

# Project Number 260041 COLLABORATIVE PROJECT

# **EnRiMa**

# Energy Efficiency and Risk Management in Public Buildings

# **D8.4 – Preliminary Impact Assessment**

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Dissemination Level				
PU	Public	X		
PP	Restricted to other programme participants (including the Commission			
RE	Restricted to a group specified by the consortium (including the			
СО	Confidential, only for members of the consortium (including the			
CO	Commission Services)			

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## List of acronyms

CET ZENTRUM FÜR ENERGIE UND INNOVATIVE TECHNOLOGIEN (AT)

DC DISSEMINATION COMMITTEE

DoW DESCRIPTION OF WORK

DSS DECISION SUPPORT SYSTEM

E2B ENERGY TO BUSINESS

EeB Energy-efficient Buildings

EC EUROPEAN COMMISSION

ESCO ENERGY SERVICE COMPANIES

EU EUROPEAN UNION

FP7 SEVENTH FRAMEWORK PROGRAMME
HCE HIDROCANTABRICO ENERGIA S.A. (ES)
ICT4E2B ICT FOR ENERGY-EFFICIENT BUILDINGS

ICT INFORMATION AND COMMUNICATIONS TECHNOLOGY

IIASA INTERNATIONALES INSTITUT FÜR ANGEWANDTE SYSTEMANALYSE

(AT)

IPR INTELLECTUAL PROPERTY RIGHTS

MCC MINERVA CONSULTING AND COMMUNICATION (BE)

MEPs MEMBERS OF THE EUROPEAN PARLIAMENT

MPs Members of the Parliament

NGO NON-GOVERNMENTAL ORGANISATION

PSC PROJECT STEERING COMMITTEE

SINTEF STIFTELSEN SINTEF (NO)

SU STOCKHOLMS UNIVERSITET (SE)

SWOT STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS

TECNALIA TECNALIA RESEARCH & INNOVATION (ES)

UCL UNIVERSITY COLLEGE LONDON (UK)

#### **Executive Summary**

During its first thirty months of activity, the EnRiMa project consortium has rolled out a series of actions originally foreseen in its communication and dissemination strategy, which was outlined in two previous project deliverables. These actions can be summarised as follows:

- Three workshops co-organised addressing key target stakeholders;
- Twenty-one project presentations given at international conferences and other events;
- Five scientific journal articles submitted;
- Three trade and policy publications submitted, of which two have been published;
- A project Website launched, re-tooled, and regularly updated;
- Social media pages on Facebook and Twitter set up and regularly updated;
- Fifteen press releases distributed to over 300 media contacts;
- Sixty short news items published on Website and social media.

In this deliverable, the preliminary impact of the EnRiMa communication and dissemination strategy is analysed and evaluated not only through the analysis of the originally foreseen impact indicators but also by reflecting on personal observations and stakeholders' feedback gathered by project partners in the execution of aforementioned activities.

In general, it can be established that the project has so far achieved a significant impact in terms of acquired visibility and established dialogue with the target stakeholders groups, such as the collaborations put in place with the FAEN foundation in Spain and the e-nova conference organisers in Austria, both documented in Section 2.1.1.

In particular, the co-organisation of small, dedicated workshops has facilitated closer contact with stakeholders, thereby resulting in a deeper understanding of how the DSS could be deployed in the market. First, it could be established that the DSS should be launched on the market as a service offered by a third party rather than as a stand-alone product. Second, such third parties, or DSS adopters, could be identified as utilities, energy retailers, and ESCOs, while final users could be building operators, construction companies, and housing associations. Further, the project consortium could discuss and identify those DSS functionalities that meet the current energy efficiency market demand, such as flexibility of application, simplification, and automation of the user interface.

Additionally, the ongoing peer-review process for scientific publications and the editors' comments for trade and policy publications have also highlighted the need to adjust the focus of these other dissemination tools. In future submissions of scientific articles, papers should start with a clear research question rather than the objectives of the EnRiMa project. On the other hand, trade and policy publications should focus on concrete DSS energy saving and exploitation results.

Finally, the experience gathered in the first thirty months enables the project consortium to tailor the organisation of the four forthcoming DSS Information Sessions, which represent the key communication activities taking place in the final year of the project. These sessions will aim at involving the most promising DSS adopters and final users, thereby allowing them to interact closely with the project consortium and, thus, to collaborate to the finalisation the DSS and, conclusively, to favour its market uptake.

#### 1 Introduction

This document contains a summary of all communication and dissemination activities put in place by the EnRiMa project consortium during the first thirty months of the project from October 2010 to March 2013. In particular, it highlights the impact that these activities have had in terms of specific measurable criteria established among the project partners:

- New contacts generated;
- Feedback received; and
- Alignment of project objectives.

The overall strategy for these activities, including their planning, description, and expected results has been detailed in the previous D8.2 and D8.3 deliverables, to which the reader is directed for further details. In summary, the strategy consists in involving and conveying tailored information to the project's target stakeholder groups and ensuring that adequate feedback is collected from them. The target stakeholder groups (and the rationale for their involvement) are defined as:

- Potential DSS users (in order to fine-tune the DSS and favour market uptake);
- Policymakers, local authorities, and administrators (in order to guide future policy measures and regulation);
- Industry associations, chambers of commerce, and NGOs (in order to support decision making and favour market uptake);
- Other EU-funded projects in the EeB area (in order to increase cooperation);
- Members of the scientific and research community (in order to increase cooperation for development and application of methodology).

This document has been prepared by MCC through an in-depth analysis of the impact indicators, the feedback received from all partners during the execution of the activities, the screening of both quantitative and qualitative results achieved, and the examination of dedicated Web assessment tools. Specific tables or charts have been added in order to have a better overview of the results.

The rest of this document is structured as follows:

- In Section 2, we summarise the communication and disseminations activities that have taken place since the beginning of the project, discuss their organisation, identify their outcomes, and reflect on how these will be taken into account when organising future activities.
- In Section 3, we synthetically analyse the effect of communication and dissemination activities, focusing in particular on the visibility generated for the project, the benefits that were triggered for the project consortium and the takeaways that can be used for further fine-tuning the remaining project activities.

Finally, an update of the planning timeline and of the impact indicators is provided in the final annexes Section.

#### **2** Communication and Dissemination Activities

In this section, we summarise communication and dissemination activities that have taken place since the beginning of the project, discuss their organisation, identify their outcomes, and reflect on how these will be taken into account when organising future activities. This section follows the structure of D8.3 "Updated Communication and Dissemination Plan," the previous deliverable in which the overall project communication and dissemination strategy is laid out, aimed at conveying tailored information and ensuring adequate feedback from the project's target stakeholder groups.

#### 2.1 Communication Actions

#### 2.1.1 Organisation of Events

In order to liaise proactively with its target groups, EnRiMa has joined forces with other projects within the <u>EeB PPP initiative</u>, in particular the <u>ICT4E2B Forum</u>, <u>IREEN</u>, <u>E3SoHo</u>, <u>SportE2</u>, <u>Energy Warden</u>, and <u>TIBUCON</u>. The communication activities organised together with these projects have proved efficient in generating new contacts and stimulating feedback from a large stakeholder community of researchers, industries, local authorities, and policymakers in the areas of energy efficiency and ICT.

More recently, EnRiMa partners have approached local stakeholders in Spain and Austria, the countries where the project's test sites are located and where the market uptake of the DSS can be more favourably promoted. The presence of several project partners such as HCE, Tecnalia, URJC, IIASA, and CET in these locations also makes these two countries natural testbeds for exploring the viability of the proposed DSS.

Event	Date	Place	Partner	Presentation
FAEN event "European projects on energy efficiency in buildings"	25 February 2013	Oviedo, Spain	HCE, TECNALIA, URJC, MCC	Various, including DSS round- table
EUSEW 2012 workshop	20 June 2012	Brussels, Belgium	IIASA, MCC	"ICT for Energy Efficiency in Buildings: from Research to Implementation" session and round-table
Session at ICT for Sustainable Homes 2011	25 October 2011	Nice, France	SINTEF,MCC	"Challenges, Opportunities and Lessons Learned from On-going Research Projects" session

Table 1- Events co-organised by the EnRiMa consortium

In Spain, HCE has liaised with the Asturias Foundation for Energy (<u>FAEN</u>) in order to organise an event with local stakeholders in order to collect feedback from participants representing this northern Spanish region. During the event (further described in section 2.1.1.2), participants highlighted the importance of replicating the event in the future for further discussions. In Austria, CET has been in contact with the organiser of the annual e-nova conference and the Pinkafeld Campus in order to

provide EnRiMa with a full session at the e-nova 2013 edition. Table 1 below lists the events co-organised so far.

#### 2.1.1.1 Organisation of Events in Collaboration with Other EU projects

The first activity was the organisation of the workshop "Challenges, Opportunities and Lessons Learned from On-going Research Projects" that took place during the "ICT for Sustainable Homes" conference and exhibition in Nice, France, on 24 and 25 October 2011. The conference was attended by about 80 people from European research organisations, academic institutes, and energy services companies alongside established international market players like Mitsubishi Corporation, Hitachi, and Telefónica.

This workshop, co-organised with ICT4E2B Forum, E3SoHo, SportE2, Energy Warden, and TIBUCON, was a good opportunity to present EnRiMa's initial results and its development plans for the DSS. Krystsina Bakhrankova (SINTEF) and Paolo Sonvilla (MCC) represented EnRiMa at the event. The two demonstrated how EnRiMa's work fits well with the other projects presented but is distinct in its modelling approach. As result of these presentations, several new contacts were gathered at the event from academic institutions, energy professionals, and large corporations. After the event, one non-scientific article (including two interviews with Krystsina Bakhrankova from SINTEF and Christian Mastrodonato from D'Appolonia) was prepared and translated into three languages (Italian, English, and French). The article was published on EnRiMa's Website and on the ICT for Sustainable Homes Website.

EnRiMa, the ICT4E2B Forum, and IREEN projects joined forces once more for the organisation of a <u>workshop</u> entitled "ICT for Energy Efficiency in Buildings and Communities: from research to implementation" within the framework of the European Sustainable Energy Week 2012 (<u>EUSEW 2012</u>) on 20 June 2012 at the Stockholm Region EU Office in Brussels. Eighty people registered for the event through an online form made available on the EnRiMa Website, and eventually 33 of them participated in the event.

EnRiMa was presented by Marek Makowski (IIASA) with a project introduction first and later in a round-table session entitled "Decision-making support for integrated management of energy-efficient buildings," while MCC staff covered logistics and provided the moderation of the entire event and the EnRiMa session in particular. This second workshop was particularly instructive and provided a valuable experience for the organisation of the forthcoming DSS information sessions. After a presentation on each of the three organising projects, the participants were split into three separate break-out sessions, one for each project. The breakout sessions consisted of a series of exercises engaging the participants with the intention of obtaining feedback on each project's activities. These exercise sessions are quite

effective tools as they ensure that each participant effectively provides unique input, in contrast to a standard Q&A session in which most people may not intervene.

The objective of EnRiMa's session was to discuss certain aspects linked to the DSS and its eventual impact on the market. The first question was related to the design of the DSS and its functionalities. The outcome was a series of nice-to-have functionalities (such as cost-management capabilities, simplification and help in the user interface, and the adaptability to safety and security building features) that the system should integrate in order to be more respondent to market requirements, which was passed to the EnRiMa development team for further consideration in WP5. The second question focused on the technical obstacles to the implementation of the DSS. The outcome of the discussion has highlighted the need for flexibility in order to adapt to various types of buildings and also the necessity of providing training to users in order to facilitate utilisation and market uptake. These aspects were communicated to WP6 participants for further consideration in their work. The last question asked the participants to reflect on the economic, environmental, and social values of the DSS. The responses have emphasised that the DSS should be launched on the market as a service and not as product. In particular, an energy sector company with technical and economic competences should provide such a service. Another aspect that emerged is the flexibility that the DSS should have in order to add or remove building elements and to allow for continuous improvement of the tool. This advice on business models is being considered by the recently launched WP7, which has a task to deal with exploitation of the foreground. In particular, both SU and UCL have held initial meetings with advisors with experience in commercialisation of research to discuss an exploitation strategy.

In his notes redacted after the event, Marek Makowski noted that:

- The target groups/users of the EnRiMa-type DSS are wider than building operators/managers and policymakers. It includes energy service providers, ICT SMEs, advisors to policymakers, and other sector experts.
- EnRiMa's approach, consisting of an integrated analysis of strategic and operational decisions, combined with analysis of trade-offs between economical and environmental values, as well as analysis of uncertainties/risks, was recognised as very useful. However, doubts were raised if such a powerful DSS can be effectively directly used by building operators and/or managers.
- EnRiMa DSS should be offered as a configurable service, not as a product; the latter would be difficult to be used effectively.

The full reports are available on the project's intranet.

Both organised events have been promoted via the EnRiMa Website and through online platforms such as Cordis and EUAgenda to reach a wider audience. Press releases have been sent out before and after the event to a group of 300 media organisations in several European countries, including general and specialised ones (such as: Agence France Presse, Bulletin Quotidien, Le Soir, El País, The Guardian, The Times, Le Monde, FAZ Frankfurter Allgemeine, La Stampa for general media and Energética International, Energy Efficiency News, Revolve magazine, Renewable Energy Focus, Renewable Energy World, Journal de l'Environnement, Actuenvironnement for the specialised press). The announcements were also published on the conference Websites (European Sustainable Energy Week 2012 and ICT for Sustainable Homes 2011).

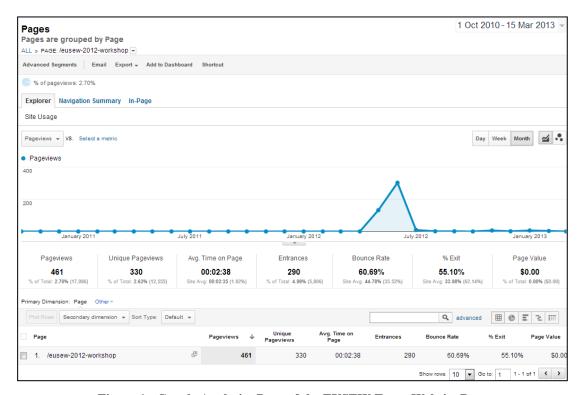


Figure 1 - Google Analytics Data of the EUSEW Event Website Page

In particular, the workshop co-organised within the framework of EUSEW 2012 generated positive impact in terms of audience reached. About thirty specialised journalists (based in Brussels) were directly contacted via e-mail a month before the event and by a phone call follow-up one week before. One journalist from Revolve Magazine, a European publication about environmental and energy issues, participated in the EnRiMa session and kept contact with the partners after the event as well. A press release was produced and disseminated by MCC through several online channels, including the EUSEW Website. As shown in Figure 1, the EnRiMa Website significantly increased its page views during the period considered (May - July 2012), as the pages dedicated to the event reached 460 page views and 289 entrances (seventh place out of the total pages visited, as shown in Figure 2).

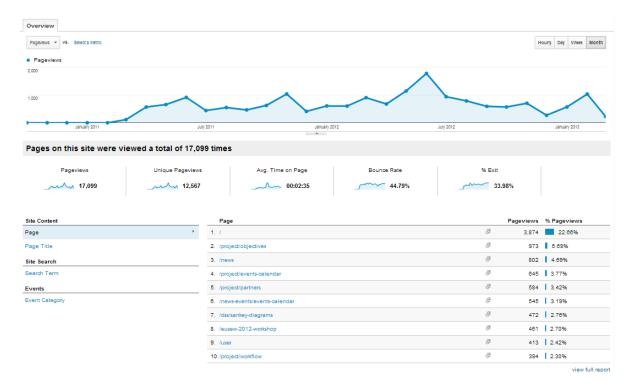


Figure 2 - EnRiMa Website Page Content Overview

#### 2.1.1.2 Organisation of DSS Information Sessions

The DSS information sessions will be organised for local governments, agencies in charge of housing and public spaces, the commercial building sector, building managers, and other potential DSS users such as energy services companies. These sessions will describe the DSS functionalities and alert potential users of its development and imminent availability, favouring its market uptake. The organisation of DSS information sessions will be a central activity in 2013 and was initially discussed at the project meeting that took place in Trondheim during 1-3 October 2012.

Using the format of the events as described in D8.3, it was decided that four DSS information sessions would take place starting from October 2013:

- 1. Spain (KUBIK laboratory site, October 2013)
- 2. Austria (Pinkafeld Campus test site, November 2013, during the e-nova 2013 conference)
- 3. Spain (FASAD test site, early 2014)
- 4. Sweden (Stockholm University, early 2014)

In Austria, the organisers of the e-nova 2013 conference and the Pinkafeld Campus (an EnRiMa test site) are working together with CET to provide the EnRiMa consortium with a special session (a full afternoon) within the event. The Pinkafeld Campus will advertise the EnRiMa project on the e-nova 2013 conference call for papers. The e-nova conference is attracting increased scientific attention and the best

presentations of the 2013 edition will be published in the Elsevier journal <u>Energy and</u> <u>Buildings</u>.

In Spain, a preliminary <u>stakeholder engagement event</u> has already taken place on 25 February 2013. The event was co-organised by the Asturias Foundation for Energy (<u>FAEN</u>) and HCE with the support of MCC. The workshop was entitled "<u>European projects on energy efficiency in buildings</u>" and took place at the Auditorium Príncipe Felipe in Oviedo, Spain. EnRiMa's partners participating in the event were:

- Luis Manuel Santos Moro (HCE)
- Ángel Luis Álvarez, (HCE)
- Eugenio Perea Olabarría (Tecnalia)
- Ana Mera Vázquez (Tecnalia)
- Emilio López (URJC)
- Paolo Sonvilla (MCC)

The event was attended by over eighty participants, representing local stakeholders of the Asturias region in northern Spain: ESCOs, ICT developers, heating and cooling installers, representatives from the Regional Ministry of Economy and Employment, and members of the Energy Technology Consortium of Asturias. The occasion has been a good chance for EnRiMa to present its work to a heterogeneous group of stakeholders and to gauge the initial reactions of potential DSS users regarding the functionalities of the tool.

Luis Manuel Santos Moro (HCE) initially delivered a brief overview of his company, highlighting the line of activities in which its participation to the project lies, and introducing the project approach to the energy efficiency issues. More specifically, he talked about the two kinds of decisions to increase energy efficiency that are both considered in EnRiMa: those that involve investment in new equipment (CAPEX) and those regarding reducing operating costs (OPEX). Successively, Emilio López Cano (UJRC) and Eugenio Perea Olabarría (Tecnalia) have illustrated the main scientific and technical approaches used in the project. UJRC's presentation was aimed at conveying two main ideas: the interaction between strategic (CAPEX) and operational (OPEX) decisions and the usefulness of the stochastic optimisation adopted by EnRiMa. Tecnalia's presentation, instead, was focused on the operational model testing performed at the KUBIK test site.

Other EU funded projects were also introduced later in the morning, sharing their approach on energy efficiency issues: <u>AUTONOMOUS OFFICE</u>, <u>WATTALYST</u> and <u>ENERSIP</u>. A round table dedicated to "Energy DSS for buildings," moderated by HCE, followed, giving seventeen stakeholders selected from the audience the opportunity to interact with the EnRiMa project consortium representatives and to provide direct feedback on their presentations and work. A series of conclusions can be drawn from the discussion that arose during the round table:

- EnRiMa's DSS is definitely valid for market transfer: the operational level seems to have more applicability in the short term, while the strategic level may gain importance in the medium/long term
- Operating costs are an important economic factor in commercial and industrial activities and need to be reduced: it is a good direction for EnRiMa to address these costs with its operational level
- The EnRiMa DSS seems more useful for public buildings, industries, and commercial premises, while its application to the residential building segments seems more complicated due to the complexity of the tool
- The DSS user interface shall be as simple as possible and automated, capable of guiding the users to take the decisions or to take the decisions for them
- It is necessary, when applying such a tool, to take into account the reaction of building's occupants: these need to have an incentive to contribute to energy savings; cultural and social factors should be taken into account; building occupants should commit to savings and to the behaviour leading to them
- A key role will have to be played by utilities and energy services companies, which should be the ones to adopt the DSS and make it available to its final users, either as a service or a product, providing technical assistance and training
- Adopters and final users need to be able to understand the savings gained by the DSS: specific training and information will be needed on this aspect

As the participants reported the round table session deeply interesting, towards the end it was considered how useful it would be to continue the discussion in further meetings. FAEN and HCE will gather contacts of people that have participated and propose another meeting in the upcoming weeks. The EnRiMa DSS information session currently planned at the FASAD test site in Oviedo at the end of 2013 will also be a natural occasion to follow-up this discussion. The format of the future DSS information sessions will be built on the experience made during this event and the one previously held in Brussels in June 2012 during the European Sustainable Energy Week, already described in Section 2.1.1.1.

#### 2.1.2 Presentations at Conferences and Seminars

EnRiMa partners often participate in conferences and other events held at both European and international levels. A list of monitored events has been created for the period 2011-2014 and is regularly updated by MCC and shared with other partners for contributions. This activity has offered the possibility to enlarge the consortium's network and to build stronger cooperation for the future developments of the project.

Participation in events is promoted through several online platforms, such as Cordis, EUagenda, social media, and LinkedIn groups in order to reach a wider audience. Press releases and short news articles concerning the event participation are produced in advance, published on the project Website, and sent out to the EnRiMa mailing list, which includes at present about 3,000 contacts. Up to March 2013, EnRiMa partners have presented the project's work at 21 conferences and workshops listed in Table 2. Consequently, it has been possible to reach directly over 1,200 stakeholders with significant participation by researchers involved in energy efficiency in buildings, policymakers, and the construction and energy industry sectors.

Event	Date	Place	Partner	Presentation
Final EeB Impact workshop	12 – 13 March 2013	Brussels, Belgium	UCL	Standard project presentation
World Sustainable Energy Days - European Nearly Zero Energy Buildings Conference	28 February – 1 March 2013	Wels, Austria	CET	"Energieeffizienz und Risiko- Management in öffentlichen Gebäuden" (only available in German)
FUNSEAM International Business Symposium: Corporate Social Responsibility In The Field Of Energy And Environmental Sustainability	28 January 2013	Barcelona, Spain	НСЕ	"Innovation To Promote Energy Efficiency"
E-Nova International Congress 2012 for Sustainable Buildings	22 – 23 November 2012	Pinkafeld Campus, Austria	CET	"Optimizing Distributed Energy Resources, Passive Measures, and the daily Operation at Campus Pinkafeld"
IV Spanish R Users Workshop	15 - 16 November 2012	Barcelona, Spain	URJC	"Reproducible Operations Research. An Application to Energy Systems Optimization"
IFMA-Spain	17 - 18 October 2012	Madrid, Spain	Tecnalia	"Sistemas TICs para la predicción de cargas y gestión optimizada de equipos de generación y consumo en el edificio"
INFORMS Annual Meeting 2012	14 - 17 October 2012	Phoenix, Arizona, USA	URJC	"A Symbolic Model Specification for Energy Efficiency Optimization Models"
eceee Industrial Summer Study	11– 14 September 2012	Arnhem, The Netherlands	URJC	"Strategic model for energy systems optimisation: aspects of energy efficiency and risk management"
25" EURO Conference on Operational research	8– 11 July 2012	Vilnius, Lithuania	UCL	"Optimising Distributed Energy Operations in Buildings "

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<sup>&</sup>lt;sup>1</sup> UCL representative could not attend due to train-service disruption caused by snow but contributed to the presentation.

Event	Date	Place	Partner	Presentation
Stochastic Programming for Implementation and Advanced Application - Special Workshop	3-6 July 2012	Neringa, Lithuania	SINTEF	"Dual-level scenario trees Combining strategic and operational uncertainty"
The 8th International R User Conference	12 – 15 June 2012	Nashville, USA	URJC	"Decision Making under Uncertainty: R implementation for Energy Efficient Buildings"
GYA General Assembly 2012	23 May 2012	Pretoria, South Africa	URJC	"Energy efficiency and Risk Management"
Austrian Federal Ministry for Transport, Innovation and Technology Workshop Austrian "Building of tomorrow" program	22 May 2012	Vienna, Austria	CET	"EnRiMa - Energy efficiency and Risk Management in Public Buildings" (in German)
International Conference on Computational Management Science (CMS2012)	18– 20 April 2012	London, UK	UCL, SINTEF, URJC	"Optimising Distributed Energy Operations in Buildings", "Scenario Generation for Building Operations and Investment", "Strategic Model for Robust Planning: Energy Efficiency and Risk Management in Public Buildings"
Congreso Nacional de Estadística e Investigación Operativa y Jornadas de Estadística Pública	17– 20 April 2012	Madrid, Spain	URJC	"A Strategic Planning Model for Energy Efficiency in Public Buildings"
2nd Workshop on the Impact of the Energy-efficient Buildings PPP	14– 15 March 2012	Brussels, Belgium	URJC, MCC	Session 3: "EnRiMa – Energy Efficiency and Risk Management in Public Buildings"
E-Nova International Congress Sustainable Buildings 2011	24 - 25 November 2011	Pinkafeld Campus, Austria	CET	"The First Step for Implementing a Stochastic based Energy Management System at Campus Pinkafeld"
ICT Systems and Solutions for Energy Efficiency in Buildings ICT4E2B Forum-Application Scenario Workshop	25May 2011	London, UK	UCL	"DSS: Modelling Energy Flows at Both Operational and Strategic Levels"
Avances tecnológicos para la gestión de la eficiencia energética - Seminario	24 May 2011	Oviedo, Spain	HCE	"Avances tecnológicos para la gestión de la eficiencia energética"
4th Future Internet Cluster Workshop on "ICT and Sustainability"	16 May 2011	Budapest, Hungary	SU	"ICT Impact on Energy Efficiency – The EnRiMa Project"
Workshop on the Impact of the Energy-efficient Buildings PPP	25 – 26 November 2010	Brussels, Belgium	UCL, MCC	"EnRiMa: Energy Efficiency and Risk Management in Public Buildings"

Table 2 - List of presentations made at international events  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

EnRiMa project presentations given by the partners during events turned out to be successful in terms of acquiring new contacts and establishing synergies with the target stakeholders. For instance, on 22 May 2012, the Austrian partner CET

represented by Michael Stadler, attended a workshop organised by the Austrian Ministry for Transport, Innovation and Technology within the "Building of Tomorrow" program. CET's work in EnRiMa is in fact co-funded by the Austrian government within the program. About fifty people attended and 35 projects were represented at the event: EnRiMa was presented separately to six groups of 4-6 people by Dr. Stadler. Feedback was very positive, including appreciation of EnRiMa's holistic approach to optimisation and of its Web-based GUI Solution. During the event, CET received several offers for additional test sites in Austria.

The <u>UseR! 2012 Conference</u>, held at Vanderbilt University during June 2012 (Nashville, TN, US), was another successful example of dissemination of scientific results. EnRiMa was presented in front of about eighty people coming from related sectors (in particular, statistics and the use of the R statistical software and programming language). People from research institutes, public bodies, and universities got in contact with the consortium during the event and also after it through e-mail exchanges with the partners. Attendees found the project innovative, and many showed interest by asking for details concerning the realisation of the stochastic parameters, the trade-off between long- and short-term decisions, and the use of optimisation to define the characteristics of new buildings.

Other positive examples include the <u>INFORMS Annual Meeting</u> (14-17 October 2012, in Phoenix, AZ, USA), where URJC chaired a session on "Optimization Methods for Energy Efficiency and Risk Management." The session was attended by a total of 25 people, representing a mainly scientific audience, and interest in the project topics was shown during and after the event. A general positive comment about the project and its expected results was received during the networking session. These results, in the form of the presentation of the prototypes planned as the second milestone of the project, will be well received in future dissemination activities. After the presentation, an attendant affiliated to the NCE Smart Energy Markets and the Inkubator Halden AS in Norway contacted by e-mail the partners for the slides, remarking that the presentation was very interesting.

Finally, the <u>eceee Industrial Summer Study</u> held in September 2012 in Arnhem, The Netherlands reached a wide audience, especially from the industrial sector, with about twenty people interacting with the EnRiMa partner, URJC, which was presenting during the poster session. As the audience was "industry biased," the questions were general and concerned with how this project can fit the industrial sector. Several people shared their contact details and feedback for future collaborations. For example:

• A representative from Energia Plus Roma, an ESCO from Italy, could be a potential user of the EnRiMa DSS. The company has similar problems in buildings similar to EnRiMa test sites;

- A representative from the Vienna University of Technology, was really interested in the project, especially regarding the approach in dealing with uncertainties. He pointed out that EnRiMa may have synergies with the AIDA project;
- A representative from the Institute "Jozef Stefan" in Slovenia, expressed interest and deemed that the DSS can be useful for his organisation; and
- Especially interesting for future synergies turned to be the contact with a representative from the Institute of Energy and Sustainable Development at the De Montfort University (Leicester, UK). The organisation participates in the FP7 project KAP (Knowledge, awareness, and prediction of man, machine, material, and method in manufacturing). This project deals with energy optimisation at the process level, thereby having similarities with EnRiMa's approach.

#### 2.1.3 Scientific Publications

During the first thirty months of the project, five scientific articles arising from the following deliverables have been submitted (or are being prepared for submission) to several scientific journals, as summarised in Table 3.

Title	Authors	Journal	Status
Optimizing Building Energy Operations via Dynamic Zonal Temperature Settings (based on Deliverable D2.2)	Markus Groissböck (CET), Somayeh Heydari (UCL), Ana Mera, Eugenio Perea (Tecnalia), Afzal S. Siddiqui (SU/UCL), and Michael Stadler (CET)	Journal of Energy Engineering	Currently in the first round of reviews
Multi-horizon stochastic programming (based on Deliverable D3.2)	Michal Kaut, Kjetil T. Midthun, Adrian S. Werner, Asgeir Tomasgard, Lars Hellemo, and Marte Fodstad (SINTEF)	Computational Management Science	Currently in the second round of reviews
Energy efficiency and risk management in public buildings: Strategic model for robust planning (based on Deliverable D4.2)	Emilio L. Cano, Javier M. Moguerza (URJC), Tatiana Ermolieva, and Yuri Ermoliev (IIASA)	Computational Management Science	Currently in the second round of reviews
Modeling Hourly European Electricity Spot Prices via a SARMA-GARCH Approach (based on Deliverable D3.1)	Fernando L. Aiube, Tara K. N. Baidya, Frances F. Blank, Ana B. Mattos, Wagner Saboia (SU), and Afzal S. Siddiqui (SU/UCL)	Journal of Energy Markets	Currently in preparation
Drivers, trends, and uncertainty in long-term price projections for energy management in public buildings (based on Deliverable D3.2)	Ruud Egging (SINTEF)	Energy Policy	Currently in the first round of reviews

Table 3 - Scientific publications in progress

Additionally, URJC plans to prepare two papers covering the stochastic strategic model and the integration of both strategic and operational, provisionally entitled:

- Strategic Planning of Energy Systems Using a Stochastic Optimization Framework (by June 2013)
- Integration of Strategic and Operational Energy Models within a Stochastic Optimization Framework (by December 2013)

Furthermore, two more scientific articles will originate from the recovery-of-investment work package (WP7), a first one quantifying the energy and financial benefits from using the EnRiMa DSS (by October 2013) and a second one indicating the potential capacity expansion policy (by April 2014).

In future submissions, the authors will draw on their experience from the submission of the first set of papers. Specifically, they have learned that the positioning of the paper is paramount, i.e., unlike a deliverable, an academic paper should start with a clear research question rather than the objectives of the EnRiMa project. Only later after motivating the problem and approach should the EnRiMa objectives be introduced to bolster the relevance of the work.

#### 2.1.4 Trade and Policy Publications

During the first thirty months of the project, the project consortium prepared three articles for trade and policy journals. It was decided also to address publications in the national languages of Austria and Spain that can be considered of primary interest for the stakeholder involvement process as these two countries are hosts of the test sites.

Title	Authors	Publication	Status
Optimierter Energieverbrauch in öffentlichen Gebäuden (only available in German)	Michael Stadler (CET), Markus Groissböck (CET), Afzal Siddiqui (SU/UCL), Somayeh Heydari (UCL), Martin Henkel (SU), Janis Stirna (SU), Eugenio Perea (Tecnalia)	Österreichs spezialisierte Fachzeitschrift für Heizung, Lüftung, Klima- und Kältetechnik (HLK), September 8-9/12, 43. Jahrgang	Published
Improving Energy Efficiency and Risk Management in EU Public Buildings	Markus Groissböck (CET), Emilio López (URJC), Eugenio Perea (Tecnalia), Afzal Siddiqui (SU/UCL), Adrian Werner (SINTEF)	IAEE Energy Forum, 2 <sup>nd</sup> quarter 2013	Accepted for publication

Title	Authors	Publication	Status
Aplicación Para La Toma De Decisiones Relativas A La Utilización Eficiente De Energía En Edificios	Eugenio Perea, Ana Mera Vázquez (Tecnalia) Luis Manuel Santos Moro, Ángel Álvarez Iglesias (HCE), Emilio López Cano, Javier Martínez Moguerza (URJC), Afzal Siddiqui (SU/UCL), Michael Stadler (CET)	DYNA, Ingeniería e industria	Currently being revised after editor's review

Table 4 - Trade and Policy publications in progress

CET leads a publication in German on insights on energy-flow modelling and operational module for Heating, Ventilation, and Cooling (HLK), which is a specialised trade journal aimed at practitioners in the building sector. A project introduction entitled "Improving Energy Efficiency and Risk Management in EU Public Buildings" was prepared for the IAEE Energy Forum (in English), which is a newsletter for the members of the International Association for Energy Economics. Its readership consists of academics, energy-sector practitioners, and policymakers. A paper describing the operational module and results obtained so far was submitted to DYNA (Spanish Engineering Journal dedicated for the Spanish Association of Engineers) in December 2012.

While the first article was published and the second one will be published shortly, the DYNA article has not been published for the moment but requires major modifications. A number of correction suggestions were sent by the reviewers, the majority dealing with formal aspects. For example, one reviewer was criticising the lack of calculation and demonstration in real buildings of benefits that the DSS operational module may achieve. This is part of later research in the project. Up to now, the benefits have been only theoretically computed. After considering that suggestion with the editor, the authors have decided to consider two papers, this one with partial theoretical results and a second with real measured results in real buildings. Currently, the consortium is improving this first paper taking into account the majority of the reviewer's suggestions.

During the final year of the project, at least two more trade and policy articles will be prepared by the project consortium:

- one article on DSS functionalities (spring 2013)
- one article on exploitation of the DSS (spring 2014)

MCC will be in charge of redacting these two articles, collecting content from the other partners. In particular, SU will be the main content provider for the first article, and UCL for the second one.

#### 2.2 Dissemination Actions

#### 2.2.1 Written Content Distribution

#### 2.2.1.1 Press Releases

Up to March 2013, fifteen press releases have been produced to announce particular results achieved by the project or to inform about the organisation/participation of an event by specific partners. Whenever a press release is produced, MCC conveys it to as many media contacts as possible by making follow-up calls to make sure that the content reached the right contact person for that specific issue. The content deals with project activities, developments, participation, organisation of events at European and international levels and major success of the project. The content of the press releases is edited by MCC, on the basis of information that often arrives from the scientific partners. The information that scientific partners normally provide MCC with concerns their participation in events, relevant ongoing activities, and scientific publications obtained.

Up to March 2013, the number of media contacts reached 300 journalists from nineteen different European countries in the sectors of energy efficiency and ICT. Media include both general and specialised magazines and publications, such as "Energy Efficiency & Technology," "Renewable Energy Focus," "Euractiv," "Energie et Développement Durable," "GreenTech Media," "New Europe," "Ansa," "Agence France Press," and so on.

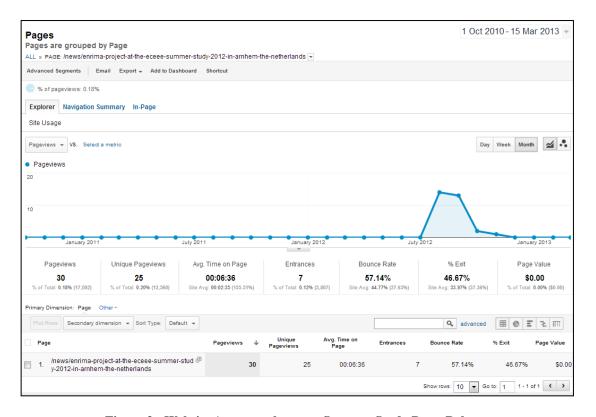


Figure 3 - Website Access to the eceee Summer Study Press Release

On 5 September 2012, <u>Energetica International</u>, an international level printed and online publication, published the EnRiMa press release entitled "European research project with innovative energy efficient solution to be presented at the eceee 2012." Its circulation reaches 10,000 people and has a quarterly frequency. The main language is English, and it is one of the leading technical magazines for professionals in the energy sector. Its target audience includes operators and users of energy installation plants, manufacturers of equipment for operations and use in power facilities, and administrators and association members of the energy sector.

Whenever a press release is sent out, the visits to EnRiMa Website measurably increase, and the users directly access that specific page. In Figure 3 and Figure 4, two examples show increase in the access to two event-related press releases: "European research project with innovative energy efficient solution to be presented at the eceee 2012" and "EnRiMa at the European Sustainable Energy Week 2012: *ICT for Energy Efficiency in Buildings and Communities: from research to implementation*."

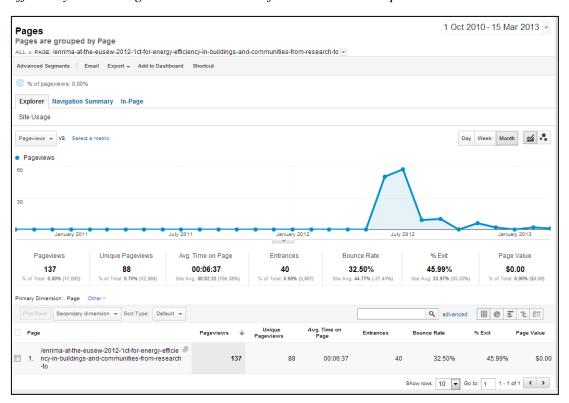


Figure 4 - Access to the Press Release Page for the EUSEW Event

#### 2.2.1.2 Short News Items

Short news items are produced to give quick updates and information about the project's activities to the target stakeholders. Up to March 2013, sixty pieces of news events (summarised in Table 5) have been produced and published on the EnRiMa Website as well as on <u>EU Agenda</u> (an online platform to find and publish European conferences, workshops, training sessions, and webinars, divided into different categories) for the announcements of events.

News Category	Audience	Actions
Event participation	Members of the scientific and research community, Potential users of EnRiMa DSS, Chambers of commerce and policymakers, other EU-funded projects in the E2B area, and media	Published on the Website, shared on social media, sent to all stakeholders
Event invitation	Targeted stakeholders depending on the event topic and media	Published on the Website, shared on social media, sent to target stakeholders on a local/interest basis
Event organisation	Targeted stakeholders depending on the event topic and media	Published on the Website, shared on social media, sent to target stakeholders on a local basis
Project developments	Members of the scientific and research community, Potential users of EnRiMa DSS, other EU-funded projects, media	Published on the Website, shared on social media
EU policies in energy	General audience	Published on the Website, shared on social media

**Table 5 - Short News Categories** 

Examples of these include events participation and organisation, intermediate project results achieved and general information about related topics dealing with energy efficiency issues, aiming at informing all stakeholder groups (about 3,000 contacts included in the mailing list). Relevant pieces of news are sent to all stakeholders to inform them about the project activities in an e-mail format. EnRiMa's activities and news have been reported from several online sources: BEAMS Website, ClusterEcobuild, Social Innovation Europe Website, ICT for Sustainable Homes Conference Website, Marie Curies Forum, E3soho project Website, EU Smart Cities Website, and the Sustainable Energy Europe Campaign. Pieces of news about events are also sent out as invitation to possible stakeholders and media likely to participate. Each piece of news has been posted on the project's social media pages (Facebook and Twitter) accordingly, reaching a much wider audience.

The News page of the Website was analysed in terms of visits, number of visitors, average time spent per page in the period from October 2010 to March 2013. The data gathered through Google analytics, as per Figure 5 below, show that there were peaks of visits during the organisation and the participation of events by the consortium. Figure 5 shows peaks of about one hundred visits per day in May 2011 (events in Hungary and Spain, and workshop in UK), in October 2011 (ICT for Sustainable Homes 2011 event), and in June 2012 (European Union Sustainable Energy Week 2012). The participation and the co-organisation of events assure good visibility for the project and interest in visiting the Website for further information.

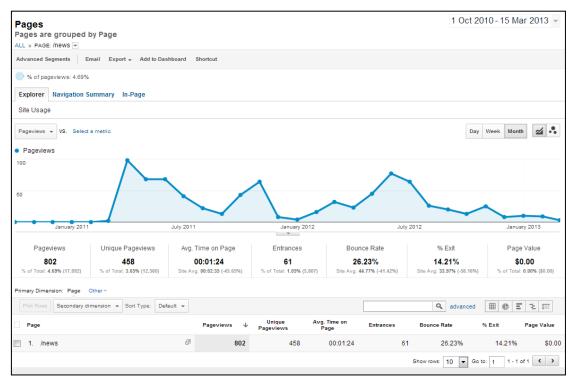


Figure 5 - Google Analytics Data on News Page

#### 2.2.2 Project Website Updates

The Website was re-tooled and re-launched in late 2011 in order to incorporate social media links and to improve its readability. A later addition to the Website is represented by a section dedicated to Sankey diagrams, a graphical representation that allows tracking of electrical and thermal energy flows from their supply up to their final utilisation. A <u>first page on the Website</u> introduces the basic concepts of Sankey diagrams to a general audience. Furthermore, an external link to the <u>CET Website</u> provides instant access to a daily archive of Sankey diagrams for one of the EnRiMa test sites (CET's website generates more than 5000 hits per month). Google Analytics data shown in Figure 6 have revealed that there is a certain interest in this rather technical page, and the project consortium consequently plans to integrate the Website with more details about the DSS functionalities and its user interface as soon as these are ready.

Acting upon feedback received by stakeholders, viz., that there seemed to be little dissemination activity by the project consortium, during 2012 MCC provided for a further reorganisation of the Website. The "Publications" section was restructured in order to allow for more clarity on the different kind of publications available and two new structured sections, "Presentations" and "Events," were added to allow for more clarity on the different activities carried out by project partners.

Page	Pageviews	% Pageviews
1. /	₫ 3,874	22.66%
2. /project/objectives	₫ 973	5.89%
3. /news	₽ 802	4.69%
4. /project/events-calendar	₫ 645	3.77%
5. /project/partners	<b>₫</b> 584	3.42%
8. /news-events/events-calendar	₫ 545	3.19%
7. /dss/sankey-diagrams	₫ 472	2.78%
3. /eusew-2012-workshop	₫ 481	2.70%
9. /user	₫ 413	2.42%
10./project/workflow	₫ 394	2.30%

Figure 6 - Google Analytics Data on Content Overview - Details on Pages

#### 2.2.3 Social Media Updates

Social media pages have been created during June 2011 in order to widen the discussion about energy efficiency in public buildings and ICT issues and to disseminate the project's activities and development to the general audience. Facebook and Twitter are updated daily and follow pages and channels dealing with energy efficiency in buildings and ICT at European and international levels.

Social Media Page	Subscribers	Audience Category	Posts/Tweets
Facebook	74 (March 2013)	Individuals linked to the energy sector, other EU projects, energy networks, and EU institutions	EnRiMa's Facebook page reached about 120 posts, which included news related to energy efficiency issues, project updates, events announcement, etc.
Twitter	432 (March 2013)	It includes energy experts, research institutes, business companies, national authorities responsible for energy issues	Since the Twitter page has been opened, about 1,096 tweets and 100 retweets can be counted. The posts are mainly linked to energy efficiency in public buildings, EU legislation and policies, project events, project developments, and other related events/conferences.

Table 6 - Social Media

EnRiMa's <u>Facebook page</u> targets other EU projects, energy networks, and EU institutions, while the <u>Twitter page</u> includes a wider audience such as general and specialised media, industry, policy makers, EU institutions, research institutes and ICT networks at European and international levels. Table 6 provides some details regarding the social media activities.

The graph in Figure 7 gives an overview of the evolution of EnRiMa Facebook page statistics including posts, people "talking" about it, and weekly total visits. There is a quantifiable increase in subscriptions especially during organisation of events or participation to conferences or seminars. Live updates during conferences also helped in supporting this increase.

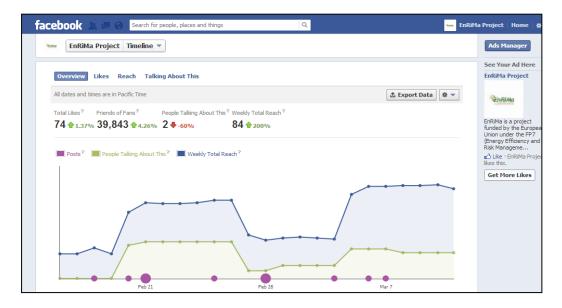


Figure 7 - EnRiMa Facebook Page Overview

In particular, the blue line shows data concerning the weekly total reach and it highlights increases when news and updates on the project are published on the page. The purple dots indicate "posts" and the impact they have on users (the bigger the circle, the higher the impact). The green line shows data on number of people talking about a post. This feature indicates the number of people who have created a story from a certain Page post. Stories include actions by users, such as sharing, liking or commenting a post. Again, it can be concluded that news concerning participation of events attracted more the attention of the public.

Since the Twitter page has been activated, about 1,100 tweets and 100 retweets can be counted. The posts are mainly linked to energy efficiency in public buildings, EU legislation and policies, project events, project developments and other related events/conferences. Examples of users that EnRiMa follows and where EnRiMa news items circulate are Sustainable cities collective, Energy Efficiency Magazine, Energie-Fachberater, CEI, ECEEE, EuroACE, Energy Union, Ahorra Energia, Ministère du Développement Durable, The Green Grid, U4Energy, International Energy Agency, Energy Efficiency in Industrial Process, Greenbuild News, Energetica Magazines, ENEnergy, etc. Among the contacts that "shared" and re-tweet the EnRiMa news items are EU Energy Days, Sustainable Energy for all, Greenbuild News, Green Business World and Digital Agenda for Europe.

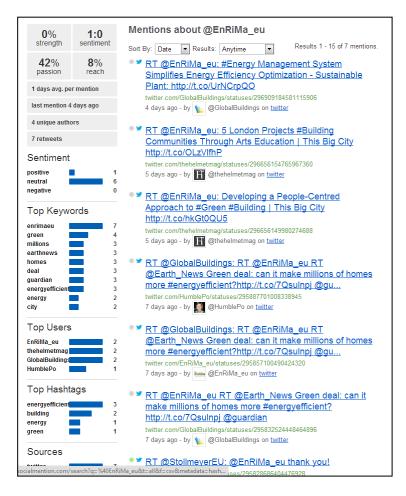


Figure 8 - Twitter insights on Social Mention

The information in Figure 8 shows statistics coming from the <u>Social Mention</u> online tool, useful for measuring the dissemination of a specific keyword or issue, and in this case used to measure the EnRiMa Twitter page impact on the Web. Social Mention is a real-time social media search and analysis tool indicating sentiment (if the mentions are positive, negative, or neutral), the top users (who is talking about the subject the most), and top hash tags (used in Twitter to categorise what a tweet is about). The results show that keywords and hash tags are in line with the project theme and that several users retweeted news and posts from the EnRiMa page. Thanks to Twitter, EnRiMa could reach a wider audience and disseminate its news around the Web in a more tailored way.

Social media turned out to be a useful, direct, and user-friendly tool to disseminate and to involve target stakeholders in discussion about energy issues. Both Facebook and Twitter, though in different ways, could reach a higher number of stakeholders and support in raising awareness on thematic such as energy consumption and energy management. Social media channels were also useful to involve the media and give more visibility to the project.

#### 3 Impact Assessment

#### 3.1 Analysis of the Impact of Communication and Dissemination Activities

In this section, we analyse the effect of communication and dissemination activities relying on the impact indicators described in Annex 4.2 and other considerations made in Section 2, focusing in particular on the visibility generated for the project, the benefits that were triggered for the project consortium, and the takeaways that can be used for further fine-tuning the remaining project activities.

- The creation of dedicated lists of contacts and of events has supported in an
  efficient way the project communication and dissemination strategy in
  reaching the target groups.
- The participation of partners in events linked to research on statistics and modelling, energy efficiency, ICT, and buildings quantifiably increased the visibility of the project and of the entire consortium, generating new contacts, synergies and allowing for precious feedback to be gathered.
- The organisation of workshops and interactive sessions dedicated to the project turned out to be very successful in reaching and better defining the target stakeholder groups, thereby allowing for clearer identification of potential users and desired DSS functionalities.
- After participation in events and organisation of sessions, the Website increased the number of visits and access to the pages dedicated to the events and the social media worked in a very interactive way with the users; Social media and live updates, especially via Twitter, supported the dissemination and increased the interest in the project at European and international level.
- Five scientific papers have either been submitted to peer-reviewed journals or are in preparation for submission. Based on the experience made in these first submissions, the positioning of future scientific articles will link the methodology to the research question more carefully.
- There appears to be substantial interest from industry and policymakers to learn more about the EnRiMa approach and subsequent results in trade and policy publications. Thus, various niches could be identified and targeted, e.g., engineering trade journals, ICT magazines, policy newsletters, etc.

#### 3.2 Conclusions and Next Steps

In this section, we condense what we could learn from this preliminary impact assessment and the consequent actions that the project consortium should take in the remaining part of the project in order to maximise the impact of the project. In general, it can be established that the project has so far achieved a significant impact in terms of acquired visibility and established dialogue with the target stakeholders groups, such as for the collaborations put in place with the FAEN foundation in Spain and the e-nova conference organisers in Austria, both documented in Section 2.1.1.

In particular, the co-organisation of small, dedicated workshops has allowed for a closer contact with stakeholders, thus maximising the feedback gathered by the project consortium. For example these activities have allowed the consortium to identify a distinction in the potential DSS users stakeholder group, distinguishing between adopters and final users. Adopters can be defined as those parties that could take over the DSS and offer it as a service to the final users:

- Utilities, energy retailers, and ESCOs should be considered as the most promising DSS adopters;
- Building operators, housing associations, and construction companies should be considered as the most promising DSS final users.

As discussed, these workshops have also allowed the project partners to focus on those DSS functionalities that meet the current energy efficiency market demand:

- The DSS should be launched on the market rather as a service offered to the final users by a third party, rather than a stand-alone product;
- Simplification and automation of the user interface will play a key role in market uptake;

The experience gathered in the first thirty months enables the project consortium to tailor the organisation of the four DSS Information Sessions, representing the key communication activities taking place in the final year of the project:

- Invitation to DSS Information sessions should be more focused on those stakeholders that can directly benefit from the DSS either as adopters (utilities, energy services companies, and ESCOs) or final users (building operators, housing associations, and construction companies);
- DSS Information Sessions should involve stakeholders in interactive activities allowing each participant to provide feedback or to directly interact with the project consortium;

Additionally, the ongoing peer-review process for scientific publications, the editors' comments for trade and policy publications and the analysis of Web traffic statistics has also highlighted the need to adjust further the focus of these other dissemination tools:

- In future submissions of scientific articles, the consortium will draw on their experience from the submission of the first set of papers. Specifically, they have learned that the positioning of the paper is paramount, i.e., unlike a deliverable, an academic paper should start with a clear research question rather than the objectives of the EnRiMa project;
- Trade and policy publications should focus on concrete energy saving and exploitation results;
- The project Website should integrate more information about DSS functionalities and applications.

### 4 Annexes

# **4.1** Timeline and Action Plan (update)

Timing	Action	Responsible partners	Targeted stakeholders
May 2013	Participation in the Green Week 2013 in Brussels, Belgium	MCC, others TBD	Potential EnRiMa DSS users, industry associations and NGOs, and other EU-funded projects in the E2B area
	Participation in the 10th International Conference on Computational Management Science in Montréal, Canada (1-3/05/2013)	URJC, UCL	Research centres, universities, research community
	Preparation of a trade article on the DSS functionalities	MCC, SU, UCL	Media and journalists as a channel to reach all target stakeholder groups: potential EnRiMa DSS users, policymakers, local authorities, administrators, industry associations and NGOs, and other EU-funded projects in the E2B area
June– July 2013	Presentation at CIRED 2013 - Electricity Distribution for a Sustainable Future Conference, in Stockholm, Sweden	TECNALIA- LAB, UCL, SU, CET	Potential EnRiMa DSS users, policymakers, local authorities, administrators, industry associations and NGOs
	Participation in the European Sustainable Energy Week 2013, in Brussels	MCC, others TBD	Potential EnRiMa DSS users, industry associations and NGOs, and other EU-funded projects in the E2B area
	Participation in the eceee 2013 Summer Study on energy efficiency, 3 - 8 June 2013, Presqu'île de Giens, Toulon/Hyères, France	TBD	Potential EnRiMa DSS users, members of the scientific and research community
	Participation in the International Use R! conference 2013 in Spain (10-12/07/2013)	URJC	Research community, universities, administrators
October 2013	Organisation of DSS information session in Kubik, Bilbao, Spain (in collaboration with the WATTALYST project)	Tecnalia, HCE, URJC, MCC	Potential EnRiMa DSS users, policymakers, local authorities, administrators, industry associations and NGOs, and other EU-funded projects in the E2B area

Timing	Action	Responsible partners	Targeted stakeholders
November 2013	Organisation of DSS information session in Pinkafeld, Austria, within the e-nova 2013 conference	CET, IIASA, MCC	Potential EnRiMa DSS users, policymakers, local authorities, administrators, industry associations and NGOs
Early 2014	Organisation of DSS information session in FASAD, Oviedo, Spain	HCE, Tecnalia URJC, MCC	Potential EnRiMa DSS users, policymakers, local authorities, administrators, industry associations and NGOs, and other EU-funded projects in the E2B area
	Organisation of DSS information session in Sweden	SU/UCL, MCC	Potential EnRiMa DSS users, policymakers, local authorities, administrators, industry associations and NGOs
	Preparation of a trade/policy article on DSS exploitation	MCC, SU, UCL	Media and journalists as a channel to reach all target stakeholder groups, in particular : potential EnRiMa DSS users and policymakers

Table 7 - Planning of EnRiMa Dissemination Actions

## **4.2** Status of impact indicators (March 2013)

This table shows the latest updates in terms of impact reached by the project in relation to the indicators established. The information refers to the period from the project start in October 2010 to March 2013 and takes into consideration only the indicators that could be adopted in this period.

Indicator	Result as of 15 March 2012	
Number of Website visitors	Since the launch of the website:  • 5,825 visits  • 3,388 unique visits  Top visitor's countries: Belgium (30%), Spain (15%), Italy (12%), UK (6%), US (5%), Germany (5%)	
Social media followers and involvement	<ul> <li>Over 430 Twitter followers</li> <li>Over 1,100 Tweets</li> <li>Over 100 retweets from followers (such as EU Smart Cities, Digital Agenda, Rural Energy EU, Standards4RDI, EU Energy Week, Microgenius, StollmeyerEU, etc.)</li> <li>74 Facebook subscribers</li> <li>More than 200 posts on Facebook</li> <li>Facebook page reaches most EU countries, plus USA, Iran, Azerbaijan, Kazakhstan, Turkey, Belarus and Ukraine</li> <li>Facebook weekly total reach: 84 users</li> </ul>	
Number of people attending events where EnRiMa is presented	Approximately 1,200 people in total attending at the events where EnRiMa was presented and these events the EnRiMa consortium co-organised (see Table 1 and Table 2 for the list of events)	
Number of conferences and seminars attended	( )	
Number of people reached electronically		

Indicator	Result as of 15 March 2012
Circulation of information at the European local level and in individual countries	- 15 press releases have been produced to announce event participations, developments concerning the project and other news related to energy efficiency issues.  - After the participation in the ICT for Sustainable Homes event in Nice (24 – 25 October 2011), one nonscientific article (including 2 interviews) was prepared and translated in 3 languages (Italian, English, French). Both press releases and article were sent electronically to the media contacts list (generalised and specialised) of the target European countries (mainly Austria, Belgium, France, Germany, Italy, Norway, Spain, and UK).  - One article in the HLK magazine. HLK Magazine is the Austrian leading trade magazine in the heating, ventilation, air-conditioning and refrigeration sector. Information provided in this publication includes detailed property reports, domestic engineering analysis, trends and trade articles. The types of audience reached by the magazine include: architects, builders, planners, civil engineers, consultants, refrigeration and air conditioning ventilation engineers, building societies, major construction companies, building offices, industrial, retail, utilities, research centres and universities and institutions.  - One article in the DYNA Journal. DYNA is a general engineering journal; its impact factor is published every year in the JCR report. DYNA edits nine numbers per year and over 17,055 issues per number justified by the OJD 2009 (Spanish Audit Bureau of Circulation): 95% in Spain and 5% in Europe and Latin America.  - One article in the IAEE Energy Forum Newsletter. The International Association for Energy Economics was founded in 1977 in response to the 70's energy crisis. Four times a year IAEE sends its members the "IAEE Energy Forum Newsletter". The newsletter gives an account of IAEE Affiliate/Chapter activities and provides special reports and energy information from around the world. The Newsletter also contains articles on a wide range of applied and topical energy economics issues, as well as notes and
Number of leaflets distributed to target stakeholders	750 (+ 400) leaflets have been distributed, about 100 leaflets for each partner.
Circulation of information via other Websites and networks	EnRiMa appears in more than 50 pages from other Websites (Cordiswire, ICT Conference, Nice, EUagenda, Facebook, Twitter, Stockholm University Website, SportE2 Website, E3Soho Website, EC Website, ClusterEcobuild, Energy Warden Website, CET Website, CET's contact to the Federal Ministry for Transport, Innovation and Technology, CET's contact to Campus Pinkafeld and its students, BuildUp, Haus der Zukunft Website, Social Innovation Europe, UCL Website) More than 150.000 results linked to EnRiMa project on Google search

Indicator	Result as of 15 March 2012
Circulation level of scientific publications	<ul> <li>1 article submitted to Energy Policy (D3.2)         Energy Policy is established worldwide as the authoritative journal addressing issues of energy supply, demand and utilization that confront decision makers, managers, consultants, politicians, planners and researchers.</li> <li>2 articles submitted to Computational Management Science (D2.2 and D3.2)         Computational Management Science is an international journal focusing on all computational aspects of management science. As such, it aims to provide a publishing outlet for novel research results, and occasional surveys, in computational methods, models and empirical analysis for decision making in economics, finance, management, and related aspects of engineering. It has a wide scope, intending to provide a unified forum for research often scattered in specialised areas.</li> <li>1 article submitted to Journal of Energy Engineering         The Journal of Energy Engineering reports on the scientific and engineering knowledge in the planning, development, management, and finances of energy-related programs. The journal is dedicated to civil engineering aspects.</li> </ul>

Table 8 - Status of impact indicators (15 March 2013)