



European Cooperation in the field of Scientific and Technical Research



Building Integration of Solar Thermal Systems – TU1205 – BISTS

Meeting of the Management Committee & Working Groups of COST Action TU1205 20 July 2015-Guimaraes

**“Building Integration of Solar
Thermal Systems (BISTS)”**

**Soteris Kalogirou
Action Chair**



COST is supported by the EU Framework Program Horizon 2020





Management Committee meeting

- Welcome to participants
- Adoption of agenda
- Minutes of Freiburg meeting (Belfast, N. Ireland, April 2015)
- Report from the COST Office
 - News from the COST Office
 - Status of Action, including participating countries
 - Budget status, budget planning and allocation process
 - Non-COST countries
- Critical managerial issues
- Progress report of working groups
- STSM status, planning of activities
- Publications, dissemination and outreach activities
- Web news
- AOB





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Welcome to participants

- Warm welcome to all.
- All invited but only MC Members have voting right.
- MC decision for the participation of Romania.
- COST is based on willingness to contribute.
- No research is funded but networking activities.
- SAFETY issues.
- Presentation of new delegations/partners.
- Welcome from Manuela and Head of the Civil Engineering Department, Prof. Jorge Pais.





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Report from the COST Office

- New version of e-COST system
 - Now full electronic OTRR forms are used (accepted by Grant Holder).
 - Submit everything electronically to the system – no paper copies are accepted any more.
 - Need to sign the presence form as before.
- Need to be careful to upload all documents properly
- No chance is given to carry out corrections
- Sign the petition on webpage – against COST budget reduction
 - Visit <http://www.cost.eu> (right side)





Status of the Action

- Status of Action, including participating countries:
 - 20 COST countries participating (next slide)
 - 2 New countries added → Hungary and Romania
 - 30 MC members (+14 substitute members)
 - 3 new MC members (1 from Hungary and 2 from Romania)
 - From now on new countries participation will need MC decision
 - Need to decide for the participation of Romania.
- Non-COST countries:
 - Two non-COST countries participating:
 - USA (James Russell-Appalachian State University)
 - Canada (Andreas Athienites-Concordia University)





Building Integration of Solar Thermal Systems – TU1205 – BISTS

Action details

MoU	TU1205-MoU
CSO Approval date	21/11/2012
Start of Action	05/04/2013
End of Action	04/04/2017
End of prolongation	-

Participations

Country	Date	Status
▶ Austria	14/07/2013	Confirmed
▶ Belgium	17/01/2013	Confirmed
▶ Bulgaria	10/06/2013	Confirmed
▶ Cyprus	30/11/2012	Confirmed
▶ Denmark	01/02/2013	Confirmed
▶ France	23/01/2013	Confirmed
▶ Germany	17/01/2013	Confirmed
▶ Greece	04/02/2013	Confirmed
▶ Ireland	14/12/2012	Confirmed
▶ Israel	29/10/2013	Confirmed
▶ Italy	29/08/2013	Confirmed
▶ Lithuania	03/07/2013	Confirmed
▶ Malta	05/04/2013	Confirmed
▶ Netherlands	18/02/2013	Confirmed
▶ Poland	03/01/2013	Confirmed
▶ Portugal	11/01/2013	Confirmed
▶ Serbia	20/12/2012	Confirmed
▶ Spain	07/12/2012	Confirmed
▶ Turkey	10/04/2013	Confirmed
▶ United Kingdom	29/11/2012	Confirmed
Total: 20		



Facts



Intentions to participate

Country	Date	Status
▶ Hungary	-	Intention
▶ Romania	-	Intention
Total: 2		

COST International Partner Countries

Institution Name	Country
Appalachian State University	United States of America
Concordia University	Canada



Budget status, budget planning and allocation process

- Third year budget 122,000 Eur.
- Main expenses:
 - Total for meetings 86,077 Eur.
 - Training schools = 10, 200 Eur
 - 4 STSM planned = 6,000 Eur.
 - Dissemination 1,850 Eur. (1500 webpage + 350 proceedings)





Meetings

- **YEAR 3**
- MC & WG First meeting – Guimaraes (July 2015)
 - Combined with Action Symposium
- MC & WG Second meeting – ??? (beginning of 2016)
 - Combined with training school





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Critical managerial issues

- Pay more attention to emails received concerning deadlines (very important).
- Emphasis on managerial issues concerning payments.
 - Make a note and when we are late in paying - send an email (maybe something goes wrong).
- Reimbursement procedures
 - All payments will be carried out simultaneously, so the sooner will complete the missing items the sooner all participants will get paid.





Procedures:

- Proof of participation is the attendance list.
→ Make sure you sign this list both days.
- Reimbursement claims are now send electronically through e-cost system.
- Mr. Charalambos Tsioutis and myself can answer questions concerning details.





Always remember

- Communicate to me any projects submitted/organised based on the Action, like:
 - New PhDs
 - New local funded research
 - New FP7/H2020 proposals, etc.
 - Very important for the progress of the Action
 - I need to know this even if the proposal was not successful.





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According to MoU:

- **WG1. Development and characterisation of new BISTS**
- Task 1.1 Review of the state of the art **✓ DONE**
- Task 1.2 Development of new BISTS solutions (Year 3 & 4)
- Task 1.3 Characterisation of BISTS developed in Task 1.2 (Y 3 & 4)
- D.1.1. Review of current STS and identification of problems associate with their building integration. This review will also be submitted as a joint partner publication in a peer reviewed journal (Month 12) **✓ DONE**
- D.1.2. Annual STSM on BISTS development and characterisation for PhD students and Early Stage Researchers (Month 6, 18, 30, 42) **ON-GOING**
- D.1.3. Annual Training School for dissemination of expertise on BISTS development and characterisation techniques and new architectural solutions to PhD students and Early stage researchers (Month 18, 30, 42) **ON-GOING**
- D 1.4. Report on the evaluation technologies available for BISTS characterisation (Month 24) **NOT DONE.**





WG2. Modelling and Simulation

- Task 2.1 Development of new mathematical and numerical models for BISTS (Years 3 & 4)
- Task 2.2 Validation and implementation of codes developed in 2.1
 - D 2.1. Review of current STS modelling techniques. This review will also be submitted as a **joint partner publication in a peer reviewed journal** (Month 12) **✓ DONE**
 - D.2.2. Annual STSM for PhD students and Early Stage Researchers on theoretical modelling and numerical simulation of thermal behaviour of BISTS (Month 6, 18, 30, 42)
 - D.2.3. Annual Training School for dissemination of expertise to PhD students and Early Stage Researchers (Month 18, 30, 42) **ON-GOING**
 - **D 2.4. Report on the validation of developed codes, both thermal and optical (Month 30)**
 - D 2.5. Report on the new models developed during the project and potential for adaptation for RES (**Month 42**).
 - D.2.6. Report on the development of new models for innovative integrated STS applications (**Month 46**)





WG3 Investigation of new applications for innovative BISTS

- Task 3.1 Design of innovative BISTS designs
- Task 3.2 Fabrication of BISTS prototypes
- Task 3.3 Characterisation of novel BISTS indoors and outdoors to assess the actual performance in real conditions
- D.3.1. Review of current STS and the suitability of integration onto building structures for domestic, commercial and industrial buildings (Month 12). **✓ DONE**
- D.3.2. Annual STSM for PhD students and Early-stage researchers on design, fabrication and characterisation of innovative integrated STS/ RES (Month 6, 18, 30, 42) **ON-GOING**
- D.3.3. Annual Training School to disseminate expertise to PhD students and Early Stage Researchers (Month 18, 30, 42). **ON-GOING**





WG3 continue...

- D.3.4. Report on fabricated integrated STS prototypes optimised for increased efficiency and low cost. Full building services integration (e.g. into existing heating, cooling, hot water) or stand-alone operation but integral to the structure. This will depend on the extent of own research funding allows (**Month 36**). **Must be almost ready by next meeting.**
- D.3.5. Report on the performance of new integrated STS/RES prototypes: A country performance comparison with geographic diversity (South, Central and North Europe), (**Month 42**).
- D.3.6. Handbook for architects and building services engineers on the developed BISTS solutions for the design market ready products. (**Month 46**)





More on Handbook

- This will include new prefabricated products, a variety of mounting surfaces (vertical, sloped, horizontal) and the use of new materials, like PCM. The handbook will also include the development of BISTS through novel modelling techniques, fabrication and assembly of BISTS prototypes specifically tailored to building element integration, performance measurement of novel BISTS and the suggestion of standardised procedures and the determination of a range of applications for BISTS.
- WG 3 to coordinate HB not to write it!!





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Short Term Scientific Missions (STSM)

- Duration 5 days to 3 months (max. 6 month for ESR)
- Overall cost:
 - Max 2500 EUR for STSM up to 3 months
 - Max 3500 EUR over 3 months (ESR)
- Calculation based:
 - Daily allowance: 60-90 EUR
 - Travel: 300 EUR





In our Action:

- 4 STSM are planned for third year.
- Total Budget 6,000 EUR (1500/stsm).
- Use STSM almost exclusively to prepare Action deliverables.
- Any applications to STSM manager first.
- Then application should proceed through the e-cost system.





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Publications, dissemination and outreach activities

- These will also be discussed in following sessions.
- First publications were due month 12 (April 2014).
 - Out of the three deliverables the book on BISTS was published.
- Next major event is Action Symposium-part of this meeting
 - Everybody participate – normal activity of the Action
 - Unfortunately very few papers (14) submitted and some of them were out of scope (not on BISTS).
 - Published our own symposium proceedings.
 - More on this later...





Handbook publication (from previous meetings)

- During WREC conference both Elsevier and Springer expressed interest to publish the final handbook of the Action (YR 4).
- Need to have state-of-the-art material.
- Plan it into sections (possibly one per WG) and chapters.
- Too early but need to start discussing contents into WGs. **Now is NOT too early any more....**





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- **Web news – covered later in WG4 session (11.30-12.00)**
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Structure of the Action

- **Action Chair:** Soteris Kalogirou
- **Action Vice Chair:** Mervyn Smyth
- **WG1 Leader:** Werner Platzer (Dep. Aleksandra Krstic)
- **WG2 Leader:** Daniel Chemisana (Dep. Alberto Coronas)
- **WG3 Leader:** Aggelos Zacharopoulos (Dep. Jayanta De Mondol)
- **WG4 Leader:** Brian Norton/David Kennedy
- **STSM Manager:** Gilles Notton

- **Steering Group (SG):** Action Chair, Vice-Chair and WG leaders.





Closing – rest of meeting – day 1

- Coffee break (10.30-11.00)
- WGs (1-3) parallel sessions (11.00-13.00) – Rooms nearby, Sandra and Ricardo will show us the way.
- Lunch (13.00-14.00)
- WGs (1-3) parallel sessions (14.00-15.30) Discussion on 5 projects
- Coffee break (15.30-16.00)
- Working Groups (1-3) Coordination meeting (all) (16.00-16.45)
- Dissemination activities (all) (16.45-17.30)

- Official dinner (20.00). Restaurant “Oriental” in the Toural Square in the city center (Largo do Toural, nº 11, Guimarães)





Closing – rest of meeting – day 2

- WG (1-3) Parallel session - Planning of work to be done – Finalising deliverables, Projects (9.00-10.30)
- Coffee break (10.30-11.00)
- Symposium Session I (11.00-13.00)
- 13:00 – 14:30: Lunch
- Symposium Session II (14.00-15.45)
- Coffee break (15.45-16.15)
- Management Committee meeting (all) – planning of next meeting and activities (16.15-17.15)
- **17.15 End of meeting.**





Practical details

- Local organisers did not want to have an LOS
- Therefore, to cover the coffee breaks, two light meals and tonight's dinner you need to pay 60 Eur each to Charalambos during coffee break.
- You will get refund for this expense on the OTTR form as meals are not offered.



Closing....

- Many thanks to all that were asking for my health....
- Apologies for spoiling a wonderful excursion to the Giant's causeway...

