Criterion 1. Quality of the Exchange Programme

1.1 Objective and relevance of the joint exchange programme

Strengths:

- The scientific objectives are clearly formulated and justified.
- The technical content is realistic, has a high quality and is based on an appropriate research methodology.
- The Gantt chart of secondments clearly presents the mobility of the team members within the whole duration of the planned project.
- This is a focused project with challenging and relevant objectives. The state of the art regarding electrochemical techniques for the investigation of corrosion and healing processes at micro-scale is well described, but new methods and experimental protocols are proposed for both electrochemical techniques and microelectrodes.
- The proposed research activities represent a continuation of the work already in progress.
- The proposed deliverables and milestones are adequate.
- The exchange programme is realistic. All partners have experience in international cooperation.
- The proposal has listed well defined objectives for the proposed exchange programme, and at same time explained the historical background, motivation and need for staff exchange.
- A Gantt chart is provided in the proposal which shows the various work packages and activities for the project duration.
- The objectives of the programmes are described. The workplan and milestones are presented.
- The planed scientific activities are included in 7 work packages and are realistic.
- The Gantt chart is provided and the requested budget is in line with it.
- The funding is requested for all partners.
- The proposed project is of relevance to some of the ERA priorities.
- The proposal includes a strong international collaboration, in which 6 countries participate, some of them former Soviet Union countries. Benefits are likely to reach both EU and Third Country research centers involved.
- The proposed exchange programme could provide a basis for a major study of cooperatives and social enterprises.
- There is a comprehensive division of labour for the different components of the proposed exchange.
- The applicants will maximize the communication opportunities provided by the internet to reduce costs and increase the frequency of contact.

Weaknesses:

- The planned number of the exchanged staff and the total duration of their visits appear not to be sufficient to reach the goals of the project in a collaborative way.
- Some of the deliverables are over ambitious, such as determining all of the requirements for ion-selective microelectrodes and fully determining the corrosion mechanisms of the selected alloys with the proposed theoretical methods.
- Many tasks, such as visit details and work plan discussions, should be done -at least in part- earlier than the project start.
- Methodological approaches have not been sufficiently detailed in the proposal.
- There appears to be a confusion between activities and WPs.
- The proposal does not indicate how deliverable D.2.4 (WP2) can be provided, since no Polish partner is participating in the proposal.

1.2 Scientific quality of the partners

Strengths:

- The partners are well qualified in the field of the project. All partners have experience in previous international cooperation. Publications are relevant and recent.
- The partners are very well qualified in the field of the project.

- The expertises of the participating institutions and staff members are described and are relevant for international collaboration.
- There is a coordinator identified for each partner including expertise and role in the exchange programme.
- The expertise of the partners is in the field of the cooperation.

Weaknesses:
- The staff exchange proposal covers a broad range of themes, however, omits to explain how these themes can be linked in a coherent way and how comparative research on these themes would be beneficial.

1.3 Complementarities/synergies between the partners

Strengths:
- Complementarities and synergies between the partners are adequate.
- The partners' knowledge is complementary in various relevant experimental and theoretical methods. Publications are relevant and recent.
- The mix of junior and senior investigators should maximize the impact of the collaboration
- - The partners have expertise in different fields (e.g., cooperatives, social enterprises, business, third sector and agribusiness). Thus, there are clear complementarities among the partners.

Weaknesses:
- The complementaries and synergies between the partners are not described in details.
- The exchange programmes in terms of person-months is not balanced - 30% for one of the six partners is envisaged.
- The description of the complementarities and synergy between partners is too cursory to be fully convinced.
- All of the secondments are planned for 1 or 2 months duration. Such condensed period of time, especially for the early stage researchers, is too short to succeed in a systematic transfer of knowledge.

Strengths of the proposal (for criterion 1 in general):
- The project objectives are clearly formulated and imply four well-defined WPs. The details of the milestones are very well presented.
- Five consortium teams with proved level of expertise in subjects related to the perfomance of the proposal. The Gantt chart of secondments clearly presents the mobility of the team members within the whole planned project.
- The number of partners exchanged and the research length duration are well planned to assure mutual benefits to all partners.
- The scientific quality of the partner institutions and their experience in international cooperation are very good.
- The complementarity of expertises from all partners and their respective contributions to achieve the objectives of WPs 1, 2 and 3 are appropriate.
- The complementarities and synergies between the consortium partners are well explained for all stages of the proposed project (with exception of WP 4).

Weaknesses of the proposal (for criterion 1 in general):
- The expertise and resources necessary to WP 4 are not described sufficiently.

Criterion 2. Transfer of Knowledge

2.1 Quality and mutual benefit of the transfer of knowledge

Strengths:

- The transfer of knowledge is to be achieved through well defined seminars and also via individual trainings and consultations and it is clearly presented.
- The mutual benefit of the transfer of knowledge for each research team is adequate and well balanced.
- The correlation between the research tasks and the transfer of knowledge is not clear. For example it is not clear why the tasks of performing simulation are executed only by ICSC at home (WP2) without interacting with BSU partner where there is expertise and a supercomputer centre.
- Networking aspects are very well considered. A special WP is dedicated to the Transfer of Knowledge and Networking Activities. Three levels of seminars are proposed in order to facilitate the transfer of knowledge (presentations of the ESRs and presentations of ERs in the host institutions and seminars at the home organisations). The target audience is mentioned. Workshops are also proposed.
- Dissemination activities are also very well considered. A significant number of joint publications in peer-reviewed journals reporting the results of the collaborative work is envisaged. In addition, the dissemination of results through electronic repositories on serves will enhance access of the findings amongst the partner institutions
- -The exchange programme has provided potentials for comparative research, knowledge sharing and exchange.
- The motivation behind the programmes for the transfer of knowledge are convincing.
- Some information about the dissemination of knowledge in publications, conferences, workshops and web sites has been provided.
- A high potential exists for transfering knowledge between partners through seminars given by the experienced researchers.
- The exchange involves a range of experienced and early career researchers.
- There are technical, geographical and historical complementarities among the partners.
- The proposal implementation could promote the involvement of women researchers.
- The transfer of knowledge is well articulated, and includes teaching, thereby transferring knowledge to the new generations of professionals of the area.
- The workpackages appear to be realistic and contain some innovation.
- There will be a series of workshops in each of the partner countries to ensure a bottom up approach.
- The proposed exchange is relevant to public policy.

Weaknesses:

- The transfer of knowledge from the individual level to a wider target audience is not sufficiently addressed in the proposal. Workshops and conferences are not foreseen (only seminars).
- -Although a variety of knowledge transfer activities is presented (such as workshop and summer school), the knowledge transfer methods are described in a vague way, without detailed information on target audiences and programme.
- Specific goals of the staff to be exchanged are not clearly described and must be inferred from various dissemination plans.
- The transfer of knowledge during the two planned workshops lacks some organizing details (e.g. researchers given talks, target audiences, sustainability).
- - Mostly short and medium length stays are considered in the proposal, failing to capitalize the main strength of this instrument.

2.2 Adequacy and role of staff exchanged with respect to the transfer of knowledge

Strengths:

- The added value in terms of gained knowledge for the teams involved in the IRSES project occurs due to their highly complementary fields of activity.

- The role of the senior staff to be exchanged is clearly shown and adequate.
- The added value of SISET staff exchange scheme (in terms of gained knowledge) for each partner organization is very well described. The role of staff exchanged with respect to the transfer of knowledge is well presented. Their specific expertise of the staff is well outlined.
- The collaborating partners have demonstrated experiences in international joint research projects.

Weaknesses:

- The Gantt chart of secondments gives only very general information on the exchanged staff.
- The role of the early stage researchers and PhD students is unclear regarding the transfer of knowledge.
- The durations of secondments are not long enough to reach the proposed goals (most of secondments are short, one month).
- The role of exchanged researchers is not fully illustrated.
- The adequacy and the role of staff exchanged are not fully explained.
- This project may test the research capacity of the institutions, some of which may not have the experience and the ground capacity to carry out everything that is promised.
- Language issues between the researchers may also prove an impediment. As a consequence, additional resources may be required for translation and diffusion.

Strengths of the proposal (for criterion 2 in general):

- The transfer of knowledge of this proposal involves three main benefits, namely the transfer of knowledge (i) between the groups of different expertise, (ii) between the research institutions and educational centres and (iii) between experienced and early stage researchers. The potential for a balanced transfer of knowledge between the EU and Third Country partners is good.
- The Staff to be exchanged show strong scientific background in the field. This background is adequate for knowledge transfer.
- Transfer of knowledge will be realized via workshops, conference presentations and common publications as well.
- The research staff involved in the project consists of experienced researchers. The staff composition is adequate for the success of the project.

Weaknesses of the proposal (for criterion 2 in general):

- The very limited number of students is evaluated as a weak point. An increase of students involved would have strengthen the project.

Overall Comment (for criterion 2 in general):

The exchanges appear adequate and well thought through to assure a good transfer of knowledge.

Criterion 3. Implementation

3.1 Capacities (expertise/human resources/facilities/infrastructure) to achieve the objectives of the planned cooperation

Strengths:

- The expertise and human recourses of the partners are good. The partners have complementary skills well exploited to achieve the goals of the project.
- The experience of all the project partners in international collaboration is clearly presented and adequate.
- The overall, general capacity in terms of expertise/human resources, facilities, and infrastructure to achieve the objectives of the planned cooperation is fully demonstrated.
- The partners have sufficient experience in the field of international cooperation.
- The participating institutions have shown adequate resources, capacities and facilities/infrastructures for implementing the described exchange.
- The partners also demonstrate the previous experiences in international collaboration.
- The infrastructure existing at each involved institution is consistent and fully support the execution of the project.
- The partners have previously been involved in research programmes in the frame of different international projects.
- - Facilities and infrastructure of partners are adequate to achieve the objectives of the planned cooperation. A proposed system of tutorship of the hosted researchers is appropriate given the different cultural contexts they will experience as a consequence of the exchanges.
- The applicants have the necessary expertise to implement the project.
- The key staff of all partners have adequate infrastructure, techniques and experience to accomplish the planned objectives.
- The infrastructure presented is reasonably good for the successful perfomance of the project objectives.

Weaknesses:

- The infrastructure of all partners is not presented in detail
- More information on the relevant tools of BSU partner is necessary to judge project implementation.
- - Given the complexity and diversity of the partners it is not clear whether they have a common methodology.
- - Another challenge is to be able to draw 'lessons learned' from the different experiences of social enterprises of the countries studied.
- - There is insufficient detail on how the comparisons between countries will be made.
- - The proposal does not provide enough information on how the commitment of all partners to the project will be ensured.

3.2 Appropriateness of the plans for the overall management of the exchange programme

Strengths:

- The overall management of the exchange programme is described including the support of the detached and incoming personnel.
- An appropriate description of the plans for the overall management of the exchange programme is given. Practical arrangements for the project implementation are well considered.
- The management structure is shown in the proposal.
- -There is a lack of concrete information on practical arrangements for such a large scale of staff exchange.
- The management plan includes the project coordinator and the coordination committee with 4 coordination meetings.
- Strategies for the dissemination are described in details.
- The plan for the overall management of the exchange programme is appropriate, and will be coordinated by an institution with experience in similar activities. Additional tools, such as a web

based project management platform, could help achieve a good implementation.
- Taking into account the experience of all project participants in international scientific collaborations; the management of this proposal is certainly secured.
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Weaknesses:
- Measures to solve unexpected situations which may appear during the project implementation are not presented.
- The management plan is shortly described and decision mechanism and conflict resolution are not addressed.
- Practical arrangements for the project implementation are not presented with sufficient details .
- The Intellectual Property Rights issue is not considered.
- Intellectual property issues are not considered.
- The description of the exploitation of the complementarities and synergies between the partners is not clearly presented.
- The management plan of the exchange scheme lacks information about the practical arrangements to support detached and incoming personnel.
- - There appears to be confusion between activities and constituted workpackages.

Weaknesses of the proposal (for criterion 3 in general):

- The experimental facilities of the teams (with exception of the ISC RAS, RU) are poorly described.
- The description of the overall management of the exchange programme lacks provisions to support the detached and incoming personnel.
- Measures in case of unexpected situations appearing during the project are not presented to assure the overall management of the exchange program.

Criterion 4. Impact

4.1 Relevance of the proposed partnership to the area of collaboration and for the ERA

Strengths:

- This exchange programme would impact producing high quality scientific results and new knowledge in the development of photosensitive polyelectrolyte-based capsules and container systems.
- Due to strong complementarities and synergies between the partners, the potential for a significant contribution to the specific area of collaboration is very good.
- The proposed partnership is relevant to European Research Area (ERA).
- The area of collaboration is relevant to the proposed partnership.
- The potential benefits of the proposed mobility to the ERA have been described.
- The exchange between the partner countries and their joint research activities outlined in the work packages are relevant to the European Research Area.
- The scientific objectives of the exchange programe are relevant to the development of photovoltaic solar cells as new alternative source of energy.
- - The proposed exchange is relevant to the area of collaboration and for the ERA. Bridging the gap of a common theoretical framework and empirical methodology would be the main contribution to the area of collaboration.
- This collaboration will contribute to overcome the fragmentation of EU research efforts in the field.
- Third country teams will establish new scientific contacts with teams from Western Europe.
- The proposed partnership within the Project will also contribute to a very important and innovative field in the development of modern chemical sensing agents and high performance photonic materials.

Weaknesses:

- Due to the wide scope of thematic and lack of coherent approach to interlink the various themes, the original knowledge contribution and impact is considered as rather limited.
- The benefits of the proposed mobility to the ERA are not clearly described.
- The transfer of the results to the industrial production is claimed but the project does not conclude with any technological implementation or demonstration.
- One challenge is that none of the involved Third Countries are modern market economies and hence the interest in the modern co-op movement.
- The common understanding developed will mostly benefit science, since policy makers and practitioners from different partner countries could have barriers to overcome, due to their cultural and historical background.
- The relevance of the exchange between the partners countries for the ERA is not well addressed in the proposal: the research staff are mostly mature researchers and the small participation of early stage researchers decreases the potential impact to develop and increase lasting collaboration.
- The practical impact of the project outputs for future applications is poorly described.

4.2 Potential to develop lasting collaboration with eligible Third country partners.

Strengths:

- The proposal promises to create long-term research relationships between high quality institutes from China and European countries. It also explicitly presents opportunities for further cooperation.
- The planned trainings and joint researches have the potential to increase the motivation of young researchers to start up a career in the field of solar cells materials.
- The potential to develop lasting collaboration with Third Country partners is apparent.
- In transition countries the cooperative and social enterprise movement are very important social actors even with the transition to a modern market economy.
- There will be opportunity to deepen existing networks and develop new ones with western European researchers.
- The consortium has a potential to develop lasting collaboration.

Weaknesses:

- The perspective of supporting long term collaboration between EU partners and third countries is not described. Moreover, the lower participation of early stage researchers in this IRSES project can decrease the potential impact to develop lasting collaboration.
- The potential for the future lasting collaboration is not indicated.

Overall comments:

- The applicant has not respected the page limit as set forth in the evaluation procedure and relative guide for applicant.
- The theoretical and academic impact is very good, but for a while, it would be limited to science.
- The human and material capacities to achieve the objectives of the planned cooperation are convincing but the description of management procedures is not clear.

Recommendations for negotiations:

It is suggested that clarification is asked for on the different methodological approaches and the later exploitation of the gathered information.
The work package structure should be reformulated since in the current version the workpackages look like single activities.
If the idea is to have experienced and early stage researchers, then there should be participants belonging to these two groups in each partner institution.
The overall management of the project is not clearly specified in the proposal.

Early stage researchers should be involved in the project more intensively in order to ensure the lasting collaboration.