Contract Number 235542

RACE networkRFID

FP7 Thematic Network
ICT-PSP: a European concerted effort on RFID

D3.1 – Compile RFID database of case studies and pilot projects

Due date of deliverable: 28-02-2010 (M12)
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Start date of project: March 1st, 2009 Duration: 36 months
Version: 1

Organisation name of lead contractor for this deliverable: FILRFID/CNRFID
Contact person: Laurent Gonzalez

Project co-funded by the European Commission within the Seventh Framework Programme (2007-2013)		
Dissemination Level		
PU	Public	**PU**
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Preamble

Work package 3, Application and projects deployments, objectives are:

- To create a database of exemplary case and pilot studies that demonstrate the business support capabilities of RFID for companies.
- To collect all information sent by companies and entities related to their RFID "initiatives" and to qualify the files sent into demo/pilot/ RFID project.
- To cover a wide range of application areas from supply chain to people lifestyle.

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Participants

Twelve organisations representing ten European countries joined this Work Package:

- University of Manchester, UK : University of Manchester
- CNRFID , France : RFID National Competence Centre
- ELTRUN-AEUB, Greece, Athens University of Business and Economics
- FILRFID , France, WP3 Leader : RFID Association
- GS1, Europe: Standardization organization
- Informationsforum RFID, Germany, RFID Association
- Internet Veci o.p.s, Czech Republic : Private Company
- Mondi, Austria : Packaging Company
- RFID Nordic, Sweden : RFID Association
- Tecnalia-Robotiker, Spain : Research Institute
- IT Tralee, Ireland : Research Institute
- VTT, Finland, Research Institute

Introduction

In March 2009, the first Assembly General of the Race-networkRFID project took place in Brussels. At this meeting, FILRFID presented the description of the work package 3 and called for participants to join this work package. Twelve organisations representing ten European countries joined this Work Package.

The core of the work package was then created. Teleconferences were organised in order to exchange views, ideas and documents of the WP3. Documents were sent by email for comments and validation.

Database specifications and requirements

The first task was to identify the requirements of the database and to define the specifications following from those requirements. The specifications were written by Mr. Leclercq of CNRFID and Mr. Gonzalez of FILRFID taking into account their experience in RFID, data base and the requirements of end users.

A two step method was proposed in the specification:

- To collect data and information from the end users who wish to communicate on their demo, application or project
- To validate and publish the collected data and information of the identified "Use Case" by all the WP3 participants.

The process suggested by the Work Package 3 leader is the following:

- The first step is to collect from entities, persons who desire to communicate on their RFID demo, project or application.

- The second step is to publish the collected data :
  - ⇨ A « sheet » to fill on the website of the project
    - A database of the "initiatives"
      This data base has all the information that was filled on the project website.
    - A database of the « use case »
      In order to validate the "initiatives", the entities or persons that deposit data by filling the "sheet " will be invited to fill a second "sheet" in order for WP3 participants to qualify their initiative into a "use case".

The process of data collection is defined by the field description. The structure of the necessary fields required for the data base of the « Use Case » is:

Initiatives RFID	Nature of Field	Specification
IdUseCase	Unique ID	Self generated number
Status	Status of use case	List of value among : « test / demo / pilot / deployment »
Civility	Civility of the contact person who filled the information on the web site	List of value among : « Mr. / Miss/ Mrs. »
Name	Family name of the contact person	Free text, number of character to be defined.
First Name	First name of the contact person	Free text, number of character to be defined.
Entity Name	Entity name of the entity who filled the information on the web site	Free text, number of character to be defined.
Email	Email address of the contact who filled the information on the web site	Free text, number of character to be defined. (automated verification of the email validity ?).
Web site	Web site of entity who filled the use case	Free text , number of characters to be defined (automated verification of URL address).
Telephone Number	Telephone number of the contact.	Number , 13 characters at maximum
Country	Country location of the use case	Standard list of countries of the world
Title	Title of use case	Field of free text from 5 to 10 lines, number of character to be defined.
Description	Description in 5 to 10 lines of the scope of the use case	Field of free text from 5 to 10 lines, number of character to be defined.
Sector of activity	Sector of activity of use case	List of value to choose from with two levels; level 2: sub- sector of activity is optional. See excel file " List of choices"
Application	Application of the use case	List of value with an option « other » that leads to a field of "free text". see Excel sheet « applications » of Excel file « List of choices »
Description of application	Description of 5 to 10 lines for the application of the use	Field of free text from 5 to 10 lines, number of character to be defined.

	case	
Nature of object	Nature of object trace by RFID	Free text , number of character to be defined .
Quantity of tagged objects	Number of tagged object	Number to enter
% of tagged objects	Percentage of tagged objects compared to the total number of objects	Percentage to enter
Nature of data	Nature of data collected	List of choices among the Excel sheet « nature of data collected » of the Excel file « List of choices »
Number of reading points	Number of reading points implemented	Number to enter
Localization of reading points	Localization of the reading points within the entity	Field of free text from 5 to 10 lines, number of character to be defined.
Quantitative improvement	Number of months or Euros (ROI)	Number to enter
Quantitative improvement unit	Unit of quantitative improvement	List of value among « number of months / k€ »
Qualitative improvement	Type of Improvement generated by the RFID solution.	List of value among the list of value « qualify RFID improvement» of the Excel file « List of choices » with the possibility to choose « other » that leads to a field of free text
Qualitative improvement description	Type of improvement on a qualitative basis given by the entity	Field of free text from 5 to 10 lines, number of character to be define.
Agreement	Agreement of publication submitted by the entity into the « use case » data base.	List of value among « yes / no »
Message processing the data	Status of processing the data of a « use case »	Process phase of UseCase : List of value : Phase 1 & 2.

The structure of the necessary fields of the database for the « analysis, validation, and publication » of the « use case » is:

Use case RFID (analyzed et published)	Nature of information	Nature of field
Tag Type	Type of RFID tag	List of value among « passive, semi-passive , active »
Tag Frequency	Frequency	List of value of 2 levels
Standard solution	Is the RFID solution a standard one?	List of value among « yes / no »
Process description	Description of the work process of the application	Free text, number of character to be defined.
Nature of deployment	Nature of deployment	Free text, number of character to be defined .
Deployment nature entities	Number of entities where the RFID solution is being deployed.	*Number to enter*
Deployment partners number	Number of partners of the RFID project	*Number to enter*
Deployment nature openness	Close loop or Open loop	List of value among " close loop /open loop"
Deployment nature partners name	Name of the partner(s) in the project	*Name(s) of partner(s),* Free text, number of character to be define .
Deployment nature exchange	Type of data exchanged between the partners exploiting the RFID solution	*Shared information collected between the partners of the project* , list of value among « yes/no »
Demonstration link	Link to a demonstration (video, external content)	Hyperlink URL toward another source
Photos management	Photos of illustration	To be define : hyperlink or dedicated library

Once the information related to the “initiatives” and the “use cases” is registered in the database, the analysis of the information must allow sorting the “initiatives” and the “use cases” based on chosen criteria’s.

A List of cross analysis that appeared relevant was issued:

- ⇨ Country vs. sector of activity
- ⇨ Country vs. demo/application/deployment
- ⇨ Sector of activity vs. demo/application/deployment
- ⇨ Sector of activity vs. sub sector of activity
- ⇨ Sub sector of activity vs. application
- ⇨ Nature of data vs. qualitative, quantitative improvement
- ⇨ Nature of data vs. application
- ⇨ Application vs. qualitative, quantitative improvement
- ⇨ Sector of activity vs. quantitative, qualitative improvement
- ⇨ Title vs. sector of activity
- ⇨ Nature of object vs. application
- ⇨ Nature of object vs. sector of activity
- ⇨ Nature of object vs. quantitative, qualitative improvement

The cross analysis will allow to sort the data register by a single or several relevant criteria’s for the end user. The end user will be able to list for example the RFID projects in the specific industry sector for all countries.

Once the database is populated, the cross analysis will allow in time to carry out studies by country, Industry sector etc.

The specifications were then submitted to the WP3 participants for comments and validation. Some participants felt that a lot of data needed to be filled for a single end user. The need to qualify the data in order to maintain high quality of was clearly an issue for the WP3 leader. Others expressed their satisfaction related to the specifications.

Database structure

After the allocation by the General Assembly of a 22 k euros budget for the construction of the database.
Two propositions were made for the construction of the database:

- One by the managing entity of the project ERCIM (W3C)
- One by a private company

The two propositions were submitted to WP3 participants for a vote, the web team (W3C) of the managing entity of the Race networkRFID (ERCIM) was selected to build the database.

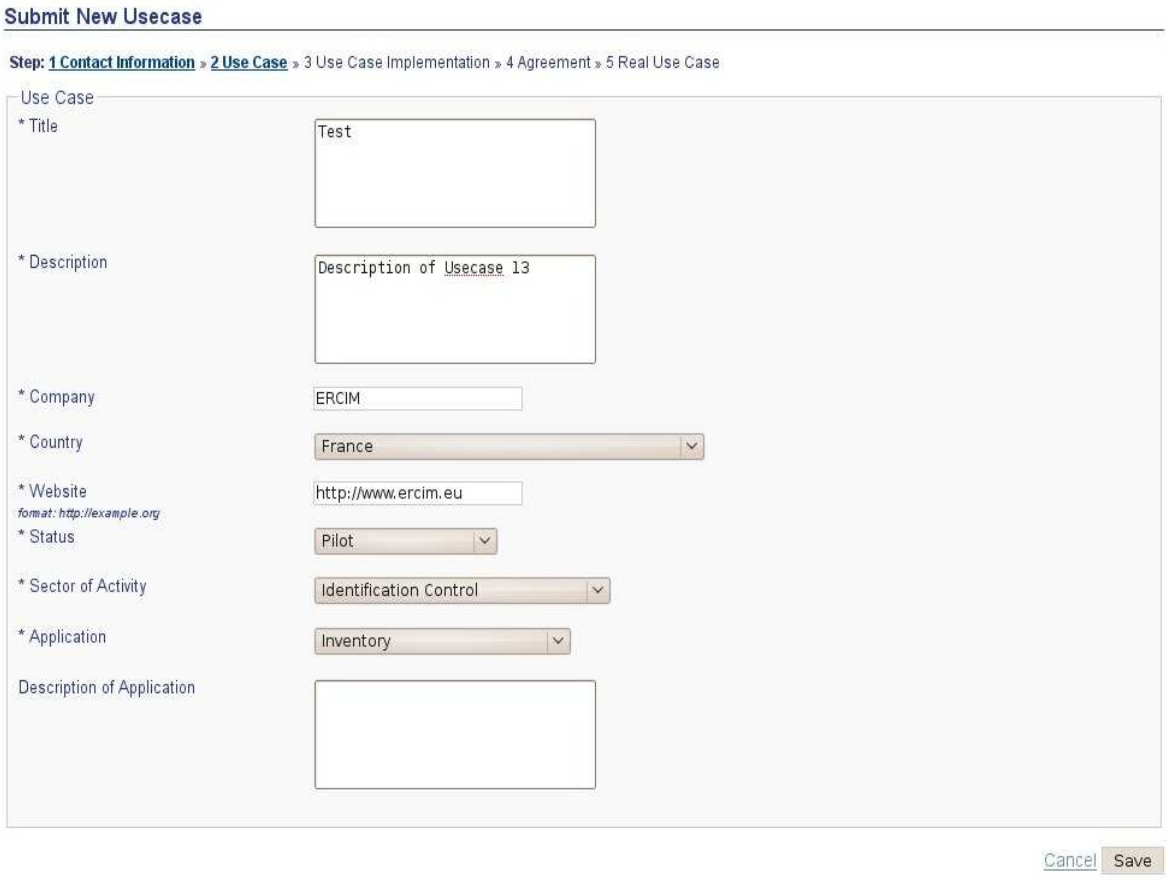
The database is divided in three main sections:

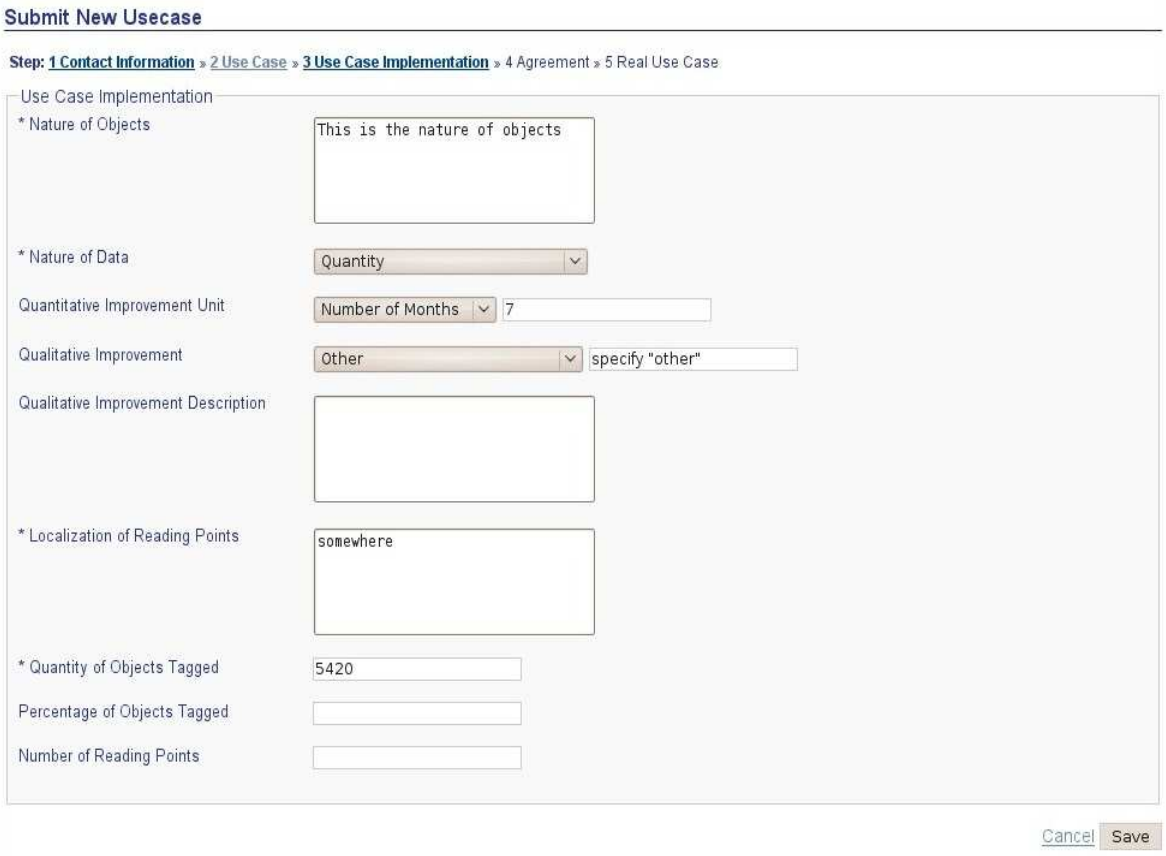
- The submit section
- The view section
- The analysis section

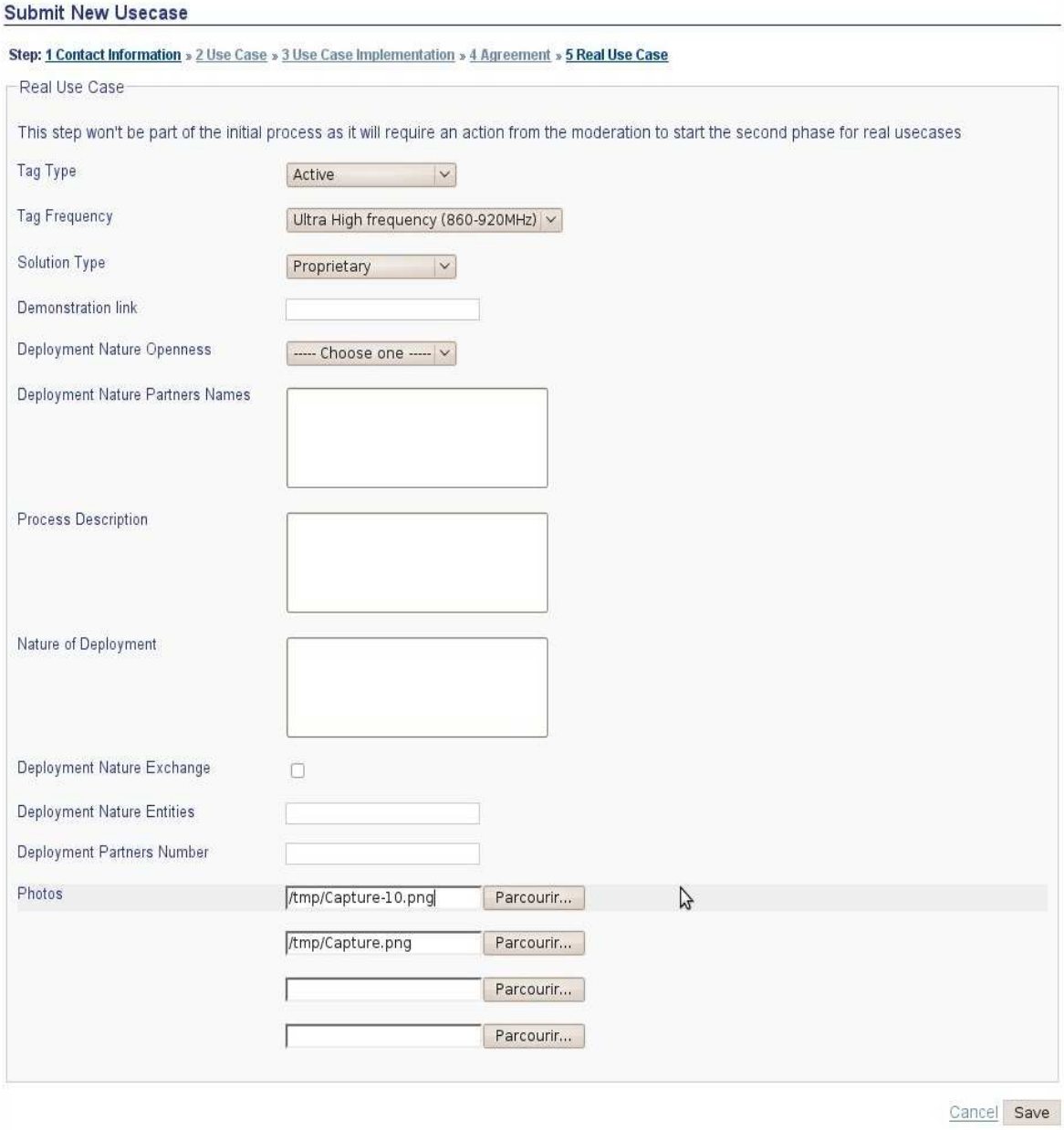
The submit section:

In this section, the end user (contact person) will be guided in order to fill information related to his project/pilot.

Once the end user has completed the form and agreed to send the information in the network, his data will be reviewed for validation.



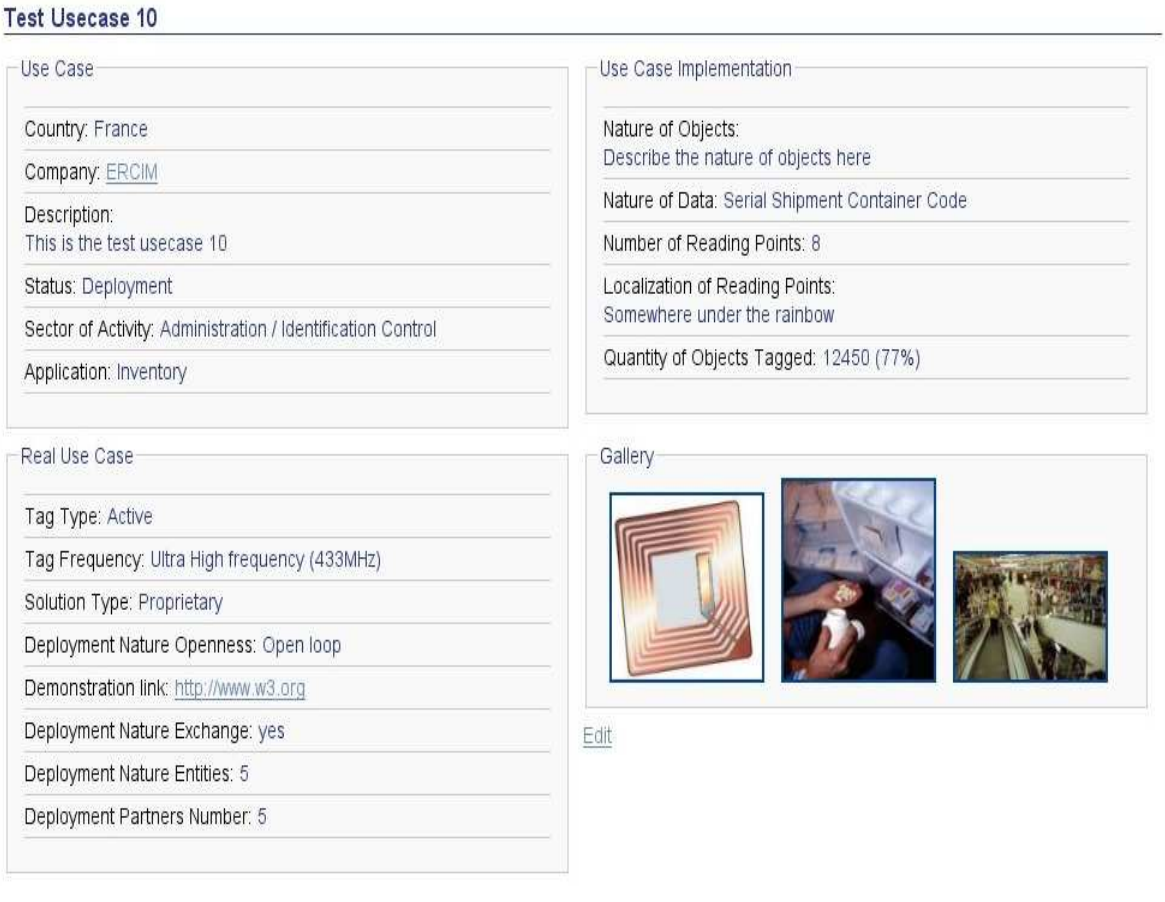

Submit New Usecase
Step: 1 Contact Information » 2 Use Case » 3 Use Case Implementation » 4 Agreement » 5 Real Use Case
Use Case Implementation
* Nature of Objects
This is the nature of objects
* Nature of Data
Quantity
Quantitative Improvement Unit
Number of Months
7
Qualitative Improvement
Other
specify "other"
Qualitative Improvement Description
* Localization of Reading Points
somewhere
* Quantity of Objects Tagged
5420
Percentage of Objects Tagged
Number of Reading Points
Cancel
Save


Submit New Usecase
Step: 1 Contact Information » 2 Use Case » 3 Use Case Implementation » 4 Agreement » 5 Real Use Case
Real Use Case
This step won't be part of the initial process as it will require an action from the moderation to start the second phase for real usecases
Tag Type
Active
Tag Frequency
Ultra High frequency (860-920MHz)
Solution Type
Proprietary
Demonstration link
Deployment Nature Openness
----- Choose one -----
Deployment Nature Partners Names
Process Description
Nature of Deployment
Deployment Nature Exchange
Deployment Nature Entities
Deployment Partners Number
Photos
/tmp/Capture-10.png
Parcourir...
/tmp/Capture.png
Parcourir...
Parcourir...
Parcourir...
Cancel
Save

The view section:

In this section, any end user (person, entity, company) will be able to see the all the “initiatives” and the “use cases” that have been registered in the database.

They will also be able to search a specific RFID application or to list all RFID application for a specific industry sector for a selected country using different criteria’s: Country, Industry sector...



The end user will also be able to search a specific RFID application or to list all RFID application for a specific industry sector, for a selected country using different criteria’s: Country, Industry sector...

Use cases & Initiatives

Search

Advanced Search

Usecases

Title	Type	Created at	Country	Description
Test Usecase	Real usecase	2010-01-22 18:10:10	France	This is a test usecase
RFID Pallet Tracking for Mondi Bags BU	Real usecase	2010-01-12 12:02:13	Austria	For customer with consignment stock Mondi needed an efficient way of how pallets of industrial bags coudl be tracet. The Mondi RFID Team developed an intelligent auto ID solution usind EPC Gen2 UHF RFID Tags
Test Usecase 10	Real usecase	2009-12-16 20:26:25	Comoros	This is the test usecase 10
Usecase 9	Initiative	2009-12-16 20:25:04	British Virgin Islands	This is the usecase 9
Usecase 8	Initiative	2009-12-16 20:09:51	France	This is the usecase 8

1 | 2 | 3 | Next page | Last »

Use cases & Initiatives

Search

Advanced Search

Type | Title | Country

Status | Sector of activity | Application

Filter

Usecases

Title	Type	Created at	Country	Description
Test Usecase	Real usecase	2010-01-22 18:10:10	France	This is a test usecase
RFID Pallet Tracking for Mondi Bags BU	Real usecase	2010-01-12 12:02:13	Austria	For customer with consignment stock Mondi needed an efficient way of how pallets of industrial bags coudl be tracet. The Mondi RFID Team developed an intelligent auto ID solution usind EPC Gen2 UHF RFID Tags
Test Usecase 10	Real usecase	2009-12-16 20:26:25	Comoros	This is the test usecase 10
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Usecase 8	Initiative	2009-12-16 20:09:51	France	This is the usecase 8

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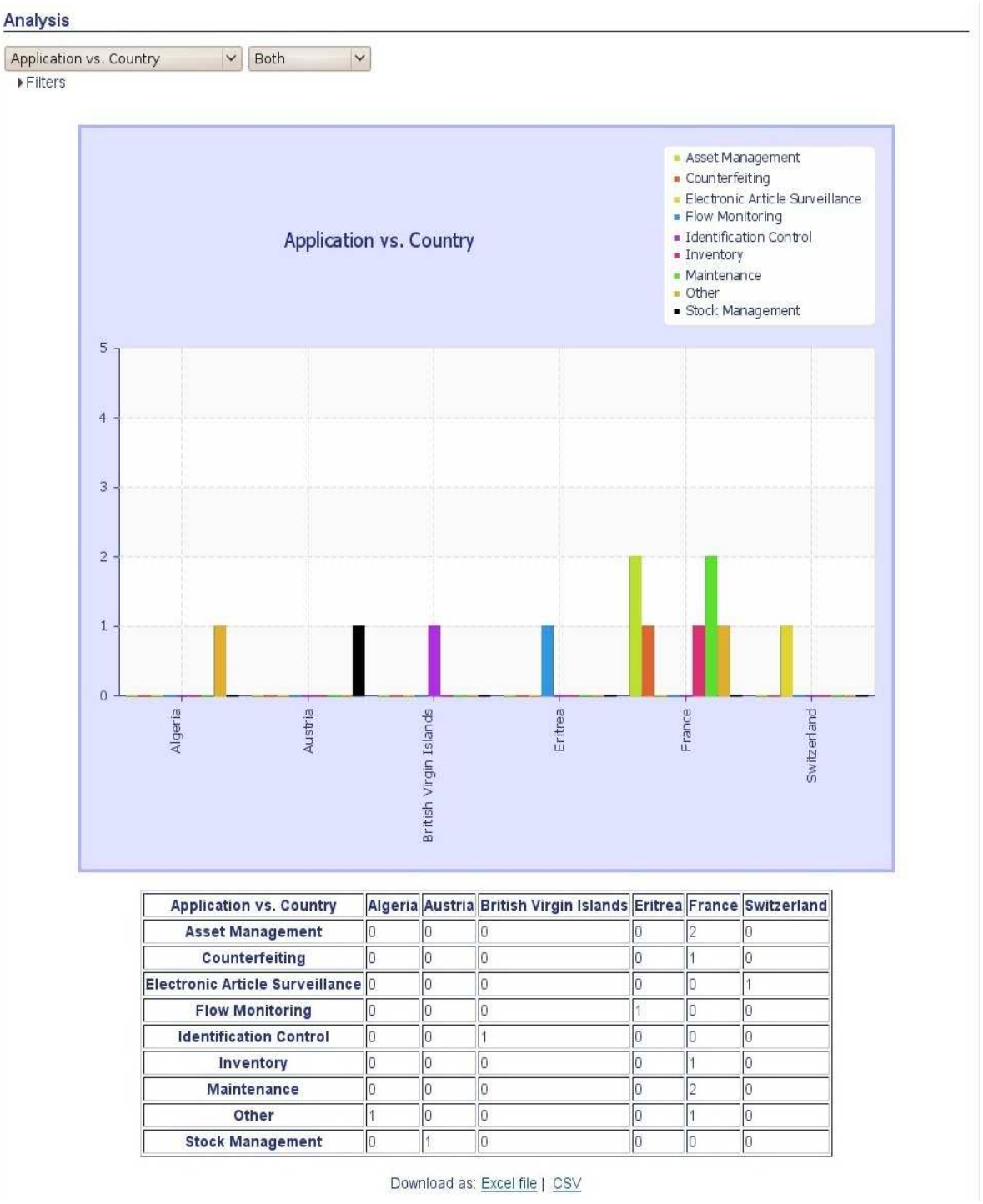
Use cases & Initiatives
Search
Advanced Search
Type
Real usecase
Title
Country
France
Status
Sector of activity
Application
Filter
Usecases
Title
Type
Created at
Country
Description
Test Usecase
Real usecase
2010-01-22 18:10:10
France
This is a test usecase
Test Usecase 10
Real usecase
2009-12-16 20:26:25
France
This is the test usecase 10
RFID Healthcare
Real usecase
2009-12-08 14:02:14
France
Tracking of Medical equipment
Acme RFID badges
Real usecase
2009-12-04 17:18:43
France
Description of Usecase 3

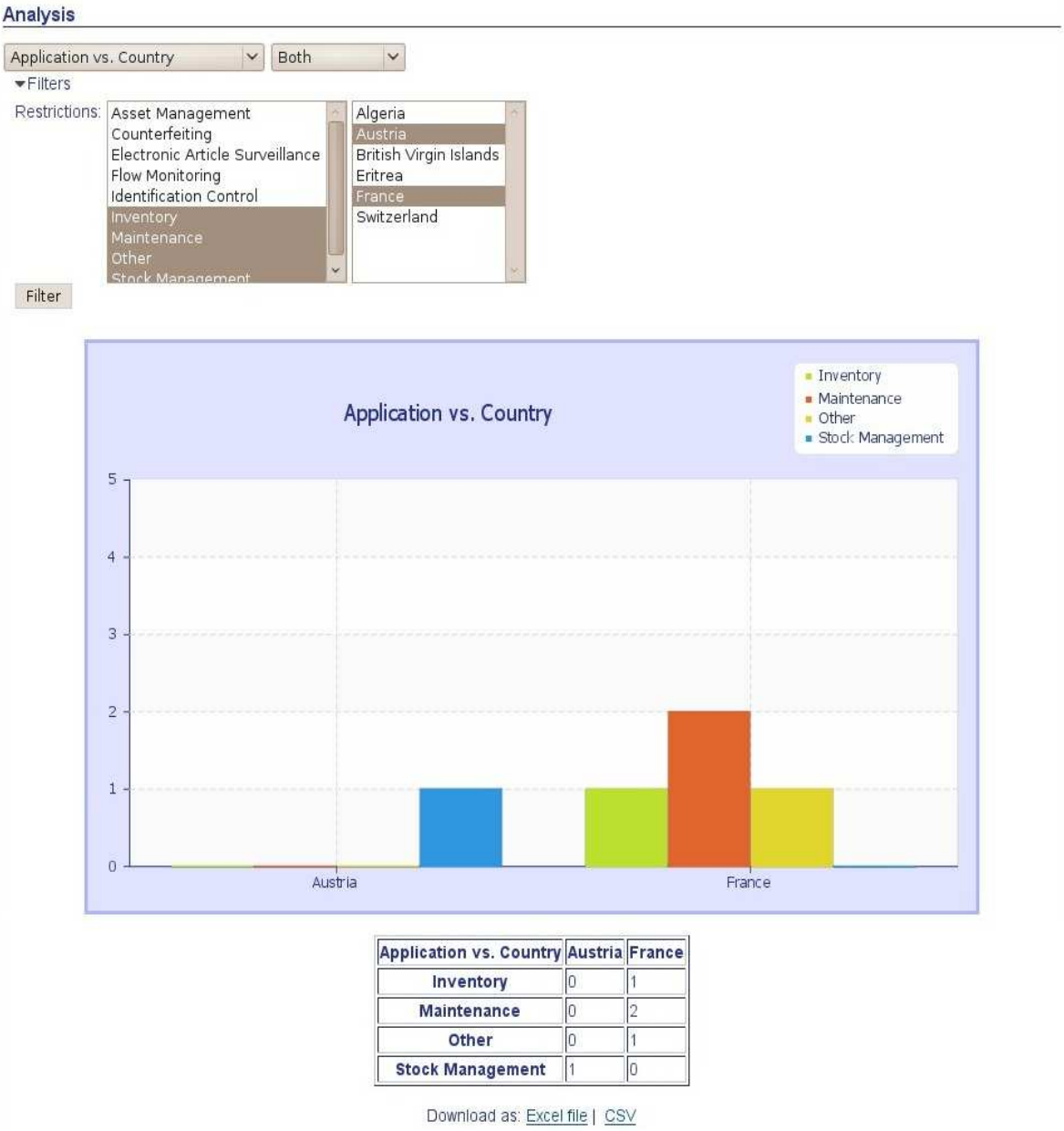
The analyse section:

In this section, the end users will be able to compare data from the use case and make cross analysis from different parameters: Country vs industry sector, Country vs application...



Application vs. Country	Algeria	Austria	British Virgin Islands	Eritrea	France	Switzerland
Asset Management	0	0	0	0	2	0
Counterfeiting	0	0	0	0	1	0
Electronic Article Surveillance	0	0	0	0	0	1
Flow Monitoring	0	0	0	1	0	0
Identification Control	0	0	1	0	0	0
Inventory	0	0	0	0	1	0
Maintenance	0	0	0	0	2	0
Other	1	0	0	0	1	0
Stock Management	0	1	0	0	0	0

Download as: Excel file | CSV



*Please note that when the report on the database was written, the database was still under construction when the report was written. Therefore the “screen shots” are extracted from test and not from real use cases registered in the database.

Registration of “initiatives” and “use cases” into the database

The database will be completed by the web team of ERCIM at the end of February 2010. Therefore beginning of March, the database will be open for all end users in Europe and elsewhere to register their RFID demo/pilot/project.

Once the database is populated with many RFID “initiatives” and “use case”, several studies can be made using the cross analysis section of the database. The database will also be a “reference book” that will list RFID application per country, industry sector, application...

The WP3 leader would like to raise your attention on the fact that the maintenance of the database is directly linked to the survival of the Race-networkRFID thematic network on RFID after the three years. Other income will have to be found in order to pay the maintenance of the database.

Special thanks

I would like to thank all the WP3 participants for the time they put in this work package.
I would also like to underline the work of Jean-Philippe Leclercq of CNRFID for the specifications of the database and Vivien Lacourba, Jean-Guilhem Rouel of ERCIM for currently building the database.