

SIXTH FRAMEWORK PROGRAMME

MESOR

Management and Exploitation of Solar Resource Knowledge



D.4.4 – “Report on Users’ Meeting”

Project/Contract no.: 038655
Date of preparation of D4.6: June 30, 2009
Nature: R
Dissemination level: CO



Version History

Version	Date	Author(s)	Changes made	by	Sent to
2.0		Elena Gaboardi iCons		EG iCons	

Contributing Authors

J. Betcke, Univ. Oldenburg, D

H.-G. Beyer, FH Magdeburg-Stendal, D

D. Dumortier, ENTPE, F

E. Gaboardi, Icons, I

C. Hoyer Click, DLR, D

P. Ineichen, Unige CH

E. Lorenz, Univ. Oldenburg, D

L. Menard, Mines Paristech, F

M. Martinoli, iCons, I

L. Menard; Mines Paristech, F

J. Polo Martinez, CIEMAT, E

J. Remund, Meteotest, CH

L. Wald, Mines Paristech, F

Acknowledgement and Disclaimer

The MESOR team acknowledges the financial support of the European Union under contract CA – Contract No. 038665. We would also like to thank all reviewers for their valuable comments.

No member of the MESOR team or any person acting on their behalf (a) makes any warranty, express or implied, with respect to the use of any information or methods disclosed in this report or (b) assumes any liability with respect to the use of any information or methods disclosed in this report.

Table of Contents

Executive Summary	4
1 Introduction.....	4
1.1 Objectives of the users' meeting.....	5
1.2 Approach to MESoR users' meetings: webinar and training seminar	5
2 The webinar.....	6
2.1 The goals of the exercise.....	6
2.2 The participants.....	6
2.3 The programme.....	7
2.4 Findings from the webinar.....	8
3 The training seminar	9
3.1 Goals of the seminar.....	9
3.2 The participants.....	9
3.3 The programme.....	10
3.4 Lessons learned from the training seminar.....	11
4 Conclusions	15
5 Annex	16
5.1 Letter of invitation to the Webinar	16
5.2 Evaluation Questionnaire for the Training seminar.....	20

Executive Summary

The organisation and management of the users' meetings, open to the stakeholders' community and organised by the MESoR secretariat, was a pillar of the activities planned for year 2 of the project. This deliverable reports the activity that the MESoR consortium performed for organising meetings and involving groups of selected users, and analyses the outputs of the meetings.

An on-line seminar (webinar) was organised to allow users to test the prototype on-line and to participate to a discussion forum about the prototype itself. Fifteen users (external to the consortium) participated to the evaluation exercise that was carried out in the webinar. This took place on March 4, 2009 hosted by coordinator DLR. The webinar proved to be a cost-effective and efficient mean for fine tuning the prototype. The participants expressed overall appraisal for the prototype and for MESOR as an initiative. The webinar was a very operational meeting where people were very active in checking the services and continuously discussing about it. They highlighted minor technical concerns about visualisation and items labelling.

A training seminar was held on May 27, 2009 in the context of the Intersolar fair in Munich (Germany). The training seminar was aimed at enabling continuation of the dissemination of MESoR results after the end of the project as it can be repeated by the individual project partners to train stakeholders from the solar energy industry. The seminar lasted more than 5 hours and consisted of a set of six presentations covering all the main research areas and activities of MESoR. The participants were asked to fill a short questionnaire aimed at collecting their evaluation about the seminar as well as suggestions for improvement, the outputs of this evaluation were fairly positive.

Both the webinar and the training seminar proved to be effective tools for achieving the respective objectives (validation of the prototype and testing of the training activity). These users meeting established and contributed to reinforce the links between the consortium organisations and their stakeholders community. Finally, they can be considered a successful measure of the project's achievements.

1 Introduction

The co-ordination action MESoR aims at removing the uncertainty and improving the management of the solar energy resource knowledge. The results of past and present large-scale initiatives in Europe, are integrated, standardised and disseminated in a harmonised way to facilitate their effective exploitation by stakeholders. This coordination action contributes to preparing the future roadmap for R&D and strengthening the European position in the international field.

The project includes activities in user guidance (benchmarking of models and data sets; handbook; best practices), unification of access to information (use of advanced information technologies; offering one-stop-access to several databases), connecting to

other initiatives (INSPIRE of the EU, POWER of the NASA, SHC and PVPS of the IEA, GMES/GEO) and to related scientific communities (energy, meteorology, geography, medicine, ecology), and dissemination (stakeholders involvement, future R&D, communication). Further, a roadmap to the future objectives and priorities is developed, describing requirements for measuring systems, including Earth observation systems, services for effective management and deployment of solar resource knowledge and better fulfilment of the demands of the stakeholders.

Stakeholder involvement is a major objective of MESoR and WP4 is dedicated to this activity. This objective is being achieved through different means, including: surveys on the stakeholders' requirements, the development of training material, the dissemination of the results of the project and the organisation of public international workshops addressing stakeholders from the decision making sphere, industry, research and also from other communities.

The present deliverable reports the activity that the MESoR consortium performed for organising meetings and involving groups of selected users, and analyses the outputs of the meetings.

1.1 Objectives of the users' meeting

The organisation and management of the users' meetings, open to the stakeholders' community and organised by the MESoR secretariat, was a pillar of the activities planned for year 2 of the project. Originally, the DOW had envisaged the organisations of two meetings. The consortium, however, decided, to slightly modify the work-plan, by organising only one meeting and completing the evaluation of the prototype with a survey¹. The main motivation for such a decision was that preliminary contacts with the potential participants showed relevant constraints among the users as regards the economic investments necessary to participate to the meeting (time and travel expenses). In response to the budget difficulties that various users organisations highlighted (it is worth reminding that the organisation of the event started during the peak of the economic crisis) it was, therefore, preferred to organise a virtual meeting (a webinar) in such a way that it was possible to attract audience from various countries in an effective and easy way. In addition to the webinar, where the feedback was given in a very free way, a survey –based on a semi-structured questionnaire- completed the picture about the prototype evaluation.

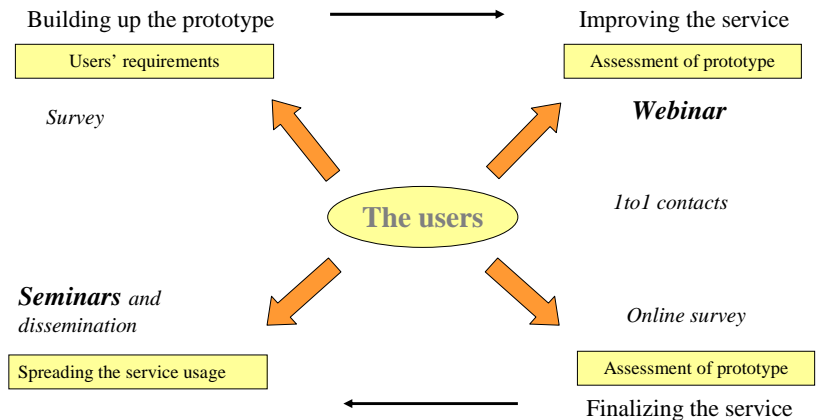
1.2 Approach to MESoR users' meetings: webinar and training seminar

The MESoR project is by definition a user-driven project: the community of the stakeholders has been at the centre of all activities of the project. It was thus a priority for MESoR to involve the partners' users base, and the solar radiation stakeholders' community at large, in all the project phases, including the development and finalisation of the prototype and, eventually, to disseminate the project's results to a relevant audience.

As illustrated in the following graph, the user webinar, described in section 2 of this report, was aimed at assessing the MESoR prototype. The results of the webinar, together with the 1to1 contacts that the consortium partners had with their selected users and the survey drove the finalisation of the MESoR prototype. The training seminar was

¹ See D4-2, Section 1-2

aimed at enabling continuation of the dissemination of MESoR results after the end of the project as it can be repeated by the individual project partners to train stakeholders from the solar energy industry.



2 The webinar

The MESoR webinar was held on March 4th, 2009 at 14 hours, at http://webconf.vc.dfn.de/mesor_webinar.

2.1 The goals of the exercise

The main goal of the MESoR webinar was to further improve MESoR and better tailor it to the users needs.

The webinar was organised as an on-line interactive session, a virtual room was made accessible via web from the participants' computer. The seminar aimed at allowing the participants to:

- access the major sources of information and gain knowledge about the best practices in the field of solar radiation information
- drive the further development of the service, through evaluation assessment and discussion
- confront with experts and providers in the solar radiation field, as all MESoR partners were online to support discussion and to answer to users' questions
- influence the future research objectives and priorities in the field of solar resource, by contributing to the definition of the MESoR Roadmap.

2.2 The participants

Invitations were sent to a list of about 150 potential testers, selected according to: proximity to project partners, geographical distribution, European and multi-sector

coverage.

About 20 people registered for the seminar; out of these 15 actually participated to it.

A very important and largely discussed issue is whether the number of participant to this exercise can be considered successful. In general, out of 150 invitations, 15 actual participants is a fairly good result, considering that the invitations were sent, for the most part, to people who were not previously member of the MESoR stakeholders' community. On the one hand, the innovative concept of MESoR could have raised higher expectations but some constraints from the users' point of view should be considered. These are: the relative novelty of an online seminar with inherent technical challenges that may act as barriers for some people. The seminar was held in English and this could also be a barrier for people who do not have proper command of the language. Finally, and this is definitely a lesson learned for the consortium, fixing only one date available for the seminar eventually excluded some potential participant, while organising two different sessions would have allowed more participants.

The following table reports the breakdown of the participants to the MESoR webinar, by sector of activity

Exhibit 2-1: Number of users participating to the MESoR webinar by area of activity

Area of activity	Webinar
Education	2
PV sector	2
Energy	8
Other	3
Total	15

Source: MESoR 2009

2.3 The programme

The webinar lasted about two hours. The programme was originally organised along 5 different sessions, however the actual roll out of the programme followed a different path.

Programme of the MESoR Webinar

10 minutes Introduction to MESoR and goals of the seminar
Carsten Hoyer Click, DLR

15 minutes Usage of the prototype: content and features
Lionel Menard, MINES ParisTech

Illustration of the specific features for the main application sectors

40 minutes On-line demonstration and test, questions & answers
All – Chair Lionel Menard, MINES ParisTech

Participants will test the prototype with the support of the MESoR team

30 minutes Paving the way to future developments of the MESoR prototype
All – Chair Carsten Hoyer Click, DLR

Participants will briefly express their comments about prototype features and content, to help the further developments of the service.

5 minutes

Assessment of the MESoR service

Elena Gaboardi, iCons

A questionnaire about MESoR will be available on the project site. A short illustration and instructions on how to fill the questionnaire will be given at the end of the seminar

End

After the introduction to MESoR and to the goals of the seminar, the illustration of the specific features for the main application sectors followed (as indicated from the programme). During this session, however, the Q&A session as well as the discussion about the service development were carried out at the same time. The consortium indeed preferred to second the participants attitude to free e discussion and not to constrain their contribution in a structured framework.

The webinar started with "Introduction to MESoR and goals of the seminar"². It was a presentation of the project and of the currently running prototype of the service. The objectives of the meeting and the modalities of the forthcoming discussion were also made clear to the audience.

The presentation provided examples of the usage of the various services, illustrated the benchmarking approach and provided examples of the Best Practices on how solar resource data is used. It also anticipated the issues that would be treated in the MESoR Roadmap.

This presentation highlighted the lessons learned from SoDa and the new approach adopted by MESoR, in particular: the implementation of an open source software portal with large development community, Internet standard communication protocols, Google Maps API for ease of use. It also clarified that the MESoR portal is a broker for data bases located elsewhere, it does not store and offer data itself. The connexion with larger initiative such as GEO/GEOSS - IEA-Task36 SHC was also illustrated. Eventually, this presentation showed users the benefits of using the service

The following part of the presentation was about the prototype architecture and about how data and services are organised. An illustration of the MESoR portal followed. By showing snapshots of the portal, the users were guided through the various data sources and services in such to make them familiar with MESoR and the available facilities.

The participants were invited to test the prototype online and to ask their questions and to express their opinion about the MESOR prototype. In this part of the seminar, the discussion turned to very technical issues, concerning, e.g. visualisation, resolution, definitions of parameters and geographical coverage

The participants were asked to express their overall opinion about the prototype and about MESoR in general. Finally, they were invited to provide their feedback to the prototype by filling the questionnaire which was administered online.

2.4 Findings from the webinar

Interesting lessons can be learned from the MESoR webinar.

² Available in Annex 5.2 of this report

The webinar proved to be a **cost-effective** and **efficient tool** for fine-tuning the prototype. Firstly, it allowed users and consortium partners from various countries to participate to the session, overcoming the constraints of travelling and time resources.

Secondly, from a **technical** point of view, the webinar took place in a **smooth way**, no major technical problems arose. A preparatory session among partners only had taken place a few days before the public webinar and this had allowed to detect and sort out some minor technical audio and video-related issues. Moreover presentations had been discussed and agreed, and this simulation was very helpful for presenters.

Looking at the discussion and the comments collected from the participants, they expressed **overall appraisal** for the prototype and for MESOR as an initiative. As a general agreement was immediately found and expressed about the strategic axes of MESoR, the discussion was actually more about the content and the features of the service. The webinar was, in the end, a very operational meeting where people were very active in checking the services and continuously discussing about it.

Questions were asked about the contractual issues. Some users expressed the concern that in case MESoR includes on payment services, it would be necessary to sign various contracts with different providers. The **one-stop approach** is, instead, a users' need.

Other technical requirements and concerns are about:

- Visualisation of maps and zooming
- Harmonisation of items labelling
- Geographical and time coverage
- Definition of parameters
- Availability of services for given regions/areas

3 The training seminar

3.1 Goals of the seminar

To enable continuation of the dissemination of MESoR results after the end of the project a prototype seminar was developed that can be repeated by the individual project partners to train stakeholders from the solar energy industry. The goal of the seminar is to provide an introduction into the knowledge and skills that will enable participants to access, use and assess solar irradiance data for their particular application.

The prototype seminar was first tested at the Intersolar in Munich, Germany, on May 27th 2009

3.2 The participants

Invitations to the seminar were sent to the MESoR stakeholders' community and to more than 500 contacts including private companies, universities, research centers, investors, engineering and manufacturing both in the EU and overseas. The seminar was also advertised on specialised websites, online magazines addressing the solar community and associations active in related fields. This latter group of organisations acted as intermediaries towards the final group of users/participant to the seminar. About 50 people participated to the seminar, which represents quite a high success ratio.

3.3 The programme

The seminar lasted more than 5 hours and consisted of a set of six presentations³:

Seminar Program

13:00 Introduction and Overview

13:15 User's needs

An introduction to the requirements of different technologies and applications, regarding data quality, spatial and temporal resolution and accuracy is given. Feedback from the participants is welcomed.

14:00 Overview of solar resource products

The currently available products are presented. The background of the methods, their main properties and their costs are discussed.

14:45 Results of the benchmarking of the solar resource products

Within the MESoR project the major solar resource products have been validated. The results and their impact on different applications will be discussed.

15:30 Coffee break

15:45 The MESoR Portal

The project partners have developed an internet portal that provides unified access to different on-line solar resource products. We will present the contents of the portal, and how it can be used.

16:30 Example case studies

The application of solar radiance data is illustrated by means of some practical examples.

17:15 Outlook and Discussion

After the “Introduction and Overview” of MESoR and to the goals of the seminar, the first session addressed the issue of “Users’ needs”, with a brief illustration of the role of the users in the development of MESoR and a description of how the users’ requirements had been collected, analysed and exploited for driving the development of the prototype. Then the session turned to more technical aspects, focusing on the data requirements for the various technologies, including parameters and auxiliary data. The presentation aimed at highlighting the importance of accuracy for securing return of investment. An on line exercise was proposed to the audience about a “Simplified profit calculation for a photovoltaic system in Germany”, showing the impact of errors in calculating irradiance when designing a system.

The following presentation provided the “Overview of solar resource products”, including a detailed description of the different sources of irradiance information and a synopsis of the analysed resources products with a comprehensive comparison of their features (input and extension, resolution, parameters, access modes and pricing). This session also demonstrated the need for long term measurements if reliability has to be assured.

The following presentation “Results of the benchmarking of the solar resource products”

³ The test of the presentations is available in D4-3 and on the project web site at http://www.mesor.org/seminar.html#Seminar_Program

was about aims, methods and results of benchmarking. The first part of the presentation explained the various methods used for quantifying the similarity of radiation products and measured data. The users were then guided across the benchmarking of radiation products, with concrete examples of comparison with the aim to provide them the criteria for selecting appropriate products.

Then the “Independent global and beam validation on 21 ground data sets” followed, which provided a real life example of applied benchmarking.

The following presentation was about the MESoR portal and on how it provides a unified access and a common information structure. The users were guided through the various data sources and services in such to make them familiar with MESoR and the available facilities. Importantly, awareness was raised about the possibility to exploit the MESoR Web Service Tutorial «How to» and 15 interoperable components (WS & Clients (Portlets))for the good of the Community.

A detailed presentation of “Example case studies” followed. This illustrated how solar radiation can be used, based on best practice examples from stakeholders. Twenty case studies cover a broad range of applications, including: solar concentration systems, PV, solar thermal systems, solar radiation forecast, daylighting and buildings, solar-based bio-treatment systems.

The final “Outlook and Discussion” presentation epitomised the main issues of the training session and presented a framework for discussing the results of the MESoR Roadmap as regard future research and development of solar resource knowledge and new solar radiation services. The identified research areas and services were presented in detail.

At the end of each session, the audience was invited to ask questions and clarifications that kept the discussion alive for the whole seminar.

3.4 Lessons learned from the training seminar

The participant were asked to fill a short questionnaire aimed at collecting their evaluation about the seminar as well as suggestions for improvement.

Participants were asked to indicate whether for any given item of the questionnaire he/she:

1= Strongly disagree

2= Disagree

3= Agree

4= Strongly agree

DK= Don't know/not applicable

Twenty-three questionnaires were collected and analysed and the results of this survey are presented hereby.

1. The objectives of the seminar were clear	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	2	4	10	7	0	23

Source: MESoR 2009

2. You learned valuable info about solar products	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	1	1	12	7	2	23

Source: MESoR 2009

3. You learned valuable info about benchmarking	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	2	6	8	5	2	23

Source: MESoR 2009

4. You learned valuable info about the Mesor portal	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	1	2	7	12	1	23

Source: MESoR 2009

5. The cases presented were clear and useful	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	1	4	9	6	3	23

Source: MESoR 2009

6. Now you have better understanding of solar resources	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	2	2	8	8	3	23

Source: MESoR 2009

7. Timing was adequate	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	1	5	11	6	0	23

Source: MESoR 2009

8. Presenter were prepared	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	2	2	8	11	0	23

Source: MESoR 2009

9. The learning will help you in your work	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	1	3	14	4	1	23

Source: MESoR 2009

10. The seminar met your expectations	1= Strongly disagree	2= Disagree	3= Agree	4= Strongly agree	DK= Don't know/not applicable	Total
Number of users saying:	1	5	7	8	2	23

Source: MESoR 2009

Participants were also asked what they liked more about the seminar, what they liked least and, finally, if they had suggestions and recommendations for improvements. The answers are listed below.

What did you like most about the seminar?
Benchmarking and overview of solar resource products
Benchmarking, outlook
Broad scope, systematic analysis
Case studies, diversity of presentations, technical comments
Clarity, good explanations about the theme
Excellent presentations
General ideas, list of databases, available descriptions, good beginning
Information about ground and satellite data
List of solar resource data available/ Mesor portal information
Overview of data resources
Portal, web service, presentations
Presentation of data sources by Elke Lorenz
Provided overview of the project and its applications
Resources and consolidation of available knowledge
State of the art SODA
Working a lot with simulation of solar thermal system, the whole workshop was very useful and gave good inspiration in solar resource knowledge

What did you like least about the seminar?
Benchmarking
Did not consider enough how to analyse single sites
Effects on tropical regions like Africa and Nigeria in particular need further improvement
It was short

Many graphs non readable. Too many cases
Mesor portal technical presentation
Missing case studies with typical systems using solar thermal flat plate collectors
No analysis of the comparison of the resource data available. No subject related to local effects(irradiation transpiration)
Not enough analysis of benchmarking
Not enough details, no information about local effects, altitude effects. No information concerning transposition factors
Not yet arrived at practical conclusions for the average user
Results of the benchmarking
Some presentations could be shorter (with the same info density)
Some times, understandably perhaps due to time constraints, a bit rushed presentations
Too much on methodology, not enough an analysis of results for uncertainty assessment
Using Mesor and radiation data

What improvements would you recommend
In my field I'm looking for a defensible method of calculating forecast solar radiation for a particular location. Plus a reasonable method of estimating variance (probable variance, irradiance). Also a mean to understand the available light at different wave length in choosing various solar technologies
A complete data analysis /resources on different time series
Focus work on benchmarking. Present detailed comparison between satellite and stations (predicts)
Have presentations available for handouts at the workshop
I would like to get more information about prediction of solar radiation for countries without governmental PV support
It was very good
Layer diagrams/figures or at least printed proceedings so it would be easier to follow the presentations
Make all the presentations available (quickly) to the people who attended the seminar
More case studies
More time for discussion
Quality control for own data
Shorten some presentations. More analysis of the results presented. Present ideas to reduce the uncertainty of solar radiation databases. Transposition models benchmark
To have the presentations, trying to compare models by identifying input parameters with their accuracy to place where we have ground measurement

The results from the onsite survey are quite positive overall, there are some contradictory indications that should not be considered surprising, given the variety of the audience and of the expectations.

Should the seminar be replicated by other partners, the objectives of the exercise should be presented in a more detailed way as the results of the first question seem to indicate that they were misunderstood in quite a few cases.

Results about solar products were very positive so was the presentation of the MESoR Benchmarking, instead was highly appreciated by some users while others expressed some concerns, the same applies to the case studies.

As regard the organisational aspects, the length of the seminar was fairly adequate, although more room for discussion would have been welcome.

The large majority of the participants acknowledge a benefit from the participation to the seminar (question 9) although it did not meet everybody's expectations.

The availability of the proceedings would have been appreciated and would have facilitated the participation of the audience.

4 Conclusions

The webinar and the training seminar were two pillars of the activity of WP4. They took place in the final phase of the project, when most of the project milestones had been achieved and the stakeholders' community established. These two events have allowed, respectively, the finalisation of the prototype and the testing and deployment of the dissemination activities. The achievements of these two events can be considered successful. They both were able to attract a relevant and qualified audience and they both proved to be effective tools for achieving the respective objectives (validation of the prototype and testing of the training activity). The users meeting established and contributed to reinforce the links between the consortium organisations and their stakeholders community. Finally, they can be considered a successful measure of the project's achievements.

5 Annex

5.1 Letter of invitation to the Webinar



Invitation to the training seminar
Using Solar Resource Knowledge in practice
Results and products of the European Project MESoR
May 27th 2009, at the Intersolar Trade Fair, Munich, Germany

Background and content of the seminar

An efficient, cost effective and successful integration of solar energy in the existing energy structure requires a detailed knowledge of the solar resource. Knowledge of this resource has been generated over the past years within several European and national projects. As a result different sources of information and solar radiation products are now available, but uncertainty about their quality remains. At the same time, communities of users lack common understanding how to exploit the developed knowledge.

The project MESoR has developed tools to remove these uncertainties and to make the use of the solar energy resource knowledge easier. These tools include a best practice handbook, an internet portal providing an unified access to the data and a benchmarking of the currently available methods and datasets. During the seminar these tools will be presented and the participants will be instructed in their use.

Where and when

The seminar will take place on May 27th 2009 from 13:00 to 18:00 in room B32 in Hall B3 of the New Munich Trade Fair Centre, Munich, Germany as part of the Intersolar Trade Fair. Also see the section *How to reach the seminar* on the last page.

Who should attend and why?

You should attend if you are for example a:

- Planner, developer, operator or owner of a solar energy project
- Consultant in the field of solar energy
- Building physicist
- Scientist in the field of solar energy, meteorology or agriculture
- Specialist at an utility dealing with grid integration of solar power

and if you have questions like:

- Where can I get solar resource data?
- How can I use solar resource data for my application?
- How accurate is solar resource data?
- Which dataset or method is most suitable for my application?

You will gain insight in the current state of the art, and learn how to access, select and apply solar resource data for your application.

Registration

To register, please send an e-mail to eg@icons.it or a fax to + 39 02 8092 50 stating name, affiliation, and contact details.

There is no registration fee. However since the seminar takes place as part of the Intersolar Trade Fair it is necessary to buy a ticket to the fair. Bought online via www.intersolar.de a on day ticket costs €15, a three day ticket €30. At the box-office both cost an additional 10 €.

Seminar Program:

13:00 *Introduction and Overview*

13:15 *User's needs*

An introduction to the requirements of different technologies and applications, regarding data quality, spatial and temporal resolution and accuracy is given. Feedback from the participants is welcomed.

14:00 *Overview of solar resource products*

The currently available products are presented. The background of the methods, their main properties and their costs are discussed.

14:45 *Results of the benchmarking of the solar resource products*

Within the MESoR project the major solar resource products have been validated. The results and their impact on different applications will be discussed.

15:30 *Coffee break*

15:45 *The MESoR Portal*

The project partners have developed an internet portal that provides unified access to different on-line solar resource products. We will present the contents of the portal, and how it can be used.

16:30 *Example case studies*

The application of solar radiance data is illustrated by means of some practical examples.

17:15 *Outlook and Discussion*

18:00 End

Additional information and updates

Additional information and updates will be provided via www.mesor.net/seminar.html and via e-mail to registered participants. If you have any questions you can contact Elena Gaboardi by phone or e-mail: + 39 02 8648 9285 / eg@icons.it

institutes participating in the MESOR project:

- German Aerospace Center
*Institute of Technical Thermodynamics,
Department of Systems Analysis and Technology Assessment
German Remote Sensing Data Center*
- University of Applied Science Magdeburg Stendal
Institute of Electrical Engineering
- Ecole Nationale des Travaux Publics de l'Etat
*Department of Civil Engineering and Building Physics
Light and Radiation Group*
- Ecole des Mines de Paris
*Center for Energy and Processes Armines
Association pour la recherche et le developpement des methodes et processus
industriels*
- iCons
- CIEMAT
Department of Energy
- European Commission, Joint Research Center
Institute for Environment and Sustainability
- Universidad Publica de Navarra
- Oldenburg University
Energy and Semiconductor Research Laboratory
- Meteocontrol GmbH
- Meteotest
- University of Geneva
Centre universitaire d'Etude des problemes de l'energie
- World Radiation Data Center
Voeikov Main Geophysical Observatory
- University of Presov
Department of Geography and Geoecology

Acknowledgements

The project MESoR is supported as a Coordination Action by the European Commission under contract number 038865 within the 6th framework programme.



SIXTH FRAMEWORK PROGRAMME

How to reach the seminar

ADDRESS

New Trade Fair Centre Munich
Hall B3, room,B32

<i>Parking garage</i>	<i>Entrance West/ICM</i>	<i>Entrance East</i>
Paul-Henri-Spaak-Str. 6	Am Messesee	Am Messeturm 4
81829 München	81829 München	81829 München

GETTING THERE BY PUBLIC TRANSPORT

From Munich Central Station the Intersolar can be reached using the U2 subway line, get off at either "Messtestadt West" and or "Messtestadt Ost". For detailed information on the public transport in Munich please visit www.mvy-muenchen.de/en/index.html.

The German Railways have a special offer for visitors of the Intersolar. See the Intersolar website for more details.

GETTING THERE BY CAR

The New Munich Trade Fair Centre is located directly next to the A94 Motorway. A dynamic traffic routing system will guide you to the Centre.

GETTING THERE BY PLANE

During international fairs, shuttle buses provide service between the airport and the New Munich Trade Fair Centre. Buses depart every 30 minutes and travel non-stop to the fairgrounds. The trip takes approximately 45 minutes. Unless otherwise posted, tickets cost EUR 7.00 one-way and EUR 12.00 round trip.

The train station for the S1 and S8 municipal trains is located directly under the Central Area of the Munich Airport. Trains depart for downtown Munich every 10 minutes. You can take the S1 or S8 train to Munich Central Station and change there to the U2 subwayline.

MORE INFORMATION

More detailed information on how to reach the Intersolar Fair is available on the Intersolar website. Choose:

Visitor Service> Travel Planning > Getting There

Accommodation

Accommodation can be booked via the Intersolar Website or via the website of the city of Munich (www.Muenchen.de).

5.2 Evaluation Questionnaire for the Training seminar

May 27th 2009, at the Intersolar Trade Fair, Munich, Germany



Training Seminar Using Solar Resource Knowledge in practice Evaluation Questionnaire

Please take a few minutes to complete this questionnaire –Thank you

Participant Name (optional) _____
 Organisation _____
 Field of activity _____
 Country _____
 How did you find about this seminar (circle your response)
 e-mail website magazine other (specify) _____

Circle your response to each item
 1=Strongly disagree 2=Disagree 3=Agree 4=Strongly agree DK=Don't know/not applicable

- | | | | | | |
|---|---|---|---|---|----|
| 1. The objectives of the seminar were clear | 1 | 2 | 3 | 4 | DK |
| 2. You learned valuable info about solar products | 1 | 2 | 3 | 4 | DK |
| 3. You learned valuable info about benchmarking | 1 | 2 | 3 | 4 | DK |
| 4. You learned valuable info about Mesor portal | 1 | 2 | 3 | 4 | DK |
| 5. The cases presented were clear and useful | 1 | 2 | 3 | 4 | DK |
| 6. Now you have better understanding of solar resources | 1 | 2 | 3 | 4 | DK |
| 7. Timing was adequate | 1 | 2 | 3 | 4 | DK |
| 8. Presenters were prepared | 1 | 2 | 3 | 4 | DK |
| 9. The learning will help you in your work | 1 | 2 | 3 | 4 | DK |
| 10. The seminar met your expectations | 1 | 2 | 3 | 4 | DK |
| 11. What did you like most about the seminar? | | | | | |

12. What did you like least about the seminar?

13. What improvements would you recommend?
