



## Meeting Minutes

**Subject:** 2<sup>nd</sup> MC Meeting, WG Meeting, Industry Day, Conference of COST Action MP1307.

**Conference Name:** International Summit on Organic Solar Cell stability (ISOS-7).

**Action Title:** “Stable Next-Generation Photovoltaics: Unravelling degradation mechanisms of Organic Solar Cells by complementary characterization techniques (StableNextSol)”

**Barcelona (Spain), from 8th to 10th of October, 2014**

**Venue: Hotel Condes de Barcelona**

Passeig de Gracia 173, Meeting Rooms “Burdeos-Ambar-Siena”  
E-02806, Barcelona (Spain)

1. Welcome to participants
2. Adoption of agenda
3. Approval of minutes and matters arising from last meeting
4. Update from the Action Chair
  - a. Status of Action, including participating countries
  - b. Action budget status
  - c. STSM status and new applications
5. Promotion of gender balance and of Early Stage Researchers (ESR)
6. Update from the Grant Holder
7. Update from the COST Office
8. Update from the DC Rapporteur
9. Annual Progress Conference (preparation and/or feedback from DC)
10. Follow-up of MoU objectives
  - a. Progress report of working groups
11. Scientific planning
  - a. Scientific strategy
  - b. Action budget planning
  - c. Long-term planning (including anticipated locations and dates of future activities)
  - d. Dissemination planning (publications and outreach activities)
12. Requests for new members
13. Non-COST applications to the Actions
14. AOB
15. Location and date of next meeting
16. Summary of MC decisions
17. Closing



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### **1. Welcome to participants**

The MC meeting started at 15:00 with the Chair of the Action Dr. Monica Lira-Cantu welcoming all participants.

### **2. Adoption of the agenda**

The draft agenda for the second MC meeting of the Cost Action MP1307 was adopted without any amendments by the MC members.

### **3. Approval of the minutes of the kick-off meeting (Brussels)**

The minutes of the Stable Next-Generation Photovoltaics: Unravelling Degradation Mechanisms of Organic Solar Cells by Complementary Characterization Techniques (StableNextSol – MP1307) - Kick off meeting that was held on 20<sup>th</sup> March 2014, in Brussels, Belgium- were approved unanimously. They were approved by written procedure through our mailing list by April 17<sup>th</sup> 2014.

MC formally approved the minutes from the Kick-off meeting in May 2014.

### **4. Update from the Action Chair**

#### **a. Status of Action, including participating countries**

The Chair provided a status update of the action, announcing that the number of signatory countries has increased to 23, with 5 new countries having signed the MoU since the kick-off meeting and 110 members: BE, CH, CY, DE, DK, EL, ES, FI, FR, HR, HU, IE, IL, IT, LT, MT, NL, PL, PT, RS, SE, TR and UK. Israel



participates as a Cooperating State. In addition we currently have 3 additional Non-COST countries participating in the Action RU, US and CN. Given the aims of the Action it was agreed that more countries should be asked to join, particularly from near neighbour countries described in the COST as NNC. The Chair continued her presentation using some slides to support it (Annex 3).

It was reminded that each COST member country is entitled to have 1 or 2 members who can be reimbursed for attending the meetings. When a member is unable to attend a substitute member can stand in.

#### **b. Action budget status**

The COST Grant budget plan for the 1st year (based on 23 countries) was presented by the Chair of Action. The grant agreement has been signed delay due to the problems of the joint programs H2020 and COST Action. The started date for the agreement was set out on June and it was on August when it was definitive approved and signed.

It was noticed that the fiscal year of the StableNextSol COST Action is from 1st of June to 31st of May. The budget is the following for 2014-2015: 148.000,00 €/year.

Further details of the budget can be seen in the presentation of the MC Meeting and the Work Budget Plan.

For future MC Meetings and to better allocate the budget in the future, it was decided that official invitations to meetings sent out by the Grant Holder (GH) to the members of the MC will be fixed with a Deadline of 3 weeks for acceptance of official invitations through e-COST. If that deadline is not met, the invitations will be cancelled and other COST MP 1307 members will be invited instead.

#### **c. STSM status and applications**

The Chair noted that StableNextSol activities continue to show a significant involvement of early stage researchers. Approximately 50% of Contribution to the ISOS 7 Conference has been by early stage researchers.

Dr. Lars Muller-Meskamp, as Coordinator of this activity, presented the evaluation process for candidates for STSM. The rules and regulations can be found in our web page: <http://stabilnextsol.eu/activities/short-term-scientific-missions/>

The MC had a long discussion regarding the rules that must be followed in the election of STSM candidates on the basis of bonus points and the number of days of the mission. This discussion led to some important decisions.

The budget of an STSM cannot exceed 2500 €/ person (in total 16 missions approximately at 1730 €/mission). Dr. Lars Muller-Meskamp recalled that an objective of the Action is to support a large number of STSMs, and hence each STSM should try to fit in a “reasonable” budget. Hence, as a general



rule, due to the low budget allocated to the Action, the MC decided that for STSMs it will be made to seek for a lower flat rate daily (instead of the 160 euro flat rate proposed by COST) in order to increase the number of participants in STSM. The reimbursing will be made effective after the mission. The Information Guide for the implementation of the COST scheme for STSMs will be available on the COST MP1307 web site.

Rules to decide the eligible people to be refunded were proposed by Dr. Lars Muller-Meskamp. The rules and criteria were approved as follows:

Scientific excellence	40
Impact	20
Alignment	20
Economic	10
CV	10

- Topic in 1 (slice) were kept in.
- Point 1 Accepted (with report to MC)
- Point 2 Accepted
- Point 3 Accepted
- Point 4 Accepted
- Point (5, 6 & 8) Information, such as score and reviews, will be reported in the website , but only for the accepted candidates.
- Point 7 Accepted

It is mentioned that once an STSM is approved, the MC Chair will inform the applicant.

The MC members decided that the call for STSMs will be continuously open and that funding of STSMs will be based on the availability of funds. The 1<sup>st</sup> call will be publicized on the Action’s website in November for STSMs in the period from December 1st, 2014 – May 30th, 2015 (a day before the end of the 1st Grant period).

Number of STSMs to be reimbursed: 16

Any person from a participating country of COST MP1307 can conduct an STSM in a member country of COST MP1307, and also in other Non-COST countries that signed the Actions MP1307.

### 5. Promotion of gender balance and of Early Stage Researchers (ESR)

There is now a 38% of females in our action, which has decreased from the original 44%. The Chair pointed out that given the involvement of more countries and, therefore, an increase of number of COST members, the gender balance has fallen.

Regarding the promotion of gender balance, the group should strive to improve the participation of female members and it was suggested that for the suggestion of new MC substitutes, special attention should be paid in encouraging the inclusion of female members.



It was also recorded that we should continue promoting the participation of early stage researchers (ESR) in future workshops. Participants were encouraged to promote the Action amongst early stage researchers within their institutions.

## **6. Update from the Grant Holder**

The update from the Chair on behalf of the Grant Holder revealed that the e-COST system has been set up at the Grant Holder institution (ICN2). The Chair explained how to use the e-COST system to fill out TRR forms and what to do regarding receipts. It was made clear to all MC members that the original invitation email needs to be kept so that the TRR can be accessed after the meeting has taken place, as the link provided to do so is only present in that email message.

## **7-8. Update from the COST Office & from the DC Rapporteur**

Neither the COST officer nor the DC Rapporteur were present in this meeting so there was no update from them.

## **9. Annual Progress Conference (preparation and /or feedback from DC)**

Dr. Monica Lira-Cantu informed that she attended the COST Annual Progress Conference in Heraklion, Crete, which took place 9th-11th September 2014. It was indicated that a poster and presentation of the Action were presented, which can be downloaded from the COST Action web: [http://www.cost.eu/domains\\_actions/mpns/Actions/MP1307](http://www.cost.eu/domains_actions/mpns/Actions/MP1307)

## **10. Follow-up of MoU objectives**

### **a. Progress report of working groups**

On the second day of the meeting, each of the 6 WG leaders made a presentation of the discussions held during their WG meetings and provided an overview of the future work and outlook of their WG. The main decisions and Action points are briefly here, but the bulk of this material can be found in the power point presentations shown, that can be found in our web page: <http://stabenextsol.eu/activities/meetings/2nd-mc-meeting-1st-wg-meeting-isos-7/>. Only the WG leader represent the WG 1 didn't make any presentation.

- Nieves Espinosa for WG1:

With respect to the general development of the WG1, , the rest of WGs and the coherence and the visibility of the network it was proposed to collect all relevant information of the COST Action in order to generate a data base. As e.g. the model used in DTU in the form of the joint publications was proposed.



- Eszter Voroshazi for WG6:

The WG6 leader provided an overview of the IMEC institution supported with her presentation.

After that the working groups were split into separate meetings to discuss the workshop and make recommendations for future activities. WG1 and WG6 activities were discussed in parallel to the rest of the WGs. Separate documents have been prepared for the minutes of the WG meetings –WG1 and WG6.

*(Minutes prepared by Eszter Voroshazi – see full minutes for details)*

- Yulia Galagan for WG2:

More details are provided in the WG meeting minutes downloadable from the Action website (<http://www.StableNextSol.eu>).

## 11. Scientific planning

### a. Scientific strategy

The MC meeting followed up a scientific meeting during which members of the Action presented their institution and contribution to StableNextSol. The specific goals of each WG of the Action were enumerated. Moreover, activities to achieve such goals were also described.

The overall scientific strategy for the 2nd period is to give dynamism to the channels used in the distribution of samples for their further characterisation.

All working groups have actively participated in all the Action's activities and, of course, it was highlighted that this activity will become more vigorous in the 2nd year of the Action.

The chairman asked for comments and opinions from Management Committee members for discussion, new proposals and inputs to adapt the future joint-activities of the Action MP1307 StableNextSol.

### b. Action budget Planning

The Chair presented the estimated budgets for the anticipated activities during the second grant period, from 1<sup>st</sup> June 2015 to 31<sup>st</sup> May 2016, based on previous decisions about when to organise MC/WG meetings.

The Chair expressed that it was necessary to think about the work plan for the following year because it must be proposed in October. This proposal will be confirmed by an email vote after the meeting.

### c. Long-Term planning (including anticipated locations and dates of future activities)

The Chair informed the members of the upcoming activities for the second year of the COST Action. These activities are:



- c1. E-MRS
- c2. MC meeting
- c3. Training School

Conference registration fees are not reimbursed by COST. The chair ruled out the possibility for early stage researchers (ESR) to avail conference grants to participate in an international conference outside the activities of the COST Action.

### *Training School*

For the 1st StableNextSol Training School, it was proposed that:  
The Action will be a joint organizer with ITN-Establish of a training school that will be held in June 4-11th, 2015 in Corsica (France). Given the limited funding, organizational costs will be kept at a minimum. Dr Melanie Pedeutour (invited speaker to present the Training School and as MC substitute) presented the Training School objectives and plans. The organization of the Training School will be taken over by Dr. Pedeutour. Under vote, all MC members agreed to participate in the organization of the Training School. Details of this activity can be found in our web page: <http://stabilnextsol.eu/activities/training-schools/>.

The possibility of holding the Action's MC meeting in conjunction with the Training School was expressed. This proposal will be examined and a decision will be made by email for its approval.

### **d. Dissemination planning (publications and outreach activities)**

The Chair showed briefly the website's content. The website will be updated continuously with useful information such as publications, scientific achievements, etc. Every Working Group will have a section, where each WG leader will be able to publish information. It was suggested that the website included a page with private area with data information relative to the samples. This information would be accessible only to all members of the Action through a username and password.

The Members of the Action were asked to disseminate information about the activities of the Action as much as possible. It was also agreed that the minutes of the MC and WG meetings will also be freely available on the website.

Dr. Antonio Urbina will be in charge for most of the website activities and he will receive assistance from ICN2, who is going to continue to assist with the Action's website and technical support in the 2<sup>nd</sup> year of the action.

A new survey for new COST participants will be ready soon. It will resend an email for all new members to register in the website.

Further ideas and suggestions will be followed up during next MC meeting.

Students are welcome to organize webinars



The Chair reminded the need of publishing of a newsletter and regularly checking the content of the websites of the Action. Participants and WG chairs will be shortly asked for contributions.

Dr. Yulia Galagan suggested the production of a template to raise awareness regarding ENRAM, to which the group agreed. Dr. Natalino Fenech volunteered to collate the information (text and photos) in order to produce it and JC indicated that his institution would be able to produce the layout and design. It was agreed that every institution to which MC members are affiliated will have their logo in this brochure. Dr. Gonzalo Arroyo stated that any press or media output regarding ENRAM (local or international) should be logged and Dr. Natalino Fenech offered to collate this information.

## **Dissemination**

### **12. Requests for new members**

Following COST rules, any new countries will be automatically accepted in the Action until 15<sup>th</sup> November 2014. After that date, an approval by the COST officer is required.

### **13. Non-COST applications to the Actions**

### **14. AOB**

It was reported that 2015 is the International Year of Light.

### **15. Location and date of next meeting**

### **16. Summary of MC decisions**

The Chair made a summary of the decisions made and closed the meeting. The results of the discussions during the meeting were suggestions to be confirmed by an email voting procedure. Therefore, in the next weeks every MC members and/or substitute that has attended the 2nd MC meeting will receive an email to approve the following proposals:

**In parallel, WG1 and WG2 celebrated a meeting. The minutes of these meetings are described below.**

### **Minutes WG1 and WG6**

#### **Minutes of NextStableSol WP1 and WP6 joint meeting on the 9<sup>th</sup> of October 2014**

*Chairs:* Nieves Espinosa, Eszter Voroshazi.

*Present:* Marta Ramos, Elizabeth von Hauff, Charline Arrive, Stelios Choulis, Richard Winfield, Alberto Gregori, Joao Bastos, Viktorya Aviyente, Brian Azzopardi.

*Discussion points:*

- In the first year the two WPs will closely work together to determine the current state-of-the-art in stable device design and define progress beyond. Learning from the experiment conducted in WP2-WP5 will only provide input at later stages on the degradation mechanisms and possible ways to eliminate it.
- Round table introduction and expressing interest: generally interest in OPVs and a literature review. Perovskite at later stages as not much stability work yet.
- Goal of work in the next 6 months: literature review with **the aim to select most stable and at the same time efficient (and LCA approved) device polymer:fullerene architecture.**
- In the second stage the idea would be to **realize this device and benchmark it in various ageing experiment against P3HT:PCBM cells.**

*Literature review practical organization:*

- Presentation of Nieves about the working principles of the database on [www.plasticphotovoltaics.org](http://www.plasticphotovoltaics.org). (see presentation)--> for **detailed tutorial a webinar is foreseen in the last week of November.**
- Definition of new entries for make the database fit the purpose of the literature review:
  - Polymer types: PCDTBT, SI-PCPDTBT, DPP, other
  - Hole selective layer: PEDOT:PSS, MoO<sub>3</sub>, NiO, Orgacon, SAMs, other
  - Electron selective layer: ZnO, TiO<sub>2</sub>, PFN, ZnO:Al
  - Transparent electrode: PEDOT:PSS+Ag, ITO, FTO, Graphene
  - Metal electrode: Ag, Al, Carbon
  - Failure route: Morphology degradation, Bottom electrode, Top electrode, Photochemical degradation, Bugger layer failure

**Action 1 (All):** If you like to join this activity inform Nieves and Eszter with the your name and name and email address of all students who are involved. An access to the website will be provided by DTU in November.

1. List of relevant publication is loaded in from Scopus file generated by --users in the database (duplicates are eliminated).

**Action 2 (All):** Send a list of relevant publication in Scopus, BibTex etc. file to Nieves by 25<sup>th</sup> of November. More technical details on the file format will be shared by Nieves.

2. Manual screening of the papers following the structure in the database to describe materials, performance and stability information etc. , all sections need to be filled manually!

**Action 3 (All):** Read and fill in the database for at least 10 papers per group (more is very welcome). Current aim to finish this by April 2015 to analyze the results by WG meeting in May 2015.

## 17. Closing.