



Meeting minutes of the Management Committee & Working Groups of COST Action
TU1205

"Building Integration of Solar Thermal Systems (BISTS)"

4th and 5th June 2013
Dublin, Ireland

Action Details: Start date: 5/4/2013, End date: 4/4/2017

The first Management Committee and Working Groups meeting took place at the DIT FOCAS Institute facilities in Dublin during the 4th and 5th of June 2013. The meeting attended 41 participants from 13 countries (see Appendix 1)..

Management Committee Meeting-1

Profs. S. Kalogirou (Chair), B. Norton and D. Kennedy welcomed the participants.

It was explained by the Action Chair that in the MC meetings all participants can be present, so as to know from first hand all decisions made, but if voting is required only MC members will be able to vote.

The minutes of the Kick-off meeting (Brussels, April 2013) were approved.

The current status of the Action is presented by the Chair. At the moment we have 15 countries represented and 22 institutions participating. The total number of MC members is 22. The total budget for the first year of the Action is EUR 129,000.

The COST is then explained briefly so as all participants to understand the procedures to be followed such as budget planning and allocation process, planning of activities, working groups tasks, progress reports and publication and dissemination activities.

Under the item critical managerial issues, the various rules concerning reimbursement procedures were explained including travel expenses, accommodation and meals. The person responsible to collect reimbursement forms from the Grand Holder is Charalambos Tsioutis (E: Charalambos.tsioutis@cut.ac.cy). The address to send the signed reimbursement forms is:

Mr. Charalambos Tsioutis
P. O. Box 50329
3603 Limassol
Cyprus

The way Short Term Scientific Mission (STSM) operate is explained and the members were informed that according to the agreed budget allocation for the first year a total of 6 STSMs will be carried out.

For the logo of the Action it was suggested by the Chair to have a contest between the ESRs and was decided that Prof. Yiannis Tripanagnosopoulos will coordinate the

collections of ideas and the selection of the logo. All ideas to be send to Prof. Tripanagnostopoulos (E: viantrip@physics.upatras.gr) by the end of September.

The partner responsible for the Web page of the Action is the Cyprus University of Technology (CUT). All information concerning the web page to be send to Costas Christofi (E: c.christofi@cut.ac.cy).

In future meetings a Science Session will be organised to have 2-3 scientific presentations on the subjects of the Action, possibly one from each WG (1-3).

Finally, the structure of the Action was explained, and people were introduced. This is as follows:

- **Action Chair:** Soteris Kalogirou
- **Action Vice Chair:** Mervyn Smyth
- **WG1 Leader:** Werner Platzer (Deputy: Aleksandra Krstic)
- **WG2 Leader:** Daniel Chemisana (Deputy: Alberto Coronas)
- **WG3 Leader:** Aggelos Zacharopoulos (Deputy: Manolis Souliotes)
- **WG4 Leader:** Brian Norton/David Kennedy (Deputy: Ina Colombo/Graeme Maidment)
- **STSM Manager:** Gilles Notton
- **Steering Group (SG):** Action Chair, Vice-Chair and WG leaders.

Group presentations – Posters

Each Group presented its activities related to the COST Action by using a poster. For this purpose, the Poster Template circulated by the Chair was used. Each group presented its activities and participants in the Action in a few minutes. Posters remained mounted until the end of the meeting so as participants had the opportunity during coffee and lunch breaks to discuss with the other participants ways of collaborations.

Posters were presented by all participating groups. The posters will be posted on the webpage when this is ready.

Working Groups Presentations

Initially, the S. Kalogirou (Chair) gave a presentation of the objectives, motivation, geographic coverage, potential benefits, and target groups of the Action. Then the term Building Integration was explained as well as the benefits of integration. Subsequently, the scientific program was explained and discussed and each WG leader explained the objectives, task and deliverables for each of the four WGs, as follows:

Working Group 1: Development and characterisation of new BISTS

WG1 leader presentation by Werner Platzer

Working Group 2: Modelling and Simulation of BISTS

WG2 leader presentation by Daniel Chemisana

Working Group 3: Investigation of new applications for innovative BISTS

WG3 leader presentation by Aggelos Zacharopoulos

Working Group 4: Dissemination

WG4 leader presentation by David Kennedy

Working Group Parallel Sessions

During the afternoon sessions of the first day, Working Groups (1-3) parallel sessions took place. Subjects that were discussed included the working program, distribution of tasks, time-table of work, etc. The minutes of the various WG minutes are as follows:

Minutes of the WG1 meeting

List of Participants:

Werner Platzter (Germany) – WG Leader
Laura Aelenei (Portugal)
Vincent Buhagiar (Malta)
Christian Cristofari (France)
Georgios Florides (Cyprus)
Soteris Kalogirou (Cyprus)
Donal Keys (Ireland)
Christophis Koroneos (Greece)
Chrysovalantou Lamnatou (Spain)
Ivan Miletic (Serbia)
Gilles Notton (France)
Andreas Savvides (Cyprus)
Mervyn Smyth (UK)
Yiannis Tripanagnostopoulos (Greece)

WG leader explained to the members the objectives tasks and deliverables of WG1.

Tasks for D1.1 Review

A review of current STS will be undertaken to determine the state of the art technological developments published in the area and the most suitable options for building integration RES applications

- Structuring of document
- Literature reviews of different aspects of BISTS
- Review chapter writing

STSM: Short Term Scientific Mission

- Identification of correlated research in COST
- Check of work plans
- Identification of suitable STSM proposals
- Reporting

→ Writing of short EOIs to Gilles before 30th Sept. 2013

Case study for Template:

- 1-2 pages document
- Cross section / techn. Drawing / Functionalities (hot water, lighting, shading etc.)
- Photograph
- Stage of development / commercialisation
- Innovative key ideas + advantages + motivation
- Source of information / originator
- Country
- Performance characteristics (measured or simulated)

- Type of architectural integration / type of building
- Materials and economics

Tasks for D1.3 Training Schools:

- Annual Trainings schools (month 18, 30, 42)
 - Identification of ongoing research in COST
 - Characterization methodologies
 - Novel solutions for BISTS
 - Architectural integration
 - Identification of contributors and programme
 - Preparation of presentations and training materials
- Proposals for programme/topics of schools next meeting

Tasks for D1.4 Evaluation:

Document on characterization methods for evaluating BISTS solutions

- Overview of approaches and methods existing
 - Levels and scope of methods
 - Comparison of pros and cons, limitations
 - Geographic specific evaluation
 - Comparison using case studies
 - Reporting
- send Brian Norton/David Kennedy

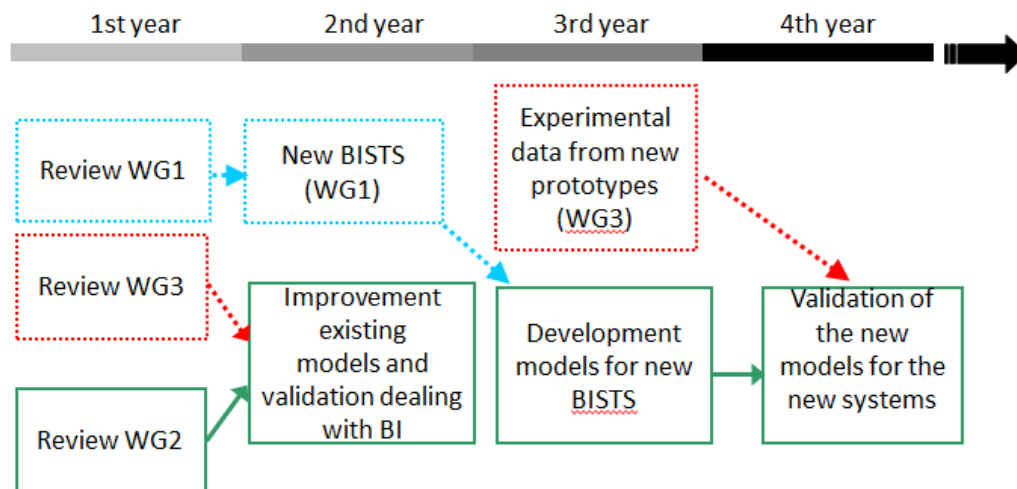
Minutes of the WG2 meeting

List of participants:

Daniel Chemisana (Spain) – WG Leader
Alberto Coronas (Spain) – WG Deputy Leader
Mirolad Bojic (Serbia)
Muhsin Kiliç (Turkey)
Lacour Ayompe (Ireland)
Aritra Ghosh (Ireland)
Mick Mckeever (Ireland)
Jayanta Mondol (UK)
Ricardo Mateus (Portugal)
Eliseu Ribeiro (Portugal)
Christoph Maurer (Germany)
Danijela Nikolic (Serbia)

Objectives and Deliverables were explained according to the MOU. The working program agreed is according to the following sketch:

Working programme



1st year tasks distribution and timing

A- Review of current STS modelling techniques.

This review will also be submitted as a joint partner publication in a peer reviewed journal (D2.1 Month 12).

Literature review/ state-of-the art on actual models to simulate STS. Critical review focused on further improvements on the models.

-Structure:

- STS modelling techniques: steady-state, quasi dynamic, dynamic
- Building simulations incorporating STS: TRNSYS, E+, Modelica.

Next meeting: Partial drafts: -STS modeling
 -Building simulation

Next meeting: Discussion of the review draft and about the final structure
 15th March: First complete draft review for discussion
 15th April: Deliverable submission to the chairman

B- Short Term Scientific Mission (STSM)

Next meeting: Discussion concerning the proposal draft and the definition of the placement in time and place.

Foreseen Dates: From January to March 2014

C- Training Schools

Next Meeting: To talk about the topics figured out from the reviewing task for first training school, planned for the month 18.

Topics should cover the gaps and necessities detected.

To promote gender balance in the STSM (ESR) or lecturers in training schools.

Timetable

	1st year											
Task	1	2	3	4	5	6	7	8	9	10	11	12
A												
B												
B1: Planning												
B2: Internship												
C: Planning												

Actions:

- To collect a report from each institution regarding modelling and simulation (End June 2013)
- A template will be sent to be filled.
- From the report partial schedules for the review/s will be proposed (End of July 2013)
- Partial review drafts (Next meeting)
- Organisation of the review/s reports to deliver (Next meeting)
- To get feedback from WG1 and WG3 concerning modelling and simulation issues about the systems proposed from the different institutions.
- Discussed about the different modelling techniques and simulations to combine the system with the building environment.
- After detecting gaps from the institutions' reports and the review task a proposal of the STSM topics will be done (Next meeting).
- Training school issues were discussed regarding expertises from the different institutions. (Next meeting).
- Final review reports to be submitted / delivered (Third meeting).

Minutes of the WG3 meeting

List of participants:

Aggelos Zacharopoulos (UK) – WG Leader (AZ)
 Manolis Souliotis (Greece) – WG Deputy Leader (SM)
 Sandra Monteiro Silva (Portugal) (SMS)
 Timothy O'Leary (Ireland) (TO)
 Simon Borg (Malta) (SB)
 Jasna Radulovic (Serbia) (JR)
 Inigo Ipparraguirre (Spain) (II)
 Stefan Remke (Spain) (SR)
 Christoph Cappel (Germany) (CC)
 Trevor Hyde (UK) (TH)
 Charalambos Tsioutis (Cyprus) (CT)
 Kostas Christofi (Cyprus) (KC)

1. Welcome
 - The chair and co-chair welcomed all the participants to the first meeting of WG3.
2. Introductions
 - The participants of the working group introduced themselves and provided short information about their scientific/professional background relevant to the action.
3. Objectives and working programme
 - The Leader presented an overview of the objectives and working program of the group.
 - It was clarified that new BIST systems will be developed by the working group. Existing research projects by the participants that involve BISTs can be included in the work of WG3 (e.g. solar thermal evacuated glazing currently under development at the University of Ulster). Fabrication of new BISTs will be carried out to by the participants of the working group the extent that their own funds allow.
 - A detailed review of existing BISTs is essential before designing of new BISTs. The participants will review and design BISTs classified under two different categories; domestic and commercial/industrial systems. Air based BISTs will be included.
 - Participants with the capability to fabricate BISTs will need to be involved in the design stage to ensure that designed systems can be fabricated.
 - It was acknowledged by the participants that the design of new BISTs by working group will require the professional opinion of architects.
4. Distribution of tasks
 - The following task allocation was agreed by the participants:
 - Task 3.1 Design of innovative BISTS designs
 - Domestic (including hybrid, include retrofit of historic buildings) : JR, SMS, MS, SR, TH, TO
 - Commercial/Industrial (including hybrid): AZ, SB, II, KC, CT
 - Task 3.2 Fabrication of BISTS prototypes: AZ, MS, TO, II
 - Task 3.3 Characterisation of novel BISTS indoors and outdoors to assess the actual performance in real conditions
 - Indoors: AZ, CK
 - Outdoors: SR, MS, KC, II
 - System integration: SMS, AZ, II
 - The following allocation for the deliverables was agreed:
 - D.3.1 (Month 6->12): AZ, MS, CK, II, JR
 - D.3.2 (Month 6, 18, 30, 42): STSM Manager
 - D.3.3 (Month 18, 30, 42): SG
 - D.3.4 (Month 36): SMS, CK, TO
 - D.3.5 (Month 42): SB, AZ, SR
 - D.3.6 (Month 46): Coordinated by WG4
5. STSMs
 - Two STSMs will be carried out before month 12 to assist the deliverable 3.1. Their exact timing and nature will be defined in the next Action meeting once the initial review of BISTs has been carried out.
6. Promotion of gender balance and of Early Stage Researchers (ESR)
 - Gender balance will be promoted in all activities of WG3 including STSMs and training schools.
7. Time-table of work

- The working group will adhere to the time-table of work as it is determined in the MoU.

8. AOB

A review on BISTS will be published as conference and/or journal paper. The paper will be compiled from deliverable D.3.1.

Actions

Description	Allocated to	Date due
Request professional architect(s) to participate in WG3	AZ	Dec 2013 (next Action meeting)
Compile template for collection of information during review of BISTS	AZ, MS	30 June 2013

Minutes of the WG4 meeting

In WG4 all members participate. The Working Group 4 has the responsibility of Dissemination. The group leader Prof. D. Kennedy, explained their planning for the Website (photos and logos), first deliverables, first Training School (2014), STSM's 2013 and 2014, publications, dissemination and outreach activities, a first time-table of work, etc.

WG4 to organize and manage:

- Website
- Short Term Scientific Missions (STSM)
- Training Schools and Symposium
- International conference to be organized at the end of the Action
- Publication of journal papers and
- Publication of Handbook on BISTS and solutions.

Possible options for dissemination:

- Website
- Books, journal papers, conferences
- Case studies
- European energy groups
- Modules on undergraduate & postgraduate Courses
- Training programmes
- Engineering Journals: CIBSE, IET, IMECHE, IEEE etc.,
- Industry Forums/workshops
- Posters
- Reports
- Virtual Energy Labs
- Advanced Case Studies from COST Action Countries
- Handbook

Also the need to format the data according to COST requirements.

After a lengthy debate on who or how many academics could claim credit for writing a paper it was decided that disseminations can come from numerous sources including the above and that only contributors to the papers would be listed as authors.

One solution proposed was to have a Team of reviewers for Papers.

Prof. Soteris agreed that we need to acknowledge the COST Action in any papers published.

The COST Action report should have an impact on society etc. according to the project rapporteur.

Responsibilities of WG4 will be achieved through the following tasks:

- Task 4.1 – Organisation and coordination of Action events
- Task 4.2 – Coordination of Short Term Scientific Missions (STSMs)
- Task 4.3 – Creation and management of Action website

The deliverables of WG4 are:

- D.4.1. Organisation of all meetings and related minutes reports
- D.4.2. Organisation of 3 training schools (1 per year) and related material published
- D.4.3. Completion of 4 sets of STSMs - duration of 5 days to 3 months
- D.4.4. Organisation of Action Symposium (end of the 2nd year)
- D.4.5. Organisation of Action Conference (end of the 4th year) and production of proceedings CD.
- D.4.6. Creation and maintenance of the Action specific website with both secure and public access.
- D.4.7. Scientific journal, conference and trade publications.

It was agreed that the outputs of WG4 depends on the outputs from the other three working groups and this will improve from Meeting to Meeting.

Minutes of meetings should be circulated as soon as possible after Meetings.

Tasks of WG4:

- D.4.1. Organisation of all meetings and related minutes reports: **SG**
- D.4.2. Organisation of 3 training schools (1 per year) and related material published: **SG**
- D.4.3. Completion of 4 sets of STSMs: **STSM Manager**
- D.4.4. Organisation of Action Symposium (end of the 2nd year): **SG**
- D.4.5. Organisation of Action Conference (end of the 4th year) and production proceedings CD: **SG + Conference Organising committee**
- D.4.6. Creation and maintenance of the Action specific website with both secure and public access: **CUT**
- D.4.7. Scientific journal and conference and trade publications: **Editorial Board (part of WG4)**

Actions of WG4:

- Organise Action events
- Produce proceedings & CD
- Creating information and putting it to use-Nationally and Internationally
- STSM Dates and schedules
- Organise International Conference
- Record Metrics and Outputs

Options for promoting outcomes:

- Euro Energy Groups

- Modules
- Industry Journals
- Advanced Case Studies
- Agreed Tasks 4.1/4.2/4.3 from DK's presentation (shown above)

Decision to be made on the publications and responsibilities for each of the Work Group (1-3)

In MoU an Editorial Board for WG4 is foreseen. It was decided to have one per each WG. Volunteers for this work put their names forward at the meeting. The Boards are made up of the following delegates:

WG 1 – Christophis Koroneos + Laura Aelenei + Vincent Buhagiar

WG 2 - Jindo Mundo + Milorad Bojic

WG 3 – Simon Borg + Stephan Remke

High emphasis was stressed on getting the COST findings out to Industry.

COST TU1205 must be promoted to Industry including the project information and publicise it via the press and media. Otherwise work will go unrecognised. An attempt will be made to involve industry to every meeting as the Mini-industry WS organised in this meeting. A flyer on the COST Action will be prepared and given to industries participating in the activities of the Action (e.g. Mini-Industry Workshop, Symposium, etc.).

Management Committee Meeting-2

The WG Leaders presented the Progress/planning of work in the next months until the next meeting as follows:

- WG1 leader presentation by Werner
- WG2 leader presentation by Daniel
- WG3 leader presentation by Aggelos

The meeting then planned their actions for:

- a. Annual Progress Conference (APC) – For information only, as only the Chair participates. This year meeting to be held in Rijeka 3-4 July 2013.
- b. Budget status, budget planning and allocation process
STSM 10,800 EUR (up to 31/5/2014)
Two meetings (balance: 65,940 EUR)
Try to combine meetings with related conferences
Possible to make small transfers in categories.
- c. Action Planning
6 STSM (number may increase according to the needs and budget availability)
2nd meeting - Cyprus, 3rd meeting - Corsica

Location and date of next meeting. It was decided that this will take place in Limassol, Cyprus between 12-13 December 2013.

d. Approval and review of STSMs

To be done after STSM applications are received

VISIT:

The participants then visited the DIT FOCAS Institute Solar and Optical laboratories

Mini-Industry Workshop:

During the afternoon session a Mini-Industry Workshop took place in which the work and ideas of the COST action were presented by the Action Chair, Prof. Soteris Kalogirou and Prof. David Kennedy to the local industry representatives and in a discussion their ideas and concerns about BISTS were expressed. The main points raised are:

- a. Concern about competency and skills required for the fitting of BISTS.
- b. Aesthetic and functional industrial design.
- c. Differentiation between new and existing building designs.
- d. The BISTS can be extensions of building insulation with the glazing acting as protection of the insulation.
- e. Storage system requirements.
- f. User friendly system design, easy control and marketing of the systems.

The meeting ended at 18.00 on Wednesday 5/6/2013.

Participants List – First meeting, Dublin, Ireland, 4+5/6/2013

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1	Aelenei, Laura		1	LNEG-National Energy and Geology Laboratory	Portugal	laura.aelenei@lneg.pt
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