

Working Group Presentation 1



Agenda

- Welcome to WG1 participants
- Adoption of agenda
- Objectives and work programme
- Deliverables Distribution of tasks
- Time-table of work

Objectives and work programme



Scientific Program

- This COST Action will focus on the coordination of current research undertaken through national programmes in three scientific areas:
 - (1) Development of new innovative methods for building integration of STS;
 - (2) Modelling and simulation of new BISTS and their behaviour as a renewable energy system (RES);
 - (3) Investigation of new applications for innovative integration of STS in various application areas like domestic, commercial and industrial buildings.
- Three Working Groups (WG) are being set up to co-ordinate the research within each theme and a fourth one is dedicated to dissemination activities.

Objectives of Action

- **Main objective:** The creation of a platform from which a working environment is developed that generates methods to study the integration of STS in buildings.
- Development of new novel STS solutions suitable for building integration across three generic European regions.
- Definition of a set of key parameters for the BISTS characterization, taking into consideration the thermal performance, building functionality and aesthetic aspects.

Objectives – cont.

- Development of standard methodologies for evaluating BISTS.
- Modelling and simulation of STS (optical and thermal) for different building integration scenarios and for the developed solutions.
- Application of developed STS solutions for building integration including fabrication, characterisation and demonstration of prototypes to the extent that own research funding allows.
- Dissemination of Action activities (symposium, conference, website and various publications).

Specific objectives WG1

- Perform a literature review to determine the state of the art technological developments published in the area
- To develop new novel BISTS solutions
- To develop standardized methodologies to characterize and classify BISTS performance

Specific objectives WG1

- To evaluate approaches for improving BISTS performance (overcoming problems such as over temperature, thermal resistance of the building component, rain and fire protection, noise etc.)



WG1. Development and characterisation of new BISTS

- The **objectives** for WG1 are:
 - Perform a literature review to determine the state of the art technological developments published in the area
 - To develop new novel BISTS solutions
 - To develop standardised methodologies to characterise and classify BISTS performance
 - To evaluate methods for improving BISTS performance (overcoming problems such as over temperature, thermal resistance of the building component, rain and fire protection, noise etc.)
- These objectives will be fulfilled through the following tasks:
 - **Task 1.1 Review of the state of the art**
 - **Task 1.2 Development of new BISTS solutions**
 - **Task 1.3 Characterisation of BISTS developed in Task 1.2**

Deliverables and Milestones – WG1

- **Deliverables** include:
 - 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)
 - D.1.2. Annual STSM on BISTS development and characterisation for PhD students and Early-stage researchers (Month 6, 18, 30, 42)
 - 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)
 - D 1.4. Report on the evaluation technologies available for BISTS characterisation (Month 24)
- **Milestones:**
 - 1.1: Development of new and novel BISTS solutions
 - 1.2: Characterisation of new BISTS for use in RES

Deliverables and Tasks



Deliverable Coordination – WG1:

- 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**): **Werner, Aleksandra**
 - D.1.2. Annual STSM on BISTS development and characterisation (**Month 6, 18, 30, 42**): **STSM manager**
 - D.1.3. Annual Training School for dissemination of expertise on BISTS development and characterisation techniques and new architectural solutions (**Month 18, 30, 42**): **SG**
 - D 1.4. Report on the evaluation technologies available for BISTS characterisation (Month 24): **Brian Norton**
- Only those contributing to a publication will have their names on papers (applies to all WGs).

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

Tasks for D1.2 STSM

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 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 (meas. 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 BN/DK

