192	O	im	used SQ5 alternative 3 (Provider: all / Location: Berlin / Dates: April 1-30 / category: modern art) Results 3 from euromuse (external service)	O	PW	also listing archived (old) exhibitions (EUROMUSE should not deliver them!!!)
SQ4.1	O	CPR	2 data providers contacted: euromuse, euromusemf 230 results	O	DF	2 data providers contacted: 230 results	O	AV	ok	O	TM	contacted proviers: 2; received results: 230				O	PW	o.k. for Harmosearch - but same as above.

								Semantic Registry
ID	Par ent	Sequen ce	Action	Name	Description	Comment (and alternatives)	Expected Output	
SQ4.2		SQ4	Search Query Language	Search All events within locations	Retun all possible events in Frankfurt	Output should be result list: see SQ1 Alternative 2: in FRA (IATA code for Frankfurt) Comment from CP: HarmoNET tourism ontology uses the ISO 3166 two-letter (or 'A2') country codes and the full city name (not the IATA code)	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ4.3		SQ4	Search Query Language	Search All events within locations	Retun all possible events in Italy	Output should be result list: see SQ1 Alternative 3: in IT (ISO code for Italy)	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ4.4		SQ4	Search Query Language	Search All events within locations	Retun all possible events in Biella or Berlin	Output should be result list: see SQ1 Alternative 4: in Biella or Berlin	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ4.5		SQ4	Search Query Language	Search All events within locations	Retun all possible events in Biella or Berlin within [1.4.2012,30.04.2012]	Output should be result list: see SQ1 Alternative 5: in Biella or Berlin within a certain period	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ4.6		SQ4	Search Query Language	Search All events within locations	Retun all possible events in Biella within [1.4.2012,30.04.2012] or Berlin within [1.5.2012,31.05.2012]	Output should be result list: see SQ1 Alternative 6: in Biella within a certain period or Wien within another period	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ5			Search Query Language	Search All events for certain categories	Retun all possible events in Biella corresponding to cultural	Output should be result list: see SQ1	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ5.1		SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Berlin corresponding to modern art exhibitions or sculpture exhibitions	Output should be result list: see SQ1 Alternative 1: in Berlin corresponding to modern art exhibitions or sculpture exhibitions	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ5.2		SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Berlin or Biella corresponding to modern art exhibitions	Output should be result list: see SQ1 Alternative 2: in Berlin or Biella or corresponding to modern art exhibitions	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ5.3		SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Berlin or Biella corresponding to modern art exhibitions during that period	Output should be result list: see SQ1 Alternative 3: in Berlin or Biella corresponding to modern art exhibitions during that period	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ5.4		SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Biella corresponding to sport or cultural in that period and the events in Berlin corresponding to modern art exhibition or sculpture exhibition in the same period	Output should be result list: see SQ1 Alternative 4: in Biella corresponding to sport or cultural in that period and in Berlin corresponding to modern art exhibition or sculpture exhibition in the same period	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
SQ5.5		SQ5	Search Query Language	Search All events for certain categories	Retun all possible events in Biella corresponding to cultural in that period and the events in Berlin corresponding to modern art exhibition in the same period	Output should be result list: see SQ1 Alternative 5: in Biella corresponding to cultural in that period and in Berlin corresponding to modern art exhibition in the same period	Same as SQ1	Registry filters the data provider(s) to be involved in the search process
P5			Exchange: Import Data	Import Data	A user imports data from some data providers by using the search fields of the user interface or by posting directly HarmoSearch queries in the Advanced Search text area			

## Appendix B.3 - Test cases RC3 Semantic Registry

[illegible]

ID	Par ent	Sequen ce	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry
P.5.7	P5		Import.Data	Import with unavailable registry	<u>Prerequisite:</u> the registry has been shut down perform any kind of simple or advanced import  <u>Post:</u> start the registry again	This test case can only be tested by the system administrator.	Error message is shown: "Impossible to connect to the data registry. Please contact the administrator".	Integration of Semantic Registry in the platform is tested
P.5.15	P5	P5.15, P5.16, P5.17	Import.Data	Data provider is unavailable in import	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider edit the service access endpoint inserting 'http://www.euromuse.net/harmonise' as service access endpoint (no whitespaces!) 'Save changes'			pre-condition
P.5.16	P5	P5.15, P5.16, P5.17	Import.Data	Data provider is unavailable in import	perform an import through Simple Search setting euromuse as data provider, all as category		Screen message is shown: "Operation stated. You will receive an email notification. To view the status and results go here."  In 'Operation Status' tab the entry of the previous import reports, for instance: "Failed on euromusemf: Impossible to connect to provider".	Semantic Registry is invoked to get the information on how to access a data provider
P.5.17	P5	P5.15, P5.16, P5.17	Import.Data	Data provider is unavailable in import	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider edit the service access endpoint inserting 'http://www.euromuse.net/harmonise/query/query.php' as service access endpoint (no whitespaces!) 'Save changes'			post-condition
P.5.18	P5		Import.Data	Import on unregistered category	perform an import through Simple Search setting euromuse as data provider, 'activity' as category		Error message: "There is no provider to query that matches your search criteria."	Semantic Registry is invoked to get the information on how to access a data provider, as well as to filter out data providers if the search criteria do not match with the data description of the
P.5.19	P5	P5.19, P5.20	Import.Data	Import all from euromuse with Advanced Search	<a href="#">Add data mapping from HTO to local system</a>			pre-condition
P.5.20	P5	P5.19, P5.20	Import.Data	Import all from euromuse with Advanced Search	perform an import through Advanced Search using 'SQ1_for_import.xml'		Screen message is shown: "Operation stated. You will receive an email notification. To view the status and results go here."  In 'Operation Status' tab the entry of the previous import reports: "Operation completed successfully on: euromuse".  In 'Data Repository'->'Querybox' the result file is available (check the timestamp), and it contains some results (check with the example file 'import_results_Advanced_Search.xml' in the test folder)	Semantic Registry is invoked to get the information on how to access a data provider, as well as to filter out data providers if the search criteria do not match with the data description of the provider



# Appendix B.3 - Test cases RC3 Semantic Registry

8/14

Id	3/7/2012			3/12/2012			3/12/2012			3/14/2012			3/15/2012			3/16/2012		
	Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result		Who	Actual Result	
P.5.7	O CPR	Error message as expected			Error message as expected		AV			X TM	was not able to test							
P.5.15										O TM	Message shown as expected Mail received Link tested - "Failed on euromuse: Impossible to connect to provider."		IM					
P.5.16	O CPR	Screen message as expected 'Operation status' page has content as expected			Screen message as expected 'Operation status' page has content as expected		O AV											
P.5.17										O TM	Error message shown as expected							
P.5.18	O CPR	Error message as expected			Error message as expected		O AV									O PW	There is no provider to query that matches your search criteria.	
P.5.19							AV			O TM	Met expected output results; message shown, results downloadable, file matches the test data file (compared on a control sample basis)							
P.5.20	O CPR	Screen message as expected 'Operation status' page has content as expected Result file is correct			Screen message as expected 'Operation status' page has content as expected Result file is correct		O AV									O PW	Operation completed successfully on: euromuse.	

ID	Parent	Sequence	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry
P.5.22	P5	P5.21, P5.22	Import.Data	Import using Simple Search	perform an import through Simple Search setting all as data provider, all as category, 1-31 March as period		Screen message is shown: "Operation stated. You will receive an email notification. To view the status and results go here."  In 'Operation Status' tab the entry of the previous import reports: ' Operation completed successfully on: euromuse".  In 'Data Repository'->'Querybox' the result files are available (check the timestamp), and they contain some results (check with the example files 'import_results_Simple_Search_[data-provider].xml' in the test folder)	Semantic Registry is invoked to get the information on how to access a data providers
P6			Exchange:Scheduler	Scheduler	A user schedules an import or a push operation to be executed on a regular base (daily, weekly or monthly)			
P.6.2	P6	P6.1, P6.2	Scheduler	Schedule a data import correctly	log in with your user go on 'Exchange Data'->'Scheduler' and select IMPORT Data as Operation euromuse as recipient exhibition art history as category each day at hh mm in scheduled options (see comment!) click 'Schedule task'	The HarmoSearch portal server has GMT time. You must therefore subtract 1 hour to the time you want the operation to be scheduled (that is true if your time is GMT+1).	After the time set in the scheduled options, the result file is available in 'Querybox' and contains some results.  In 'Operation Status' the import operation is reported to be completed successfully on euromuse.  After some minutes you receive also a notification email.	Semantic Registry is invoked to get the information on how to access a data provider, as well as to filter out data providers if the search criteria do not match with the data description of the provider
P.6.8	P6	P6.5, P6.6, P6.7, P6.8, P6.9	Scheduler	Schedule a push correctly	log in with your user go on 'Exchange Data'->'Scheduler' and select PUSH Data as Operation CPR as recipient exhibition ancient world as category each day at hh mm in scheduled options (see comment!) click 'Schedule task'	The HarmoSearch portal server has GMT time. You must therefore subtract 1 hour to the time you want the operation to be scheduled (that is true if your time is GMT+1).  In a scheduled push the user does not upload a file but he submits a query that allows the system to automatically export the data to be sent from his system, therefore the user needs to register a query service and to upload a query mapping to use this functionality.	In 'Operation Status' the push operation is reported to be completed successfully on CPR  After some minutes you receive also a notification email.	Semantic Registry is invoked to get the information on how to access a data provider, as well as to filter out data providers if the search criteria do not match with the data description of the provider
P14			Configurations:Query. Service					

## 10/14

10/14

ID	Par ent	Sequen ce	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry
P.14.1	P14		Configurati ons:Query. Service	Register a new data provider in the semantic registry	login with your user go in 'Configurations'->'Query Service' and select your organization in Registry Data Management Create and attach a new Data Provider assigning as id <Your-organization_name>_dataprovder (no whitespaces!) click on 'Create' and insert the following parameters: any name for your provider 'default' as Mapping Collection Identifier http://www.euromuse.net/harmonise/query/query.php as service access endpoint (no whitespaces!) 'karin' as username and password (no whitespaces!) 'org.harmonise.services.connector.service.adapter.HTTPAdapter' as Connector class (no whitespaces!) select 'METASEARCH' and 'IMPORT' as supported Query types 'Event' as Subdomain click on 'Save Changes' go in 'Data Description' and select 'Events with location and category' from the drop-down menu on the top click on 'Save Changes'		Data provider configuration saved	A data provider is registered in the Semantic Registry
P.14.2	P14		Configurati ons:Query. Service	Delete a data provider from the semantic registry	login with your user go in 'Configurations'->'Query Service' and select your organization in Registry Data Management select the Data Provider attached to your organisation if it exists click on 'Delete provider'		Data provider removed	A data provider is unregistered from the Semantic Registry
P.14.3	P14		Configurati ons:Query. Service	Modify euromuse configuration in the semantic registry: change the Service Access Endpoint	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider edit the service access endpoint inserting 'http://www.euromuse.net/harmonise' as service access endpoint (no whitespaces!) 'Save changes'		Data provider configuration saved	A data provider's configuration is modified in the semantic registry
P.14.4	P14		Configurati ons:Query. Service	Modify euromuse configuration in the semantic registry: restore the Service Access Endpoint	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider edit the service access endpoint inserting 'http://www.euromuse.net/harmonise/query/query.php' as service access endpoint (no whitespaces!) 'Save changes'		Data provider configuration saved	A data provider's configuration is modified in the semantic registry
P.14.5	P14		Configurati ons:Query. Service	Modify euromuse configuration in the semantic registry: change a category	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider click on 'EDIT Data Description' edit the text displayed in the text area changing 'exhibition music' with 'exhibition pop music'		Data provider configuration saved	A data provider's configuration is modified in the semantic registry
P.14.6	P14		Configurati ons:Query. Service	Modify euromuse configuration in the semantic registry: restore the category	login with user euromuse (euromuse@harmonet.org, euromuse) go in 'Configurations'->'Query Service' and select Euromuse in Registry Data Management select the 'Euromuse Exhibitions' data provider click on 'EDIT Data Description' edit the text displayed in the text area changing 'exhibition pop music' with 'exhibition music'		Data provider configuration saved	A data provider's configuration is modified in the semantic registry
P18			Web.Services	Web Services	A user of an external system (or the system itself) invokes a push or an import operation on the HarmoSearch platform through a Web Service instead of through the GUI			

### Appendix B.3 - Test cases RC3 Semantic Registry

12/14

Id	3/7/2012			3/12/2012			3/12/2012			3/14/2012			3/15/2012			3/16/2012		
	Who	Actual	Result	Who	Actual	Result	Who	Actual	Result	Who	Actual	Result	Who	Actual	Result	Who	Actual	Result
P.14.1	O	CPR																
		O	CPR					O	TM		O	IM		O	PW			
P.14.2	O	CPR																
P.14.3	O	CPR		O	DF					O	TM		O	IM		O	PW	
		O	CPR		O	DF				O	TM		O	IM		O	PW	
P.14.4	O	CPR																
P.14.5	O	CPR		O	DF					O	TM		O	IM		O	PW	
		O	CPR		O	DF				O	TM		O	IM		O	PW	
P.14.6	O	CPR																
P18																		

ID	Parent	Sequence	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry	
P.18.3	P18	P18.2, P18.3	Web.Services	SimpleSearch import correctly through Web Service	perform an import with 'simpleSearch' method using your organization's name as sender, 'euromuse' as receiver and void (not null!) search_criteria	Same as P18.1	<p>The method returns a successful completion message: ' Operation completed successfully on: euromuse'.</p> <p>In 'Operation Status' tab the entry of the previous import reports also successful completion and links to the 'Querybox', where the result file is available (check the timestamp), and it contains some results.</p>	Semantic Registry is invoked to get the information on how to access a data provider, as well as to filter out data providers if the search criteria do not match with the data description of the provider	
P.18.6	P18	P18.5, P18.6	Web.Services	AdvancedSearch import correctly through Web Service	perform an import with 'advancedSearch' method using your organization's name as sender, and 'SQ1_for_import.xml' (from test folder) as xml_query	Same as P18.1	<p>The method returns a successful completion message: ' Operation completed successfully on: euromuse'.</p> <p>In 'Operation Status' tab the entry of the previous import reports also successful completion and links to the 'Querybox', where the result file is available (check the timestamp), and it contains some results (check with the example file 'import_results_Advanced_Search.xml' in the test folder).</p>	Semantic Registry is invoked to get the information on how to access a data provider, as well as to filter out data providers if the search criteria do not match with the data description of the provider	

### Appendix B.3 - Test cases RC3 Semantic Registry

14/14

[illegible]

## Appendix B.4 - Test cases RC4 Semantic Registry

1/8

Participant Sequence										Comment (and alternatives)		Expected Output		Semantic Registry		09/11/2012	Who	12/11/2012	Who	Actual Result	
Id		Parent Sequence		Action		Name		Description													
Basic configuration needed for the tests																					
R0				Test.Set.Up		Basic configuration needed for the tests		User configures his account with mappings, permissions and query service													
R0.0		R0		Test.Set.Up		Create an account if you don't have one yet		click on 'Sign in' click on 'Create Account' insert your own data (names and a valid email address) select also the organization you belong to (if not present insert the organization's name) wait for the account activation email (activation is done by an administrator)				The organization is registered also within the Semantic Registry		O	Promoter	X	museumsmedien	no activation, Claudio did it manually. password and sentence ends with dot, to me it is not clear, where the password ends it seems not possible to copy & paste the password			
R0.3		R0		Test.Set.Up		Set up query service		Login with your user go in 'Configurations'->'Query Service' in panel 'Registry Data Management' click on the name of your organization (Participant Name) Go on panel 'Create and attach a new Data Provider' and insert an id (e.g. <Your-organization_name>_dataprovder (no whitespaces!)) click on 'Create' and insert the following parameters: any name for your provider the name of the collectionId that you used when uploading the mapping (for instance 'events') 'http://www.euromuse.net/harmonise/query/query.php' as service access endpoint (no whitespaces!) 'karin' as username and password (no whitespaces!) 'HTTPAdapter' as Connector class (no whitespaces!) select 'METASEARCH' and 'IMPORT' as supported Query types 'Event' as Subdomain click on 'Save Changes' click 'Edit Data Description' and select 'Events with location and category' from the drop-down list on the top click on 'Save Changes'				The information related to a data provider is registered within the Semantic Registry		O	Promoter	X	museumsmedien	this does not seem to work?: click 'Edit Data Description' and select 'Events with location and category' from the drop-down list on the top click on 'Save Changes'  I always get some XML in the window, but no success?			
Exchange:Publish.Event s Publish events on social networks User publishes selected events on Facebook and on Twitter																					
R1																					



2/8

2/8

									09/11/2012	Who	12/11/2012	Who	Actual Result
Id	Pa re Sequ nt ence	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry						
R1.2	R1	R0.1, R0.3, R0.6, R1.1, R1.2, R1.3	Exchange:Publish.Events	Schedule publish with manual filter	<p><i>Prerequisite</i> : you have uploaded and configured the mapping of events from your local system to HarmoSearch, the two mappings for the query, and you have configured a query service for your organization (see the 'Sequence' column - C18 - for the details)</p> <p>go on 'Exchange Data' -&gt; 'Scheduler'</p> <p>select</p> <ul style="list-style-type: none"> <li>- 'Publish on social network' as operation</li> <li>- your social network's target (one or more) as recipient (*)</li> <li>- keep 'Filter manually' selected</li> <li>- subdomain 'Event', country 'France', city 'Paris', category 'exhibition painting'</li> <li>- schedule the operation within the next 10 minutes (**)</li> <li>- wait until the operation is done</li> </ul>	<p><i>* don't select 'HarmoSearch event' or 'HarmoSearch status', but only 'Facebook my event', 'Facebook my status', 'Twitter my status'</i></p> <p><i>** you can refer to <a href="http://www.timeanddate.com/worldclock/city.html?n=195">http://www.timeanddate.com/worldclock/city.html?n=195</a></i></p> <p><i>in order to know the server's system clock</i></p>	In 'Operation Status' the publish operation is reported as suspended and awaiting confirmation. An email is sent that invites the user to log in and confirm the publishing of the selected events. Some events should be available for publishing on your social network (the same that are returned with a metasearch using the same search parameters).	The Semantic Registry is involved to exclude the remote execution of the query if the selected location and category is not provided by your organization, as well as to get the access parameters of the query service	O	Promoter	1	muséumsmedien	
R1.4	R1	R0.1, R0.3, R0.6, R1.1, R1.4	Exchange:Publish.Events	Schedule full automatic publish	<p>go on 'Exchange Data' -&gt; 'Scheduler'</p> <p>select</p> <ul style="list-style-type: none"> <li>- 'Publish on social network' as operation</li> <li>- your social network's target (one or more) as recipient (*)</li> <li>- unselect 'Filter manually' checkbox</li> <li>- subdomain 'Event', country 'France', city 'Paris', category 'exhibition european cultural history'</li> </ul>	<p><i>* don't select 'HarmoSearch event' or 'HarmoSearch status', but only 'Facebook my event', 'Facebook my status', 'Twitter my status'</i></p>	In 'Operation Status' the publish operation is reported as completed. An email is sent that informs on the success of the scheduled operation. One event should be published on your social network (the same that is returned with a metasearch using the same search parameters).	like above	O	Promoter	1	muséumsmedien	
<b>R2</b> <b>Exchange:External.Services</b> <b>External Services</b> <b>Harmonise users provide online services that can be included in the HarmoSearch processes</b>													
R2.1	R2	R0.4, R2.1	Exchange:External.Services	User registers a new service that is open to all	<p>Log in as testuser (username is the email you set), with password 'testuser'</p> <ul style="list-style-type: none"> <li>- go on 'External Services' -&gt; 'Manage Services'</li> <li>- register a new service on the 'Add Workflow Service' panel, with fields: <ul style="list-style-type: none"> <li>- name: 'Test Filter'</li> <li>- description: 'Filters out some services'</li> <li>- keep 'Authorization required' unchecked</li> <li>- access URL: <a href="http://harmosearchdev.harmonet.org/ExternalService-portlet/testService">http://harmosearchdev.harmonet.org/ExternalService-portlet/testService</a></li> <li>- click on 'Set'</li> </ul> </li> </ul>		The new service is in the workflow services list on the left	External service is registered within the Semantic Registry	O	Promoter	O	muséumsmedien	o.k.
R2.3	R2	R0.1, R2.1, R2.2, R2.3	Exchange:External.Services	Use external service that is unavailable	<p><i>Prerequisite</i> : You have uploaded the mapping from your system to Harmonise ontology</p> <p>logged in with your account,</p> <p>go on 'Exchange Data' -&gt; 'Share Data'</p> <ul style="list-style-type: none"> <li>- select 'Push' as operation</li> <li>- choose 'euromuse_2_events.xml' as data file (available from test folder)</li> <li>- 'euromuse' as recipient</li> <li>- 'Event' as domain</li> <li>- Include 'Test Service' (click on Add button)</li> <li>- click on 'Send'</li> </ul>		<p>Error message is shown on the screen ('Test Service is unavailable').</p> <p>The error message is also reported in 'Operation Status' and in a mail notification.</p>	The Semantic Registry is involved to get the information to access the external service	O	Promoter	O	muséumsmedien	Error in external service. Service is not available: <a href="http://harmosearchdev.harmonet.org/ExternalService-portlet/testService">http://harmosearchdev.harmonet.org/ExternalService-portlet/testService</a>

# Appendix B.4 - Test cases RC4 Semantic Registry

4/8

13.11.2012 Firefox 16																			
Id	Who	Actual Result	Output (XML, Screen ...)	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result
R1.2	X GK	BLOCKING (pending confirmation I did it properly) 1) received the notification mail with failure message : " Failed on Afidium: Missing mapping for the query structure from Harmonise Ontology to Afidium."	mail with failur message : https://46.37.22.116/repos/harmo search/07_Demo nstration_Activiti es/test%20data/ Tests%20outputs /20121113_GK_R 1-2_social-publi sh-failure.pdf	O Inés		O Adriano	GREAT!	O GK	Ok, probably forgot to upload the 2nd file in 0.6 for previous tests	O TM	_first received an error message that no query mapping has been uploaded _uploaded the missing mapping file now it works fine _great feature! I also like the way the data is collected								
R1.4	O GK	pending  NOT BLOCKING : It would be nice to be able to edit & duplicate scheduled operation instead of having to delete & start from scratch		O Inés		O Adriano		GK		O TM									
R2																			
R2.1	O GK			O Inés	_on the right, yes	O adriano		W GK	missing in test grid : this was required for 2.10,11,12,13	O TM	_worked fine _typo in the result: left != right								
R2.3	O GK			W Inés	_my account is euromuse... so i chose cpr and it send it ok.	O adriano		GK		O TM	_error message was displayed received notification mail								

Id	Parent Sequence	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry	09/11/2012	Who	12/11/2012	Who	Actual Result
									Promoter			
R2.5	R2	R0.4, R2.1, R2.2, R2.5	Exchange:External.Services	Modify service	Log in as testuser (username is the email you set), with password 'testuser' - go on 'External Services' -> 'Manage Services' - click 'Modify' on 'Test Filter' - update the access URL with: <a href="http://harmosearchdev.harmonet.org/ExternalService-portlet/permEvents">http://harmosearchdev.harmonet.org/ExternalService-portlet/permEvents</a> - check 'Authorization requested' checkbox - click on 'Save'	The service is now updated in the workflow services list. (There are no more authorized users).	External service is updated within the Semantic Registry	0	Promoter	0	museumsmedien	ok
R2.11	R2	R0.2, R2.9, R2.10, R2.11	Exchange:External.Services	Use external service in import	<u>Prerequisite:</u> You have uploaded the mappings from Harmonise ontology to your system  - log in with your account - go on 'Exchange Data' -> 'Import Data' - select 'euromuse' as data provider - 'exhibition ancient world' as category - include 'Test Filter' as external service (click on 'Add' button) - click on 'Search'	At the end of this test, wait until the scheduled task of R2.10 is executed and check the outcome.	Screen message and 'Operation Status' report success of the import. In 'Subscribe to Service' the 'max number of times' is updated to 0. In the Scheduler page, the 'Test Service' is no more available among the External Services.	0	Promoter	0	museumsmedien	ok
R2.13	R2	R0.1, R0.4, R0.5, R2.9, R2.12, R2.13	Exchange:External.Services	Use external service in push	<u>Prerequisite:</u> You have uploaded the mapping from local system to Harmonise ontology, and you have subscribed to the service 'Event fields filter'  - log in with your account - go on 'Exchange Data' -> 'Share Data' - select 'Push Data' as operation - select 'euromuse_Wir_essen_Reis.xml' as data file (available from test folder) - select 'test' as recipient - 'Event' as subdomain - include 'Event fields filter' as external service (click on 'Add' button) - click on 'Send'	Screen message and 'Operation Status' report success of the push. Logging in as 'testuser', the file in inbox looks like 'push_Wir_essen_Reis_filtered.xml' in the results test folder (only id, title, date and location are taken). If you did the same operation without the external service, the result would be like 'push_Wir_essen_Reis.xml'.	The Semantic Registry is involved to get the information to access the external service	0	Promoter	0	museumsmedien	ok
R2.14	R2	R0.1, R1.1, R2.9, R2.12, R2.14	Exchange:External.Services	Use external service in publish	<u>Prerequisite:</u> You have uploaded the mapping from local system to Harmonise ontology, and you have authorization to use the 'Test filter' external service  - log in with your account - go on 'Exchange Data' -> 'Share Data' - select 'Publish on social network' as operation - keep 'Filter manually' checked - select 'euromuse_2_events.xml' as data file (available from test folder) - select your social network's target (one or more) as recipient - 'Event' as subdomain - include 'Test Filter' as external service (click on 'Add' button) - click on 'Send'	Operation Status' reports that the operation is suspended awaiting confirmation. Only one of the two events from the source file are listed in the page 'Exchange Data' -> 'Confirm publishing' (the external service filtered out only the one that is a permanent exhibition) .	The Semantic Registry is involved to get the information to access the external service	0	Promoter	0	museumsmedien	ok
R2.15	R2	R0.4, R2.1, R2.15	Exchange:External.Services	Delete external service	Logged in as 'testuser' - go on 'External Services' -> 'Manage Services' - click 'Delete' on the 'Test Filter' service	The service is no more listed in the workflow services panel.	External service is unregistered from the Semantic Registry	0	Promoter	0	museumsmedien	ok

# Appendix B.4 - Test cases RC4 Semantic Registry

6/8

Id	13.11.2012 Firefox 16		Actual Result	Output (XML, Screen ...)	16/11/2012		Actual Result	17/11/2012	Actual Result	19.11.2012 Firefox 16		Actual Result	19.11.2012 Google Chrome		Actual Result
	Who	Who			Who	Who		Who		Who	Who		Who	Who	
R2.5	O	GK			O	Inés	I only modified the url, the name remains 'test filter', so from now on i will assume 'test service' is 'test filter'	O	ouejpe		GK		O	TM	
R2.11	O	GK			X	Inés	same as row 40	O	adriano		GK		O	TM	_mail received _number was decreased successfully
R2.13	X	GK	BLOCKING : The file in the inbox is different. The file is the outbox is ok. Fil in the inbox is attached  NOT BLOCKING : File in inbox would be better if opened in another tab	<a href="https://46.37.22.116/repos/harmosearch/07_Demonstration_Activities/test%20data/Tests%20outputs/20121113_Fileush_content_error.xml">https://46.37.22.116/repos/harmosearch/07_Demonstration_Activities/test%20data/Tests%20outputs/20121113_Fileush_content_error.xml</a>	X	Inés	_Failed on test: Error in data mapping from Harmonise Ontology to test: Cannot convert string "" to xs:decimal Please check the mapping file. _mapping file from local system to hto (spk_hto) is correct and uploaded, but there is no mapping hto_spk...	O	adriano	O	GK		O	TM	_Event fields filter was not listed; after requesting permission the external service was listed as described _ operation was successfull _ data looked as expected
R2.14	O	GK			w	Inés	_actually the permanent exhibition was listed, and the temporary exhibition was filtered out...	X	adriano		GK		-	TM	
R2.15	O	GK			O	Inés		O	adriano		GK		O	TM	

							Semantic Registry	09/11/2012	Who	12/11/2012	Who	Actual Result
Id	Parent Sequence	Action	Name	Description	Comment (and alternatives)	Expected Output						
R5 Exchange:Accommodations												
R5.1	R5		Exchange:Accommodations	Metasearch of accommodations	go on 'Metasearch' - select 'Accommodation' as subdomain - 'guesthouse' as type - 'tv room' as facility - click 'Search'	7 results are given	Semantic Registry filters out relevant data providers and provides access information of the data providers	O	Promoter	O	mussumsmedien	7 results
R5.3	R5	R5.2, R5.3	Exchange:Accommodations	Import accommodations	go on 'Exchange Data' -> 'Import Data' - select 'Accommodation' as subdomain - 'b&b' as type - 'biella' as data provider - click on 'Search'		like above	O	Promoter	?	mussumsmedien	
R5.4	R5		Exchange:Accommodations	lookup, through registry, of data providers that have accommodations	go in 'Configurations' -> 'Query Service' - insert the query 'SQ7_any_accommodation.xml' from the test folder in the form 'Query to Provider Test' - click 'Check Provider'	Biella is returned as data provider for accommodations	Semantic Registry is directly queried	O	Promoter	O	mussumsmedien	Biella
R5.5	R5	R5.2, R5.5	Exchange:Accommodations	Import of accommodations through Web Service	<i>Prerequisite</i> : you have configured the mapping for receiving accommodations  perform an import with 'simpleSearch' method using your organization's name as sender, 'biella' as receiver, 'Accommodation' as subdomain, 'guesthouse' as type and 'restaurant' as facility	To be tested using Oxygen or XMLSpy or similar. WSDL: <a href="http://harmosearchdev.harmonet.org/WebAccessPortal-portlet/DataExchangeManager?wsdl">http://harmosearchdev.harmonet.org/WebAccessPortal-portlet/DataExchangeManager?wsdl</a>  Documentation: 'Annex_D_4_3_Web Service APIs Specifications_v0.3.docx' file available in SVN at /04_Query_Mapping/metasearch engine	Two strings are returned. The first says 'Operation completed successfully on: biella.' and the second is a link to the imported file available on the Data Repository.  'Operation Status' reports about the successful completion and links to the 'Querybox', where the result file is available (check the timestamp).	O	Promoter	O	mussumsmedien	ok
R6 Configuration:Home												
R6.1	R6		Configuration:Home	Take overview of configuration	logged in with your account go on 'Home' check the status of the services	The expected outcome describes what should be present in the home at the end of all tests	* 'Share Data' is active, with 'event mapping' configured, but 'accommodation mapping' not. * 'Scheduled Share' is active, with 'event mapping' configured, but 'accommodation mapping' not. * 'Import Data' and 'Receive Data' is active, with 'accommodation mapping' configured. * 'Receive Queries' is active with 'Query mappings' available and 'Query Service' configured.	O	Promoter	O	mussumsmedien	ok

# Appendix B.4 - Test cases RC4 Semantic Registry

8/8

13.11.2012 Firefox 16		16/11/2012		17/11/2012		19.11.2012 Firefox 16		19.11.2012 Google Chrome	
Id	Who	Actual Result	Output (XML, Screen ...)	Who	Actual Result	Who	Actual Result	Who	Actual Result
R5									
	O	GK		O	Inés	O	adriano	O	TM
R5.1	-	GK		Inés		O	adriano	-	TM
R5.3			already done, see R4.6						
R5.4	O	GK		X	Inés	O	adriano	O	TM
					_sq7 is not available, are there any prerequisite to perform this testcase other than uploading mapping for receiving accommodations?				
R5.5	W	GK		X	Inés	-	adriano	X	TM
			Don't have such xml editor (only simple ones) How do i perform such import from simple search ?		_in the import page i cannot define myself or biella as reciver, biella only as data provider				_was not able to fulfill the test case. I did the following: _going to Exchange Data-->Import Data did not provide me the fields described in the task description ...
R6									
	X	GK		W	Inés	O	adriano	O	TM
R6.1			Scheduled share is not active Receive queries is not active, query mapping not configured		_share data ok _scheduled tasks were done with other user account, there they are ok. _typo: social media configuration alt text is "Social Media vonfiguration" did not do the metasearch rows				_Import data/Scheduled import: events are also active

## Appendix B.5 - Test cases RC5 Semantic Registry (Import role)

[illegible]



# Appendix B.5 - Test cases RC5 Semantic Registry (Import role)

2/2

Parent Sequence	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry	Who	Who	Actual Result	Who	Actual Result	Who	Actual Result	Output (XML, Screen ...)	Who
I3.2	I3	I1.10, I3.2	Import Web Services	Import Accommodations through Web Services	perform an import with 'simpleSearch' method using your organization's name as sender, 'biella' as receiver, 'Accommodation' as subdomain, 'guesthouse' as type and 'restaurant' as facility	<a href="#">Same documentation as Import Events</a>	Two strings are returned. The first says 'Operation completed successfully on: biella.' and the second is a link to the imported file available on the Data Repository.  'Operation Status' also reports about the successful completion and links to the 'Querybox', where the result file is available (check the timestamp).	Like I3.1						same as row 21... no possibility to set a receiver, only to choos biella as data provider. Message "Operation COMPLETED. You will receive an email notification. To check result..."	
I3.3	I3	I1.6, I3.3	Import Web Services	Advanced Search import through Web Service	perform an import with 'advancedSearch' method using your organization's name as sender, 'Event' as subdomain, and 'SQ1_for_import.xml' (from test folder) as xml_query	<a href="#">Same documentation as Import Events</a>	Two strings are returned. The first says 'Operation completed successfully on: biella.' and the second is a link to the imported file available on the Data Repository.  'Operation Status' also reports about the successful completion and links to the 'Querybox', where the result file is available (check the timestamp).	Like I3.1							
I4	Use external services														
I4.1	I4	I1.6, I4.1, I4.2, I4.3, I4.4	Use external services	Register new service that requires authorization	log in as testuser ('testuser@test.user' or the email you set*, password: testuser) - go on 'External Services' -> 'Manage Services' - register a new service on the 'Add Workflow Service' panel, with fields: - name: 'Permanent Events Filter' - description: 'Takes only permanent events' - check the box 'Authorization required' - access URL: http://harmosearchdev.harmonet.org/ExternalService-portal/permEvents - click on 'Set'	<a href="#">* Optional: change the email of the preloaded testuser</a>	The new service is in the workflow services list on the left	External service is registered within the Semantic Registry							
I4.4	I4	I1.6, I4.1, I4.2, I4.3, I4.4	Use external services	Use external service in import	- log in with your account - go on 'Exchange Data'-> 'Import Data' - select 'euromuse' as data provider - 'Austria' as country - 'exhibition archeology' as category - include 'Permanet Events Filter' as external service (click on 'Add' button) - click on 'Search'		Screen message and 'Operation Status' report success of the import. In 'Data Repository' -> 'Querybox' the just received file contains only 3 events out of 9 (which would be returned without including the external service); they all are permanent exhibitions.  In 'Subscribe to Service' the 'max number of times' is updated to 2.	Access information to use the external service are held by the Semantic registry						as my user is registered as euromuse user, and the euromusemf provider did not respond, i shortly assigned the spk editor user the role of import, with a mapping from hto to system identity.xslt and a suscription to the permanent exhibition service... and I got the expected result.	
I4.6	I4	I4.1, I4.6	Use external services	Delete external service	log in as testuser ('testuser@test.user' or the email you set, password: testuser) - go on 'External Services' -> 'Manage Services' - click 'Delete' on the 'Permanet Events Filter' service		The service is no more listed in the workflow services panel.	External service is unregistered from the Semantic Registry							

Sequence				Comment	Expected Output	Semantic	E10/1/2013	Who	E10/1/2013	Who	Actual Result	E10/1/2013	Who	Actual Result
ID	Parent	e	Name	Description	(and alternatives)									
Begin of tests for Publisher														
Pub5 Set up data provider User specifies the basic configuration for a data provider														
Pub5.1	Pub5	Pub5.1, Pub5.2	Set up query service	<p>Login with your user</p> <p>go in 'Configurations'-&gt;'Query Service'</p> <p>click on your organization's name</p> <p>go on panel 'Create and attach a new Data Provider' and insert an id (e.g. &lt;Your-organization&gt;_dataprovder (no whitespaces!))</p> <p>click on 'Create' and insert the following parameters:</p> <ul style="list-style-type: none"><li>any name for your provider</li><li>the name of the collectionId that you used when uploading the data mapping (for instance 'events')</li></ul> <p>'http://www.euromuse.net/harmonise/query/query.php' as service access endpoint (no whitespaces!)</p> <ul style="list-style-type: none"><li>'karin' as username and password</li><li>'HTTPAdapter' as Connector class</li><li>select 'IMPORT' and 'METASEARCH' as operation</li><li>'Event' as Subdomain</li><li>click on 'Save Changes'</li></ul> <p>click 'Edit Data Description' and select 'events'</p> <p>click on 'Save Changes'</p>	<p>If you go back to the view 'Harmonise Participant Details' (back to list), the new data provider is attached to the your organization</p>	<p>Semantic Registry holds information about data providers: what data they have (subdomain, categories, locations) and how they can be accessed</p>	O	Promoter	W	Ardium	O	SPK	<p>The data provider profile is not clear to me... I assume as a publisher I am a data provider, for in order to publish all the events from the past rows, theoretically I provided the events.</p> <p>The steps work if the order of things is followed,but to fill in a form should require a user's manual...</p>	
Pub6 Scheduler User schedules pushing and publishing of events														
Pub6.1	Pub6	Pub1.5, Pub5.1, Pub5.2, Pub6.1	Schedule a push correctly	<p><u>Prerequisite</u>: you have uploaded and configured the mapping of events from your local system to HarmoSearch, the two mappings for the query, and you have configured a query service for your organization</p> <p>log in with your user</p> <p>go on 'Exchange Data'-&gt;'Scheduler' and select</p> <p>PUSH Data as Operation</p> <p>Test as recipient</p> <p>exhibition ancient world as category</p> <p>schedule operation within the next 10 minutes **</p> <p>click 'Schedule task'</p>	<p>In a scheduled push the user does not upload a file but he schedules a query to his associated data provider through which the system automatically exports the actual data to be sent from his system. Therefore, the user needs to register a query service and to upload a query mapping to use this functionality.</p> <p>** the server's system clock is CET (Central European Time)</p>	<p>In 'Operation Status' the push operation is reported to be completed successfully</p> <p>After some minutes you receive also a notification email.</p>	O	Promoter	O	Ardium	O	SPK		
Pub6.2	Pub6	Pub1.5, Pub5.1, Pub5.2, Pub6.2, Pub6.3	Schedule publish with manual filter	<p><u>Prerequisite</u>: you have uploaded and configured the mapping of events from your local system to HarmoSearch, the two mappings for the query, and you have configured a query service for your organization</p> <p>go on 'Exchange Data' -&gt; 'Scheduler'</p> <p>select</p> <ul style="list-style-type: none"><li>- 'Publish on social network' as operation</li><li>- your social network's target (one or more) as recipient (*)</li><li>- keep 'Filter manually' selected</li><li>- subdomain 'Event', country 'France', city 'Paris', category 'exhibition painting'</li></ul> <p>- schedule the operation within the next 10 minutes (**)</p> <p>- wait until the operation is done</p>	<p>** the server's system clock is CET (Central European Time)</p>	<p>In 'Operation Status' the publish operation is reported as suspended and awaiting confirmation. An email is sent that invites the user to log in and confirm the publishing of the selected events. Some events should be available for publishing on your social network (the same that are returned with a metasearch using the same search parameters).</p>	The Semantic Registry is involved to get access information of the query service	O	Promoter	O	Ardium	W	SPK	double results again (same as R4)
Pub6.5	Pub6	Pub5.1, Pub6.5	Remove your data provider	<p>login with your user</p> <p>go in 'Configurations'-&gt;'Query Service'</p> <p>click on the Data Provider attached to your organisation if it exists</p> <p>click on 'Delete Provider' (DO NOT DELETE THE PARTICIPANT!)</p>	<p>Data provider removed</p>	<p>The data provider is unregistered from the Semantic Registry</p>	O	Promoter	O	Ardium	O	SPK		

							28/1/2013	Who	29/1/2013	Who			30/1/2013	Who		
ID	Parent	Sequence	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry									
Pub7		Home		User takes overview of services												
			Take overview of configuration	logged in with your account go on 'Home' check the status of the services		The status of the available services should be shown (active or not, missing configurations and links to the respective configuration pages)	Semantic Registry is involved to check the data provider's configuration	O	Promoter	O	Affidium		W	SPK	access policies: the lock is not well linked to the navigation, it should be a link to here: <a href="http://harmosearchdev.harmonet.org/accesspolicies">http://harmosearchdev.harmonet.org/accesspolicies</a>	
Pub7.1	Pub7															

Test ID	Parent	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry	28/1/2013	Who	Who	Actual Result	1/2/2013	Who	Actual Result	1/2/2013	Who	Actual Result	Output (XML, Screen ...)	2/2/2013	Who
<b>Begin of tests for Metasearch</b>																				
<b>M1 Metasearch A user performs metasearch by using the search fields of the user interface</b>																				
M1.1	M1	Metasearch	Metasearch on unregistered category	go in 'Search Data' -> 'Metasearch' execute a simple search of events selecting 'agriculture' as category	No provider has registered providing events of this category	Error message: "No provider registered that matches search criteria."	Registry filters out the providers	o	Promoter	Affidum		o	Museumsm.		o	MS			o	ectrl
M1.10	M1	Metasearch	Remove 'Test' from metasearch data providers	log in as testuser ('testuser@test.user' or the email you set*, password: testuser) go in 'Configurations' -> 'Query Service' - click on the attached data provider - uncheck 'METASEARCH' from the operations click on 'Save Changes'		Test' is no more available among the data providers of a metasearch	Registry still maintains the information about the provider, which is however no more available for metasearch	o	Promoter	Affidum		o	Museumsm.		o	MS			o	ectrl
M1.11	M1	Metasearch	Metasearch successful	log in with your account go in 'Search Data' -> 'Metasearch' and execute a Simple Search inserting 'exhibition ancient world' as category	<i>You can try with any combination of search criteria. The result may also be void.</i>	Some results are shown	Registry filters out the providers to involve, and returns the access information	o	Promoter	Affidum		o	Museumsm.		w	MS	36 results are found in euromuse... 8 were shown in the first page of results, it was not possible to go to the next page, the link was not active.	<a href="http://www.euromuse.net/thorsten2/harmosearch/turn_page.png">http://www.euromuse.net/thorsten2/harmosearch/turn_page.png</a>	o	ectrl
<b>Advanced</b>																				
<b>SQ Search Query Language Metasearch A user performs metasearch by posting directly HarmoSearch queries in the Advanced Search text area</b>																				
SQ1		Search Query Language	Search all from Euromuse	go in 'Search Data' -> 'Metasearch' and execute an Advanced Search inserting the SQ1 query available in the test folder (the same for all following SQx tests)  This query searches for all possible information in all domains coming from Euromuse.	<i>Output should contain title, shoth description, event location, event category, date range, url, vignette.</i>	The metasearch process is asynchronous and the results can be visualised as soon as they become available.  In the result list it is possible to understand if the data comes from an external data source or from the local index.	Registry filters out the providers to involve, and returns the access information	o	Promoter	Affidum		o	Museumsm.		w	MS	results load, over 100, turn pages works this time around. results do not contain all information expected, two observations: _exhibitions in UK, no title available, in the source instance uk exhibitions are filled only in the local language, which is english anyway. But the title are present _exhibitions in Finland, missing Town and Country	compare: <a href="http://www.euromuse.net/thorsten2/harmosearch/query_uk_fin.xml">http://www.euromuse.net/thorsten2/harmosearch/query_uk_fin.xml</a>  <a href="http://www.euromuse.net/thorsten2/harmosearch/query_uk_fin.png">http://www.euromuse.net/thorsten2/harmosearch/query_uk_fin.png</a>	o	ectrl
SQ2		Search Query Language	Search All events	Retun all possible events	<i>Output should be result list: see SQ1</i>	Same as SQ1	Like SQ1	o	Promoter	Affidum	Vignette were not available	o	Museumsm.		o	MS			o	ectrl
SQ3		Search Query Language	Search All events within time frame	Retun all possible events within [1.4.2013, 30.04.2013 ]	<i>Output should be result list: see SQ1</i> Comment from CP - if you specify both start and end date you will get events whose time interval overlaps with the specified dates	Same as SQ1	Like SQ1	o	Promoter	Affidum		o	Museumsm.		w	MS	the query seems to be formulated wrong: the startDate is related to the tag <to>?? the EndDate with the tag <from>??		o	ectrl
SQ3.1	SQ3	Search Query Language	Search All events within time frame, alternative 1	Retun all possible events starting from 1.4.2013	<i>Output should be result list: see SQ1</i> Alternative 1: give only Date 1 Comment from CP - if you specify only the start date you will get all events which ends after the specified date (independently from when they start)	Same as SQ1	Like SQ1	o	Promoter	Affidum		o	Museumsm.		o	MS	sq 3 alt 1		o	ectrl
SQ3.2	SQ3	Search Query Language	Search All events within time frame, alternative 2	Retun all possible events until 30.04.2013	<i>Output should be result list: see SQ1</i> Alternative 2: give only date 2 Comment from CP - if you specify only the end date you will get all events which starts before the specified date (independently from when they end) - THEREFORE ALSO PAST EVENTS ARE RETRIEVED	Same as SQ1	Like SQ1	o	Promoter	Affidum		o	Museumsm.		o	MS	sq 3 alt 2		o	ectrl

Id	Parent	Action	Name	Description	Comment (and alternatives)	Expected Output	Semantic Registry	28/1/2013	Who	29/1/2013	Who	Actual Result	1/2/2013	Who	Actual Result	11/2/2013	Who	Actual Result	Output (XML, Screen ...)	21/2/2013	Who
								o	Promoter	o	Affidum		o	Museumsm.		o	MKS			o	ectrl
SQ4		Search Query Lan	Search All events within locations	Retun all possible events in Berlin/Germany	<b>Output</b> should be result list: see SQ1  Comment: note that the results are not the same as if you insert the same parameters in Simple Search, because in that case a further, default search criteria is added, namely "from today on".	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS	SQ 4		o	ectrl
SQ4.1	SQ4	Search Query Lan	Search All events within locations	Retun all possible events in Germany	<b>Output</b> should be result list: see SQ1 Alternative 1: In Germany (Country instead of given city)  Comment: note that the results are not the same as if you insert the same parameters in Simple Search, because in that case a further, default search criteria is added, namely "from today on".	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS	sq4 alt 1		o	ectrl
SQ4.3	SQ4	Search Query Lan	Search All events within locations	Retun all possible events in Italy	<b>Output</b> should be result list: see SQ1 Alternative 3: in IT (ISO code for Italy)  Comment: note that the results are not the same as if you insert the same parameters in Simple Search, because in that case a further, default search criteria is added, namely "from today on".	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS	sq4 alt...		o	ectrl
SQ4.4	SQ4	Search Query Lan	Search All events within locations	Retun all possible events in Biella or Berlin	<b>Output</b> should be result list: see SQ1 Alternative 4: in Biella or Berlin	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS	sq4 alt...		o	ectrl
SQ4.5	SQ4	Search Query Lan	Search All events within locations	Retun all possible events in Biella or Berlin within [1.4.2013,30.04.2013]	<b>Output</b> should be result list: see SQ1 Alternative 5: in Biella or Berlin within a certain period	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS	sq4 alt...		o	ectrl
SQ4.6	SQ4	Search Query Lan	Search All events within locations	Retun all possible events in Biella within [1.4.2013,30.04.2013] or Berlin within [1.5.2013,31.05.2013]	<b>Output</b> should be result list: see SQ1 Alternative 6: in Biella within a certain period or Wien within another period	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS	sq4 alt...		o	ectrl
SQ5		Search Query Lan	Search All events for certain categories	Retun all possible events in Biella corresponding to cultural	<b>Output</b> should be result list: see SQ1	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS	SQ 5		o	ectrl
SQ5.1	SQ5	Search Query Lan	Search All events for certain categories	Retun all possible events in Berlin corresponding to modern art exhibitions or sculpture exhibitions	<b>Output</b> should be result list: see SQ1 Alternative 1: in Berlin corresponding to modern art exhibitions or sculpture exhibitions	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		o	MKS			o	ectrl
SQ5.2	SQ5	Search Query Lan	Search All events for certain categories	Retun all possible events in Berlin or Biella corresponding to modern art exhibitions	<b>Output</b> should be result list: see SQ1 Alternative 2: in Berlin or Biella or corresponding to modern art exhibitions	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		w	MKS	loads 51 events in berlin from euromuse, contacts 2 data providers, none are retrieved from biella or euromusemf		o	ectrl
SQ5.3	SQ5	Search Query Lan	Search All events for certain categories	Retun all possible events in Berlin or Biella corresponding to modern art exhibitions during that period	<b>Output</b> should be result list: see SQ1 Alternative 3: in Berlin or Biella corresponding to modern art exhibitions during that period	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		w	MKS	loads 3 events in berlin modern art in april from euromuse, none from biella modern art... contacted providers 2 (should be euromuse and euromusemf but maybe biella and euromusemf are temporarily down?)		o	ectrl
SQ5.4	SQ5	Search Query Lan	Search All events for certain categories	Retun all possible events in Biella corresponding to sport or cultural in that period and the events in Berlin corresponding to modern art exhibition or sculpture exhibition in the same period	<b>Output</b> should be result list: see SQ1 Alternative 4: in Biella corresponding to sport or cultural in that period and in Berlin corresponding to modern art exhibition or sculpture exhibition in the same period	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		o	Museumsm.		x	MKS	loads berlin modern art in april and berlin sculpture in april, neither biella culture in april nor biella sport in april... (provider might be down for now?)		o	ectrl
SQ5.5	SQ5	Search Query Lan	Search All events for certain categories	Retun all possible events in Biella corresponding to cultural in that period and the events in Berlin corresponding to modern art exhibition in the same period	<b>Output</b> should be result list: see SQ1 Alternative 5: in Biella corresponding to cultural in that period and in Berlin corresponding to modern art exhibition in the same period	Same as SQ1	Like SQ1	o	Promoter	o	Affidum		w	Museumsm.	Failed on euromuse: Impossible to connect to provider	x	MKS	3 results loaded from euromuse, none from biella (provider might be down for now?)		o	ectrl

[illegible]

# Appendix B.6 - External evaluation of Semantic Registry

1/4

Optional						18/2/2013			21/2/2013			21/2/2013			19/2/2013			21/2/2013			21/2/2013								
ID	Name	Description	Expected Output	Notes / Explanation	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result	Who	Actual Result									
SemReg0	Data Provider registers a new query service, browses the semantic registry, and verifies its behaviour within the metasearch process																												
<p><u>Instructions:</u></p> <p><u>This show case (and functional test), as required, can be shortened by skipping the optional steps</u></p> <p><u>Comment: the number of results described in the 'Expected Output' column may change in time, because the metasearch is an online operation that queries external data providers</u></p>					<p>In order to understand better the tests, at the bottom of the sheet there is a description of what the semantic registry "knows" about the data providers 'biella', 'euromuse' and 'euromusemf'</p> <p>(euromusemf is the local index that contains crawled Microformat metadata from the euromuse web site)</p>					Andrea Albano, consultant of ATL Biella, executed the steps by himself					Demonstrating Online (going through the Harmosearch Portal, supporting through phone) For Saarländischer Museumsverband e.V. (SMV), Museums Association of Federal State Saarland , Saarland					Short Demonstration and explanation to Guy Frank, Member of EGMUS (European Group on Museum Statistics)					Demonstrating practice For German Resistance Memorial Center (GDW), Berlin				
SR0	OPTIONAL	Clean up if necessary	log in as testuser ('testuser@test.user', password: testuser) - go on 'Configurations' -> 'Query Service' - click on the Data Provider(s) attached to your organisation if it/they exists click on 'Delete Provider' (DO NOT DELETE THE PARTICIPANT!)	The evaluation starts with 'Test' organization having no data provider attached	o	Atidum	o	ectrl																					
SR1	OPTIONAL	Add query service for a new HarmoSearch data provider	go in 'Configurations' -> 'Query Service' click on 'Test' - go on panel 'Create and attach a new Data Provider' and insert an id (e.g. TestDataprovider (no whitespaces!)) - click on 'Create' and insert the following parameters: - 'Test Data Provider' as Provider Name - 'events' as collectionid 'http://www.euromuse.net/harmonise/query/query.php' as service access endpoint (no whitespaces!) - 'karin' as username and password - 'HTTPAdapter' as Connector class - select 'METASEARCH' as operation - 'Event' as Subdomain - click on 'Save Changes'  - click 'Edit Data Description' and select 'events in Berlin' - click on 'Save Changes'	If you go back to the view 'Harmonise Participant Details' (back to list), the new data provider is attached to your organization ('Test')	w	Atidum	o	ectrl																					
SR2		Browse Registry (events in Berlin)	go on 'Search Data' -> 'Browse Data Providers' - select 'events in Berlin'	3 providers returned  "Test" is listed as relevant data provider by the semantic registry (together with 'euromuse' and 'euromusemf')	o	Atidum	o	ectrl	o	At Biella - A. Albano	o	musumsmn - SMV	o	musumsmn - EGMUS	w	musumsmn - GDW	Results o.k., but worked only for 1 data provider												
SR3		Metasearch (events in Berlin)	go on 'Search Data' -> 'Metasearch' - select 'Germany' and 'Berlin' - click on 'Search'	Message says: Contacted providers 3  Total results: 215 (71 euromusemf, 72 euromuse, 72 Test)  All 3 data providers that are considered relevant are involved in the metasearch.	o	Atidum	o	ectrl	o	but very slow!, it takes several minutes to get the results	o	At Biella - A. Albano	x	musumsmn - SMV	w	musumsmn - GDW	worked only for 1 data provider												
SR4		Browse Registry (cultural events in Berlin)	go on 'Search Data' -> 'Browse Data Providers' - select 'cultural events in Berlin'	1 provider returned  "Test" is the only relevant data provider listed by the semantic registry  'events in Berlin' is more generic than 'cultural events in Berlin', thus 'Test' is considered relevant for the query	w	Atidum	o	ectrl	o	At Biella - A. Albano	o	musumsmn - SMV	o	musumsmn - EGMUS	o	musumsmn - GDW	portal very slow												

Demonstrating Online (going through the HarmoSearch Portal, supporting through phone)  
For Saarländischer Museumsverband e.V. (SMV), Museums Association of Federal State Saarland , Saarland

Short Demonstration and explanation to Guy Frank, Member of EGMUS (European Group on Museum Statistics)

Demonstrating practice For German Resistance Memorial Center (GDW), Berlin

Andrea Albano, consultant of ATL Biella, executed the steps by himself

## Appendix B.6 - External evaluation of Semantic Registry

ID	Optional	Name	Description	Expected Output	Notes / Explanation	18/02/2013 Who Actual Result	21/2/2013 Who Actual Result	21/2/2013 Who Actual Result	19/2/2013 Who Actual Result	21/2/2013 Who Actual Result	22/2/2013 Who Actual Result
SR5	OPTIONAL	Metasearch (cultural events in Berlin)	go on 'Search Data' -> 'Metasearch' - select 'Germany' and 'Berlin' - select 'cultural' as category - click on 'Search'	Message says: Contacted providers 1  Total results: 72 from Test	Note that the search results are all n Berlin, but the category seems not to match: it means that the query of HarmoSeach looking for cultural events has been mapped, for the 'Test' data provider, into a query that includes all categories, either because cultural was mapped into all categories, or because cultural was not mapped, and the query service on Test (which corresponds to euromuse) did not consider that value / category within its local search engine	o Altium	o ectrl very slow!	o Alt Biella - A. Albano	o museumsmedien - SMV	o museumsm - EGMUS	o museumsmedien - GDW
SR6		Browse Registry (events in Biella)	go on 'Search Data' -> 'Browse Data Providers' - select 'events in Biella'	But 'Test' is NOT a relevant data provider listed by the semantic registry	'events in Berlin' excludes 'events in Biella' thus 'Test' NOT is considered relevant for the query	w Altium	o ectrl	o Alt Biella - A. Albano	portal slow	o museumsm - EGMUS	portal very slow
SR7	OPTIONAL	Metasearch (events in Biella)	go on 'Search Data' -> 'Metasearch' - select 'Italy' and 'Biella' - click on 'Search'	Message says: Contacted providers 3 (biella, euromuse and euromusemf)  Total results: 10 total, all from Biella	'euromuse' and 'euromusemf' are involved because in the registry's data description (see * below) they have events in Italy (thus, in Biella). This does not mean that they actually have instances of events in Biella.	o Altium	o ectrl				
SR8		Browse Registry (modern art exhibitions)	go on 'Search Data' -> 'Browse Data Providers' - select 'modern art exhibitions'	"Test" is listed as relevant data provider by the semantic registry (together with 'euromuse' and 'euromusemf')	'events in Berlin' includes 'modern art exhibitions (everywhere)' thus 'Test' is considered relevant for the query	o Altium	o ectrl	o Alt Biella - A. Albano	o museumsmedien - SMV	o museumsm - EGMUS	o museumsmedien - GDW
SR9	OPTIONAL	Metasearch (modern art exhibitions)	go on 'Search Data' -> 'Metasearch' - select 'modern art exhibitions' as category - click on 'Search'	Message says: Contacted providers 3 (Test, euromuse and euromusemf)  Total results: 50 (25 from Test and 25 from euromuse, 0 from euromusemf)	'euromuse' and 'euromusemf' are involved because in the registry's data description (see * below) it states that they have modern art exhibitions. This does not mean that they necessarily have instances of such events (in fact, euromusemf has not).	o Altium	o ectrl				
SR10		Browse Registry (events in Italy)	go on 'Search Data' -> 'Browse Data Providers' - select 'events in Italy'	But 'Test' is NOT a relevant data provider listed by the semantic registry	'events in Berlin' excludes 'events in Italy' thus 'Test' NOT is considered relevant for the query	o Altium	o ectrl	o Alt Biella - A. Albano	o museumsm - SMV	o museumsm - EGMUS	portal very slow
SR11	OPTIONAL	Metasearch (events in Italy)	go on 'Search Data' -> 'Metasearch' - select 'Italy' - click on 'Search'	Message says: Contacted providers 3 (biella, euromuse and euromusemf)  Total results: 32 total (4 from euromusemf, 10 from biella, 18 from euromuse)	'euromuse' and 'Test' are the same provider, thus 'Test' would have some events in Italy. But the registry excludes it from the metasearch, because its 'Data Description' says it hosts (only): 'events in Berlin (Germany)'.	o Altium	o ectrl				



## Appendix B.6 - External evaluation of Semantic Registry

3/4

[illegible]

## Appendix B.6 - External evaluation of Semantic Registry

[illegible]

## APPENDIX C. ACCEPTANCE NOTES

This section gathers all acceptance notes validated by the partners for each release.

### Appendix C.1. Acceptance notes for RC1 of the Registry

The following section is an excerpt, addressing only the Semantic Registry, of the document **Acceptance Notes for Release 1**, which is available in its complete version in D7.1 'Compiled collection of acceptance notes'.

#### SME Acceptance

This section contains the list and status for each partner

NR	CHECK	YES / NO / Conditional
1	X+O BUSINESS SOLUTIONS GMBH	YES
2	ECTRL SOLUTIONS SRL	YES
3	EC3 Networks GmbH	YES
4	Lehmann & Werder Museumsmedien	YES
5	AFIDIUM	YES

#### Other partner comments

NO COMMENT

#### Consortium acceptance

The consortium thereby accepts this release and considers that it covers requirements.

[..]

Tests that did not pass corresponded to either new requirements and have been entered in the list of requirements or to configuration issues that will be solved and tested in the next release.

#### Appendix: Test Summary

Attached to this document are the Excel files detailing the tests that were performed and justifying the level of acceptance for the delivery. [...]

[Test Case Release 1 - Crawler.xlsx](#)

[Test Case Release 1 - Portal.xlsx](#)

[Test Case Release 1 - Query.xlsx \(reported in Appendix B.1\)](#)

[Test Case Release 1 - Semantic Registry.xlsx \(reported in Appendix B.1\)](#)

## Appendix C.2. Acceptance notes for RC2 of the Registry

The following section is an excerpt, addressing only the Semantic Registry, of the document **Acceptance Notes for Release 2**, which is available in its complete version in D7.1 'Compiled collection of acceptance notes'.

### SME Acceptance

This section contains the list and status for each partner

NR	CHECK	YES / NO / Conditional
1	X+O BUSINESS SOLUTIONS GMBH	Conditional
2	ECTRL SOLUTIONS SRL	Conditional
3	EC3 Networks GmbH	Conditional
4	Lehmann & Werder Museumsmedien	Conditional
5	AFIDIUM	Conditional

### Other partner comments

NO COMMENT

### Consortium acceptance

The consortium thereby accepts the Metasearch Core Engine part of the release and considers that it covers requirements.

However, the mapping tool has been accepted with conditions.

[...]

Tests that did not pass corresponded to either new requirements and have been entered in the list of requirements or to configuration issues that will be solved and tested in the next release.

### Appendix: Test Summary

Attached to this document are the Excel files detailing the tests that were performed and justifying the level of acceptance for the delivery. [...]

[Test Case Release 2 - MetaSearch.xlsx \(an excerpt is in Appendix B.2\)](#)

[Test Case Release 2 - Mapping Tool.xlsx](#)

## Appendix C.3. Acceptance notes for RC3 of the Registry

The following section is an excerpt, addressing only the Semantic Registry, of the document **Acceptance Notes for Release 3**, which is available in its complete version in D7.1 'Compiled collection of acceptance notes'.

### SME Acceptance

This section contains the list and status for each partner

NR	CHECK	YES / NO / Conditional
1	X+O BUSINESS SOLUTIONS GMBH	<b>Conditional</b>
2	ECTRL SOLUTIONS SRL	<b>Conditional</b>
3	EC3 Networks GmbH	<b>Conditional</b>
4	Lehmann & Werder Museumsmedien	<b>Conditional</b>
5	AFIDIUM	<b>Conditional</b>

#### Other partner comments

NO COMMENT

#### Consortium acceptance

The consortium thereby accepts this release and considers that it covers requirements on the portal. The mapping tool is accepted as a prototype, provided it is transformed in the next release to take into account the usability requirements.

[...]

#### Appendix: Test Summary

Attached to this document are the Excel files detailing the tests that were performed and justifying the level of acceptance for the delivery. [...]

[Test Case Release 3 - Portal.xlsx \(an excerpt is in Appendix B.3\)](#)

[Test Case Release 3 - Mapping Tool.xlsx](#)

#### Appendix C.4. Acceptance notes for RC4 of the Registry

The following section is an excerpt, addressing only the Semantic Registry, of the document **Acceptance Notes for Release 4**, which is available in its complete version in D7.1 'Compiled collection of acceptance notes'.

#### SME Acceptance

This section contains the list and status for each partner

NR	CHECK	YES / NO / Conditional
1	X+O BUSINESS SOLUTIONS GMBH	<b>YES</b>
2	ECTRL SOLUTIONS SRL	<b>YES</b>
3	EC3 Networks GmbH	<b>YES</b>
4	Lehmann & Werder Museumsmedien	<b>YES</b>

NR	CHECK	YES / NO / Conditional
5	AFIDIUM	YES

#### Other partner comments

NO COMMENT

#### Consortium acceptance

The consortium thereby accepts this release and considers that it covers requirements. [...]

#### Appendix: Test Summary

Attached to this document are the Excel files detailing the tests that were performed and justifying the level of acceptance for the delivery. [...]

Test Case Release 4 - Portal.xlsx (an excerpt is in Appendix B.4)

Test Case Release 4 - Mapping Tool.xlsx

### Appendix C.5. Acceptance notes for RC5 of the Registry

The following section is an excerpt, addressing only the Semantic Registry, of the document **Acceptance Notes for Release 5**, which is available in its complete version in D7.1 'Compiled collection of acceptance notes'.

#### SME Acceptance

This section contains the list and status for each partner

NR	CHECK	YES / NO / Conditional
1	X+O BUSINESS SOLUTIONS GMBH	Conditional
2	ECTRL SOLUTIONS SRL	Conditional
3	EC3 Networks GmbH	Conditional
4	Lehmann & Werder Museumsmedien	Conditional
5	AFIDIUM	Conditional

#### Other partner comments

NO COMMENT

#### Consortium acceptance

The consortium thereby accepts this release and considers that it covers requirements, except for the mapping tool that has only been accepted with conditions. [...]

#### Appendix: Test Summary

Attached to this document are the Excel files detailing the tests that were performed and justifying the level of acceptance for the delivery.

Tests passed well, some minor suggestions for additional improvements were provided. Those suggestions will be studied for potential improvements of the platform later on.

Test Case Release 5 - Portal.xsl (an excerpt is in Appendix B.5)