Solar Keymark Network

Experience exchange circle of manufacturers, test labs, certifiers and inspectors working according to the Solar Keymark scheme rules

Minutes

19. Solar Keymark Network Meeting
October 6th –7th, 2015; Paris, France

Item 1: Opening of the meeting

Harald Drück, chairman of the Solar Keymark Network (SKN), opened the meeting and welcomed the participants as well as the guests. He thanked François-Xavier Ball and Sophie Bocquillon from Eurovent Certita for hosting the meeting and Jan Erik Nielsen as the Secretary of the Solar Keymark Network, for the excellent preparation of the meeting. François-Xavier Ball also welcomed the participants and gave some practical information, concerning the catering and the dinner planned for the evening.

Harald Drück gave a short explanation about the Solar Keymark Network (SKN). The main task of the SKN is to agree on uniform procedures between the different actors (accredited solar thermal test labs, certifiers, inspectors and manufacturers) working according to the Solar Keymark scheme rules as well as the further development of Solar Keymark certification in particular and certification of solar thermal products in general.

The working rules of the SKN are described in the "Solar Keymark Network Internal Regulations" (Document SKN_N0102)

Harald Drück mentioned the **concept related to resolutions and decisions**:
Resolutions directly influence the Solar Keymark specific scheme rules (document SKN_N0106) and the Solar Keymark Network Internal Regulations (document SKN_N0102) and hence shall be implemented in the next version of them.
Decisions are other important agreements achieved on the meeting that have to be included in the latest version of the Solar Keymark decision list (document SKN_N0100).

The meeting took place from Tuesday, October 6th, 2015, 13:30 hrs till Wednesday October 7th, 2015, 13:01 hrs at the premises of AFNOR (Association Française de Normalisation) in Paris, France.

The first invitation including the first draft agenda (Document SKN_N0264R0) of the meeting was sent out by email from Jan Erik Nielsen dated July 16th, 2015.

Item 2: Introduction of participants

The participants attending the meeting physically introduced themselves and mentioned their nominating organisation or institution respectively.

Since this meeting was also additionally transmitted via internet, Harald Drück asked the persons following the meeting via Internet to send an email with their name and their institution to Jan Erik Nielsen and to him to confirm their virtual presence.

The list of participants that attended the meeting physically and electronically is attached as Annex A.

As a result of the introduction of participants Harald Drück stated that the preconditions for voting according to the clause 4.2 of the Solar Keymark Network internal regulations (Document SKN_N0102R10) were fulfilled.

Item 3: Approval of the agenda

Following the first draft agenda (Document SKN_N0264R0) send out on July 16th, 2015, in the last weeks, updated versions of draft agenda as well as documents related to the items mentioned on the agenda were send out and were also available via the Solar Keymark Internet site. The latest version of the agenda was named “19th Solar Keymark Network meeting – Revised final draft agenda (R5)” document SKN_N0264R5 dated 2015-10-04 and send out on October 4th, 2015.

This version of the agenda was presented and the following modifications were proposed.

Jan Erik Nielsen proposed to deal with item 17 directly after item 10.

Pedro Dias requested to deal with item 25 (voluntary solar collector energy output label) today, since it was agreed during one of the previous meetings that topics relevant for the industry should be treated on the first day of the meeting. Furthermore he proposed to have the presentation about the ESTIF LabelPackA+ project and its proposed cooperation with SKN at item 30 before the item 27 related to an update on “Fundamental new database that can also be used for the generation of data sheets”.

Stephan Fischer proposed to give an update about the results of the SpeedColl project related to the development of accelerated ageing procedures of solar collectors under item 37 (any other business).

All proposals were accepted. However, it was also agreed not to change the numbering of the items in order to avoid confusion but to treat them in the requested way.

Hence the agenda providing the basis for the meeting is document SKN_N0264R5.

Item 4: Comments and final approval of the minutes of the 18. SKN meeting

Harald Drück mentioned that the minutes of the 18th Solar Keymark Network meeting (File: SKN_N0262R0.pdf) were elaborated by him, checked by Jan Erik Nielsen and proof read by Maria João Carvalho. He thanked both of them for their work.
The minutes were sent out by Jan Erik Nielsen to the SKN by email dated March 18th, 2015.

Within the 30 days following this email no comments were received by Jan Erik Nielsen and Harald Drück.

Hence, the present version of the document SKN_N0254 is approved unanimously as the final minutes of the 18th Solar Keymark Network meeting, leading to document SKN_N0262R1, since the word “final” was included in the heading.

Note: The final version of the minutes will be made available by Jan Erik Nielsen in the coming days.

Item 5: Date & place of next Solar Keymark Network (SKN) meetings

The **20th SKN meeting** (spring 2016 meeting) is scheduled for

March 8th, 13:00 hrs to March 9th, 14:00 hrs, 2016 (end of day one at 19:00 hrs)

and will take place in Berlin based on an invitation of Sören Scholz from DIN CERTCO.

The **21st SKN meeting** (autumn 2016 meeting) is scheduled for

October 17th, 13:00 hrs to October 18th, 14:00 hrs, 2016 (end of day one at 19:00 hrs)

and will take place in Freiburg, Germany based on an invitation of Korbinian Kramer from Fraunhofer ISE.

Note by SKN secretary/manager: At the TC 312 meeting held 8th October 2015 it was decided to have the next TC 312 meeting October 19th in Crete, Greece. At the same time the Greek Industry Federation EBHE kindly offered to arrange/host the 21st SKN meeting at the same location on 17-18 October, 2016. To be discussed and decided at 20th SKN meeting.

The **22nd SKN meeting** (spring 2017 meeting) is scheduled for

March 7th, 13:00 hrs to March 8th, 14:00 hrs, 2017 (end of day one at 19:00 hrs)

in Madrid, Spain at the premises of AENOR based of an invitation from Jaime Fernandez Gonzalez-Granda.

Item 6: Review of decision list

As agreed at the 16th Solar Keymark Network meeting Jan Erik Nielsen reviewed the latest version of the decision list (document SKN_N0100R16.pdf) in order to identify topics where further action is needed. However, no such topics were identified.

Item 7: Proposal for resolution concerning re-election of chairman

Korbinian Kramer proposed in his role as vice chairman of the “Experience Exchange Circle of the German speaking Test Laboratories for Solar Thermal Systems and Components (EK-TSuB - Prüflaboratorien” the following resolution on behalf of the EK-TSuB – Prüflaboratorien:

Resolution M19.R1 – Change of clause 2.3 of the “Solar Keymark Network internal regulations”

In the latest version of the “Solar Keymark Network internal regulations” (Document SKN_N102R10) in clause 2.3 the sentence “The chairman will be appointed for a period of 3 years and may be re-elected for one further term.” shall be changed as follows:
“The chairman will be appointed for a period of 3 years and may be re-elected **for further terms.”**
The document SKN_N102R10 will be revised accordingly and made available as document SKN_N102R11 by Jan Erik Nielsen.

This resolution was taken with 7 negative votes and 5 abstentions. Due to the relative high number of negative votes it was also checked if there was a veto of at least one of the peer groups, but this was not the case.

Item 8: Election of the Chairman

As mentioned on the Agenda for the election of the chairman the following to candidates were nominated:

Jaime Fernandez Gonzalez-Granda and Harald Drück

At the beginning of dealing with this item Harald Drück rejected his candidature for a further chairmanship. He mentioned that, as a consequence of the previous discussion and also the voting result related to the change of the Solar Keymark Network internal regulations in order to enable a further re-election of the chairman, he got the impression that even if he will be re-elected he will not have any more the full support of the members of the Solar Keymark Network. Under these circumstances he is not interested in being the chairman of the Solar Keymark Network in the future.

Harald Drück pointed out the huge success of Solar Keymark certification that was achieved in the last ten years. Furthermore he thanked the members of the Solar Keymark network and especially also Jan Erik Nielsen as the SKN secretary for the excellent and professional cooperation in the past.

After saying this he handed over the conveying of the meeting to Jan Erik Nielsen as the Solar Keymark secretary / manager.

The participants at the meeting thanked Harald Drück for his outstanding performance as chairman through all the years, and gave him a well-deserved long and loud applause.

Jaime Fernandez Gonzalez-Granda presented himself as well as his plans for the future operation of the Solar Keymark Network by means of a PowerPoint presentation. The content of this presentation was in principle the same as in the document “Election for Chairman of SKN 2015 - Jaime Fernandez.pdf“ being available from the Internet via the link mentioned in the agenda.

After the presentation, the election was performed and Jaime Fernandez Gonzalez-Granda was elected with 0 negative votes and two abstentions.

Harald Drück congratulated Jaime Fernandez Gonzalez-Granda to his success and wished him and the Solar Keymark Network all the best.

It was agreed that the formal change of SKN chairman ship will be performed by the end of 2015. Hence Harald Drück continued to chair the meeting.

Item 9: New Absorber coatings to be considered as equivalent

No new absorber coatings to be considered as equivalent were presented for this meeting.

Item 10: New Glazing to be considered as equivalent

No new glazings to be considered as equivalent were presented for this meeting.

Item 11: New collector data sheets

Following the discussion and the decision M18.D5 (New collector data sheet) of the last SKN meeting, Andreas Bohren presented on behalf of Patrik Ollas the new version V5.01 of ScenoCalc including the new collector data sheet.

The software and the data sheet respectively was discussed and the following points to be improved were identified – and hence no resolution was made:

- Inclusion of solar air heating collectors;
- Fixing to ISO 9806 in order to avoid to enter information according to EN 12975;
- … and some more directly communicated to Andreas Bohren.

It was agreed that Patrik Ollas should fix these points as soon as possible and that after the validation of the annual collector output calculation tool (ScenoCalc) a vote by correspondence related to the official implementation of the new version of ScenoCalc shall be made.

Item 12: AirCow CAO calculation for solar air heating collectors

At the last meeting Korbinian Kramer already presented a possibility to calculate the collector annual output (CAO) for solar air heating collectors by using the information delivered by a new software tool named AirCow. This software tool delivers the parameters that are necessary to be introduced in SCEnOCalc for the calculation of Collector Annual Output.

Korbinian Kramer mentioned that for the calculation of thermal power output for solar air heating collectors (SAHC) it is essential to choose a specific mass flow rate, as the performance indicators vary strongly with it. To compare different products based on the results presented in the SKN Data Sheet, such an "evaluation point" has to be found in a fair and defined manner.

Therefore it is decided to use the excel tool AirCow, to choose this evaluation point from the test results generated according to EN ISO 9806.

Note: The AirCow tool cannot find this point for open-to-ambient SAHC, as they cannot be handled with an efficiency curve yet.

The topic was discussed and the following resolution was made.

Resolution M19.R2 – Inclusion of the following text in chapter 13.7 (Calculation of “Collector Annual Output” (CAO)) of the SK specific scheme rules

For the calculation of thermal power output for solar air heating collectors (SAHC) it is essential to choose a specific mass flow rate, as the performance indicators vary strongly with it. To compare different SAHCs based on the results presented in the SKN Data Sheet, such an "evaluation point" has to be found in a fair and defined manner.

For that purpose the excel tool AirCow has to be used in order to choose this specific mass flow rate or evaluation point from the test results generated according to EN ISO 9806.

Note: The tool cannot find this point for open-to-ambient SAHC, as they cannot be handled with an efficiency curve yet

Document SKN_N0106R26 (Solar Keymark specific scheme rules) will be updated by Jan Erik Nielsen accordingly resulting in document SKN_N0106R27.

This resolution was taken with 0 negative votes and 1 abstention.

Item 13: Establishment of a working group for including hydraulic flow scheme in collector data sheets

On behalf of the Swiss industry and SPF Andreas Bohren mentioned the following:

“For several important reasons (safety, stagnation, drain ability, etc.), the hydraulic flow scheme of a collector is a very important information, but not yet mentioned anywhere on the datasheet and usually not even in the test reports. Sometimes even different flow schemes are united in one family, thus making it rather difficult to design a proper hydraulic layout.”

This topic was discussed and it was agreed to make the following decision.

Decision M19.D1 – Establishment of a working group for including hydraulic flow schemes in collector data sheets

A working group is established to elaborate a simplified scheme to indicate in a comprehensible way the hydraulic flow scheme of collectors and to indicate it in the Solar Keymark data sheet.

For the time being it is very welcomed if the test laboratories describe the hydraulic flow scheme in the “Comments of testing laboratory”-field of the data sheet.

The “hydraulic flow scheme working group” is consisting of the following persons:
Andreas Bohren (Chair), Ralf Köbbeman-Rengers, Luis González-Monroy

This decision was taken with 0 negative votes and 1 abstention.

Item 14: Adding a new annex about PVT certification to the SK specific scheme rules

Ulrich Fritzsche and Jaime Fernandez Gonzalez-Granda mentioned the following:

“Clear requirements with clear responsibilities are fundamental for the certification of PVT collectors. As a result, the former informative document SKN_N0213R0 “Solar Keymark

Scheme Rules for PVT certification -Requirements and Recommendations” – was revised and will be obligate as a new Annex J of the Solar Keymark Scheme Rules (document SKN_N0106R26).”

The topic in general and the proposal for Annex J in particular were discussed. In this context the document “SKN_N0106_AnnexJ_R1” was modified leading to SKN_N0106_AnnexJ_R2.

Finally the following resolution was made:

Resolution M19.R3 – Adding Annex J about PVT certification to the SK specific scheme rules

The document SKN_N0106_AnnexJ_R2 shall be added to the Solar Keymark specific scheme rules (Document SKN_N0106R26).

Document SKN_N0106R26 (Solar Keymark specific scheme rules) will be updated by Jan Erik Nielsen accordingly, e.g. by substituting the text of chapter 13.6 by a reference to Annex J, resulting in document SKN_N0106R27.

This resolution was taken with 0 negative votes and 0 abstentions.

Item 15: Better harmonisation of collector families

Andreas Bohren mentioned the following as background information related to his proposal: “It turned out that different test labs, manufacturers and certification bodies have deviating interpretations of the standards and the scheme rules. Especially the family definition of the Keymark Scheme rules *“If the manufacturer produces the “same” collector in different lengths and/or widths (i.e. the only difference between two collectors is the length and/or the width) the collector is considered the same subtype (within the same collector “family”). In this case only one sample of the smallest and one sample of the largest module shall be taken and tested.”* seems to be a playground for creative interpretations.
At the end of the day it means for example, that depending on whether a Solar Keymark is made at test lab A or test lab B, either one or several (2,3,4,5,6,7,8,…) collectors would have to be tested. For a certification scheme like the Solar Keymark this is not a satisfactory situation”
Based on these checks of the submitted test reports the following 12 proposals were assembled with the aim to harmonise and clarify the interpretation of the standards and scheme rules amongst the involved stakeholders. The perfect case would be that all manufacturers are treated the same and will have the same service (=tests) from all test labs. All the proposals are based on real cases, observations and on issued Keymarks. There is no relevant order or sequence in the following proposals.”

The different proposals for resolutions are listed in document SKN_N0268R0.

The proposals of document SKN_N0268R0 were discussed and partly modified and the following resolutions were made:

Resolution M19.R4 – Related to “Proposal 1” of document SKN_N0268R0

The text of “proposal 1” in document SKN_N0268R0 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 1 negative vote and 0 abstentions.

Resolution M19.R5 – Related to “Proposal 2” of document SKN_N0268R0

The text of “proposal 2” in document SKN_N0268R0 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 0 negative votes and 0 abstentions.

Resolution M19.R6 – Related to “Proposal 3” of document SKN_N0268R0

The text of “proposal 3” in document SKN_N0268R0 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 0 negative votes and 1 abstention.

The “**proposal 4**” in document SKN_N0268R0 was discussed, but since no consensus could be reached a resolution was postponed. The proposal should be discussed and modified until the next meeting by Andreas Bohren based on the input that was made during the discussion.

Resolution M19.R7 – Related to “Proposal 5” of document SKN_N0268R0

The text of “proposal 5” in document SKN_N0268R0 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) **as a note** by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 0 negative votes and 2 abstentions.

Resolution M19.R8 – Related to “Proposal 6” of document SKN_N0268R0

The text of “proposal 6” in document SKN_N0268R0 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 3 negative votes and 1 abstention.

In the context of the discussion related to “**proposal 6**” it was also agreed that a procedure should be elaborated that uses the results of the calculations performed by ScenoCalc as assessment criteria and not the power curve any more.

With regard to “**proposal 7a”** and **“proposal 7b**” in document SKN_N0268R0 no resolution was made since the way how to proceed in this case is already described in ISO 9806:2013. However with regard to the issues mentioned in “proposal 7b” the standard has to be improved during the next revision in order to make the standard more clearly.

Resolution M19.R9 – Related to “Proposal 8” of document SKN_N0268R0

The text of “proposal 8” in document SKN_N0268R0 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 4 negative votes and 1 abstention.

Resolution M19.R10 – Related to “Proposal 9” of document SKN_N0268R0

The text of the modified version of “proposal 9” as stated in document SKN_N0268R1 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 0 negative votes and 3 abstentions.

Since the discussion of “**proposal 10**” did not lead to a consensus it was decided to establish the following working group in order to elaborate a proposal for a resolution for the next meeting:

Andreas Bohren (chair), Korbinian Kramer, Ulrich Fritzsche, Stephan Fischer, Alberto García de Jalón, Hanspeter Weiss, Maria João Carvalho

With regard to “**proposal 11**” it was agreed that this issue should be discussed within the Certification Bodies Working Group and that this group should prepare a proposal for a resolution to be made at the next meeting.

Resolution M19.R11 – Related to “Proposal 12” of document SKN_N0268R0

The text of the modified version of “proposal 12” as stated in document SKN_N0268R1 shall be incorporated in the present version of the Solar Keymark specific scheme rules (document SKN_N0106R26) by Jan Erik Nielsen resulting in document SKN_N0106R27.

This resolution was taken with 0 negative votes and 0 abstentions.

Item 16: Changing the title “Solar Keymark Network secretary” to “Solar Keymark Network manager”

In order to reflect the work done in a more appropriate way and to avoid confusion with activities performed by secretariat of the Solar Keymark Network operated by ESTIF, Jan Erik Nielsen proposed to change his title from “Solar Keymark secretary” to “Solar Keymark manager”. This change is just a name change without a change in the tasks.
The following will then exist:

- Solar Keymark Network manager: Jan Erik Nielsen
- Secretariat of Solar Keymark Network: ESTIF Secretariat

The topic was discussed and the following resolution was made:

Resolution M19.R12 – Changing the title “Solar Keymark Network secretary” to “Solar Keymark Network manager”

In the document SKN_N0102R10 (Solar Keymark specific scheme rules) the wording “Solar Keymark Network secretary” will be changed to “Solar Keymark Network manager”

The document will be updated by Jan Erik Nielsen accordingly resulting in document SKN_N0102R11.

This resolution was taken with 0 negative votes and 1 abstention.

Item 17: SK scheme rules approved by CCB (for the last time) – incorporation of editorial comments from DIN

The content of this item is based on the following email send from Inga Schlüter (DIN) to Hoang Liauw (CEN) dated June 19th, 2015:

Dear Hoang,

just a minor question from our side on the new clause 2.2 handling complaints:

- Introducing the complaints it would be helpful to specify, who is complaining at whom.
- In the second bullet point on page 8 “The CB will forward the complain to the specific party and ask for clarification (…)” – please correct to “complaint” and please specify who is the “specific party”?

Concerning the whole document, I recognized, that in clause 18 still the old IR part 4 (2006) and CEN IR Part 3 (2006) are referenced. I think the document shall be revised and the references shall be updated to new CEN-CENLEC IR 4 (2014). This shall be done through the whole document. (I have not checked the entire document on that.)

Especially in clause 6.3 handling of complaints is referenced to IR Part 4 (2006), this shall be fixed with a reference to the updated document and additional reference to clause 2.2 (if applicable).

These are editorial improvements. Therefore we approve the revised scheme rules with the requirement, that these editorial revisions will be implemented.

Kind regards from Berlin and have a wonderful weekend,

Inga

The editorial changes proposed by Inga Schlüter were performed in the document SKN_N0106R26.pdf. This document was presented by Jan Erik and after a short discussion the following resolution was made.

Resolution M19.R13 – Incorporation of editorial comments from DIN in the SK specific scheme rules

The document SKN_N0106R26 (Solar Keymark specific scheme rules) is approved.

This resolution was taken with 0 negative votes and 0 abstentions.

Item 18: What to do if SKN fees are not paid by the certification bodies?

Jan Erik Nielsen mentioned that the payments of the SKN fees by certification bodies in a few cases are proceeding extremely slowly. In order to be prepared for the case the SKN fees will not be paid, appropriate measures should be part of the SK specific scheme rules.

The topic and the text originally proposed for a resolution were controversially discussed. Finally it was agreed to establish a working group consisting of the following persons:

Jaime Fernandez Gonzalez-Granda (chair), François-Xavier Ball and Sören Scholz,

The task of the working group is to elaborate for the next meeting a proposal for a resolution.

Item 19: Any specific case(s) of non-payment of SKN fees from certification bodies?

Jan Erik Nielsen asked the question if there are any specific case(s) of non-payment of SKN fees from certification bodies. However, no such cases were reported at the meeting.

Item 20: SKN Budget for 2016 and other financial issues

Jan Erik Nielsen and Pedro Dias presented document SKN0265R0 (Solar Keymark Network-Administration Budget 2016), SKN_N0266R0 (SKN fee income and expenses 2015 & 2016) and SKN_N0269R0 (Services to be provided by ESTIF to the Solar Keymark Network in 2016).
In this context Jan Erik Nielsen mentioned that his budget and also the budgets allocated for the Solar Keymark Network secretariat (ESTIF) and Solar Keymark Network Chairman were reduced in order to share the burden resulting from the decrease of the available Solar Keymark fees. Furthermore he mentioned explicitly that it is not intended to change the fees.

The documents were discussed and the following resolution and decision were made:

Resolution M19.R14 – SKN fees for 2016

For 2016 the Solar Keymark Network fees will not be changed compared to 2014 and 2015. Hence, the fees will still be as follows:
maintype fee of 50 €
subtype fee of 230 €

The facts mentioned above are reflected in document N0106_AnnexC_R16.docx. This document is approved as the latest version of Annex C of the Solar Keymark specific scheme rules.

This resolution was taken with 0 negative votes and 0 abstentions.

Decision M19.D2 – SKN Budget for 2016

The budget of the SKN for 2016 as specified in documents SKN0265R0 (Solar Keymark Network-Administration Budget 2016), SKN_N0266R0 (SKN fee income and expenses 2015 & 2016) and SKN_N0269R0 (Services to be provided by ESTIF to the Solar Keymark Network in 2016) is accepted by the Solar Keymark Network.

This decision was taken with 0 negative votes and 0 abstentions.

Item 21: Funding of SKN working group convenor(s)

Based on resolution M17.R4 “Funding of SKN working group convenors” Jaime Fernandez Gonzalez-Granda asked on behalf of AENOR for funding of his activities related to the convenor ship of the workshop for SKN Inspectors that took place before the 18th SKN meeting in Rome and also for chairing the working group that proposed the document for Resolution M18.R7 – SKN Scheme Rules AnnexA1b_R0 (Inspection report) with an amount of 500 €.

After the introduction of this item by Harald Drück it was withdrawn by Jaime Fernandez Gonzalez-Granda. Hence there was no need to make a decision any more.

Item 22: Establishment of a Test Lab Working Group

Jan Erik Nielsen proposed to establish a working group of the test laboratories being part of the Solar Keymark Network in order to deal internally with matters specifically related to this group.

The proposal was discussed but there was no significant interest from the representatives in the establishment of such a group.

Item 23: Proposals for topics for new SCF projects – 7th SCF Call

Jan Erik Nielsen and Harald Drück mentioned that the next call for the projects funded by the Solar Certification Fund (SCF) will be launched on November 25th, 2015 with deadline January 15th, 2016.

As a basis of the 7th SCF call (SCF: Solar Certification Fund) the following activities were proposed:

- Work on energy labelling with regard to the development of fundamental new approaches for solar thermal products (collectors and systems) concerning the revision of EU labelling regulations for space and water heaters (LOT 1 & 2) in 2018
- Work on energy labelling of thermosiphon systems and forced circulation systems in the context of the ERP directive
- Work related to the further elaboration of a solar collector energy output label with regard to technical and legal issues.
- Use of the SK database for energy labelling
- Elaboration of requirements for system simulation model used in the context of EN 12977-2
- Fire testing of collectors, e.g. in the context of CPR (Construction Products Regulation)
- Market surveillance tests, i.e. by buying anonymously collectors and check for conformity
- Global solar certification
- Work on a implementation guideline on calculation methods of EN 12976
- New ISO standards on thermal insulation material and glass covers of solar collectors

- Supporting convenors for CENTC 312 working groups , secretaries, liaison officers
- Flow scheme proposal (See also Item 14)
- Definition of equivalence criteria for thermal insulation materials in collectors. Study the possibility of using the standard EN 13162 and EN 13163 for this purpose
- Maintenance of Scenocalc
- any other good ideas

The ideas listed above will serve as a basis for the 7th SCF Call to be elaborated by the SCF. Proposers of the topics listed above are encouraged to precise their proposals by sending more detailed information. Preferably this input should be in such a way that it can directly be used as the call text.

Please send this information to Jan Erik Nielsen at latest until Oct. 23th, 2015

Provided the amount required for financing of high quality proposals exceeds the available budget, a decision of the funded projects will be made by the Solar Certification Fund Steering Group based on priorities.

Note: The next physical **meeting of the Solar Certification Fund Steering Group** will take place on February 23rd, 2016 from 10:00 hrs to 15:00 hrs at Brussels:
On Feb, 22nd, 2016 a plenary meeting of ESTESC will take place in Brussels.

Item 24: Scheme rules for absorber coatings

Related to SFC project “Solar Keymark scheme rules for EN ISO 22975-3”, (6C05.2-22975-3-SK-SR).

Jan Erik Nielsen presented the current status of the elaboration of scheme rules for absorber coatings by means of showing document SKN_N0137R15 (Lists of equivalent absorber coatings) and N0106_AnnexB5_R2 (absorber coating data sheet).

The topic was discussed and it was also mentioned by Jan Erik, that for the next meeting, a resolution will be proposed to include the “absorber coating data sheet” as an Annex in the Solar Keymark specific scheme rules.

Item 25: Voluntary collector energy output label “SOLERGY”

Stefan Abrecht presented, by means of the presentation attached as Annex B, an update of this initiative related to the establishment of a voluntary collector energy output label (see also Item 18 of the minutes of the 18th Solar Keymark Network meeting).

He told that an industry initiative pushed the issue of the collector label forward and the results will be published soon. As member of the steering committee he would like to inform the SKN about the actions that have been taken and the status of the collector output label “SOLERGY” which gives solar thermal technology more strength in the context with the EU-labelling scheme, supports its goals of reducing primary energy use and, not the least, promotes the Solar Keymark.

He mentioned that all information about the label can be found on the websites:

www.solar-heating-initiative.com (English language)
www.initiative-sonnenheizung.com (German language)

He also presented the “Guideline on the establishment of the voluntary output Label "SOLERGY" for solar thermal collectors in accordance with the delegated regulations (EU) no.811/2013 and 812/2013”; Version 23.09.15.
Note: This document will be made available as SKN_N0271R0.

The idea of a voluntary collector output label was discussed. Since the topic is of high importance, Harald Drück asked the question if the Solar Keymark Network should make a decision related to this topic even if the proposal was handed in after deadline for proposals for decisions/resolutions.

Since it was decided with 3 abstentions and 0 negative votes to make a decision related to this topic, the following decision was made:

Decision M19.D3 – Voluntary solar energy label

The Solar Keymark Network supports the idea of a harmonized voluntary energy label for solar collectors and solar thermal only systems. One requirement for this label will be that the data used for the labeling is based on the Solar KEYMARK data sheets listed in the Solar KEYMARK database.

This decision was taken with 2 negative votes and 7 abstentions.

Item 26: Update on global solar certification

Note: This activity is related to the projects SCF6-9

Jan Erik Nielsen gave a short presentation about planed future activities, the current status and the latest developments related to global certification and especially the Global Solar Certification Network by means of the presentation attached as Annex C.

Furthermore he mentioned that a new IEA SHC Task related “International Standards and Global Certification” is in the preparation phase and that a task definition workshop will be held on Wednesday, Oct, 7th, directly after the Solar Keymark Network Meeting.
The invitation and agenda for this event is available as document SKN_N0267R0 (Task Definition Workshop for new IEA-SHC task: International Standards and Global Certification).

Item 27: Update on “Fundamental new data base that can also be used for the generation of data sheets

Note: This activity is related to the project SCF-4C07 and SCF-5C6.1

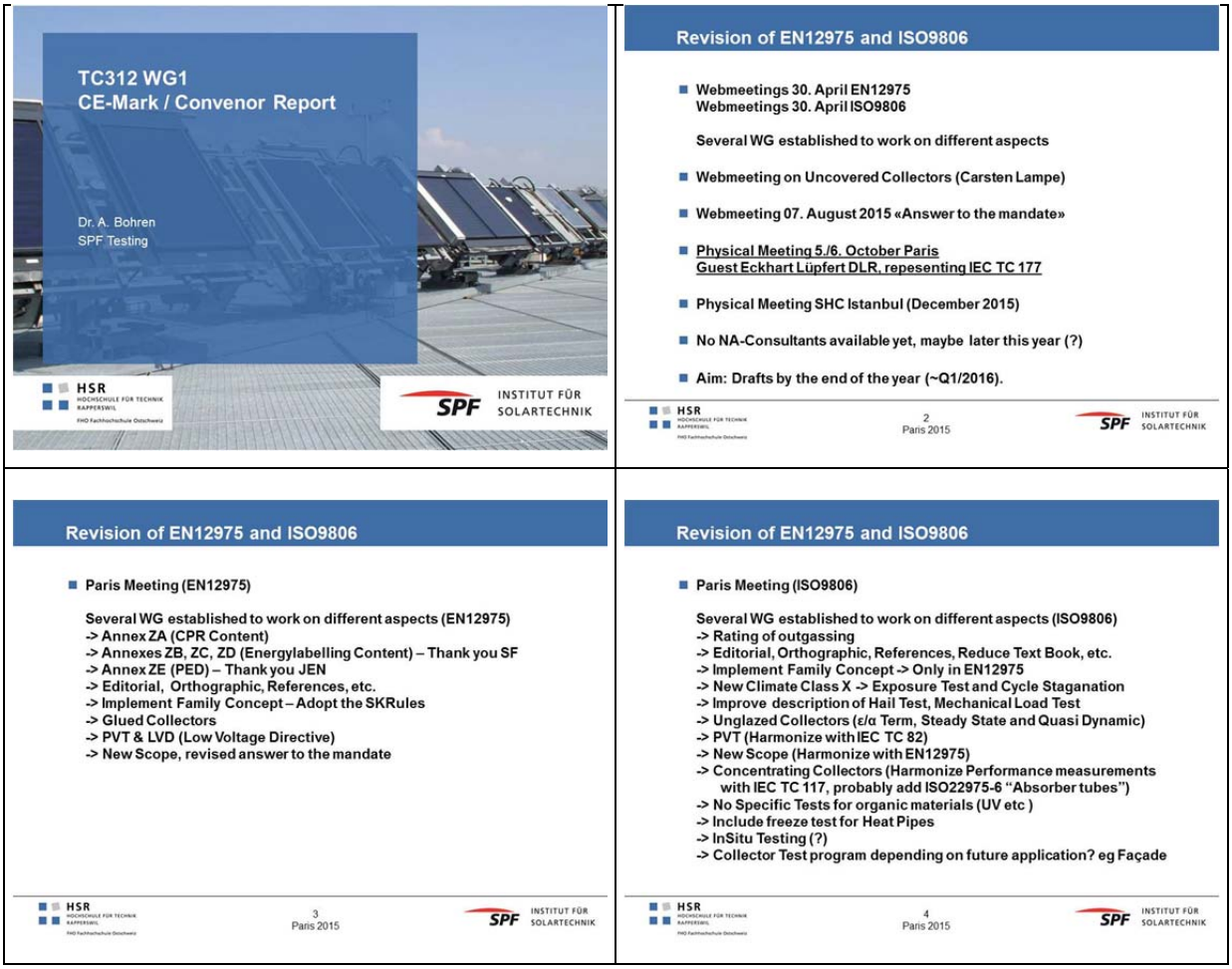
Jan Erik Nielsen mentioned that for the last year he did not perform any additional work on this topic. However, in order to provide information about what is intended to be done in principle he showed document SKN_N0530R0 with the same presentation he showed at the Solar Keymark Network meeting one year ago (but an actualised date on the presentation).

The planed activity was appreciated by the participants and several good ideas for specific features were mentioned. Jan Erik Nielsen offered to take them into account.

Item 28: Update on CE marking of Collectors

Note: This activity is related to the project SCF-5C5.1

Andreas Bohren as convenor of TC 312 WG1 reported about the latest status of the activities related to the revision of EN 12975 and ISO9806 by showing the following slides:
Note: The new European Standard will be named EN 12975 without and “-1” or “-2”



After the presentation a short discussion took place, e.g. with regard to the question how to treat the fixing of the collector to the mounting frame or roof respectively.
The item was closed with the remark of Andreas Bohren that during the CEN TC 312 meeting, scheduled for tomorrow (Thursday, Oct. 8th, 2015), more detailed information about the revision of EN 12975 and ISO9806 will be provided.

Item 29: Update on Energy Labelling

Note: This activity is related to the project SCF-4C16a with regard to the manual on Lot 1 and Lot 2 on solar thermal products and the project SCF-5C2.1 concerning the standards harmonisation with regard to the CEN mandate 495

Gerard van Amerongen showed the presentation attached as Annex D addressing especially the current status of the labelling issues as well as the need for future activities.
During and after the presentation some questions were raised by some of the participants and answered by Gerard van Amerongen.

Item 30: Labelpack A+ project and its proposed cooperation with SKN

Pedro Dias presented a European project named Labelpack A+ coordinated by ESTIF. See the presentation attached as Annex E. The main idea of the project is to facilitate the implementation of the so-called “package label”.
One of the key activities is the set-up and operation of the online platform being available via www.label-pack-a-plus.eu

Cooperation of the Labelpack A+ initiative with the Solar Keymark Network is planed concerning the development of an online calculation tool using data from the Solar Keymark data base. Related to this it was also mentioned by some of the participants that it is important so provide information about the fact, if the data were directly taken from the SK database or entered by the user.

In the context of this discussion it was again confirmed that the data from the Solar Keymark database can be used free of charge by the Labelpack A+ software tool.

Furthermore it was agreed to establish a working group related to the issue of linking the SK data base to the Labelpack A+ software tool:

Pedro Dias (chair), Jan Erik Nielsen, Sören Scholz, Jaime Fernandez Gonzalez-Granda

Item 31: Updates from Liaison officers

Liaison officer to IEC/TC117, (related to project SCF 5C4.1): Stephan Fischer
Liaison officer to IEC/TC128, (related to SCF 5C4.3): Korbinian Kramer
Liaison officer to CEN TC164, (related to project SCF 5C4.2): Gerard van Amerongen
Liaison officer to CEN TC228, (related to project SCF 5C5.2): Gerard van Amerongen
Liaison officer to CEN TC 317, (related to project SCF 4C12c / SCF 5C4.4): Gerard van Amerongen

Liaison officer to IEC/TC117:

Stephan Fischer informed about IEC/TC117 and his activities as liaison officer related to this TC by means of the presentation attached as annex F.
The most important developments in the last few months were that now a real cooperation between IEC/TC 117 was established, especially with regard to collector testing. In this context it was agreed that IEC/TC 117 will inform TC312/WG 1 about the changes required in ISO 9806 in order to apply the test procedures in this standard also to high temperature concentrating collectors.
A second agreement was the possibility of publishing 117/32/NP “Solar thermal electric plants - Part 3-3: Systems and components - General requirements and test methods for solar receivers” (proposed IEC 62862-3-3) within the ISO 22975 series.

Liaison officer to CEN TC128:

Korbinian Kramer informed about the activities of CEN TC128 and mentioned that nothing new happened since the 18th SKN meeting.

Liaison officer to TC 317, TC 228 and TC 164:

Gerard von Amerongen informed about his activities as liaison officer related to TC 317, TC 228 and TC 164 - see the presentation attached as annex G.

During and after the presentation a few questions were asked and answered by Gerard von Amerongen.

Item 32: Report from the Solar Keymark Certification Bodies / Solar Keymark Inspection Working Group

Jaime Fernandez Gonzalez-Granda reported about the last meeting of the **Solar Keymark Certification Bodies Working Group.** The main topic of the meeting was the fact, that the Certification Bodies Working Group is not completely satisfied with the current developments related to Global Solar Certification. They agreed to hold two more meetings in the near future in order to elaborate the changes they will propose to be implemented in the Global Solar Certification working rules or procedures respectively.

Furthermore Jaime Fernandez Gonzalez-Granda reported about the latest activities within the **Solar Keymark Inspection Working Group** which were the Inspection Working group meeting in Rome prior to the 18th Solar Keymark Network meeting and some fine tuning on Annex E of the Solar Keymark specific scheme rules related to factory production control.

Item 33: Information from CEN TC 312

No information related to TC 312 was provided since neither Vassiliki Drosou as the TC 312 secretary nor P. Konstantinidis as the TC 312 chairman were present.

Harald Drück mentioned that tomorrow (Thursday, Oct. 8th, 2015) a CEN TC 312 meeting will be held in Paris.

Item 34: Information from CEN CCB

Sören Scholz informed about current status of the process of outsourcing the Keymark administrative management from CEN to DIN CERTCO. The contract between CEN and DIN CERTCO is now signed and at present there is a kind of transition phase.
As one of the first steps DIN CERTCO has asked for valid accreditation certificates of the certification bodies involved in Keymark certification.
Open questions to be solved are e.g. who is responsible for the update of the CEN Keymark website as well as the update and further development of the CEN Keymark database.
He also mentioned that DIN CERTCO has a strong interest in the extension of Keymark certification to other product groups, such as e.g. heat pumps for which a Keymark certification scheme is at present being developed.
Furthermore he pointed out the fact that it is still an open question who is the legal owner of the product specific scheme rules, such as e. g. the Solar Keymark specific scheme rules.

Related to the question of Jan Erik Nielsen how the approval of the Solar Keymark specific scheme rules is handled now, Sören Scholz answered that they should be send for approval to him and Katharina Meyer and that the approval will be done by DIN CERTCO.

Item 35: Solar Certification Fund Projects – General status report

A presentation related to the projects supported by the Solar Certification Fund (SCF) in the different calls and financial data of the SCF is attached as Annex H. Due to limited available time this presentation was not presented by Pedro Dias from ESTIF. However, Pedro Dias presented the new search function implemented on the Solar Keymark website related to SCF projects based on a keyword search.

See also: http://www.estif.org/solarkeymarknew/projects/scf

Harald Drück thanked Pedro Dias for the huge amount of work he and his colleagues at ESTIF are performing in a highly professional way.

Item 36: Experience with the misuse of the Solar Keymark

No new issues related to misuse of the Solar Keymark were reported

Item 37: Any other business

Item 37.1: Presentation of “SpeedColl” project

Originally it was planned that Stephan Fischer will give the presentation attached as Annex I about the project “SpeedColl” aiming at the development of accelerated aging tests for solar thermal collectors and their components. However, due to the limited available time and also due to the fact that he will give this presentation tomorrow during the CEN TC 312 meeting it was decided to skip this presentation.

Harald Drück mentioned that a final SpeedColl project result presentation workshop will be held in Berlin on November 2nd, 2015. For further information and registration please contact Stephan Fischer, email: fischer@itw.uni-stuttgart.de

Item 38: Important national developments

No important topics were mentioned.

Copy of Item 5: Date and place of next meetings – since next meetings are usually stated at the end of the minutes

The **20th SKN meeting** (spring 2016 meeting) is scheduled for

March 8th, 13:00 hrs to March 9th, 14:00 hrs, 2016 (end of day one at 19:00 hrs)

and will take place in Berlin based on an invitation of Sören Scholz from DIN CERTCO.

The **21st SKN meeting** (autumn 2016 meeting) is scheduled for

October 17th, 13:00 hrs to October 18th, 14:00 hrs, 2016 (end of day one at 19:00 hrs)

and will take place in Freiburg, Germany based on an invitation of Korbinian Kramer from Fraunhofer ISE.

Note by SKN secretary/manager: At the TC 312 meeting held 8th October 2015 it was decided to have the next TC 312 meeting October 19th in Crete, Greece. At the same time the Greek Industry Federation EBHE kindly offered to arrange/host the 21st SKN meeting at the same location on 17-18 October, 2016. To be discussed and decided at 20th SKN meeting.

The **22nd SKN meeting** (spring 2017 meeting) is scheduled for

March 7th, 13:00 hrs to March 8th, 14:00 hrs, 2017 (end of day one at 19:00 hrs)

in Madrid, Spain at the premises of AENOR based of an invitation from Jaime Fernandez Gonzalez-Granda.

Item 39: End of meeting

Harald Drück thanked the participants for attending the meeting and for their constructive discussions. He also thanked Jan Erik Nielsen for the excellent preparation of the meeting and the work he is doing as Solar Keymark Network Secretary in a highly professional way. Furthermore he thanked François-Xavier Ball and Sophie Bocquillon from Eurovent CERTITA for hosting the meeting.

The meeting ended at 13:01 hrs.

The minutes were prepared by Harald Drück (Chairman of the Solar Keymark Network) in assistance with Jan Erik Nielsen (SKN manager) and Maria João Carvalho (proof reading)

Stuttgart, October 12th, 2015

Contact address Solar Keymark Network Chairman (until 31.12.15):
Harald Drück
ITW, Stuttgart University
Pfaffenwaldring 6
70550 Stuttgart, Germany
Email: **drueck@itw.uni-stuttgart.de**

Contact address Solar Keymark Network manager:
Jan Erik Nielsen
SolarKey Int.
Aggerup 1
4330 Hvalsoe, DK
Email: jen@solarkey.dk

Annex A: List of participants

19th Meeting, Paris, October 6th – 7th, 2015

Participants present at the meeting			
First name	**Last Name**	**Company/organisation**	**Country**
Robert	Buchinger	Sunlumo Technology GmbH	Austria
George	Tsagodimitropoulos	TÜV CYPRUS (TÜV NORD) Ltd	CYPRUS
Christos	Zachariades	TÜV CYPRUS (TÜV NORD) Ltd	CYPRUS
Jan Erik	Nielsen	Solarkey Int.	Denmark
Pedro	Dias	ESTIF	EU
Jean-Baptiste	Beyssac	CESP-University of Perpignan	France
Franck	Cheutin	CSTB	FRANCE
Emmanuel	LEGER	BELENOS	FRANCE
Francois-Xavier	BALL	Eurovent Certita Certification	France
Sophie	BOCQUILLON	EUROVENT CERTITA CERTIFICATION	FRANCE
Ulrich	Fritzsche	TÜV Rheinland Energie und Umwelt GmbH	Germany
Korbinian	Kramer	Fraunhofer Institute for Solar Energy Systems	Germany
Harald	Drück	ITW/TZS	Germany
Stephan	Fischer	ITW/TZS	Germany
Stefan	Abrecht	Solar-Experience GmbH	Germany
Katharina	Meyer	DIN CERTCO	Germany
Ralf	Köbbemann	Bosch / BDH	Germany
Sören	Scholz	DIN CERTCO GmbH	Germany
Vinod Kumar	Sharma	ENEA	Italy
Matteo	Sartori	Kiwa Cermet Italia S.p.A.	Italy
Daniele	Bernacchioni	ICIM S.p.A.	Italy
Maria João	Carvalho	LNEG	Portugal
João	Santos	CERTIF - Associação para a Certificação	Portugal
Jaime	Fernandez	AENOR	Spain
Luis	González-Monroy	Termicol Enegía Solar, S.L.	Spain
Alberto	García de Jalón	CENER	Spain
Susanne	Hansson	SP Technical Research Institute of Sweden	Sweden
Andreas	Bohren	SPF	Switzeland
Hanspeter	Weiss	Ernst Schweizer AG	Switzerland
Gerard	van Amerongen	vAConsult	The Netherlands
Oscar	Mogro	BDR Thermea BV	The Netherlands

Participants attending by web			
Robert	Buchinger	Sunlumo Technology GmbH	Austria
Sharon	Wang	Intertek	China
Andreas	Constantinou	AELab	Cyprus
Henry	Rosik	ITC	Czech Republic
Antonio	Dias	CTCV Solar	Portugal
Pedro	Cardoso	CTCV Solar	Portugal
Laura	Vargas	INTA	Spain
Jim	Huggins	SRCC	USA
Nick	Nida	SRCC	USA

Annex B
Voluntary collector energy output label

Voluntary collector label

Solar-Experience
Solar Thermal

What happened since February 2015?

Solar-Experience
Solar Thermal

2015/05 25. Symposium Thermische Solarenergie Staffelstein
Tandem presentation ErP label and SOLERGY label (Mayer/BSW + Abrecht)
DIN CERTCO is willing to issue the collector output label
First draft of SOLERGY labels shown by a company (Ritter)

2015/06 Intersolar Europe – Munich
Announcement and presentation of the implementation of the label in the simulation software Polysun (Andreas Witzig/Vela Solaris)
Information about the label and bringing together interested manufacturers (Ritter)

2015/07 Industry conference - Dettenhausen
Meeting of 20 companies and 2 associations. Resolution to introduce the label using the methodology presented but changing the names of the classes so that most of the good collectors can compete heat pump classes of A++. Thus new names for the 2 upper classes AA and AAA were created. A steering committee was elected to coordinate and do the work for the planned introduction of the label in September 2015. 15 initiator companies decide to join the "solar-heating-initiative! Decision to start with 50°C label first, combined label to come in 2016!

2015-09 Launch of the SOLERGY label by press release and website information for companies and consumers. Very positive feed-back of press and other interested companies also from abroad.

2015-10 First Labels checked acc. strict instructions and issued, expected to be on the market soon. Further interested companies will be served with the label

Table of output classes according regulation (EU) No. 811/2013

Solar-Experience
Solar Thermal

Table 1
Output classes of solar collectors at medium temperatures (50 °C)

Output class	Annual efficiency η_a in %
AAA	$\eta_a \geq 52$
AA	$45 \leq \eta_a < 52$
A+++	$37 \leq \eta_a < 45$
A++	$34 \leq \eta_a < 37$
A+	$32 \leq \eta_a < 34$
A	$30 \leq \eta_a < 32$
B	$18 \leq \eta_a < 30$
C	$17 \leq \eta_a < 18$
D	$16 \leq \eta_a < 17$
E	$\eta_a < 16$

Not necessary

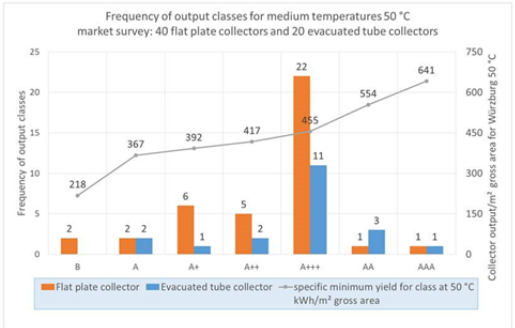
Collector technologies and output classes survey for medium temperature 50 °C

Solar-Experience
Solar Thermal

Output classes	Technology level
AAA AA	In order to reach the classes AA and AAA it is necessary to have additional features such as double glazing, vacuum isolation or reflectors.
A+++	Flat plate collectors of the "premium" class and vacuum tube collectors without reflector
A++	Flat plate collectors of the "comfort" class and vacuum tube collectors with bigger space between the tubes
A+	Flat plate collectors of the "standard" class
A	Simple collectors and vacuum tube collectors with big space between the tubes or weak technical heat properties
B	Typical flat plate collectors which comply with the minimum requirements for getting grants, as well as non selective flat plate collectors

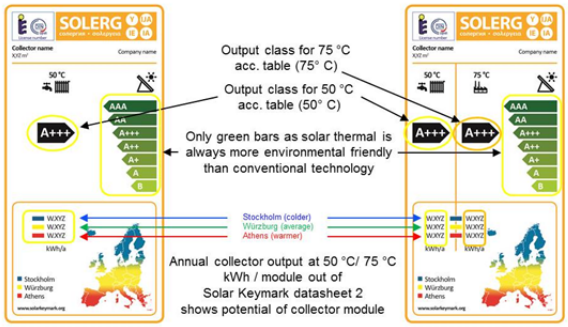
Frequency distribution of output classes of relevant market players (FPC and ETC) for medium temperature 50 °C – acc. ErP

Solar-Experience
Solar Thermal



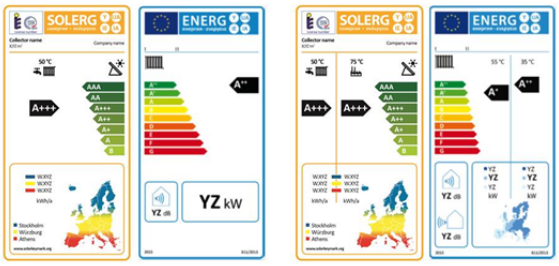
Collector output labels - Output classes B to AAA for 50 °C and 75 °C combined

Solar-Experience
Solar Thermal



Comparison SOLERGY-Label vs. EU-Label for boiler and heat pump

Solar-Experience
Solar Thermal



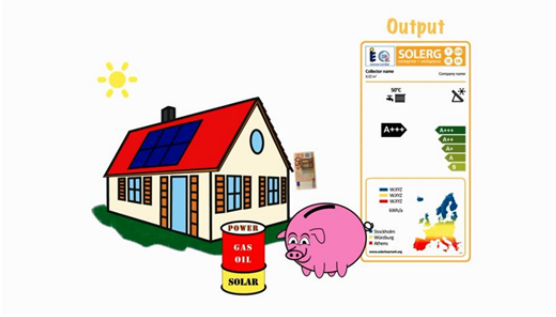
SOLERGY - Labelling scheme for solar thermal collectors (extract)

Solar-Experience
Solar Thermal

- **The main objective** of this initiative **is to provide a clear and transparent declaration of the annual efficiency and specific energy output** for different temperature levels and application of solar thermal collectors available in the market as well as **to show the potential energy output of the collector module for 3 different reference locations**. Thus, the end-users will be enabled to make an informed choice suited to their particular needs.
- Additionally, it is aimed **to complement the already existing EU labelling system** for space heaters, water heaters and cogeneration heaters by **adding valuable information about solar thermal collectors and by considering them a basic heating technology**.
- **The collector label SOLERGY depicts output classes ranging from B to AAA** in order to differentiate the wide range of collectors available in the market. Those collectors labelled with either AA or AAA classes indicate the hidden potential of solar thermal technologies; **they foster product improvement within the sector**.
- **The initiative is open to all collector manufacturers, associations or institutions willing to join this voluntary scheme.** For any collector manufacturer willing to join the initiative and get the corresponding collector label **it is compulsory to have the Solar Keymark data sheet 1 and 2 and to make it available**.

Modern heating technology in 3 minutes

Solar-Experience
Solar Thermal



We are online now and provide information in a transparent way!

Solar-Experience
Solar Thermal

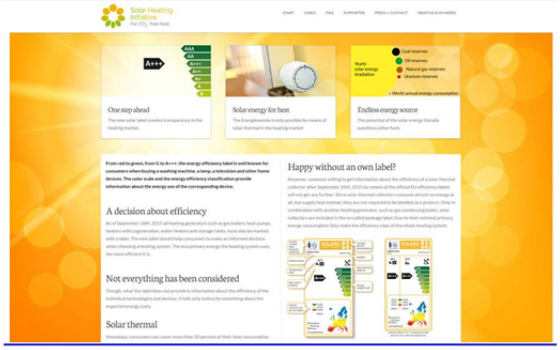
Solar Heating Initiative

For CO_2 - free heat

www.solar-heating-initiative.com

Visit our website …

Solar-Experience
Solar Thermal

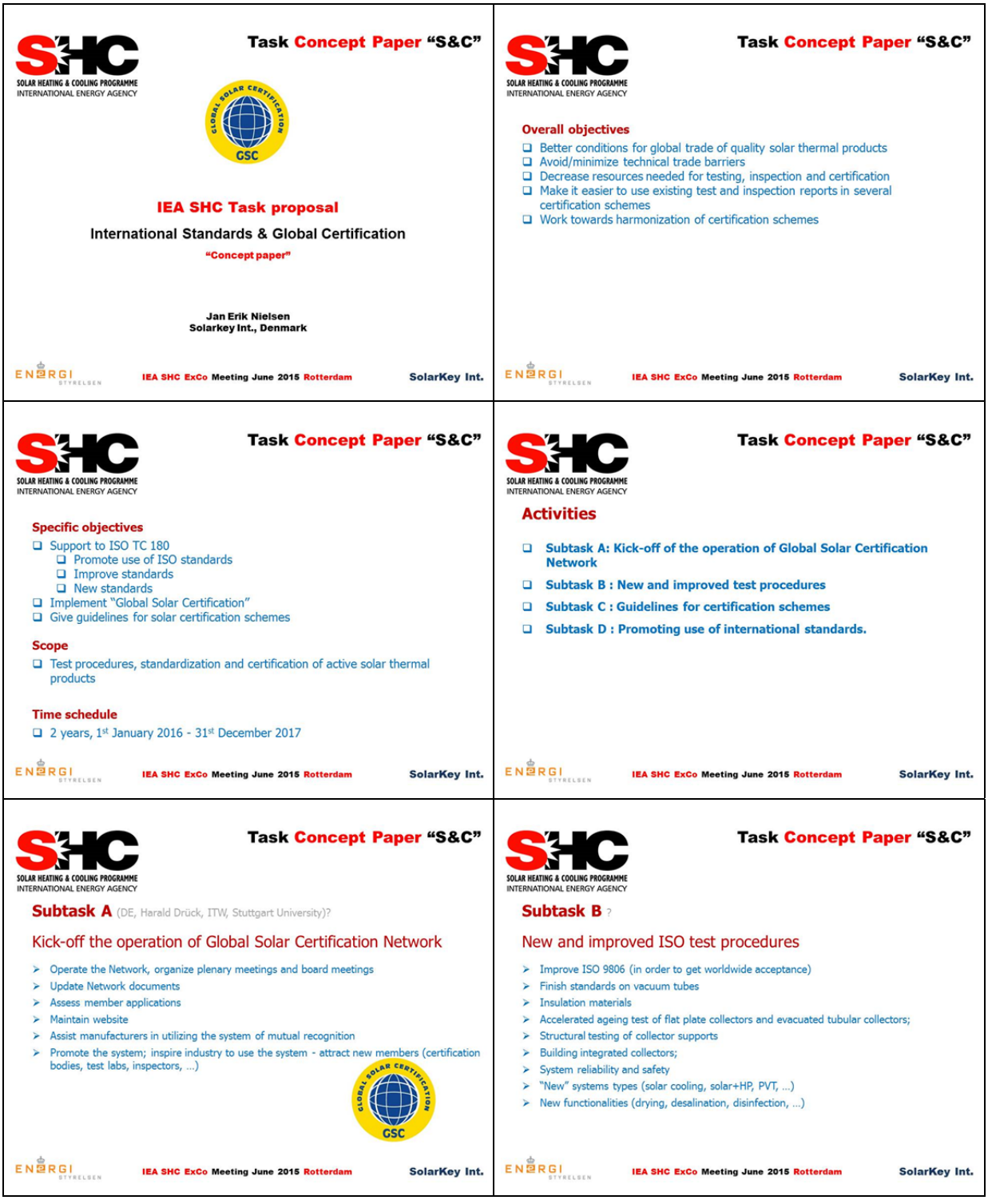


…. and join us for a solar thermal future!

Solar-Experience
Solar Thermal

AQUASOL, augusta solar, austria solar, Citrin Solar, DIN CERTCO, EuroSun, IVT LATENTO, NARVA, polysun, ritter gruppe, RITTER XL SOLAR, Solar-Experience, SRS SOLARTECHNIK, SUNDA Solar GmbH

Annex C
Global solar certification



SOLAR HEATING & COOLING PROGRAMME
INTERNATIONAL ENERGY AGENCY

Task Concept Paper “S&C”

Subtask C ?

Guidelines for certification schemes

- Elaborate guidelines for certification schemes for solar collectors (and other solar thermal products). To be used as model for new national certification schemes as well and inspiration for improving existing certification schemes.
- Work towards harmonization of templates (inspection reports, data sheets, ...) used in solar certification schemes around the world

SOLAR HEATING & COOLING PROGRAMME
INTERNATIONAL ENERGY AGENCY

Task Concept Paper “S&C”

Subtask D ?

Promotion of international standards

The ISO standards for solar thermal products are becoming increasing popular throughout the globe; but still some countries stick to old national standards or even make new national standards. This subtask will work to convince stakeholders in such countries that the ISO standards are very well proven and useful.

- Make guidelines how to understand and use the standards
- Capacity building: Training assistance and training material

SOLAR HEATING & COOLING PROGRAMME
INTERNATIONAL ENERGY AGENCY

Task Concept Paper “S&C”

Who is the intended target audience for each outcome of the project

- **Manufacturers** selling their products in several countries. These manufacturers will save costs for re-testing and re-inspection
- New/improved test procedures will be made for implementation in ISO standards – for the benefit of **manufacturers and test labs**.
- The guidelines for certification scheme will make it easy for countries without any certification scheme to establish one; target is here **certification bodies** and to some degree also **public authorities / subsidy scheme operators**.

SOLAR HEATING & COOLING PROGRAMME
INTERNATIONAL ENERGY AGENCY

Task Concept Paper “S&C”

How does the proposed project relate to the current Solar Heating and Cooling Strategic Plan

- **The project relates very directly to the SHC OBJECTIVE 1, Strategy 3:**
  - **Working through relevant international standards organizations, support the development and harmonization of standards necessary for the widespread use of solar designs and technologies in the building, agricultural and industrial sectors**
- and also to SHC OBJECTIVE 2, Strategy 1 and 2:
  - Increase user acceptance of solar designs and technologies.
  - Continue to develop cost-effective designs and technologies in collaboration with appropriate intermediary industries.

SOLAR HEATING & COOLING PROGRAMME
INTERNATIONAL ENERGY AGENCY

Task Concept Paper “S&C”

Within SHC member countries, which institutions and companies do you propose to collaborate with on this project

- Australia: ISO TC 180 Chair, Solem Consulting, Solahart?, Rheem?, ...
- Austria: AEE-INTEC, GreenOneTech, AIT
- China: CABR, CGC, INTERTEK, Beijing Tsinghua, Jiansu Sunrain
- Canada: Exova
- France: CSTB
- Germany: ITW (Uni-Stuttgart), Frauenhofer ISE, DIN CERTCO, Bosch
- Italy: ENEA
- Mexico: ?
- Portugal: LNEG, CERTIF
- South Africa: SABS, SESSA
- Spain: AENOR, INTA
- Sweden: SP
- Switzerland: SPF
- Turkey: ?
- UK: MCS
- Ecree (ECOWAS Regional Centre for Renewable Energy and Energy Efficiency): Standardisation and certification bodies
- GORD (Gulf Organization for Research and Development): Standardisation and certification bodies
- Recreee (Regional Center for Renewable Energy and Energy Efficiency): Standardisation and certification bodies, SHAMCI Network

Annex D
Energy labelling

vA Consult

Implemented now

Update on Ecodesign

vAConsult
Gerard van Amerongen
SKN meeting Paris October 2015

1

vA Consult

Introduction

- In previous SKN meetings I had a good overview on all that was happening
  - Now many people are involved and I do miss things!
- Perhaps this must be the last time for me to update you on this issue in a general sense?
- The following gives a summary from my (limited) point of view

2

vA Consult

Known issues

- SOLCAL method
  - The method contains faults.
    - No solution available, but we should be able to live with that
  - The prEN15316-4-3, method 2 is an improved version of SOLCAL
    - This version cannot be used now, but only after harmonisation (1/2 2016)
- Determination of the water heating efficiency is not always very clear
  - Both prEN 12976 and prEN15316-4-3 give clear instructions
  - However, only for inspiration. Legally only after harmonisation

SCF funded liaison

SCF funded project

3

vA Consult

Known issues

- DST testing
  - The references for DST testing are now prescribed in the prEN12976
    - This is the only reference. Safe to use (when you can get a copy)
    - Very safe to use after harmonisation
  - The issue for DST testing of Mediterranean SDHW systems
    - A small taskforce has drafted a proposal (ESTESC)
    - For a solid solutions more work is needed.

SCF funded project

4

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Known issues

- Tool and database not broadly accessible
  - German tool: VdZ Heizungstool
  - Labelpack A+ project
  - Other national initiatives
- The tools aim at the installer and packages
  - The solar thermal supply sector is not covered:
    - Documentation for solar devices and hot water storage tanks
    - This is a bottleneck for many companies
    - vAConsult has such a tool for sale
      - With sufficient interest it could be distributed in different languages
    - Perhaps an option for the Solar Keymark database?

5

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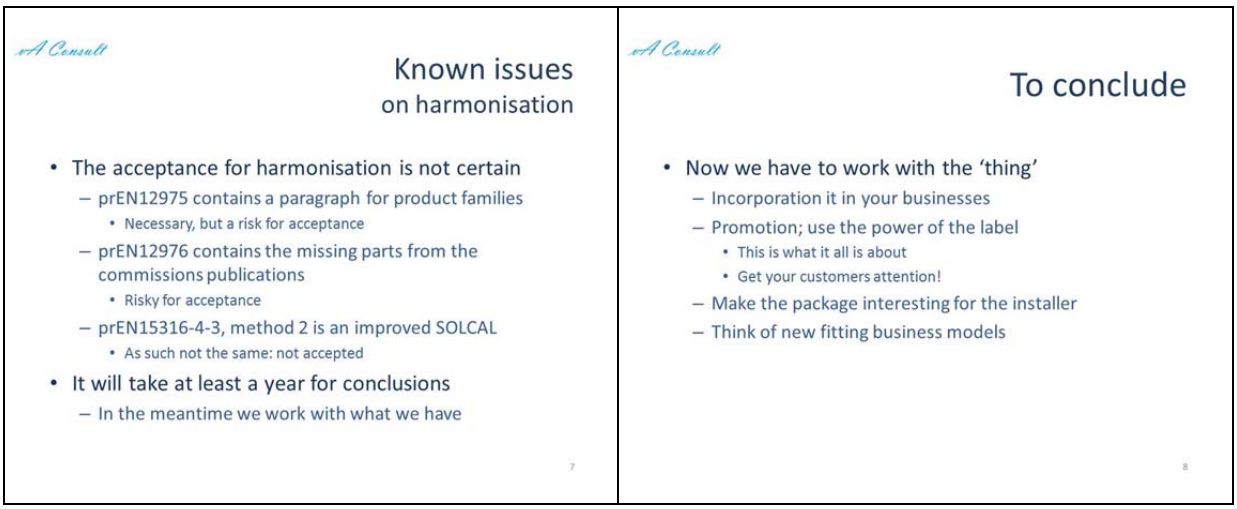
Known issues

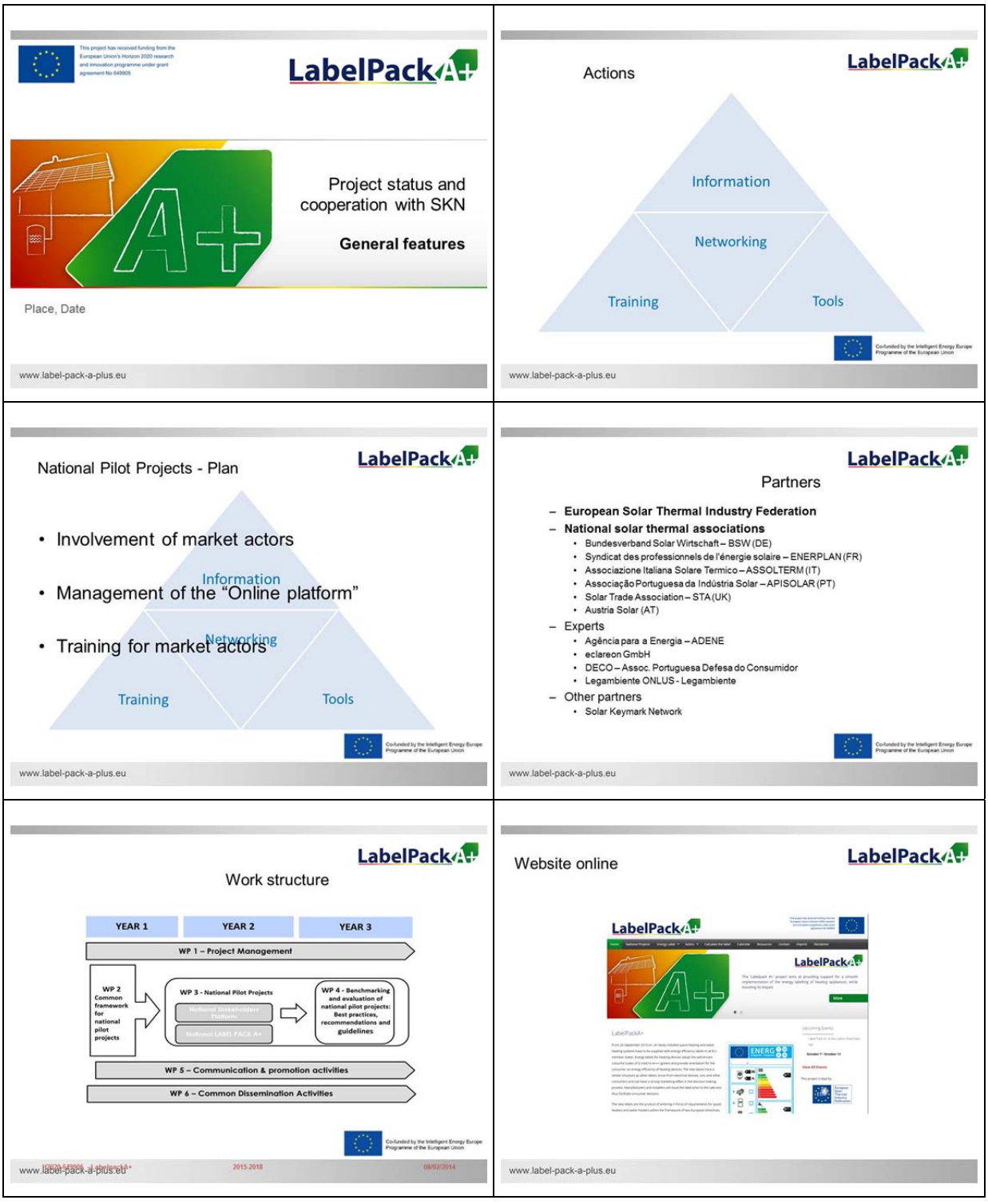
- No harmonised standards available
  - We have to work from the regulations and publications of the commission
    - Not very legally safe
- Preparations for harmonisation are well underway
  - Drafted and presented to TC 312:
    - prEN12975, prEN12976 and prEN12977
  - Drafted and accepted by TC 228 for formal vote:
    - prEN15316-4-3, method 2 (SOLCAL)
  - Thanks to SCF budget!

SCF funded project

6

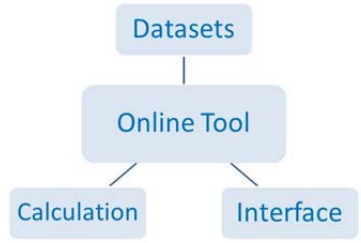

A Consult
Known issues
on harmonisation
• The acceptance for harmonisation is not certain
– prEN12975 contains a paragraph for product families
• Necessary, but a risk for acceptance
– prEN12976 contains the missing parts from the commissions publications
• Risky for acceptance
– prEN15316-4-3, method 2 is an improved SOLCAL
• As such not the same: not accepted
• It will take at least a year for conclusions
– In the meantime we work with what we have
7
A Consult
To conclude
• Now we have to work with the ‘thing’
– Incorporation it in your businesses
– Promotion; use the power of the label
• This is what it all is about
• Get your customers attention!
– Make the package interesting for the installer
– Think of new fitting business models
8

Annex E
Presentation of LabelpackA+



Cooperation with SKN

LabelPackA+

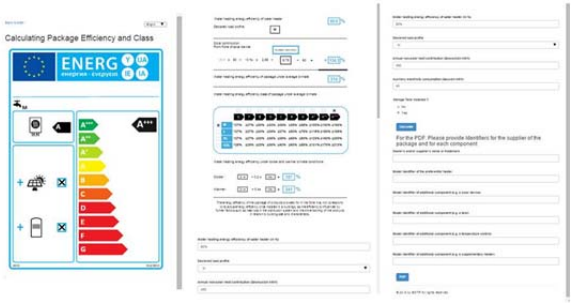


Co-funded by the Intelligent Energy Europe Programme of the European Union

www.label-pack-a-plus.eu

Online tool

LabelPackA+



www.label-pack-a-plus.eu

LabelPackA+

Cooperation with SKN

- Connection of Label Pack A+ online application and calculation tool with SKn database
  - adding the data relevant for the fiche and package calculation (including solcal, if relevant)

Co-funded by the Intelligent Energy Europe Programme of the European Union

www.label-pack-a-plus.eu

LabelPackA+

Cooperation with SKN

- Connection of Label Pack A+ online application and calculation tool with SKn database
  - adding the data relevant for the fiche and package calculation (including solcal, if relevant)

Co-funded by the Intelligent Energy Europe Programme of the European Union

www.label-pack-a-plus.eu

Cooperation with SKN

LabelPackA+

- Issues
  - Older products
    - Update?
  - Product families
    - Self declaration?
  - Multi-branding
    - Separate module with collector data on self-declaration?

Co-funded by the Intelligent Energy Europe Programme of the European Union

www.label-pack-a-plus.eu

Annex F
Liaison to IEC TC 117

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Research and Testing Centre for Thermal Solar Systems (TZS)
Universität Stuttgart

www.itw.uni-stuttgart.de

ISO/TC 180 Liaison Report from IEC/TC 117 Solar thermal electric plants

Stephan Fischer

Institute for Thermodynamics and Thermal Engineering (ITW)
Research and Testing Centre for Thermal Solar Systems (TZS)

University of Stuttgart
Pfaffenwaldring 6, 70550 Stuttgart, Germany
Email: fischer@itw.uni-stuttgart.de
Internet: www.itw.uni-stuttgart.de

Institute for Thermodynamics and Thermal Engineering
Research and Testing Centre for Thermal Solar Systems (TZS)
Universität Stuttgart

www.itw.uni-stuttgart.de

SCOPE

To prepare international standards for systems of Solar Thermal Electric (STE) plants for the conversion of solar thermal energy into electrical energy and for all the elements (including all sub-systems and components) in the entire STE energy system.

The standards would cover all of the current different types of systems in the STE field, as follows:

- Parabolic trough
- Solar tower
- Linear Fresnel
- Dish
- Thermal storage

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Problem

The standardization work within IEC/TC 117 interferes with the standardization work being done in ISO/TC180 and CEN/TC312 respectively.

This leads to different test standards for same products e.g. parabolic trough collectors.

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SCOPE 2/2

The standards would define terminology, design and installation requirements, performance measurement techniques and test methods, safety requirements, "power quality" issues for each of the above systems.

The standards would also address issues of connectivity and interoperability with the power grid related to connections, bi-directional communicates and centralized control (Smart Grid) and environmental aspects.

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TC 117 officers

Position	Name	Institution
Chairman	Mr Werner Platzer (GER)	Fraunhofer ISE
Secretary	Mr Eduardo García Iglesias (ES)	PROTERMO SOLAR
Assistant Secretary	Mrs Carmen Martín Marino (ES)	AENOR
Technical Officer	Mr Charles Jacquemart	IEC Central Office

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MEMBERSHIP STATUS

Participating countries: **11**
Observing counties **12**

Participating countries:
- China
- France
- Germany
- Israel
- Italy
- Japan
- Portugal
- Spain
- Sweden
- Switzerland
- USA

Observing countries:
- Australia
- Austria
- Brazil
- Canada
- Czech Republic
- Denmark
- Iran
- Republic of Korea
- Mexico
- Poland
- South Africa
- United Kingdom

STRUCTURE 1/3

The TC 117 currently has **2 subcommittees with in total 3 active working groups**

Project Teams

PT 62862-1-1 Terminology: To draft a Technical Specification on Solar Thermal Electric Plants – Terminology

Project Leader: Mr. Eduardo Zarza Moya (Spain)

PT 62862-1-2 Procedure for generating a representative solar year: To draft a Technical Specification on the Procedure for generating a representative solar year

Project Leader: Mr. Lourdes Ramirez Santigosa (Spain)

STRUCTURE 2/3

Ad-Hoc Groups

AHG 1 General subjects: To develop IEC deliverables regarding common aspects for the different STE technologies such as Terminology, Safety requirements, Typical Meteorological Year (TMY) definition, as well as their relevant schedule

Project Leader: Mr. Chris Flueckiger (USA)

AHG 2 Systems and components: To develop the necessary IEC deliverables to standardize the requirements to qualify the components of the different technologies as well as the parameters for the operational monitoring of the plants and the relevant acceptance tests

Project Leader: Mr. Eduardo García Iglesias (Spain)

STRUCTURE 3/3

AHG 3 Energy Storage: To develop the necessary IEC deliverables for characterizing the thermal energy storage focusing on the whole system and on the specific components

Project Leader: Mr Matthias Gommel (GER)

LIASIONS

Internal IEC Liaison:

TC 5 **Gas Turbines**

TC 82 **Solar photovoltaic energy systems**

Liaison ISO:

TC 180 **Solar energy**

LIASIONS

Internal IEC Liaison:

TC 5 **Gas Turbines**

TC 82 **Solar photovoltaic energy systems**

Liaison ISO:

TC 180 **Solar energy**

Work items

117/27/NP
Future IEC 6xxxx TS Ed.1: Solar Thermal Electric Plants – Terminology
(approved, CD 2014-10, TS 2015-10)

117/28/NP
Future IEC 6xxxx TS Ed.1: Procedure for generating a representative solar year
(approved, CD 2014-11, TS 2015-11)

Work items

117/31/NP
Solar thermal electric plants - Part 3-2: Systems and components. General requirements and test methods for parabolic-trough collectors (proposed IEC 62862-3-2)
(closing date for voting: 2014-11-07, CD 2015-04, IS 2016-12)

117/32/NP
Solar thermal electric plants - Part 3-3: Systems and components - General requirements and test methods for solar receivers (proposed IEC 62862-3-3)
(closing date for voting: 2014-11-07, CD 2015-02, IS 2016-12)

Work items

117/34/NP
Thermal energy storage for concentrated solar - General characterization (proposed IEC TS 62862-2-1)
(closing date for voting: 2014-12-19, CD 2015-12, IS 2017-07)

117/41/NP
Solar thermal electric plants - Part 5-2: Systems and components - General requirements and test methods for linear Fresnel collectors (Proposed IEC 62862-5-2)
(closing date for voting: 2015-03-06, CD 2015-08, IS 2017-03)

MEETINGS

Meetings:

Madrid, Spain, 7th – 8th March 2012
Tel Aviv, Israel, 30th October – 1st November 2012
Northbrook, USA, 19th -20th November 2013
Tokyo, Japan, 14th – 15th November 2014

Next meeting:

December 9th – 10th, 2015, Madrid

Actions taken since last SKN meeting

- ISO/TC 180 wrote a letter to IEC/TC 117
  - with the request to leave the standardization in solar thermal products to ISO/TC 180
  - with the request to withdraw their WI
  - and invited the IEC/TC 117 expert to work within the frame work of ISO/TC 180
- March – September 2015 several emails/talks between W. Platzer, Ken Guthrie and Stephan Fischer
  + Bilateral discussions between Maria João Carvalho, Korbinian Kramer, Stephan Fischer (ISO/TC180) and Fabienne Sallaberry, Werner Platzer, Eckhard Lüpfert (IEC/TC117)

Current development and next steps

- Eckard Lüpfert joined CEN/TC 312 WG1 meeting to discuss joined work
- Elaboration if developed “Receiver” Standard can go into the ISO 22975 series
- “Parabolic trough” Standard should refer to ISO 9806 for thermal performance testing
- IEC/TC 117 experts will give input how to improve ISO 9806
- Stephan Fischer will attend next IEC/TC 117 meeting in Madrid

Thank you …

Annex G
Liaison to TC 317, TC 228 and TC 164

vA Consult

Update on Liaison

vAConsult
Gerard van Amerongen
SKN meeting Paris October 2015

1

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Reporting on

EPBD CEN TC'S

2

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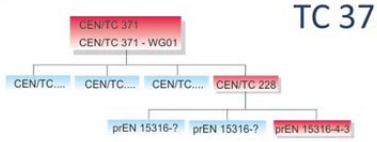
TC 371 & TC 228



- CEN TC 371, WG 1: CEN mandate 480 (EPBD)
  - Coordination and overall calculation method
  - Most important standard under development:
    - prEN 15603 "Energy performance of buildings - Overall energy use and definition of energy ratings"
    - Rejected
    - New opportunity: EN ISO 52000-1
- CEN TC 228, WG4: Building related standards
  - Currently: mainly CEN mandate 480 (EPBD)
  - 15 standards, amongst which EN 15316-4-3 (Thermal solar)

3

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CEN TC 228, WG4

- Meetings this year:
  - 22.06.2015 Paris
  - 28.09.2015 London
- Status of the standards:
  - Public enquiry 2014/2015: finished
  - Revisions based on comments received: finished
  - Acceptance by TC 228 to start formal vote: not yet known
- Next steps processing the standards:
  - Preparation for formal vote — Sep – Dec 2015
  - Formal vote — 1th ½ of 2016
  - Publications — ~September 2016

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CEN TC 228
prEN 15316-4-3

- prEN 15316-4-3 contains the following methods:
  - Thermal solar
    - Method 1: Whole system testing (previous method A)
      - Small changes, monthly / annual calculations
    - Method 2: components testing & calculation (previous method B)
      - Major improvements, monthly calculations
      - Base of ErP SOLCAL method
    - Method 3: components testing & calculation (new)
      - Hourly calculations of the solar collector loop only
      - In combination with prEN15316-4-5 (storage): hourly system model
  - Solar PV
    - Three methods, three time steps

5

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CEN TC 228
Other business

- prEN 15316-4-10 Small wind turbines
  - Proposed for new Work item
- 'Shower' heat exchanger (heat recovery)
  - Proposed for addition
  - Not accepted, but possibly Work item for Technical report
- Next meeting end of 2016
  - Not so turbulent in near future anymore

6

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Update on

CEN TC 164

7

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CEN TC 164, WG 2

"Internal systems and components"

- No meetings
  - Small task force is working on revision CEN EN 806-1
- New Liaison proposed: Jean-marc Suter (CH)
  - Well known with solar thermal and Legionella
- Pending issue:
  - Technical report on Legionella
  - Start Work item
    - SCF has to agree and free the budget
    - TC 312 has to do this (for the bigger part) without TC 164

8

Annex H
SCF Projects – General status report

Solar Keymark SKN meeting

19th SKN meeting
6-7 October 2015
Paris

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Solar Certification Fund

- 80 projects approved so far:
  - Closed: 43 - 1st call: 9
  - Reporting: 9 - 2nd call: 7
  - On-going: 22 - 3rd call: 18
  - *Contracting: 2* - 4th call: 16
  - *Deferred: 2* - 5th call: 18
  - *Cancelled: 2* - 6th call: 12

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Solar Certification Fund

- 579 845 EUR (approx.) allocated to projects
  - 1st call: 145 950 EUR
  - 2nd call: 79 910 EUR
  - 3rd call: 170 565 EUR
  - 4th call: 183 420 EUR
  - 5th call: 179 900 EUR
  - 6th cal: 124 000 EUR

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Solar Certification Fund

- Closed projects
  - Report and deliverables approved by the SCF Steering Group
  - Balance payment done or being prepared
    - invoice requested or payment on pipeline
- Deferred projects
  - Projects that are on-hold
    - Waiting for one of the conditions for the project to occur (external)
- Cancelled projects
  - One case insofar - request from contractor
  - Possible also by SG decision in extreme cases

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Solar Certification Fund

- On-going projects
  - Projects that are being executed
  - Periodic reports available (for the majority) at the Disc. Board
  - Deliverables (or drafts) may be also available at the Disc. Board
- Reporting projects
  - Projects that have concluded their work
  - Pending approval, because:
    - Reports (or deliverables) are to be provided (uploaded at DB)
    - Secretariat is preparing evaluation files
    - Evaluators are assessing report and deliverables
    - Evaluators requested aditional clarification or work

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Closed projects
(since March 2015)

Reference	Project Name	Responsible	Start date	End date	Budget
2C06	SysIndoor-ITW	Stephan Fischer	01-05-12	?	€9 900.00
	Development of an indoor test procedure for factory made systems according to EN12976				
4C03	GlobCert II	Jaime Fernandez	29-03-13	18-02-15	€10 000.00
	Follow-up project on global certification conc. elaborating and implementing a Global Certification scheme for solar collectors				
4C05	SK-Annex E	Jaime Fernandez	01-06-13	?	€13 000.00
	Harmonized Solar Keymark factory production control procedure for EN 12975, -76 and -77 products. Improving Annex E to the scheme rules				
4C08	RR-12977	Christian Weißmüller	01-05-2013	?	€29 500,00
	Quality assurance procedures to assure harmonised of boundary conditions for the long performance prediction for factory made systems and automatic implementation of the performance results in the Solar Keymark data sheets				

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Deferred

Ref.	Project Name	Responsible	Budget
3C14	CE-Bro-ESTIF	Pedro Dias	€8.250,00
	information about CE-marking of solar collectors - target group manufacturers		
	Project shall not start before there is approval (or at least final version sent for enquiry) of part 1 - EN12975.		
5C74	STANDARD_JMSuter	Jean-Marc Suter	€10.000,00
	Revision of EN ISO 9488 Solar energy – Vocabulary – German and French terminology: Translation and cross-border harmonization		
	Project delayed 12 months: the project "Revision of EN ISO 9488" will be formerly canceled due to non availability of the English draft per September 2014. A new start for this revision should be formerly decided at the next ISO/TC180 meeting which will be held in Beijing at the beginning of October. Being voted if revision to be done under CEN lead.		
4C19b	Industry_Interaction	Pedro Dias	€10.000,00
	Ensure a better involvement of industry resources in standardisation work		
	Project on-hold for clarification on actions addressing that shall be covered within the project.		

Reporting

Reference	Project Name	Responsible	Start	End	Budget
4C06	SK-12976	Danjana Theis	01-04-13	31-12-14	€15.310,00
	Quality assurance procedures to assure harmonised of boundary conditions for the long performance prediction for factory made systems and automatic implementation of the performance results in the Solar Keymark data sheets Evaluaton ongoing				
4C16a	EcoDes-12	Gerard van Amerongen	01-04-13	31-12-14	€15.000,00
	Preparing to meet the requirements of Ecodesign Energy Labelling with respect to testing. Evaluaton ongoing				
5C1.5	SOLARKEYMARK_SP	Peter Kovacs	30-05-14	01-03-15	€7.100,00
	This project will develop the ScenoCalc tool further by including a calculation model that is still missing: Unglazed solar collectors under steady-state conditions. Reporting				
5C11.1	ANNIVERSARY_ESTIF	Theresa Doetsch	30-05-14	31-07-14	€5.000,00
	Anniversary - ESTIF Reporting				
5C4.2	LiasTC164_vAConsult	Gerard van Amerongen	30-05-14	31-03-15	€5.000,00
	The main issue during the contractual period will be the proposed revisions of the EN 806-11 and EN 806-22. Requirements of these standards are referred to in the solar thermal standards. Evaluaton ongoing				

Reporting

Reference	Project Name	Responsible	Start	End (foreseen)	Budget
5C4.3	LiasTC228_vAConsult	Gerard van Amerongen	30-05-14	31-03-15	€5.000,00
	The main focus during the contractual period will be the revisions of the EPBD standards and more specifically the handling of the comments from the enquiry process. Evaluaton ongoing				
5C4.4	LiasTC371_vAConsult	Gerard van Amerongen	30-05-14	31-03-15	€5.000,00
	The main focus of in this contractual period is the development of the revised EPBD standards (CEN mandate 480) that should be finalized before ½ 2015. Evaluaton ongoing				
5C7.1	STANDARD_ISE	Korbinian Kramer	01-01-15	31-01-15	€10.000,00
	The goal of the project is to close a gap in standardisation, testing and reporting for certification regarding the Incident Angle Modifier (IAM) of Linear Fresnel Collectors (LFC). Evaluaton ongoing				
5C8.1	EPBD_vAConsult	Gerard van Amerongen	07-07-14	31-12-14	€15.000,00
	Development of Excel tools that describe the solar thermal calculation methods in prEN15316-4-3:2013 for evaluation purposes during the CEN enquiry period Evaluaton ongoing				

On-going *(contracting)*

Reference	Project Name	Responsible	Start	End (est.)	Budget
6C03	Air-Coll-RR_ISE	Stefan Mehnert	20-03-15	01-03-16	€11.000,00
	EN ISO 9806 Air collector Intercomparison Test Waiting for signed Agreement/project summary				
6C06	CE_SPF	Andreas Bohren	20-03-15	08-03-16	€11.000,00
	CE Mark for Collectors Waiting for draft Agreement/project summary				

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	Budget
1C04a	EN13203-3 solar-SWT	Dominik Bestenlehner	20-07-11	31-08-14	€14.950,00
	"Solar friendly" alternative to "EN 13203-3 Report has not been submitted				
5C1.2	SOLARKEYMARK_SKI	Jan Erik Nielsen	30-05-14	31-12-14	€10.900,00
	The Solar Keymark brochure will be updated – taking also into account the increasing interest in Solar Keymark in overseas countries. Standard presentations for use of Solar Keymark Network members to promote Solar Keymark will be updated and developed. Interim report received				
5C1.4	SOLARKEYMARK_ISE(GuideUp)	Stephan Menhert	12-03-15	12-12-15	€10.000,00
	With the publication of the new substantially revised hEN 12975 and EN ISO 9806 the guide and the brochure will be obsolete and need to be updated. Interim report received				
5C13.1	GOODIDEA_vAConsult(Legio)	Gerard van Amerongen	30-05-14	31-03-15	€24.800,00
	Drafting a CEN Technical Report on Legionella prevention in amongst others solar water heaters Interim report received, discuss with SCF conditions				

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	Budget
5C2.1	ECOLab_vAConsult	Gerard van Amerongen	30-05-14	31-03-15	€24.000,00
	As a consequence of the publication of the regulations on Ecodesign and the energy labelling in September 2013, the involved standards need to be harmonized (EN 12975, 12976 and 12977) according to the CEN mandate 495. Interim report received				
5C3.1	CE-CPR_ESTIF	Pedro Dias	30-05-14	31-10-14	€9.000,00
	An adequate overview of the CE marking requirements in the different markets will facilitate the work of the solar thermal industry in preparing for the implementation after the expected publication (Sept/Oct. 2014). Interim report received				
5C4.1	LiasTC117_ITW	Stephan Fischer	30-05-14	31-08-15	€5.000,00
	support the work of the liaison officer who will follow the work going on in the IEC/TC117 and the reporting to CEN/TC 312, ISO/TC180, the Solar Keymark network and the European Solar Thermal Energy Standardisation & Certification Working Group (ESTESC). Interim report received				
5C5.1	TC312WG_SPF	Andreas Bohren	30-05-14	28-02-15	€6.000,00
	Part financing of CEN secretariat for solar collector working group (CEN/TC312 WG1) Report has not been submitted				
5C6.1	DATABASE_SKI	Jan Erik Nielsen	30-05-14	30-06-14	€15.100,00
	All data from the Solar Keymark data sheets will be included in the searchable/sortable database. Option for showing/printing only selected data. Interim report received				

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	Budget
5C7.2	STANDARD_SWT	Harald Drück	30-05-14	28-02-15	€13.000,00
	In order to perform the annual system simulation for solar combisystems, among others, space heating load profiles are required. Report has not been submitted				
5C7.3	STANDARD_ITW	Stephan Fischer	30-05-14	31-03-15	€5.000,00
	Within the project test procedures and classifications for thermal insulation used in solar thermal collectors and thermal energy stores will be developed and pre normative documents drafted (ISO EN 12975). Interim report received				
6C01	12977-RR_IFEP	Chistian Weißmüller	19-03-15	28-02-2016	€18.000,00
	Round Robin system testing according to EN 12977-5 and EN 12977-2 Interim report received				
6C04	HighT-Coll-RR_IFEP	Chistian Weißmüller	20-03-15	28-02-16	€11.000,00
	Round Robin test of medium temperature collectors related to Thermal performance based on ISO 9806:2013 Interim report received				
6C04X	12976 RR	Maria João Carvalho	20-03-15	28-02-16	€9.000,00
	Robin Robin for Factory Made Systems yield calculation and data sheet generation Interim report received				

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	Budget
6C05.2	22975-3-SK-SR	Jan Erik Nielsen	30-03-15	31-10-15	€8.000,00
	Solar Keymark scheme rules for EN ISO 22975-3 Interim report received				
6C09	GLOBCERT_SKI	Jan Erik Nielsen	30-03-15	31-12-15	€14.000,00
	"New IEA-SHC Task on International Solar Standardisation and Certification" Interim report received				
6C10.2	LCA_SWT	Dominik Bestenlehner	20-03-15	30-04-16	€9.000,00
	Elaboration of standardised methods for life cycle assessment of solar thermal products focusing on environmental and financial aspects Report has not been submitted				
6C13.1.2.3.	LiasTC164_TC228_TC371	Gerard van Amerongen	20-03-15	31-03-16	€10.000,00
	Liaison officer on behalf of CEN-TC312 to CEN-TC164, Liaison officer on behalf of CEN-TC312 to CEN-TC228, Liaison officer on behalf of TC312 to TC371 Interim report received				
6C13.4	Lias0n TC117_SWT	Stephan Fischer	01-10-15	31-10-16	€7.500,00
	Support of liaison officer of ISO TC 180 to IEC TC 117 Interim report received				

On-going

Ref.	Project Name	Responsible	Start Date	End (est.)	Budget
6C14.1	OTHER_MODEL_vAConsult	Gerard van Amerongen	20-03-15	31-03-16	€12.000,00
	Open source hourly software tool				
	Interim report received. SKN discuss 2nd phase				
6C14.5	0ther_Lai	Sebastian Laipple	07-11-15	17-09-31	€3.500,00
	Support of CEN/TC 312 WG3 convenor				
	Project will start later, Interim report received				

The Solar Keymark
CEN Keymark Scheme

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THE Quality Label for Solar Thermal Products in Europe

Solar Keymark
SKN meeting

19th SKN meeting
6-7 October 2015
Paris

The Solar Keymark
CEN Keymark Scheme

THE Quality Label for Solar Thermal Products in Europe

Annex I
Project presentation “SpeedColl”

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Universität Stuttgart

6 exposure test sites

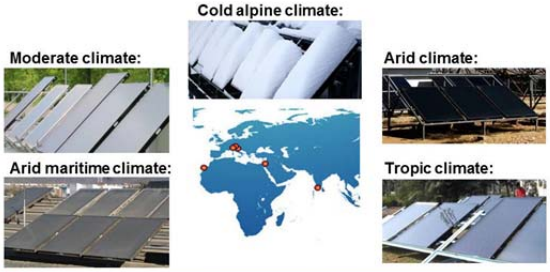
Cold alpine climate:

Moderate climate:

Arid climate:

Arid maritime climate:

Tropic climate:



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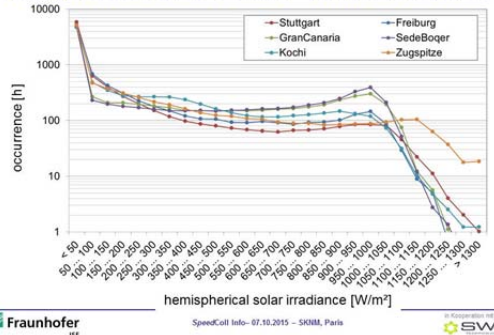
Hemispherical solar irradiance – comparison year #1



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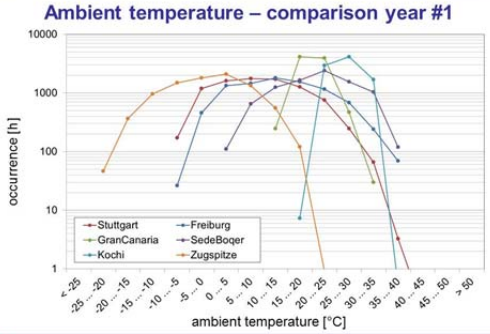
Ambient temperature – comparison year #1



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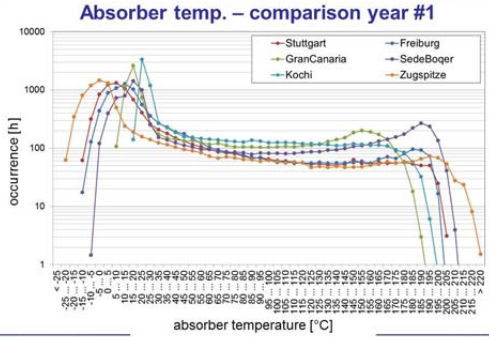
Absorber temp. – comparison year #1



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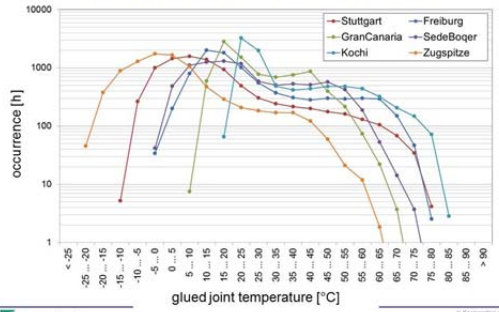
Glued joint temp. – comparison year #1



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SpeedColl - Proceedure

Outdoor Exposition

Indoor Screening tests

Modelling/ Simulation

Test methods

- Transparent cover
- Absorber
- Reflector
- Adhesive
- Insulation material
- Complete collector

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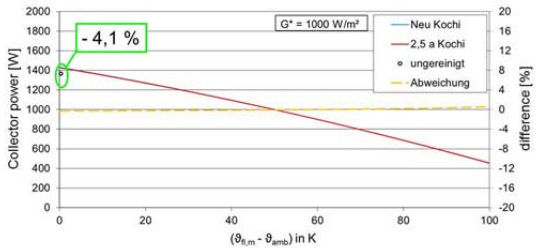
Collector #1 (2,5 yr. Kochi)



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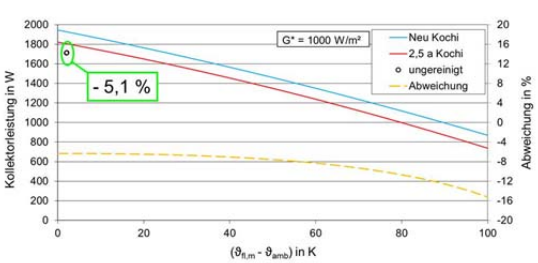
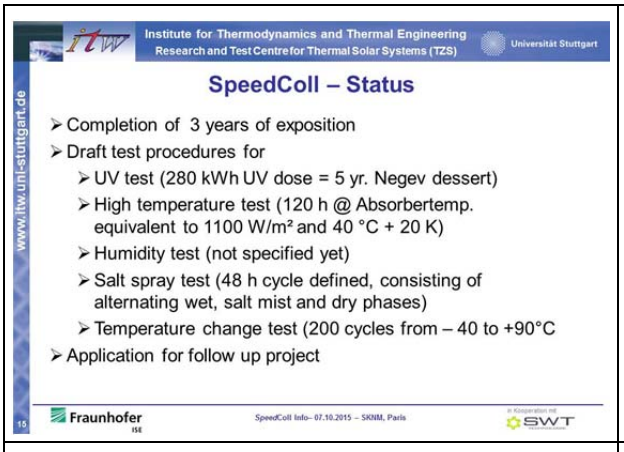
Collector #2 (2,5 yr. Kochi)

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SpeedColl – Status
Completion of 3 years of exposition
Draft test procedures for
UV test (280 kWh UV dose = 5 yr. Negev dessert)
High temperature test (120 h @ Absorbertemp. equivalent to 1100 W/m² and 40 °C + 20 K)
Humidity test (not specified yet)
Salt spray test (48 h cycle defined, consisting of alternating wet, salt mist and dry phases)
Temperature change test (200 cycles from – 40 to +90°C
Application for follow up project
Fraunhofer ISE
SpeedColl Info– 07.10.2015 – SKNM, Paris
SWT
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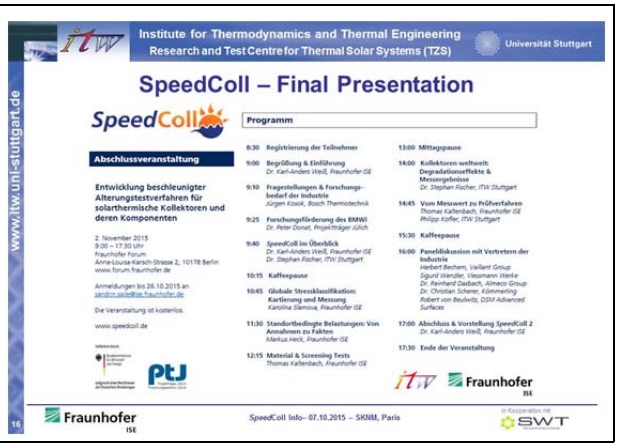
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SpeedColl – Final Presentation
SpeedColl
Programm
Abschlussveranstaltung
Entwicklung beschleunigter Alterungstestverfahren für solarthermische Kollektoren und deren Komponenten
2. November 2015
9:00 – 17:30 Uhr
Fraunhofer Forum
Anna-Louisa-Karsch-Strasse 2, 10178 Berlin
www.forum.fraunhofer.de
Anmeldungen bis 26.10.2015 an
sandrin.saile@ise.fraunhofer.de
Die Veranstaltung ist kostenlos.
www.speedcoll.de
8:30 Registrierung der Teilnehmer
9:00 Begrüßung & Einführung
Dr. Karl-Anders Weiß, Fraunhofer ISE
9:10 Fragestellungen & Forschungsbedarf der Industrie
Jürgen Kiesel, Bosch Thermotechnik
9:25 Forschungsförderung des BMWi
Dr. Peter Donat, Projektträger Jülich
9:40 SpeedColl im Überblick
Dr. Karl-Anders Weiß, Fraunhofer ISE
Dr. Stephan Fischer, ITW Stuttgart
10:15 Kaffeepause
10:45 Globale Stressklassifikation: Kartierung und Messung
Karolina Slamova, Fraunhofer ISE
11:30 Standortbedingte Belastungen: Von Annahmen zu Fakten
Markus Heck, Fraunhofer ISE
12:15 Material & Screening Tests
Thomas Kaltenbach, Fraunhofer ISE
13:00 Mittagspause
14:00 Kollektoren weltweit: Degradationseffekte & Messergebnisse
Dr. Stephan Fischer, ITW Stuttgart
14:45 Vom Messwert zu Prüfverfahren
Thomas Kaltenbach, Fraunhofer ISE
Philipp Kofler, ITW Stuttgart
15:30 Kaffeepause
16:00 Paneldiskussion mit Vertretern der Industrie
Herbert Bechem, Vaillant Group
Sigurd Wenzler, Viessmann Werke
Dr. Reinhard Dasbach, Almeco Group
Dr. Christian Scherer, Kömmerling
Robert von Beulwitz, DSM Advanced Surfaces
17:00 Abschluss & Vorstellung SpeedColl 2
Dr. Karl-Anders Weiß, Fraunhofer ISE
17:30 Ende der Veranstaltung
Fraunhofer ISE
SpeedColl Info– 07.10.2015 – SKNM, Paris
SWT
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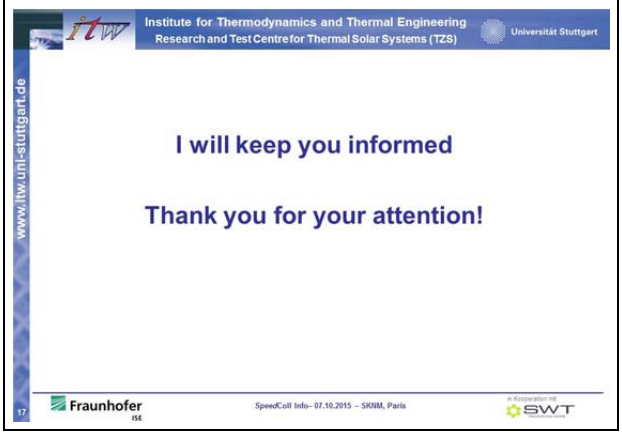
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I will keep you informed
Thank you for your attention!
Fraunhofer ISE
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