



USER GROUP ACTIVITIES YEAR 2

Deliverable D8.4.2

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EXECUTIVE SUMMARY

This deliverable is the documentation of the second-year User Group activities arising from Task 8.2 “The IQmulus User Group” up to project month 24. The report will be updated annually.

Based on the previously delivered document on Revised User Requirements (D1.2.3), the first part of the present document summarizes the most relevant and updated information concerning mainly internal users currently involved in the project. The reason for concentrating on internal users is that in the second project year the newly formulated Showcases and Workflows were in the focus of the development work, and these Workflows as well as As-Is Analyses for each Workflow were set up in close co-operation with internal users.

The second part of the document introduces information on User Group activities of the second project year, including events documented thematically in eRoom, the changes in the content of the IQmulus website, and other forms of dissemination and provision of information. We pay special attention to the Redmine system, which will provide a useful platform for users as well to follow the development processes.

The last section derives some conclusions and gives an overview of the tasks to be carried out in the next project phase.

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1 INTRODUCTION

IQmulus has manifold connections to users through different organizational structures: especially in Work Packages 1 (Requirements) and WP7 (Assessment and Evaluation) but also WP8 (Dissemination and Outreach) and WP9 (Exploitation and Business Models).

While the actual user interviews, questionnaires, assessment and validation activities are carried out in WP1 and WP7, respectively, the User Group is the organizational unit to involve the stakeholders and inform them about the ongoing activities and results, and that issues calls for participation in specification, testing, assessment and validation exercises. Thus, the User Group is an ensemble of individuals and institutions that already have information on the project and who are in active communication with the consortium partners. Besides this, WP8 is also responsible for raising awareness to broaden the user community, with the first step being to establish initial contact with users that can later be directly involved and thus can join our User Group.

An overview of the User Group established by the end of the first project year in terms of statistics on user involvement was given in the first deliverable on this topic at PM 12 (D8.4.1 *Report on User Group activities M12*). As a result of the on-going requirement consolidation process, from the perspectives of both users and developers, the Showcases elaborated in the first project year were revised for the second project year (D1.2.3 *Revised User Requirements*).

During this process, interaction with professional users was crucial for the further refinement and consolidation of user requirements. For practical reasons the project partners' internal users were mainly involved in the consolidation process of the second year because by working together with a local developer team smooth communication, easy consultation and rapid problem solving became possible. As it is documented in eRoom, many workshops were organized for consultation and for information with participation of internal users, developers and other team members of the project.

As a result of this process, an Integrated Land Showcase (merging and slightly modifying the previous two Land Showcases), the Marine Showcase (basically unchanged) and a new Urban Showcase (covering arising user needs and available functionalities) were formulated. Each Showcase is decomposed into workflows, based on the already existing project outcomes and experiences and providing the framework for the year two developments and beyond.

For each separate workflow an As-Is Analysis was given, discussing the current methods of the project-internal users concerning the execution of the given workflow. Then a summary of the user perspectives and expectations and the potential for innovation was provided. The "Big Data" issues of Volume, Variation, Velocity and Analytics were commented on for each workflow using a predefined table. The proposed IQmulus solutions were then presented against the background of the As-Is Analysis (see D1.2.3 *Revised User Requirements*). The resulting IQmulus functionalities will provide suitable examples for external users so they can reflect on their needs, for further consolidation of the requirements, and for the developments in the third project year.

The present document will give a summary on the common work with the internal users in the second project year (information on users and user related activities), and summarizes the new developments of the dissemination activities, especially focusing on the IQmulus website and on LinkedIn, and finally describes the main changes in the Redmine System concerning the internal user requirements.

2 METHODOLOGY

2.1 INFORMATION ON USERS

In the first project year the online documented Use Cases, User Stories and User Relations collected in the previous phase of WP1 as well as deliverable D1.2.1 *Initial User Requirements* served as the basis for deriving and refreshing information on internal and external users involved – and the user relations present at that time – in the IQmulus project.

Also in the first year some IQmulus partners have undertaken user story shaping activities as part of their participation in the project, namely FOMI, CNR-IMATI-GE, Liguria, UBO, Ifremer, and IGN. They are the internal user story providers.

In the second project year the development work was organized along workflows belonging to the newly (re-)formulated Showcases, which were mostly covering the User Stories shaped by the internal users of the project. In connection to this, the online documentation of users in eRoom (*User Relations* table) was updated with more detailed information about IQmulus internal users besides the identified external users.

We will present statistics and descriptions from the eRoom database and D1.2.3 *Revised User requirements* with respect to the following:

- Number of internal users of the project partners;
- Number of persons contacted as internal user;
- Summary table on internal users and IQmulus partners who had important roles in formulating workflows in D1.2.3 *Revised User Requirements*.

2.2 INFORMATION ON USER RELATED ACTIVITIES

Concerning the user related activities we refer to information presented so far in eRoom in the online databases. Besides this – as in the previous year – we also introduce developments, notes and suggestions concerning activities within WP8 related to informing the User Group about the IQmulus activities and results. This latter topic of the document primarily brings into focus the issues listed below:

- The project website introducing developments made in the recent months compared to plans made last year;
- LinkedIn and the Redmine system as channels for informing users;
- Other dissemination channels.

The databases in the eRoom including details on user related activities are continuously updated and are listed in Table 1.

User Workshops	https://project.sintef.no/eRoom/math/IQmulus/0_2ef9d
Workshop material	https://project.sintef.no/eRoom/math/IQmulus/0_2f356
IQmulus publications	https://project.sintef.no/eRoom/math/IQmulus/0_2da16
IQmulus dissemination activities (what was happened)	https://project.sintef.no/eRoom/math/IQmulus/0_2da08
Events with possible IQmulus presence	https://project.sintef.no/eRoom/math/IQmulus/0_30160
Notification of future dissemination	https://project.sintef.no/eRoom/math/IQmulus/0_2e4f2
Other Dissemination Channels	https://project.sintef.no/eRoom/math/IQmulus/0_2cb4d

Table 1. Databases including details on user related activities

We will now provide short and informative summaries of the folders' contents.

3 RESULTS

3.1 STATISTICS CONCERNING USERS

As it was reported in D8.4.1, altogether 38 institutions were contacted by different IQmulus partners, and User Stories have been provided by 25 of them. Arising from the development work described in D1.2.3, besides the 38 IQmulus-external user institutions, 8 partner institutions provided internal users. Most of these internal users had a role in IQmulus as User Story providers during the user requirement formulation in the first phase of the project, in addition to this in the second project year some of them took over an important part in the requirement consolidation process: by the formulation of showcases, workflows, providing As-Is analyses of current solutions, and shaping requirements towards IQmulus for better solutions.

Internal user expertise was provided by the following IQmulus partners: Liguria Region, FOMI, MOSS, IGN, UCL, TUDelft, Ifremer, and HRW.

The total number of involved (representative) persons from the contacted external institutions is 99 and 26 more persons got involved as employee or member of the internal user institutions.

Concerning the contacted external institutions the information about the sector of activity, expertise, and the scale of work by user story providers was reported in D8.4.1. In Table 2 below, we focus on internal users and IQmulus partners who had important roles in D1.2.3 *Revised User Requirements*. We summarize the issues (showcases and workflows) they are connected to, showing their role in the development process.

<i>IQmulus partner</i>	<i>Internal User</i>	<i>Relation to Showcase</i>	<i>Relation to workflow</i>
Liguria Region	Regional Agency for Ligurian Environmental Protection (ARPAL) Regional Inhouse for the management of Integrated Regional Information System (DATASIEL)	Integrated Land Showcase (1.2.2_SC2)	Multi-resolution model for land monitoring (LS1); Analysis of observed rain (LS2) Detection and characterization of landslides (LS4); Comparison of simulated floods/landslides with observed data (LS5)
FOMI	Directorate of Agricultural Remote Sensing Research and Development	Integrated Land Showcase (1.2.2_SC2)	Flood and waterlogging detection (LS3)
FOMI	Project of Building Monitoring System	Urban Showcase (1.2.2_SC3)	Detection of buildings for monitoring and cadastral mapping (US1)
MOSS	-	Urban Showcase (1.2.2_SC3)	Detection of buildings for monitoring and cadastral mapping (US1)
TUDelft	TUDelft	Urban Showcase (1.2.2_SC3)	Individual tree extraction from urban LMMS data (US2)
UCL, IGN		Urban Showcase (1.2.2_SC3)	Individual tree extraction from urban LMMS data (US2)
Ifremer	Ifremer Research Institutes	Marine Showcase (1.2.2_SC1)	Elevation model from point cloud data (MS1) Error checking - distance of survey data from a surface (MS2); Simple feature extraction (MS3) Measuring submarine dune migration (MS4)
HRW	-	Marine Showcase (1.2.2_SC1)	Elevation model from point cloud data (MS1) Error checking - distance of survey data from a surface (MS2) Simple feature extraction (MS3) Measuring submarine dune migration (MS4)

Table 2. Relation of IQmulus internal users to showcases and workflows

3.2 INFORMATION ABOUT USER RELATED ACTIVITIES - EROOM

Information on all the interviews and workshops organized by the partners has been collected in the “User Workshop” database. The database – besides the basic information about the workshop such as the organizing partner, date of the event, and number of participants – provides information on the user type of the attendees, the sectors and topics the attendees belonged to, and the relation of the workshop topics to the IQmulus test beds and scenarios. Altogether 12 workshops addressing 134 users were organized in 2012/2013 and were reported in eRoom and D8.4.1.

In 2014 the project partners’ internal users were mainly involved in the consolidation process of the user requirements, consequently workshops organized this year were targeting attendees from internal user groups. In most cases developers were also invited to the workshops, so that through the common work direct communication was realized between users and developers concerning solutions IQmulus could provide for the workflows.

Since the release of the previous deliverable (D8.4.1 *User Related activities M12*), 13 workshops were organized for users. This means that so far 25 workshops have been organized since the beginning of the project (see Table 3).

Organising IQmulus partner	Cumulated number of workshops (beginning - October 2014)	
	D8.4.1 (until April 2013)	until October 2014
FOMI	4	14
UBO-IFREMER	2	2
CNR-IMATI and Regione Liguria	1	1
CNR-IMATI	2	3
IGN	2	3
UCL	1	2
Total	12	25

Table 3. Number of workshops and interviews organized by IQmulus partners until October 2014

According to the eRoom database “User workshops” the topics covered at the workshops with internal users can be grouped as follows:

- Informing internal users about the results of the first review meeting.
- Discussion about the start of dissemination and evaluation.
- Actual state of IQmulus developments. Effects of code camp achievements on further development directions.
- Technical questions such as advantages and disadvantages of different solutions regarding IQmulus targets (e.g., Hadoop), or the practical usage of the “cloud” and Hadoop.
- Latest IQmulus developments in the user aspects (Showcases/Workflows).
- Clarification of user requirements concerning visualization aspects for a given workflow.
- Detailed specification of present solutions (As-Is-Analysis) and required IQmulus development directions of a given workflow in order to revise user requirements.
- Discussion on new approaches to the prevention of natural hazards and laboratories for the analysis of issues and best practices of municipal emergency planning.
- Introduction of information papers, brochures to users.
- Discussion with data providers about the provision of additional data for testing and validation of results calculated by IQmulus services.

In D8.4.1 seven publications (in periodicals or series) were reported in the eRoom “IQmulus publications” database, of which four have been or will be provided with open access to the public. Until October 2014 the number of publications already published or in press increased to 15, of which eight already offer or will offer open access to the public. To demonstrate the topics of the publications we provide an overview table of them (Table 4). In the eRoom table there are also five more future publications proposed for periodicals, series or books.

IQmulus partner	Title of the publication	Title of the periodical or the series	Year
CNR-IMATI-GE	Grouping real functions defined on 3D surfaces	Computers & Graphics	2013
	An Introduction to Ricci Flow and Volumetric Approximation with Applications to Shape Modeling	ACM SIGGRAPH ASIA 2014 Course	2014
	Laplacian spectral distances and kernels on 3D shapes	Pattern Recognition Letters	2014
	Volumetric Heat Kernel: Padé-Chebyshev Approximation, Convergence, and Computation	Computers & Graphics	2014
	Local barycentric coordinates	ACM Transactions on Graphics (SIGGRAPH ASIA 2014)	2014
	3D shape retrieval and classification using multiple kernel learning on extended Reeb graphs	The Visual Computer	2014
	Quantifying 3D Shape Similarity Using Maps: Recent Trends, Applications and Perspectives	Eurographics 2014 - State of the Art Reports	2014
	Reasoning About Shape in Complex Datasets: Geometry, Structure and Semantics	Tutorials of Eurographics 2014	2014
Fraunhofer	VCoRE: a web resource oriented architecture for efficient data exchange	Proceedings of the 18th International Conference on 3D Web Technology	2013
	Controlling the Processing of Smart City Data in the Cloud with Domain-Specific Languages	Proceedings of the 8th IEEE/ACM International Conference on Utility and Cloud Computing UCC 2014	2014
TUDelft	Automatic registration of iPhone images to laser point clouds of urban structures using shape features	ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences	2013
	Trends in Detecting Changes from Repeated Laser Scanning Dat	Proc. 2nd Joint International Symposium on Deformation Monitoring (JISDM) Nottingham	2013
	Automatic volume estimation from laser mobile mapping data for mountain road widening	Remote Sensing	2013
	Accuracy assessment of building point clouds automatically generated from iPhone images	ISPRS Int. Archives Photogramm. Remote Sens. Spatial Inf. Sci.	2014
	Detection of harvested trees in forests from repeated high density airborne laser scanning	ISPRS Annals Photogramm. Remote Sens. Spatial Inf. Sci.,	2014
UBO	Direct sediment transfer from land to deep-sea: Insights into shallow multibeam bathymetry at La Réunion Island	Marine Geology	2013
	Giant dune morphologies and dynamics in a deep continental shelf environment: Example of the banc du four (Western Brittany, France)	Marine Geology	2013
IGN	Semantic 3D scene interpretation: a framework combining optimal neighborhood size selection with relevant features	ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences	2014
UCL	A New Framework For Interactive Segmentation of Point Clouds	The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences	2014
FOMI	Decision support on distributed computing environment (IQmulus)	Proceedings of the 3rd Open Source Geospatial Research & Education Symposium OGRS 2014	2014

Table 4. IQmulus publications (until October 2014)

Information on IQmulus dissemination activities can be found in the folder with the same name in eRoom. A summary of the contents is presented in Tables 5-7. Further information on the notification of dissemination can be found in the folder "Dissemination reporting".

Time period	Type of activities (and related cumulated number of activities, since the beginning of the project)							
	Conference	Exhibition	Poster	Presenta- tion	Press release	Publication	Web sites/ Application	Workshop
D8.4.1	5	5	1	4	2	2	1	12
until October 2014	11	6	3	12	2	2	3	20

Table 5. IQmulus dissemination activities (activity type)

Time period	Main leader of the activity (and related cumulated number of activities, since the beginning of the project)										
	CNR- IMATI- GE	FOMI	Fraunhofer	HRW	Ifremer	IGN	Liguria	MOSS	SINTEF	UBO	UCL
D8.4.1	4	4	6	2	1	2	1	3	2	6	1
until October 2014	8	7	6	2	2	6	2	4	4	13	5

Table 6. IQmulus dissemination activities (main leader of the activity)

Time period	Type of audience (and related cumulated number of activities, since the beginning of the project)					
	(none selected)	Civil society	Industry	Medias	Policy makers	Scientific community (higher education, Research)
D8.4.1	1	6	15	6	13	27
until October 2014	6	16	26	9	26	49

Table 7 IQmulus dissemination activities (type of audience)

Several events with possible IQmulus presence are listed in eRoom (till now altogether 58). Most of them are (were) planned for project year 1 and 2 (32 items), the rest (26 items) are being planned for project year 3 and 4. Of course this will change as soon as details of future conferences will be published. Information extracted from this database is presented in Tables 8-9.

Time period	Focus of the presentation/poster/exhibition, etc. (cumulated number)						
	(none selected)	Big data	Computer Graphics	Geometry	GIT	ICT	Sensing
D8.4.1	7	4	4	4	2	1	6
until October 2014	1	16	10	15	17	8	18

Table 8. Possible IQmulus presence I

Time period	IQmulus partner the presentation is provided by (cumulated number)									
	CNR- IMATI-GE	Fraunhofer	FÖMI	IGN	Liguria	MOSS	SINTEF	TU Delft	UBO	UCL
D8.4.1	5	5	-	3	-	1	7	4	1	4
until October 2014	8	13	9	5	1	5	9	7	1	9

Table 9. Possible IQmulus presence II

Other dissemination opportunities where practitioners from industry, research, the public sector and the community can meet with IQmulus are listed in the folder “Other dissemination channels” in eRoom. Currently the Maritime Industries Forum, ISO 15926 and Semantic Technologies Annual Meeting, and the European Data Forum are mentioned here as well as a Web page dedicated to IQmulus on the Liguria Region web site on environment. This site describes the topics and the foreseen outputs of the project but is available only in Italian. In fact, the purpose of this page is to inform the interested Italian bodies and enterprises, in particular the involved user groups, about IQmulus aims and activities.

4 ONLINE COMMUNICATION CHANNELS

4.1 PROJECT WEBSITE

This chapter describes the current functionality and the menu structure of the IQmulus website as a continuation of deliverable D8.2 and D8.4.1. In D8.4.1 several notes and suggestions on further developments of the website were made last year, of which most of them have already been realized. The website will be subject to continuous evolution, refinement and updating, and will have extended functionality during the project lifetime and the follow-up period. In this chapter the focus is on the changes made in the second project year compared to the year before.

Background

The IQmulus website has been created and is hosted by FOMI. The domain registered is the following: <https://www.iqmulus.eu>. Encryption of connections via https/SSL is also possible as the site has an SSL certificate. The website was based on the Joomla! open source web content management system version 2.5 (<http://www.joomla.org/25/>) because it is widely used among web editors, with a broad selection of templates for the appearance of the sites and a number of extensions available for useful additional functions. It also has extended capabilities for users and user group management.

From the beginning of October 2014 we started to develop a new website for reasons discussed later. The new CMS (content management system) is provided by a web designer company which allows us to arrange our information in a more efficient way. We are not going to depend on the Joomla versions and changes any more. The content addition is going to be much easier and will be highly automatic for the project partners. This allows us to be more up to date on the website according to our agenda. We also like to change the method of the publication of the project results as well as documents, figures, photos and components. We are going to focus more on the organization of the documents to be able to group or search in the listed elements. The other main focus is the introduction of the involved partners, people and later dedicated users to be able to show the wide range of cooperating institutions and scientific sectors.

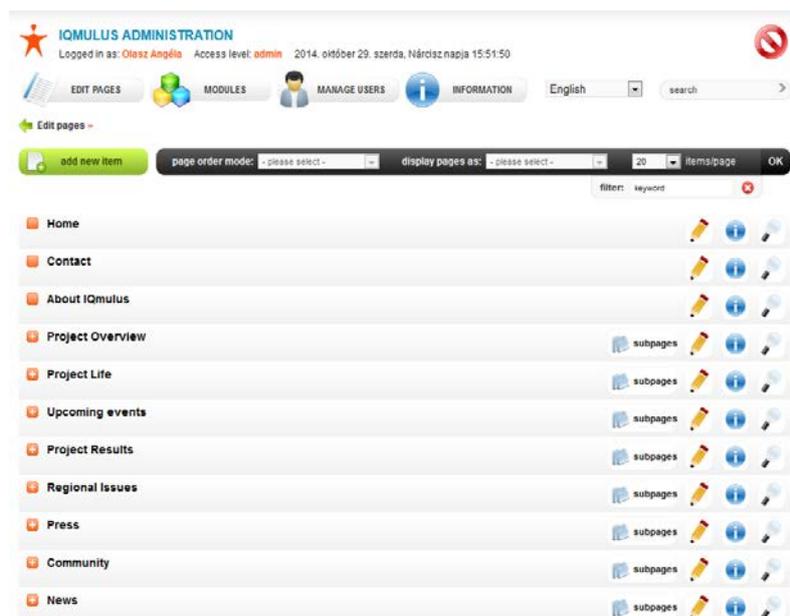


Figure 1. First Version of the administration interface of the new CMS

The administration interface is in English allowing the use of the site by all the consortium partners. Later on modules are going to be developed for the user management and gallery.

Content and strategy for user-centric evolution

The structure and the contents of the first version of the website were created by FOMI and were a matter of discussions and adjustments. Content was mainly taken from the Description of Work for the first version. In the implementation of the sections we tried to keep in mind practicality and utility, and to publish all the relevant information in a brief but appropriate way.

For the further evolution of the website a strategy focusing on the user community and enriching the information provided to them about the project work and user group activities has been set up in D8.4.1 *User Related activities M12*. Development work was organized along the main points of this strategy. The structure and the content have changed a lot, and the design of the website will be refreshed in the next some months by a professional web designer company. The website was re-structured, and became more logical and transparent (the current structure is documented below) for a better organized and more informative appearance of the relevant information about the project.

Here we provide an overview of the changes realized in the website structure and content, according to the plans formulated in D8.4.1.

1. The content is updated regularly with the most up-to-date information about the events and the development of the project.
2. According to the plans from D8.4.1 to provide a more personal space for the User Community, a new section called "Regional Issues" was set up. The content is only available for users logged in, and beside the list and contact information of the project partners' users and workshops, workshop material in native languages is also available (currently in Hungarian, French and Italian). As the project evolves, this part of the website will play an increasingly important role in keeping in touch with the user community in a native language and will expand the possibilities of information exchange. Note that in the second year the development work was focusing on internal users, and there were no obstacles to the flow of information because of the direct communication possibilities.
3. Soon the design of the website will be renewed with the professional help of a web designer company. Here we provide some screenshots of the plans (see Figure 2). These plans are under development and during the next weeks we are going to organize and adapt the current website content to the new system background. We are arranging that the latest information is going to appear on the main page of the website in tiles. Another goal is also to connect the IQmulus LinkedIn group posts to the main page in order to link the appropriate information from the group to the website visitors. The main structure is not going to change much but will be well organized to avoid the replication of information and news. The development is also focusing more on the events because they are playing an important role in order to inform our users about the latest news. We would like to provide well organized information on the past and future events in an efficient way.
4. Short summaries – not longer than 1-2 pages – of „Deliverables” have to be published in a general (non-technical) and native language for the users (IQmulus website/News for the User Community/Regional Issues/..Country link) to explain the main goals of the project and the “Deliverables” in each native language to create attention for the latest results of the project work.

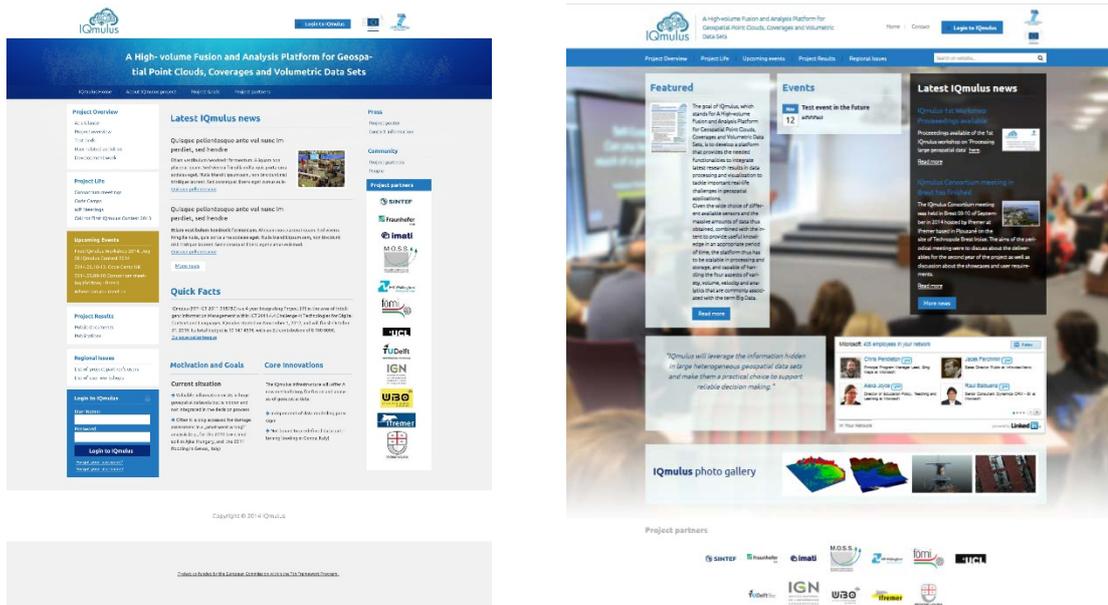


Figure 2. Design plans for the new IQmulus website

During the Delft meeting it was agreed that information about cooperating (European and national) projects also has to be shown on the new website. Currently descriptions of these projects are collected in an eRoom table (https://project.sintef.no/eRoom/math/IQmulus/0_35aae) and later on they will be published on the new website (see Table 10).

Cooperating Projects				
Short Name	Full Name	Short Description	Website	Consortium
 CloudFlow	Computational Cloud Services and Workflows for Agile Engineering	CloudFlow will enable the remote use of computational services distributed on the cloud, seamlessly integrating these within established engineering design workflows and standards.	www.eu-cloudflow.eu/	www.eu-cloudflow.eu/project/consortium.html
 Massive Point Clouds for ESciences	Massive Point Clouds for ESciences	3D map generation and updating using big data	www.esciencecenter.nl/project/massive-point-clouds-for-esciences	www.esciencecenter.nl/project/massive-point-clouds-for-esciences
 Proterina 2	Proterina 2	PROTERINA 2 is a project that aims at the prevention of environmental risks hydrological and forest fires by improving the ability of prediction and prevention of natural hazards and the sharing of information between local government and territory.	www.proterina.eu	www.proterina.eu/partner/
 RISKNET and RISKNAT	RISKNET and RISKNAT	The project aims to create a networking for the promotion of best practice in the sustainable management and security of mountain zone also increasing information and the involvement of the population.	www.risknet-alcotra.org	www.risknet-alcotra.org
 SYLVAMED	Sylvamed	The project aims to integrate innovative forest environmental services in regional policies and to develop systems PES (payment for environmental services)	www.sylvamed.eu	http://www.sylvamed.eu/?page_id=9
 ROBINWOOD PLUS	MULTIFUNCTIONAL FORESTS A BRIDGE TO RURAL DEVELOPMENT	The Robinwood plus project aims to apply an innovative approach based on sustainable forest management (through planning, environmental, energy, economy and employment)	www.robinwoodplus.eu/	http://www.robinwoodplus.eu/robinwood-plus/partners-11
 FORESEE	Forest Resource Estimation For Energy	http://foresee.fcba.fr/description-du-projet/	http://foresee.fcba.fr/	http://foresee.fcba.fr/partenaires/
 Terra Mobilita	Terra Mobilita	The goal of the Terra Mobilita project is to develop new automated processes for creating and updating 3D maps of urban roads, with centimetric accuracy, using mobile lidar scanning systems, and develop new services and applications for local authorities.	www.terramobilita.fr	https://sites.google.com/site/terramobilita2012/les-partenaires

Table 10. Cooperating projects of IQmulus

Current structure by November 2014

The sections of the site are the following:

- 1. Banner and logos of the project**
- 2. Left hand side menus:**
 - 2.1. Project Overview menu:
 - 2.1.1. At a Glance
 - 2.1.2. Project overview
 - 2.1.3. Test beds
 - 2.1.3.1. Marine Spatial Planning
 - 2.1.3.2. Land Applications
 - 2.1.4. User related activities
 - 2.1.4.1. Requirements (WP 1)
 - 2.1.4.2. Assessment and Evaluation (WP 7)
 - 2.1.4.3. Dissemination and Outreach (WP 8)
 - 2.1.5. Development work
 - 2.1.5.1. Infrastructure Design (WP 2)
 - 2.1.5.2. Heterogeneous Data Integration Platform (WP 3)
 - 2.1.5.3. Processing Services (WP 4)
 - 2.1.5.4. Interactive Visual Decision Support (WP 5)
 - 2.1.5.5. System Integration and Testing (WP 6)
 - 2.2. Project Life menu:
 - 2.2.1. Consortium meetings
 - 2.2.2. Code Camps
 - 2.2.3. WP meetings
 - 2.2.4. Call for First IQmulus Contest 2013
 - 2.3. Upcoming events menu
 - 2.4. Project Results menu:
 - 2.4.1. Public documents
 - 2.4.2. Publications
 - 2.5. Regional Issues
 - 2.5.1. List of project partner's users
 - 2.5.2. List of User workshops
 - 2.6. Login Form
- 3. Right hand side menus:**
 - 3.1. Search
 - 3.2. Press
 - 3.2.1. Project poster
 - 3.2.2. Contact information
 - 3.3. Community
 - 3.3.1. Project partners
 - 3.3.2. People
 - 3.3.3. Connect us to LinkedIn
 - 3.4. Events
 - 3.5. Project partner logos and links
- 4. Main content section**

4.2 OTHER FORUMS

LinkedIn

Using well-established social networking media is considered as a good strategy for both interactive communication with users and awareness-raising. LinkedIn was identified by the consortium as an appropriate medium due to its professional nature and huge span covering a large number of possible stakeholders. Keeping contact with the user community in an informal yet interactive way has already proved to be very efficient.

Therefore IQmulus has been registered as a project on LinkedIn, and a number of participating persons have been linked to the project. The group has currently 25 members who primarily come from the inner circle of users and developers. Members share interesting topics, news and issues here, which are in close relation to the development trends of the IQmulus project, see Figure 3.

It was agreed that the LinkedIn group will have significant importance in sharing ideas and news connected to our project and research area. Since the creation of the group we have had regularly posted updated information on the latest developments on LinkedIn, while keeping of course the link to the project website.

Figure 3. IQmulus FP7 project group profile in LinkedIn

Since 3rd of March, 2014, we have discussions leading to a growing community. We can show some statistics about the group members (see Figure 4). 72% of them come from Research, 12% from Information Technology and Services, 8% from Higher Education, 4% from Computer Science and 4% from Education and Management.

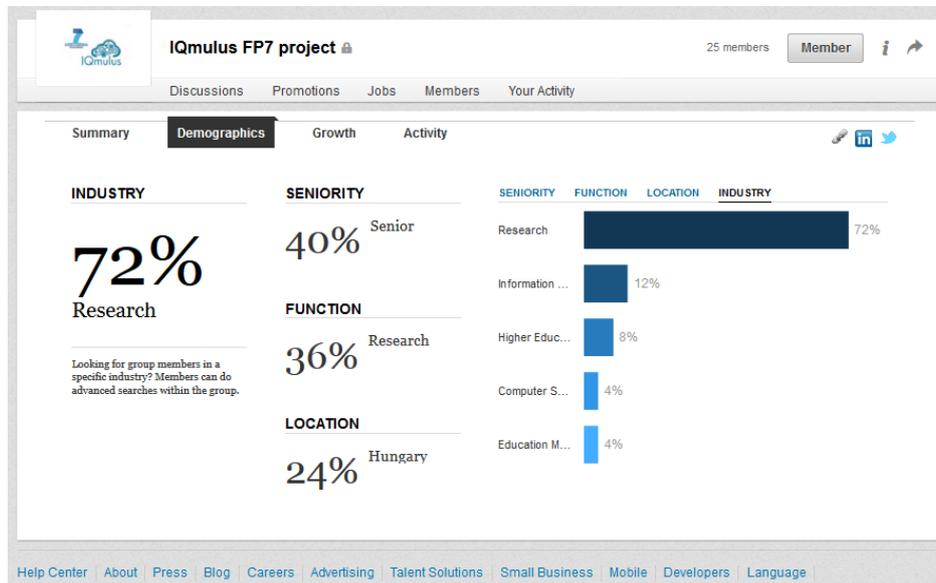


Figure 4. IQmulus FP7 project group statistics

Redmine

As it has been described in D1.2.1 (*Initial User Requirements*), Redmine is an open source project management system that comes with all required features for creating, managing, maintaining and categorizing issues such as software requirements and for assigning them to people, prioritizing them and setting deadlines for their implementation.

As the IQmulus project progresses, the Redmine system is evolving into the most important communication tool along with eRoom. It gets a more and more important role in issue tracking and management, task distribution, testing, progress monitoring and communication.

Currently Redmine accounts exist for the persons working for the IQmulus project (manager, developer and reporter role). The system is continuously filled up with data and information, and as soon as it gets to a meaningful level for end users, accounts will be created for them as well, with limited access (view, comment) to selected services.

Using Redmine, end users will be able to follow the development process and stages of services, workflows and showcases connected to their user stories. Besides that a well-structured Wiki – which is currently under development – could help them to get more informed about the different issues registered in Redmine.

The text in the Figure below indicates the current content of the “WP1 – Requirements” subproject of the main IQmulus project, focusing on those issues which could be important and meaningful for end users. We also give an example on the connection to the “WP4 – Processing Services” subproject in the system through WP1 showcases and workflows, to illustrate how end users will be able to follow the IQmulus development process in Redmine. Currently data uploading is focused on the showcases, and workflows documented in D1.2.3 *Revised user requirements*, which were mainly discussed by internal users in the second project year. The services related to these issues were also uploaded to the Redmine subproject called “WP4 –

"Processing Services", based on the deliverable D1.2.3 and the eRoom table "WP4 Services and Representations – Second year". The number of issues will be extended later on with the new achievements in parallel with the progress of the project.

In the section "Overview" a short description of the tasks related to WP1 can be found, see Figure 5.

Objectives

- Provide methodology and IT infrastructure to support the requirement work.
- Provide the infrastructure design work package WP2, the research and development work packages WP3 (Heterogeneous Data Integration Platform), WP4 (Processing) and WP5 (Visualization), and the integration work package WP6 with a prioritised set of well-defined, good quality requirements, constituting a solid basis for developments.
- Ensure the testability in the assessment and evaluation of WP7 by providing test criteria along with the requirements.
- Gather decision maker goals in the form of scenarios and user stories as well as acceptance criteria that are to be used in the assessment and evaluation of WP7 during evaluation workshops.

Description of work and role of partners

WP1 has the role of providing high-level requirements to drive the design of infrastructure in WP2, but will also provide detailed user requirements to drive the development work carried out on the data integration platform in WP3, the processing functionalities in WP4 and the visualisation solutions in WP5. It also has implications on the system integration to be carried out in WP6. WP1 is also responsible for providing tangible test criteria to ensure the feasibility of testing against requirements, carried out in WP7.

Work will be broken down to the following tasks:

Task 1.1: Requirements Infrastructure and Methodology (Fraunhofer, ALL consortium partners)

Within this task, we will investigate requirement handling and then make the choice of the most appropriate methodology in accordance with the development work packages. Setting up the IT infrastructure required for the

Members

Manager: Andrea Cerri, Corrado Pizzi, Davide Sobrero, Giuseppe Patané, Marco Attene, Michel Krämer, Michel Krämer, Michela Spagnuolo, Silvia Biasotti, Simone Pittaluga

Entwickler: Adrien Gressin, Alexander Kolb, Alexandre Devaux, Andrea Cerri, Andreas Stein, André Brodtkorb, André Stumpf, Angela Olasz, Aymeric Godet, Beril Sirmacek, Binh Nguyen, Clément Mallet, Corrado Pizzi, Cristina Gestro, Davide Sobrero, Didier Richard, Dietmar Backes, Daniel Kristof, Erwin Debeus, Eva Klien, Ewald Quak, Francesca Giannoni, Frank Michel, Giuseppe Patané, György Hudra, Heidi Dahl, Helmut Rudolf, Helen Pióte, István Fekete, Ivo Semmer, Jan Boehm, Jens Olav Nygaard, Kun Liu, Laurent Caraffa, Maaila Harbers, Marco Attene, Marco Zulkowski, Mathieu Bredif, Mathieu Bénard, Michel Krämer, Michel Krämer, Michela Spagnuolo, Márta Balényesi, Máté Csépp, Norman Kießlich, Olivier Barrowclough, Quentin Page, Robert Lehoczki, Roberto Giachetta, Roderik Lindenbergh, Romain Cancouët, Silvia Biasotti, Simone Pittaluga, Stefan Wagner, Stephan Plabst, Sebastian Saur, Thomas Gierlinger, Tobias Franke, Tor Dokken, Vibeke Skytt, Volker Kraut

Reporter: Andrea Cerri, Corrado Pizzi, Davide Sobrero, Giuseppe Patané, Marco Attene, Michela Spagnuolo, Silvia Biasotti, Simone Pittaluga

Figure 5: Overview of the WP1 tasks in Redmine

The "Activity" section informs the participants about the latest changes (when, who and the issue concerned). In the "Roadmap" section one can get an overview of the IQmulus project's progress. Roadmaps are major milestones, in our case the deliverables related to each work package. Each issue is assigned to a roadmap and therefore managers are up-to-date on the project's progress and the current state of the subproject, for example through information about the status of the deliverables, etc.

In the "Issue" section of the WP1 subproject the issues created last year (user story and use case) are complemented with new issues documented in D1.2.3, namely showcases and workflows, see Figure 6.

Tracker

	open	closed	Total
Bug	-	-	-
Documentation remark	-	-	-
Feature	-	-	-
Support	-	-	-
Refactoring	-	-	-
Requirement	-	-	-
Usecase	-	-	-
User story (IQmulus)	41	-	41
Use case (IQmulus)	33	-	33
Requirement (IQmulus)	2	-	2
User story	-	-	-
Workflow	11	-	11
Showcase	3	-	3

Figure 6. Report on trackers of WP1 requirements

The Land Integrated Showcase and all the related issues are shown here as an example to demonstrate those tracking possibilities that will be available for the users in Redmine.

The data sheet of the Land Integrated Showcase – in addition to the basic information – consists of a short description of the showcase, and lists all the workflows related to it, see Figure 7.

IQmulus » WP1 - Requirements

Search: » WP1 - Requirements

Overview Activity Roadmap **Issues** New Issue Wiki Settings

Showcase #1616 Edit Log time Watch Copy

Integrated Land Showcase 1.2.2_SC2 « Previous 1 3 of 3 | Next »

Added by Márta Belényesi 11 days ago. Updated 11 days ago.

Status: New Start date: 09/29/2014
 Priority: Urgent Due date:
 Assignee: - % Done: 0%
 Category: - Spent time:
 Target version: -
 Acceptance Criteria:

Description Quote

As hydrologist or geo-morphologist supporting decision makers in civil protection, I want to analyse data measured during critical events to prepare better prediction and monitoring of floods and landslides. To this end, I want to study the evolution of measured precipitation data as well as slope deformation from optical images, compute parameters to produce high-quality input for hydrological and mechanical modelling and simulation, and compare the results to reference measurements obtained for flooding events and landslides.

Subtasks Add

Related issues Add

Related to WP1 - Requirements - Workflow #1617: LS1 Multiresolution model for land monitoring	New	09/29/2014	↔
Related to WP1 - Requirements - Workflow #1618: LS2 Analysis of precipitation data	New	09/29/2014	↔
Related to WP1 - Requirements - Workflow #1620: LS4 Detection and characterization of landslides	New	09/29/2014	↔
Related to WP1 - Requirements - Workflow #1621: LS3 Flood and waterlogging detection	New	09/29/2014	↔
Related to WP1 - Requirements - Workflow #1622: LS5 Comparison of simulated floods/landslides with observ...	New	09/29/2014	↔

Issues

View all Issues Summary

Custom queries

Meine offenen Tickets nach Zielversion with_category

Figure 7: Data sheet of the Land Integrated Showcase in Redmine

By clicking on the workflow “Flood and waterlogging detection” (LS3; indicated by the black rectangle in Figure 7), one can get to the workflow’s data sheet, which gives information about among others the workflow status and priority, the input data needed, and all the services developed (or under development) related to this workflow, see Figure 8.

IQmulus » WP1 - Requirements

Search: » WP1 - Requirements

Overview Activity Roadmap **Issues** New Issue Wiki Settings

Workflow #1621 Edit Log time Watch Copy

LS3 Flood and waterlogging detection « Previous 1 2 of 2 | Next »

Added by Márta Belényesi 11 days ago. Updated 3 days ago.

Status: New Start date: 09/29/2014
 Priority: Urgent Due date:
 Assignee: - % Done: 0%
 Category: - Spent time:
 Target version: -
 Found in version: 01.2.3 Input data: #5 Time series orthophotos produced from aerial photographs (RGB+NIR)
 #47 Landsat 5 imagery
 Output data:

Description Quote

Preprocessing and classification of satellite images for detection of flooded and waterlogged areas.

Subtasks Add

Related issues Add

Related to WP1 - Requirements - Showcase #1616: Integrated Land Showcase 1.2.2_SC2	New	09/29/2014	↔
Related to WP4 - Processing Services - Service (WP4) #1633: Computation of Top Of the Atmosphere reflectance	Assigned	10/07/2014	↔
Related to WP4 - Processing Services - Service (WP4) #1636: Computation of spectral indices	Assigned	10/08/2014	↔
Related to WP4 - Processing Services - Service (WP4) #1637: Raster segmentation (version 1)	Assigned	10/08/2014	↔
Related to WP4 - Processing Services - Service (WP4) #1638: Clustering of raster data (version 1)	Assigned	10/08/2014	↔
Related to WP4 - Processing Services - Service (WP4) #1639: Thematic classification of raster data (version 1)	Assigned	10/08/2014	↔

Issues

View all Issues Summary

Custom queries

Meine offenen Tickets nach Zielversion with_category

Figure 8: Data sheet of the workflow “Flood and waterlogging detection”

All the information published in D1.2.3 and in the eRoom on the services related to the workflows of the showcases was transferred to the Redmine system, and is documented in the “WP4 – Processing Services” subproject under the IQmulus main project. As an example, one of the service data sheets of workflow LS3 Flood and waterlogging detection is presented here (“Computation of Top of the Atmosphere reflectance”; service no. 76 in eRoom; indicated by the black rectangle in Figure 8).

By the data sheet of a service we are informed about the following facts (see Figure 9):

- status and priority
- the name of the toolkit the service belongs to
- the proposing institute and the institute responsible for the development process
- important parameters that developers need to consider
- quality and characteristics
- short description of the service
- input and output data
- relations to other issues.

The screenshot displays the 'Service (WP4) #1633' page in the IQmulus system. The main content area shows the following details for the service 'Computation of Top Of the Atmosphere reflectance':

- Status:** Assigned
- Priority:** Normal
- Assignee:** -
- Category:** Toolkit 4.2
- Target version:** D4.2.2
- Discussion:** -
- Start date:** 10/07/2014
- Due date:** -
- % Done:** 0%
- Spent time:** -
- Quality and characteristics:** Accuracy: Depends on the sensor and other properties, but should be high. Reliable to work with large images (multiple GB-s). Computational time in relation to data size: Depends on the number of corrections must be applied, but should be near linear to image size.
- Alternative services:**
 - Service_ID_Eroom: 73
 - Service_ID_WP1_Deliverable: LS3_1_1
- Responsible:** FOMI
- Proposed by:** FOMI
- Relation to show case:** -
- Parameters:** List of operations (and parameters) to be executed or image metadata (e.g. sensor information, capture time).

The **Description** section contains the following text:

Corrections of radiometric and geometric properties must be applied to all remotely sensed images before further processing and analysis can be performed. These corrections include the removal of atmospheric effects, instrumental errors and geometric effects (such as earth rotation, curvature and panoramic distortion).

This is a complex service that is provided to enable multiple operations to be executed in a single process. The service also enables for operations to be selected based on a predefined process (based on image metadata) instead of manually specifying operations.

Part of the service "Preprocessing of raster data"

Input data: Masked satellite image
Output data: Raster image with ToA reflectance calculation

The **Subtasks** and **Related issues** sections are currently empty.

Figure 9: data sheet of the service "Computation of Top of the Atmosphere reflectance"

Last but not least some remarks about the pages in the "Wiki" section, which is under continuous development. Wiki pages are closely related to issues, and will of course be cross-linked to each other where necessary. These relations provide great possibilities to read the information pages in context. For example, Wiki pages of WP4 or WP7 are linked to WP1 issues describing Showcases and Workflows. Wiki pages are storing all the crucial information on the WP tasks and documentation details. By utilizing the ability of cross linking between work packages and their issues, we are able to create a comfortable environment for managers, developers and bug reporters alike.

5 CONCLUSIONS AND FURTHER TASKS

As it can be seen in the user group and dissemination activity tables, the number of events with IQmulus presence is growing constantly.

User Group activities in the second project year, in close cooperation with WP1 and WP4, have been focused on internal users during the process of refinement and consolidation of user requirements. From the partner institutions 26 persons were involved in the requirement consolidation process this year as internal users. Several workshops and consultations were organized to bring together the users with the local development team. The resulting IQmulus functionalities will provide examples for external users, so they reflect on their needs, for further consolidation of the requirements and developments in the third project year.

Against this background the tasks of the next project phase could be grouped as follows:

- maintain the established connections in a durable manner to keep the users actively engaged,
- induce more active communication and provide broader information for external users based on the highly improved communication channels described in this present deliverable,
- expand the connections to a wider scientific community.

Finally – focusing on the online dissemination channels – we give a short summary on further tasks that should be completed in the first half of the third project year.

- Tasks concerning the Redmine system:
 - Completion of issue documentation for all the Showcases, Workflows and Services reported in D1.2.3 *Revised User Requirements*;
 - Completion of Wiki pages related to the issues mentioned;
 - Establishing all the cross-references to create a coherent and easy-to-follow documentation for the end users.
- Tasks concerning the project website:
 - Publish a short summary of the activities planned for the future on regional issues;
 - Well-designed flyer and brochure about the project for download (under construction and expected ready by the end of 2014);
 - Videos and demos should also be published on the website to give a short overview about the ideas of the project (currently under development).
- Tasks concerning the LinkedIn group:
 - Include all project personnel;
 - Contact external users;
 - Post regularly updated information on the latest developments.