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*Evaluation and guidance services  
for transnational projects in education*

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**EXTERNAL EVALUATION REPORT**

**SOLTEC**

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## **1. Introduction**

This evaluation strategy is based on an approach that addresses the needs of all key actors involved in project activity, including both internal personnel and the target groups and end-users. The method has embraced both internal and external evaluation procedures. The external and internal evaluation procedures have been managed by sub-contracted consultants (Gareth Long and Annachiara Pecchini) and by a project partner (Solidarity) respectively, and external evaluation has so far focused mainly (but not exclusively) on:

- i) the progress of the initiative as a contracted project**
- ii) the performance of the partnership**

whilst internal evaluation has focused mainly (but not exclusively) on:

- iii) the actual outcomes as they are likely to benefit the end-users and wider education and training sector.**
- iv) The feedback of the partners on the first two project meetings**

However, the evaluation teams have drafted this strategy together and have acknowledged that there has been some overlap between the two approaches and the External and Internal evaluators shall continue to liaise throughout the project to enhance the evaluation processes and add new areas as, and if, necessary. One example where this will be particularly relevant is with regard to dissemination and exploitation, where the internal evaluation will focus on what the partnership are actually doing and the external evaluation will assess the impact of these activities on a wider-scale in the transnational co-operation context. The issue of dissemination was addressed with specific detail in the latter stages of the second project meeting by both internal and external evaluator presentations.

## **2. The second project meeting,**

Badajoz, Extremadura, Spain 5-7 July

This was the first meeting attended by the external evaluator, although the internal evaluator attended this and the first meeting. All the necessary documents from the first meeting were given to the external evaluator and the presentations on the evaluation strategy were made by the project co-ordinator on behalf of the external evaluators. The comments on this second meeting are based both on the planning, activities, facilities and participation of this meeting itself, but also in the context of the feedback received by the partners from the first meeting.

## **Planning**

The planning for the second meeting was careful and detailed and every partner was made fully aware of the requirements. Although Barajas was not that easy to get to for some participants, the hosts worked very hard on offering travel advice and recommendations and so everyone was able to arrive on time. This was also helped by the fact that the meeting venue itself was very easy to get to from the chosen hotel – and this proved additionally useful because of the intense hot weather during the meeting (which did lead to successful adaptations to the agenda especially concerning the visit to the solar energy plant).

## **Stakeholders**

The meeting began well, with relevant and interesting brief verbal presentations from the hosts and key actors in the field in the local area: representatives of the Ministry of Industry, the Regional Government of Extremadura, the Regional Energy Agency, AECEO and the Energy Cluster of Extremadura. Their presence clearly indicated the importance and relevance of the SOLTEC initiative in this region and this is a very positive example of how the LLP generally and the Leonardo DoI action specifically can engage with the key stakeholders to effect change and positive new developments.

## **Meeting Logistics**

One critical comment however, is that the seating arrangements themselves were rather restrictive. The seats themselves were more suited (being moulded single units including folding desktops) to school use rather than such a meeting, especially for those participants (the majority) who wished to use laptops during the meeting. There was free wi-fi available, but was rather intermittent in terms of reliability. Given the potential key role of the initial presenters (especially in terms of raising the project's profile and dissemination) it would also have been recommended to feature a prominent project logo on the platform and in the room generally.

When the initial presentations were complete, the specific project-related aspects of the agenda began, but this required a re-organisation of the seating and there were some delays in trying to get a working projector. It was not clear if a specific minute-taker had been appointed and it seems as if this became the role of the co-ordinator. Initially, there were supposed to be two people attending from the promoting organization, but due to ill health, only one could attend and so leading the meeting and taking detailed minutes would have been a significant challenge for one person. Also, it is useful and important at the start of such meetings to briefly outline health and safety aspects (fire exits) and some

other basics (toilet location), and it is recommended that this is done in future meetings – especially given the context of trying to create successful modules and installation practices in a vocational field where safety is important.

### **National background in ES**

The speeches were made in ES with translations into EN. They focused on energy in Extremadura; there is one nuclear station providing 1850 megawatts of power, but from 2007 there was a clear need to investigate new technologies and methods. Several new solar plants have been built and are being built, and so these are key in terms of new energy strategies, but also for employment – especially because as a result new companies are considering re-locating to the region. One of the positive aspects provided by the region is water, as c. 30 % of the total for ES reservoirs is maintained within Extremadura; but a disadvantage is the relative lack of winds. There is a real potential for expansion of the solar enterprises abroad and the region could become a leader in this field in Europe (and this is one aspect that led to the later recommendation of the external evaluator for the partnership to consider a follow-on Transfer of Innovation initiative). One current barrier at the moment is the overall economic situation. The financial crisis in Europe has largely taken place between the planning of the project and now and one of the consequences of this is that organisation previously committed to investing time and money for longer-term energy benefits are now only committing themselves to the fundamental basics of their turnover. There are also positives and negatives with the fact that currently, 90% of supply goes abroad but with a rate of 0% pollution. The speakers collectively felt that the timing of Soltec is perfect - the recognition of competence is very important, for both the ES workers working here (and abroad) and also to recognize the skills of others who will work in Spain.

### **Reinforcement of the real need for the project**

It was also acknowledged that the planning stages for SOLTEC took place in Extremadura, and it was quickly identified that there was a lack of staff generally and especially qualified staff, and that the development would need to be transnational in design especially to include the effective input from the “leader” of the sector, DE. It is clear that the initiative is not one that will benefit only ES, there is value for all of those involved, improving conditions in companies and skills of staff and certification for use across Europe. The skills amongst the partners are good, but the project also offers an opportunity to “re-launch” the activities of skilled personnel in the Extremadura region (and in other countries) who will be heavily involved in this meeting – this provides an additional level of potential added value. The energy sector is still very young; there is lots to learn within it and within its sub-

sectors (although it would be useful in project documentation to make these clear – installation services, service and maintenance?)

### **The partnership**

The next phase of the meeting began with partner introductions and it was clear to the evaluator that a very dynamic, relevant and “hands on” partnership had been put together for this project. In summary, there is a PT trade union representative, an ES teaching organization, EFQ, DE trade union and advisory partner, IT and ES technical expertise and a RO VET specialist. The DE partner includes a specific trainer of solar workers. This should be a very effective, practical partnership that should help mainstreaming and sustainability as it represents and includes the field rather than operating outside of it. It may be a challenging partnership to manage however, as the modus operandi of the different organisations is likely to be varied and so managing this in the confines of a two-year project will be a challenge – especially in the periods between meetings.

### **Meeting methodology**

Reflecting this, the leader of the meeting (Monika Stricker from BfW, DE) actively encouraged discussions and contributions from the partners and the agenda was organised in a way to avoid a passive “receiving” role for the partners, and this was especially important in the context of the meeting being three days. It was also an effective approach to “re-contextualise” the project. Dr Stricker emphasised that it was time to come to a common understanding of the competence profiles that will lead to the European model. She gave the partners the opportunity to agree on the fundamentals of the profile which was essentially agreed, but the later discussions that took place were also an opportunity to appraise the profile and so the partners were given two possible forums in which to contribute / question.

### **Partner country comparisons**

The discussions also allowed for the partners to brief each other on the interest and involvement of companies so far – the evaluator feels this will be of particular interest to the EACEA and will help maintain the motivation of participants in the partner organisations through the opportunity for peer experience exchanges. The exchanges are simplified and summarised in the following text.

PT - around 250 qualifications exist in an energy VET catalogue, and some of these involving installation work were used as a basis for a model. This was introduced to the companies, and the resulting feedback made some changes necessary. The interviews were just about satisfactory although there was some initial reluctance. The interviews featured mainly technicians and middle

management (with 5 companies). There is already a training course on this topic, but it does not have a European context to promote mobility. There are some industry standards, but not standards in terms of outcomes.

- PL - this sector is not well developed in PL, after the opening meeting in Frankfurt, the partner contacted 12 companies (mostly involved in the selling and installation of solar equipment) but these were not involved in specific training. The partner then contacted a solar energy magazine, but could still not identify a company that supplies this kind of specific training. Solidarity has a sister company in the sector, but no-one there is familiar with the subject. So, whilst interest was substantial, there is no effective starting point and the current approach appears to be one that uses profiles from other longer-established VET organizations.
- ES – there were interviews in factories with a similar experience to that in PT. Some training specialized to energy is provided, but it is very brief (300 hours). In the photo-industries, more time is needed, although balancing this is the fact that the interest exists but there are concerns about the time required – the sector indicated that 2000 hours would be necessary. There was comparison with the DE model, where a substantial 3.5 year apprenticeship can be followed by a briefer, more intense specialized module. The question was raised, “how will the general competence profile reflect and respond to such varied “background” information?” Also, the “newness” is actually a challenge, as the most relevant trainees may just have completed their VET training and therefore significant practical experience in the field is limited. On the one hand, companies look to local and regional govt for support for additional specialized training, on the other, the photo-voltaic sector is expected to deal with its own training needs, and all within a context of an “innovative” industry with no clear grounded practices.
- IT - the market is booming as in other countries, although more in design than on maintenance and installation. The existing courses are regionally diverse and based largely on older electrician’s courses. Again, numerous interviews took place, but there were some problems – competences on communication profiles indicate the challenge of significant skills in one field, and less so in another (even though related) field. For example, communication competences will be more important in installation work (liaison with clients) than in repair and maintenance. It was collectively agreed that it is important to stick to the service and maintenance profile – perhaps in the future to look at Management and Marketing and other aspects.
- RO - no mention of such a qualification in the RO list, even so, some studies are offered in connection to renewable and alternative sources of energy. 5 companies have been interviewed, and it appears that the feeling is that the students should get specific training based on theory

and practice. Again, a lot of interest was shown and a significant rise in courses in this area is expected in the coming years. The companies are willing to join the project network.

- DE – the approach here was based on the experience as a training provider to the sector. Interviews took place with trade unions and not many changes were needed post-discussion. The partnership considered the different draft profiles, e.g. more detail in the ES than in DE version. Although in this instance this may have been due to the fact that the original DE VET programmes already cover some of the areas (especially those of the electricians). The DE solar energy specialist emphasised that PV systems are not maintenance-free. They should last 20+ years but annual inspections at least are necessary and many of the current problems are a result of a lack of skills and experience in the field. He summarised the main practical challenges of the competences and skills required for installation and maintenance as follows:
  - production deficiencies; usually visible only after several years, such as cell mismatch and leaking edges, lamination fault, broken conductors, poor adhesion on frames, open junction boxes
  - installation deficiencies; can cause fire, some room constructions shade the modules, faulty mountings, damaged roof tiles, poor materials (corrosion), theft due to incorrect installation, incorrect attachment of dc cables, fire hazards due to porous cabling,
  - weather damage; usually only a problem in conjunction with the previous deficiencies, weight of snow, lack of lightning protection.
  - The use of infra-red cameras is a very good, but very specialized (and expensive) form of identification of faulty cells / modules, again emphasizes the need for better installation and maintenance.

### **Engagement with all partners**

This presentation on the practical issues of repair and maintenance was very effective – as it clearly indicated the necessary requirements to the participants most concerned with the VET elements of the competence profile but also was of clear and specific interest and relevance to the actors working most directly in the field. Along with the variation in the meeting methodology and the variation between plenary and sub-group discussion, such methods are strongly encouraged to engage with and maintain the interest of all participants.

The general discussion that followed indicated that clearly the communication between the maintenance teams and original suppliers needs to be improved on safety grounds. The presentation really engaged the more sector-based and technical personnel. The DE VET specialist introduced the objectives of the working group sessions - to finalise the competence profile and this was followed by additional plenary discussion. Additional discussion took place on the module and eventual consensus was achieved that it was best to have installation as the main module, followed by maintenance.

### **Language issues**

Another effective decision in terms of meeting management was to decide on the sub-groups for the second day of the meeting at the end of the first day., although it was difficult to divide the countries into different groups (there was a tendency for country personnel to want to stay together) and to ensure that the field experts were represented in each of the groups Planning I, Planning II, Logistics and Service and Maintenance. There was an understanding of a need for the groups to be transnational, but also a concern and a lack of confidence in some partners over language issues. This issue has also been identified in the survey work done for the first and second meetings and therefore is one that will have to be addressed and monitored by the Manager – the paradox is that on the one hand, the very appropriate experienced vocational personnel are involved in the project and have a real commitment to the field in their country, but on the other, EN language is not a strong point in all partner organisations. It will be interesting to see how this is addressed in the remainder of the project – in simple partnership terms, all the skills vocationally are present, but the need to ensure that translation and interpretation services are available (and do not delay meetings or the work between meetings) - will be a challenge.

### **Dissemination, sustainability and the state of the art**

Daniele (IT) indicated that he had located a project “PV trin” from the EU’s “Intelligent Energy Programme”, and a follow-up search found this:

[http://ieea.erba.hu/ieea/page/Page.jsp?op=project\\_list&searchtype=3](http://ieea.erba.hu/ieea/page/Page.jsp?op=project_list&searchtype=3)

This link was sent to all partners by email for further investigation and the evaluator suggested that the organisations involved be contacted in the context of dissemination activities (reciprocal relationships could be established) but also with a view to developing the Skills-Network Solarenergy.

### **Sub-group work**

The groups worked together well and immediately effectively, although the wireless connectivity was poor overall on Monday / Tuesday. A better and more consistent connection is a minimum expectation for any LLP project in 2010. The evaluator “visited” each of the sub-groups and was impressed by the active participation of each partner. There was very effective discussion in Planning Group I – it was detailed and achieved a good balance of input from representatives of different sectors and fields. The initial post group plenary discussion illustrated that different approaches may have been taken - if they can be drawn together then this is an effective style, but it will be necessary throughout the project to try and do this before the end of each meeting and in terms of each work package to ensure that ongoing activity does not become separate (and potentially independent) pursuits of targets.

### **Suitability to the aims of the Lifelong Learning Programme**

There was consensus that the competences and skills need fine-tuning, but a very effective start has been made and the potential for further transfer is considerable. In terms of the Lifelong Learning Programme aims, it is immediately and consistently clear that a similar process being undertaken only on a national basis would be far less effective.

### **The planned Piloting of the course**

On the second day of the meeting discussions took place on the plans for the pilot of the modules in the relevant partner countries. The plans were thorough (and reflected what had been submitted in the application) and were very sound in terms of an effective ODL methodology. However, the external evaluator indicated that he felt that a total duration of 400 hours scheduled to be in months 17-21 was too intensive a) in terms of the realities of a trainee committing to that amount of time and b) in terms of the feedback gained being collated and responded to in time for the end of the project in terms of the product’s final content and design. The evaluator proposed some alternatives: perhaps a reduced form of the pilot (one module?), perhaps a request to the EACEA for an extension, or a carefully re-designed programme that clearly covers to a large extent what the workers in the sector do in their current everyday activities, so the course can be followed directly within the mainstream work patterns. The first was apparently agreed upon. Whatever, the evaluator made clear that such a process has to be carefully and clearly discussed with the EACEA. It was agreed that Dr Stricker will plan and prepare some draft ideas and present them to Gareth Long and Annachiara Pecchini before sending them to Agency.

### **Field work, relevance and engaging with all participants**

A very effective piece of planning for the meeting was the arranged visit to a solar energy plant – a very good guide showed the field of module panels, the workshops and the self-powering office of the organisation itself. The information presented by the guide emphasised very much a relevance to “the field” - the topicality and real need for the project and its goals especially in the current context of the economic crisis. At the time of the application, there was significant government and market support for such solar activities, but the situation at the moment has meant the temporary shelving of many activities and so when the upturn occurs the project’s results will be well-positioned to be very much in demand. Also, an interesting additional context of the realities of the market (at least in Spain) is that the plant sells much of the energy it produces (at a very reduced value due to voltage transfers and other factors) and the guide believed that a more effective model could be based on the German approach – where the source of the energy conversion is much physically closer to the point of consumption. Again, this emphasises the suitability of the project as a transnational initiative.

On another level, a visit such as this really engaged with the experts working in the direct photovoltaic field, and after two days of intensive discussion on the competence profile and learning outcomes etc, a process such as this was a very effective way of maintaining their motivation and commitment. The planners of the meeting should be congratulated for this preparation. This is an important point, as on the one hand the partnership is very strong in terms of its multi-actor nature, but on the other, the quite varied areas of priority and time and resource commitments of the partnership, means that such a balance in the face-to-face meetings could be crucial to keep all players active and committed.

### **Evaluation and Dissemination**

The meeting closed with presentations from the external and internal evaluators (more of this will feature in the closing section of this report) and then discussion on the next steps and especially the best means of addressing the current weakness of establishing the network proposed in the application. Linking this issue to that of the next steps including the actual course material development (and the need for an increase in dissemination) there were extensive discussions on the best processes, including consideration of actively contacting the solar and photovoltaic initiatives identified in the Intelligent Energy Programme – a link to this programme and its database on activities was sent to all partners by email for further investigation.

Dr Stricker again emphasised the challenges of establishing the Skills-Network Solarenergy. This was a concern, as the original implementation of the group was planned for April 2010 and it has yet to be achieved. The feeling was that companies are interested, but that it is necessary to “show” the companies a concrete product (module) to get more engagement. However, the promoter and evaluators feel that something has to be in place soon and certainly before the progress report. It may be best to start with a less formal group and to develop their commitment once more tangible outcomes have been achieved, or to broaden the remit of the groups to include all potentially interested users – to this end, the evaluators suggested contacting the initiatives identified in the Intelligent Energy Programme – this was agreed upon and the link distributed by email, but it was also felt necessary to ensure that the group did not become too diverse so that it loses its “depth” as then the motivation for participation of the actors directly involved in the field may be reduced. There was also some consideration of possible future membership fees and the evaluator emphasised that this should form part of a tangible sustainability strategy.

### **Follow-on activities**

The key aspects to be addressed in the immediate months following the second meeting are the completion of the competence profile, the development of the training materials, the finalisation of the strategy for the duration and intensity of the pilot (and this will influence the form of the training materials) and the development of the Solarskills network.

### **The next meeting**

It was agreed that the third meeting will take place 25-26 Oct next in Lisbon, being brought forward approximately one month at the suggestion of the evaluators so that it allows the partners to prepare for the submission of the project’s Progress Report. It is planned for Annachiara Pecchini to represent the external evaluators at this meeting.

### **The responses to the partner survey**

The feedback from the partner evaluation survey that took place May-June was addressed briefly in the meeting as it is covered in more detail in this evaluation report. This report was originally scheduled for May, but it was agreed to postpone it to include the second meeting and especially the discussion and finalisation of the competence profile at the start of July. The aspects that were considered included the concerns that some partners felt that they needed to know more about the activities of the other partners. The co-ordinator indicated that the approach was intended to

ensure that each partner worked discretely in the first instance to ensure there was input from all, but it was agreed that future development activities will be more transnational in their processes as well as in terms of contributions to a final product.

### **3. The partner survey covering the period December 2009 – June 2010**

(comments are summaries and not direct quotes, % are approximate)

#### **1. Management**

##### **a) Face to face partner meetings, the administrative and financial rules, the Leonardo Development of Innovation objectives and project's aims (100% good)**

The start of the meeting was very good and the partners were very interested in the topic, the partnership and the project tasks.

It was good that there was open discussion on the concrete project implementation.

The information about the project milestones was clear although some time was lost at the meetings because of ES to EN and vice versa translations.

The administrative and financial rules are reasonably clear, but could be better explained - with examples on how to treat expenses – this could have been done after the first few months of the project. This was especially important as some of the partners are new to EU projects.

##### **b) Communication - frequency and regularity of communication within the consortium (10% very good, 60% good, 30% fair)**

The tasks and deadline are appropriate with regular frequency. The most frequent communication is by e-mail; sometimes by phone.

The partners decided in the kick-off-meeting to communicate via e-mail and it seems that this is a practical and good decision for the consortium. Until now the communication is working mostly via the coordinator.

The communication between partners should and could be better. There are periods of time in which we receive no news regarding the development of the project.

The communication between the partners of the same country is working well and national partners have often met together. The direct communication between the transnational partners could be improved.

The frequency of communication within the consortium could be improved. We could plan videoconference with all the partners or the coordinators of the WP, or to discuss any activity of the Project.

**ci) Partnership How is the management of a large diverse partnership? (80% good, 20% fair)**

It requires a lot of coordination capacity and sufficient and qualified human resources.

It is unclear what takes place between meetings and the activities taking place in PL have not been reported as with the other countries.

Sometimes it is difficult to communicate and to come to agreements and conclusions due to the language difficulties.

**cii) How is the performance of the partnership as a transnational consortium? (60% good, 20% fair, 20% weak)**

It seems too early to say at the moment – until now this point has not been sufficiently developed, and the impression is that it takes time to create an effective consortium, while at the moment the partners seems to act one by one, being mostly focused on their specific national tasks.

More Q&A between the partners and the coordinator would help to clarify sometimes points of the tasks. Answers from the coordinators are clear. The discussions during the transnational meetings will certainly contribute to developing a specific transnational consortium approach.

So far it has been a positive experience, although is the first of this kind.

So far, the partners have contributed in an active way. The tasks of WP2 and – as far as we know of WP 3 – have been done in detail and objectively.

Some partners (and the co-ordinators) have been responsible for some delays, but there were always reasonable suggestions on how to catch up and how to ensure this does not effect further project development.

We are still at the beginning, but the phase leaders are however doing their best. The evolution of the project is still to be seen.

There are some difficulties to communicate within the transnational consortium due to language.

## **2. Needs analysis and development of a competence profile**

### **a) How is the management of the needs analysis? (80% good, 20% fair)**

In IT, it has gone well - FIRE is a good observer because of its institutional mission as a subject involved in energy management with RUE and RES in Italy. A certain number of operators, producers, social partners, training organisations, etc. have been contacted to carry out the analysis.

There is no definitive European needs analysis at the moment and partners should receive feedback soon after their needs analysis and competence profile of the installer/maintainer in the solar energy sector.

In new sectors like the photovoltaic one, it is difficult to find partners that are really engaged with the subject.

In this work package the ES partners have shared tasks, with AECEO in charge of summarizing the interviews carried out by FIA-UGT and CLUSTER and making a report.

In our opinion the results are very complete and detailed and perhaps the guide for the interviews was in some parts too detailed.

**b) How is the development of the competence profile? (80% good, 20% fair)**

The development of the competence profile has been made according the deadline without any particular difficulty or problem. A good cooperation between the experts of FIRE has been established.

It has been difficult to find people with the appropriate experience and knowledge. The competence profiles of the partners are very complete and detailed, but difficult to put together because of the differences between the partner countries. For example: In DE the initial training (e.g. the vocational training in the dual system as an electrician) gives a broad-based theoretical and practical experience for working in a special field. For DE it is sufficient to plan only the additional parts for the PV-experts in the European module, which are not kept by the initial training. It seems that this is in other European countries different, as they mention in their competence profiles many activities which are part of the common initial training of an electrician in Germany.

The development of the common profile of competences was realized with the contribution of the partners (apart from apparently PL). From our point of view, this phase developed according to the plan and we have worked well with the other partners. However, we are still waiting for the coordinator's feedback.

**c) How is the development of the Skills-Network Solarenergy? (60% good, 40% fair)**

There was an exchange of feedback between our organization and the management of Soltec about this question. Our comments were "if companies have only to declare to be members of something then there should be also some requirements and/or obligations to provide, and also something to offer, but the membership is free and there is no real advantage to the companies, then it seems to me a little weak. If companies have only to declare to be engaged in skills development and qualification for the solar energy sector then it has no strong relevance to the project. On my opinion companies should declare to support or introduce the "Competence profile" in their engagement in skills development and qualification for the solar-energy sector. In this case the flyer is not sufficient to obtain the membership as the flyer should be associated to the ultimate Competence profile. The Network could also benefit the members by (i.e. offering low cost courses; giving companies the chance to be included in international circuits - that is obvious but also unvoiced - , etc... ). Otherwise it would be difficult pulling companies".

Development so far occurs slowly and with a “snow ball effect”.

Companies are interested, but we think it is necessary to “show” the companies a concrete product (module) first, to get more engagement

I don’t have much information from the partners. In our case the interest is high, so we have already sent for some time now the letters of support of our organisations.

## **7. Evaluation**

### **a) How is the evaluation plan? (100% good)**

An evaluation of the internal process in FIRE is made in parallel with the general evaluation objectives. The updating of this process will be recorded by the contributions to the external/internal evaluation process of the Soltec project.

The measures are very complete – it is a sophisticated plan.

I have only seen the plan of external evaluation.

### **b) How are the evaluation reports? (80% good, 20% fair)**

No evaluation report is available at the moment in addition to the present document.

This report follows from the initial report and evaluation strategy document.

## **8. Dissemination**

The target group categories for reference to the following text are:

A The employees in the solar-energy sector

B The employers/ companies in the solar-energy sector

C The social partners

D The training organisations

E The competent institutions in the European countries:

F The European bodies and/ or other qualified organisations active in the field

### **a) How is the quality and style of the printed flyers? (20% very good, 80% good)**

A, B - It is a simple reminder of the project. No evident impact so far. It will be useful for planning company interviews. C – It is a simple reminder of the project. No evident impact till now. D – It is not specifically for trainees, a new edition with training objectives maybe deserves to be designed.

I think the flyer is a very useful tool to provide project information to all the target groups in a concise and clear way.

The limited budget didn't allow a professional solution of a professional agency.

The flyer is designed and intended for the large public. We think it will impact mainly on B and C.

**A** - to encourage employees for lifelong learning through a combination of distance learning with learning in multi-national groups.

**b) How are the project electronic newsletters? (20% very good, 60% good, 20% fair)**

B D E F - There is only one newsletter available at the moment. A regular newsletter is a useful tool in the phase of creation of the Skill Network Solarnergy. Versions in national languages are recommended.

Everyone can see more information and actual progress, so it may be more useful especially later in the project.

The 1<sup>st</sup> newsletter was an overview about the project – so as a first step – ok. It will need to be available on the project website

The newsletter had impact on A, B, E and F.

**A** - to encourage employees for life long learning through a combination of distance learning with learning in multi-national groups

**c) How is the project web-site? (20% very good, 80% good)**

D -The tool can be targeted to trainees and training organisations. As one of the most important added values of Soltech is facilitating the mobility of workers, it may be useful to create an EURES

link onto the web site. <http://ec.europa.eu/eures/home.jsp?lang=en&langChanged=true> A, B -  
Also a session with demand/offer for installer/maintainers could improve the impact of the project and web site.

Identical impact item *b*, but more wide and must have inscription to reception.

In my opinion the web-site is very clear and simple (simple in a good sense), you can find what you are looking for and you can go back easily to the front page.

A next version will be prepared soon where the recommendations of the partners are included. For now it is still in the beginning and it can be improved. As an immediate impact, it could interest A, B, E and F.

**d) Have conferences taken place where SOLTEC has been presented?**

A, B – a conference in the IV quarter will present the project and some of its deliverables

It is necessary to hold some conferences addressed to enterprises and individuals, where debate can occur and more cooperation of persons concerned with the project team.

We have presented our project to our partners during the General Assembly of AECEO, and we also provide them information on a quarterly basis through the board of directors. We also have planned a conference in which we will inform the media and interested stakeholders about the Soltec project (background, objectives, status quo...)

SREP, RO presented the project at the International Conference "**Quality in formal and non formal education**" that took place in Iasi, Romania on 30th April-1st of May. The paper on the Soltec project was edited and included in the volume of the conference.

SREP, RO presented the "Soltec" project in the European Network of Social Authorities (ENSA), Madrid on the 31st of May 2010 – there was impact on C and D.

**e) Have you been actively involved in valorisation planning both for your institution and for the project as a whole? (40% to a large extent, 60% occasionally)**

Some contacts with B and D, but still waiting for shared competence profile to go ahead.

I disseminate the project to colleagues that go to enterprises, and workers which are those that make more dissemination. The dissemination is, nevertheless, still limited because people ask about the course realisation, and we can't provide specific tangible details

There were occasionally discussions with branch office managers who have a lot of experience regarding the needs and interests of the companies.

We presented and discussed first results of the project with companies working in the energy field worldwide (E.ON Hanse) and who are working in the servicing and maintenance of solar plants worldwide (Solartechnics, Osnabrück; Reimann Solar). There is an intensive contact of our PV-trainer/ tutor Manfred Uhlig to a school in Bulgaria (Professional High School "Prof. Asen Zlatarov", <http://himia.hit.bg>), led by Mrs. Nina Dechkova and the project manager Mr. Petko Zakov, who is also active in the field of renewable energies. Also there is a very engaged company, named "Solar Engineering Projekt, Pleven" which is currently building a solar park near the city Obnova. Mr. Zakov might be interested to be a honorary teacher in the pilot course of our module. Also the school and the company might be interested to join our skills-network Solarenergy. This would actively involve an EU-country outside of our partnership. After our next meeting we try to invite them to join the network.

The project is disseminated both as being part of the portfolio of on-going projects of our organization as well as appearing in all our national and international presentations.

**f) Impact of the Dissemination actions so far**

B - Participation in an important national event SolarExpo trade fair ([www.solarexpo.com](http://www.solarexpo.com)) in the field of green economy and to three conferences on PV (Conferenza Industria solare, Italian PV summit, III Solar Revolution Summit), where some companies have been informed about Soltec. At the same time feedback on the IT draft competence has been collected.

One of the main objectives of our organization is cooperation with countries from Eastern-Europe. When we have meetings, workshops, etc, in which take part our partners from these countries we present our project and collect experiences from Eastern Europe to enrich our project with this knowledge.

A: not yet B: interviews with Reimann Solar (Erwitte), presentation at E.ON Hanse, Solartechnics (Osnabrück), UmweltDirektInvestBeratungs GmbH (Nürnberg) C: discussion with Head quarter of IG-Metall Germany D: discussion with branch office of Sachsen Ost (bfw), branch office Berlin / Brandenburg (bfw) which have a lot of training projects with solar companies, branch office Bremen (bfw) wich has rich experience in wind energy, BAJ Bielefeld, because of their regional solar project (ANNE), branch office Weser-Ems (bfw) E: not yet F: not yet

The highest impact within the dissemination of the project was sending the newsletter with information to discussion groups in the domain of education, as well as directly to organizations that work in the domain. The most involved were A and B, but also D. After these direct contacts, we have selected the organizations that will be involved in the network.

FIA UGT web-site - we have placed the SolTec web page link and translated the first Newsletter and SolTec Flyer into Spanish to promote dissemination of the project in Spain.

**g) Please identify any example of the potential for exploitation of the project results**

**-e.g. links with other organisations in a different sector** (school education, vocational training), the use of additional languages, links to the project from the web-sites of other agencies, etc.

B, C, D - Some links will be established and activated and as soon as the project deliverables are ready; actions for dissemination and valorisation will then be carried out. One of these actions will try to adapt the technical requirements in order to obtain the certification of competences of the solar PV installer in Italy (the only existing certification has been created by CEPAS). The exploitation consists of harmonizing the Italian specification used for the certification with the Soltec shared qualification profile.

ANQ

CEFOSAP

SCHUMAL  
CENERTEC  
EPM  
WS-ENERGY  
GOSOLAR  
J.J.TOMÉ

AECEO belongs to REIN and EWNE, two networks that could be very useful to spread the results and conclusions of SOLTEC.

Considering the expected growth in this domain in Romania, a lot of those from categories A and B wish to update their skills.

- 1 - To promote the pilot course in the different educational systems in Spain.
- 2 - To create and teach a common online course to any European country.
- 3 - To promote and expand the “Skills network solarenergy” to any other European countries

#### **4. Conclusions, recommendations and comments**

##### **The real relevance of the project**

The Soltec project is an example of an initiative that has a very real, topical and important relevance. Its aims and themes alone prove this, but its positioning as a transnational co-operation project in the context of the Lifelong Learning Programme adds a vital and genuine European dimension to the work.

##### **The strengths of the partnership**

The external evaluator is no expert in the field of solar energy but already has witnessed that the inclusion of partners from DE and ES in particular means that key players in the field are included. These partners are reinforced by others where some progress has been made but more continuity of a competence standard in training is necessary (IT and PT) and by others where the process has really only just begun (RO and PL). This aspect alone – a kind of “three levels of development” model (and it is acknowledged that this is very much a generalisation in terms of the countries involved - there is much regional variation as well) supports the overall aims. Underscoring this is

the additional element of the various sectors represented within the partnership – all the key actors necessary to make an impact in the field appear to be involved at some level. The evaluators have been involved in many projects, but this partnership strikes them as potentially one of the most effective to realise the outcomes in a meaningful way – meaningful in the context of a very real likelihood of having a long-term impact in the sector. The skills and expertise especially in the solar sector itself and the vocational training field places the partnership in a strong position and it already appears that several associated partners and networks are willing to commit their support or have done so already. In addition to this sector-specific benefit, there is a considerable potential for the project and its design, structure and partnership base to be a model for other initiatives.

### **The challenges of the partnership**

This being said, there are likely to be challenges also. With its diversity, the partnership presents a significant challenge in terms of management – exacerbated by the fact that it is a transnationally varied, as well as multi-sector, consortium. In addition to the language issues that were identified by some partners in the feedback to the survey, the evaluators witnessed this aspect affecting the processes and dynamics of the face to face meeting. A clear solution is not easy to identify – continuous interpretation and translation is time-consuming and costly and can lead to fragmented rather than genuinely plenary, discussion. Whilst the proposal was submitted as an EN language proposal and the project was to be undertaken in EN, there would also be a danger of excluding some of the leading players in the field if ability to work and speak in EN was the main selection criteria for participation. It appears that some compromise must be reached – the co-ordinator and individual partners responsible for organising specific meetings and conferences should ensure as far as is reasonable that facilities are available to reflect language needs, but the partners themselves also need to ensure as far as is possible that they themselves provide consistently the personnel skills and competences presented in the application.

### **Communication**

Very much linked to this, and again highlighted by the partners themselves in the feedback from the first two meetings, is a need to develop more and perhaps more varied communication between meetings. This was agreed upon in the second meeting and the co-ordinator has a responsibility to arrange perhaps video conferences, skype meetings, etc as appropriate. However, it is also the responsibility of the partners not to be passive in this respect. The evaluators have witnessed a real dynamic within the partnership – it was clear that the solar energy experts from

whatever country have a mutual interest, as do the VET specialists, and so on. These participants should actively engage with each other and share skills and experience.

### **Delays**

The delays to the finalisation of the competence profile are not a major concern as a) the undertaking was to complete it as soon as possible after the second meeting and b) the continued discussions and considerations address very significant issues of relevance to the solar energy field itself and also in terms of the likelihood for further transfer to countries (and perhaps sectors) outside of the partnership. A separate, reduced meeting was planned during the second meeting to take place in late August in Frankfurt and this would have been an opportunity to finalise this – and the partners involved agreed on this date. The concern to the evaluators at this point is based on observance of recent email communication where attendance at this meeting is proving to be a problem. This represents another example of the challenge to the project managers of trying to respond to feedback wanting more contact, but then struggling to complete successfully a meeting in terms of attendance despite being previously agreed.

Perhaps of more concern is the situation regarding the Solar skills Network. Whilst it is acknowledged that there is a reasonable argument to indicate that the end users want to see more of a final product before committing their support, it is the case that the development of the network was intended to begin in April 2010. The challenges of gaining real commitment prior to the production of a course and materials should have been known to the partners and perhaps a plan should have been considered to establish the network in a series of stages. Something needs to be in place before the Progress Report and a careful explanation presented for the reasons for the delay. Having said this, it is clear that partners have been active in engaging with the community itself and this needs to be recorded in terms of the main areas of interest, follow-up actions, plans to engage with the stakeholders, etc.

### **The Pilot Course**

Again, this is an area of the project that needs to be addressed as a matter of urgency. The issue of the intensity and apparent lack of time for partners to respond to the feedback from the pilot to enhance the final product was identified by the external evaluators. However, the pilot was part of the application on which the contract is based and so any adaptations need to be carefully discussed and agreed with the EACEA – it is they who will agree or disagree to any alternative provision planned by the partnership.

## **Conclusions**

There are strengths and areas for improvement in this project as in any such initiative, but the evaluators want to make clear that the areas of concern expressed are just that – they are not especially weaknesses at this stage. There is a very clear potential for this project to be a beacon initiative given its very political, social and economic relevance and given its very heterogeneous partnership. There is clearly very significant expertise within the consortium, reflecting solar energy, VET and EU project skills and competences. If any partnership can successfully deliver this project, then this consortium seems the most well-placed to do it. The challenge will be in meeting the deadlines with the project work programme, maintaining the motivation and commitment of a diverse partnership in a difficult and testing economic climate and fulfilling its very end-user based approach evidenced in the original application.

The delays to the competence profile and skills network have been discussed previously, but it is also important for the project to remember that committing the time and energy to rectify these cannot be a reason for failing to fulfil subsequent aspects of the project on time. This is especially the case when it comes to the dissemination and exploitation elements. They have started a little slowly but have developed well in the last few months but need to be promoted even more in especially the second period of the project. The Skills Network is only one aspect of dissemination and exploitation and other channels and activities should not be neglected when trying to address and develop the Network.

The next meeting at the end of October 2010 will be a key moment in the project lifetime. It will be important to have resolved the delays, finalised the plans for the pilot, engaged more with the stakeholders and responded collectively to the feedback presented by the partnership itself on how it can improve (as well as maintaining of course, it's excellent progress in other areas).