



European  
Solar  
Thermal  
Industry  
Federation

***Solar thermal and Labelling activities***  
*Interaction between regulations, standardisation and  
certification*

**1 December 2016**

**11h00 – 13h30**

**AGENDA**



European  
Solar  
Thermal  
Industry  
Federation

## ***Solar thermal and Labelling activities***

*Interaction between regulations, standardisation and certification*

### **11:00 Welcome and introduction**

- Harald Drück, ITW & ESTIF Board

### **11:10 Energy Labelling and Eco-design Directives review: what next?**

- Paolo Basso, EHI

### **11:35 The package label: status of implementation**

- Eva Flora Varga, ESTIF

### **12:00 Relevant developments in standardisation & certification regarding labelling**

- Gerard Van Amerongen, Va Consult, Liaison officer TC 312

### **12:30 Solar thermal and energy labelling: the Lot1 & Lot2 review**

- Pedro Dias, ESTIF

### **12:55 The role of SKN Certification and Global Certification**

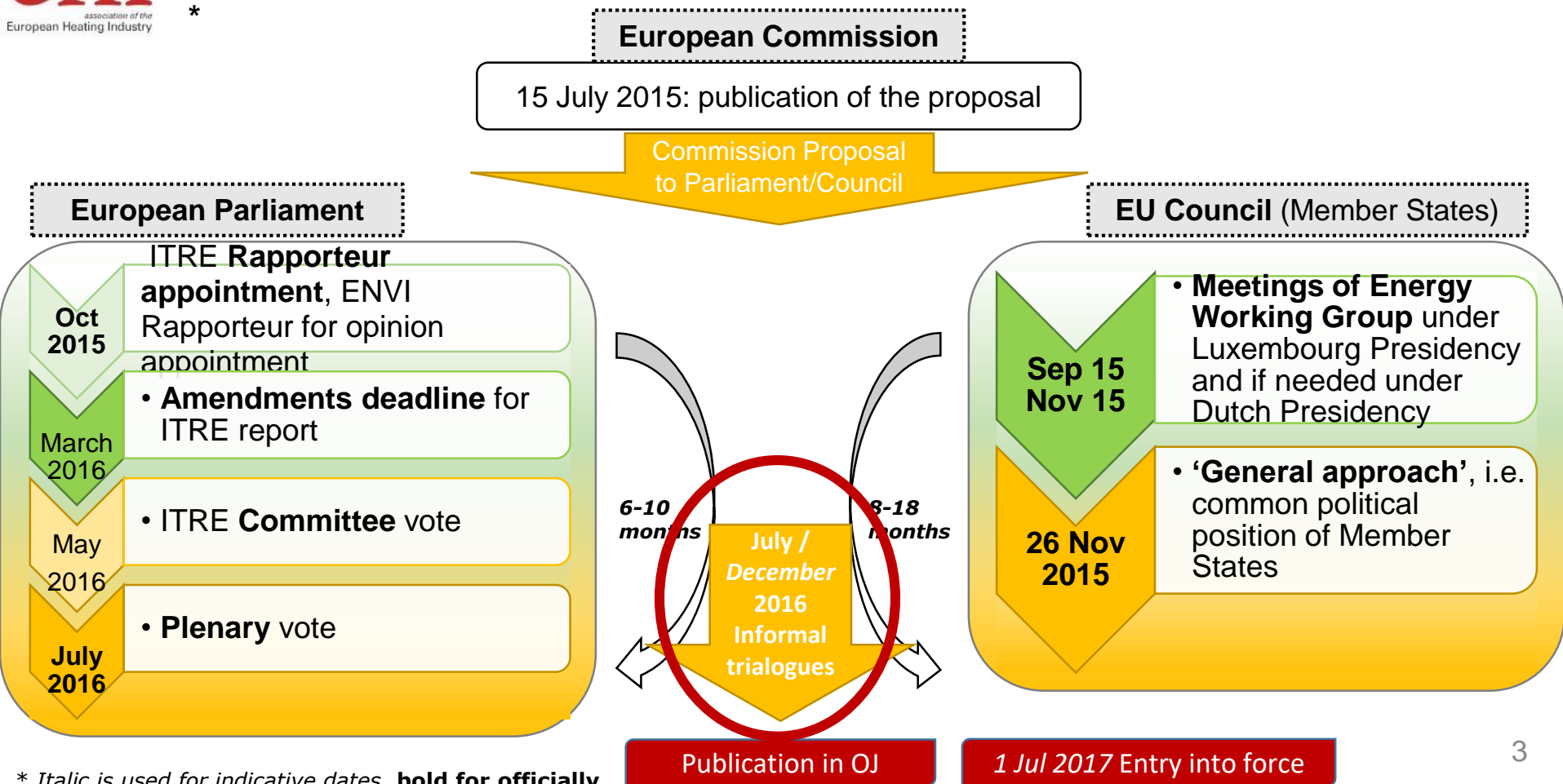
- Harald Drück, SKN honorary chairman, GSCN chairman

### **13:20 Conclusions**

### **13:30 End**

# Review Energy Labelling Framework Directive 2010/30/EU – indicative timeline

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- Rescaling: by 2022 review all products;
- Database: include technical documentation; no mention of test reports.



- Rescaling: review when overpopulation or 8 years after label introduction;
- Database: Include technical documentation and test reports; Possibly exclude most sensitive data.

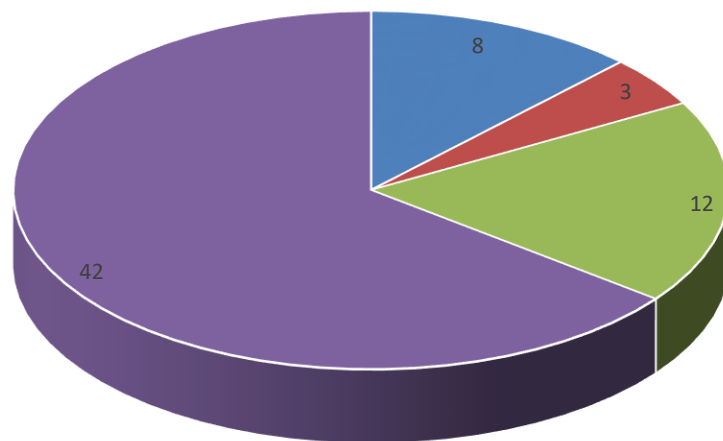


- Rescaling: in 2023 start heaters label review;
- Database: technical documentation and test reports in companies' servers. Available to MSA upon request.

# BSW-Solar Survey - Introduction of the EU energy efficiency label

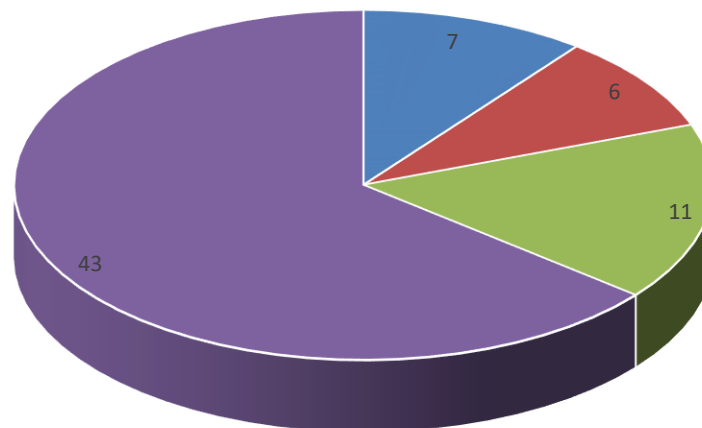
132

In connection with the introduction of the EU energy efficiency label: Please estimate the number of inquiries from professionals before September 26, 2015



■ Very high (> 500) ■ High (100-500)  
■ Medium (50-100) ■ Low (< 50)

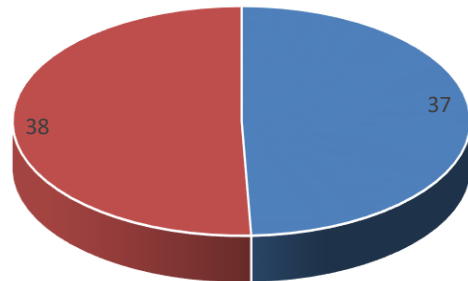
In connection with the introduction of the EU energy efficiency label: Please estimate the number of inquiries from professionals after September 26, 2015



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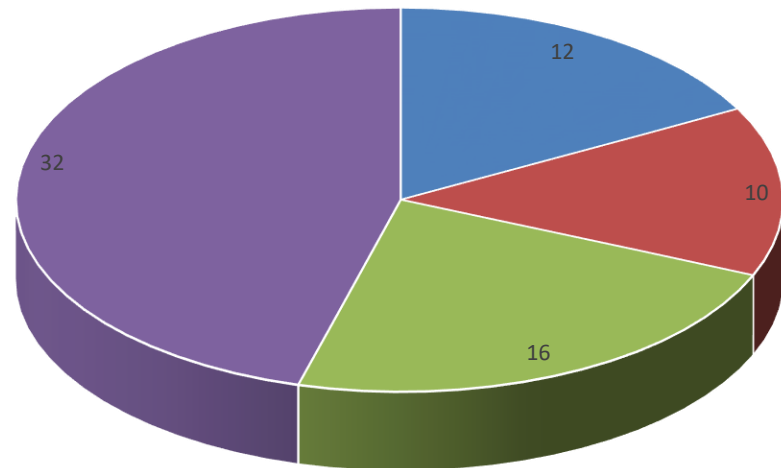
# BSW-Solar Survey - Introduction of the EU energy efficiency label

Did your organization receive any requests for support from professionals in the heating sector?



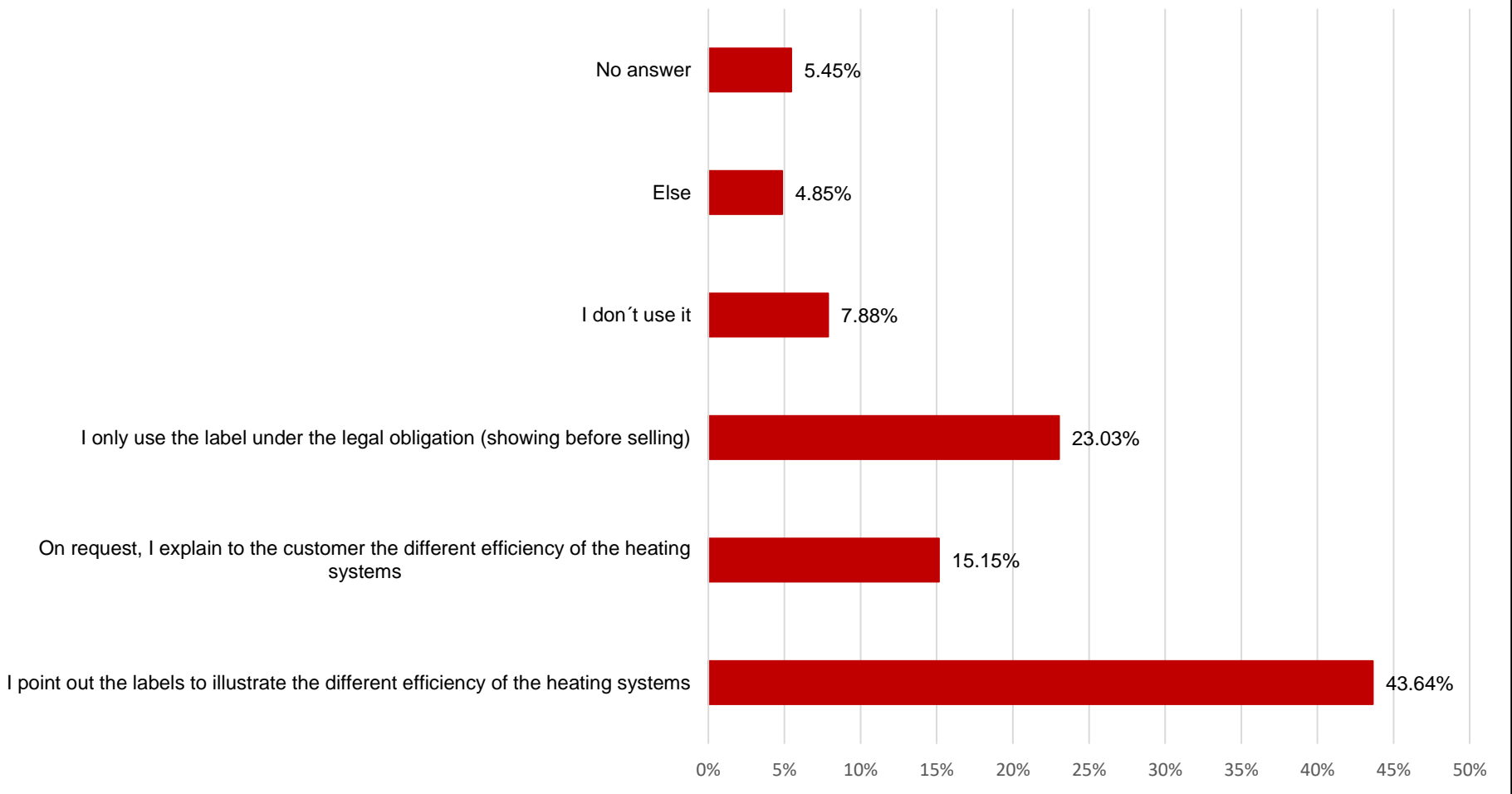
■ Yes ■ No

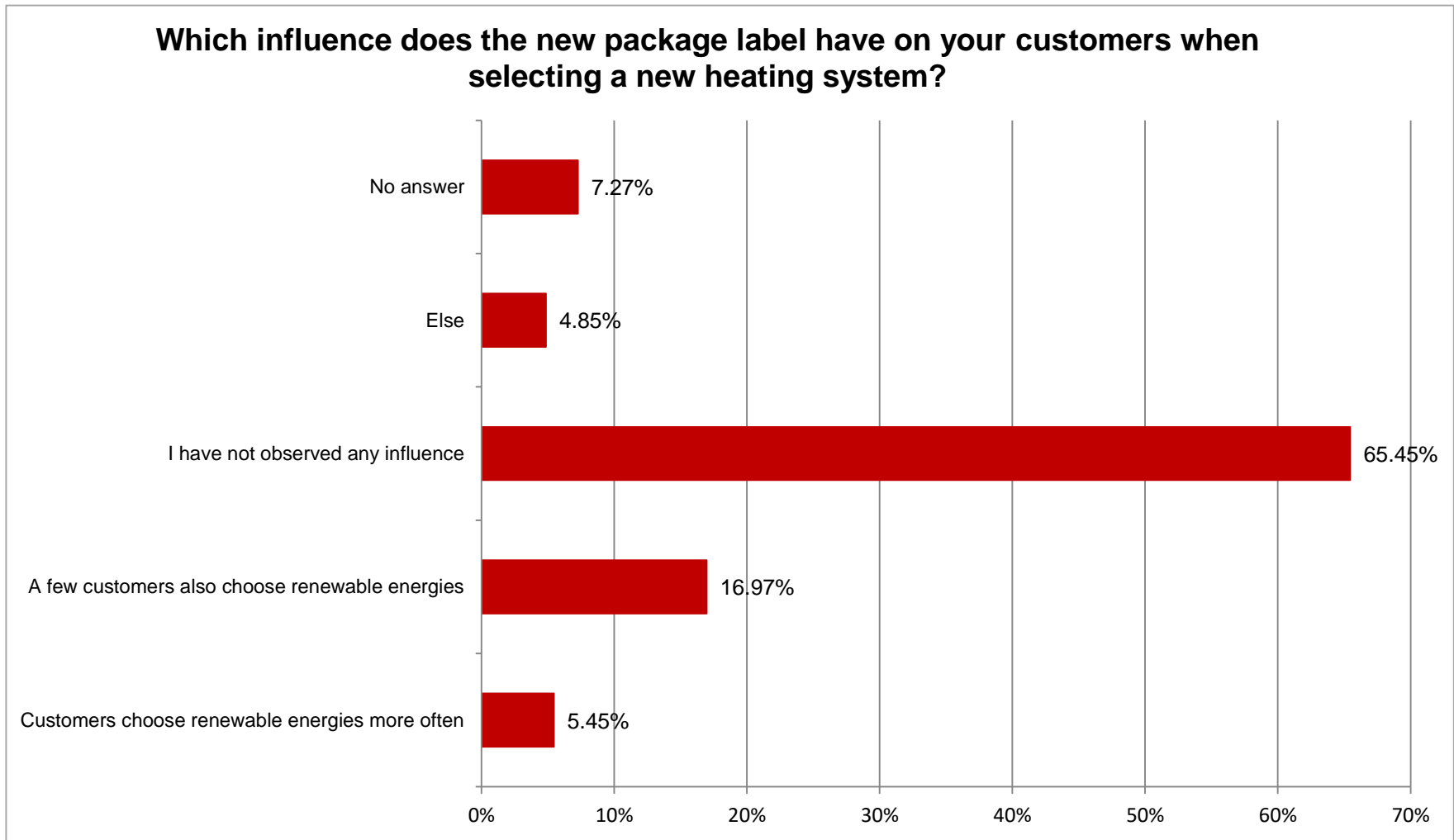
Did the interest in the EU energy efficiency label increase or decrease since September 26, 2015



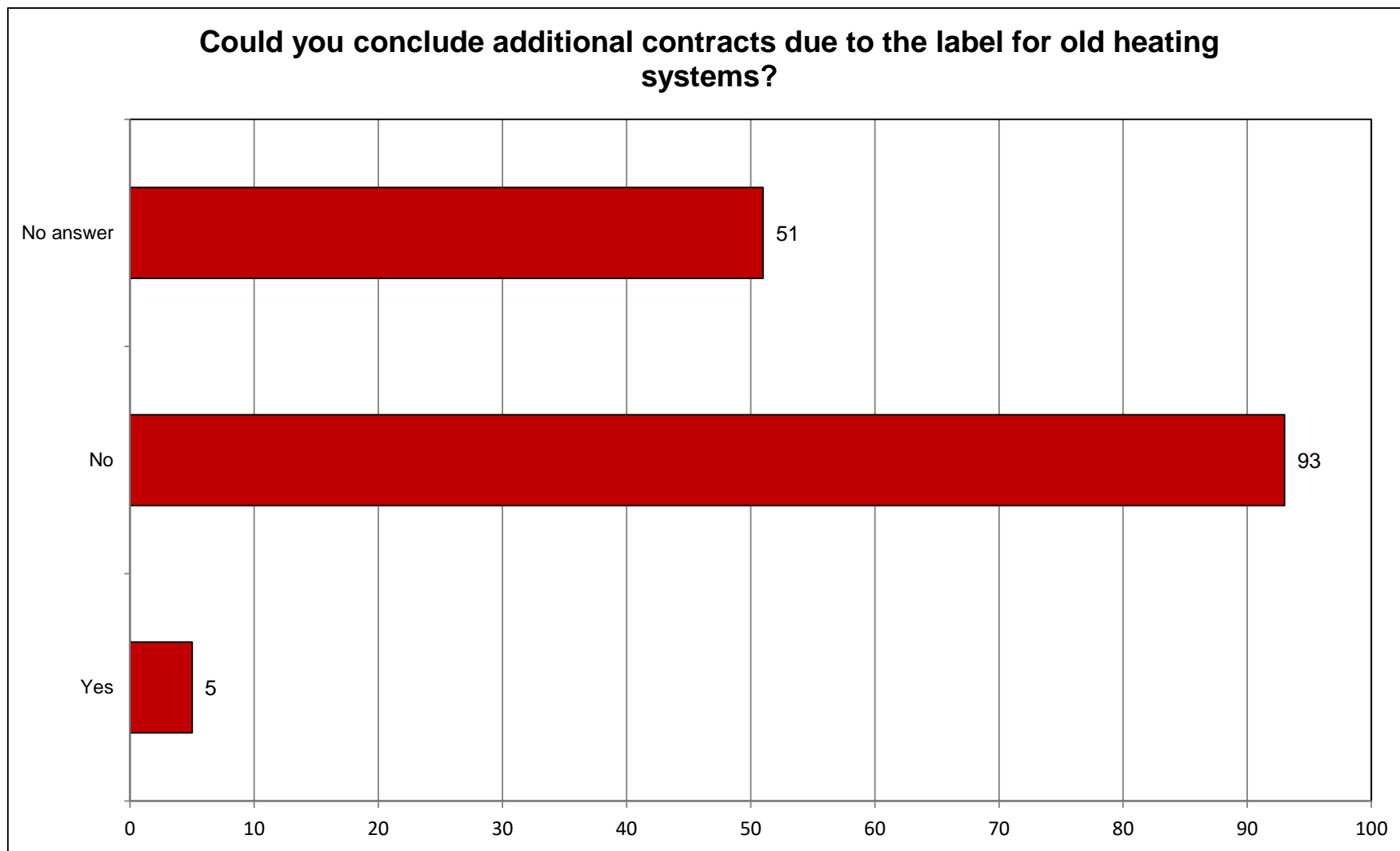
■ Increase ■ Decrease ■ No change ■ No interest

## Do you discuss the new label in your customer meetings?









# Harmonization

- Update -

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- Solar collector
  - Current reference: transitional document
    - Weak legal certainty => especially the product family method
  - In preparation: EN 12975-1 with annex (link to ErP)
    - ErP test method: draft finalized
    - Product family: in preparation
- Solar device (SOLICS)
  - Current reference: FprEN 12976-2
    - Acceptable legal certainty => CEN accepted, not yet published, no harmonization
  - Next steps: publication (soon) and harmonization (later)

# Harmonization

- Update -

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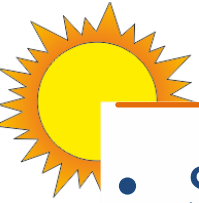


- Solar device (SOLCAL)
  - Current reference: transitional document
    - Strong legal certainty, but faulty results
  - Better reference: FprEN 15316-4-3, annex F and annex Zx
    - Currently published for CEN voting procedure
  - Next steps: CEN acceptance, publication and harmonization
- Heat storage tank
  - Current reference: different CEN standards (e.g. EN12977-3)
    - Reasonably strong legal certainty: no annex (link to regulation) and no harmonization
  - Next steps:
    - Annex (link to ErP) to EN 12977-3/4 (draft ready)
    - Product family method
    - Harmonization

# Solar device

## - SOLCAL versus SOLICS issue -

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- Solar device: SOLCAL and SOLICS
  - SOLCAL: currently mostly used
  - SOLICS (DST-test): available since December 2015 (FprEN12976-2)
- Issue observed in the Netherlands
  - SOLICS (preheater): +40% compared to SOLCAL
  - Problem because of link with subsidy scheme
- Short study towards cause and solution
  - Conclusions:
    - FprEN12976 correctly implemented in FprEn12976-2 annex F
    - 8 systems:
      - Preheaters: SOLICS = 140% of SOLCAL
      - Solar plus supplementary: SOLICS = 107% of SOLCAL

# Solar device

## - SOLCAL versus SOLICS issue -

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- Comparison TRNSYS (5 systems, ITW):
  - SOLCAL: systematically too low (-16%)
  - SOLICS: 3 out of 5 SOLICS measurements were faulty (not included)
    - Preheaters: SOLICS +10%
    - Solar plus supplementary: -8%
- Proposals:
  - New SOLCAL implementation should correct the deviation partly
  - Implementation DST-test is alarming
    - One test from 2014!
    - Attention should be paid to implementation rules
  - SOLICS only if SOLCAL is not possible?

# List of new / revised standards



prEN15459-1	Economic evaluation procedure for energy systems in buildings
prEN15378-1	Inspection of boilers, heating systems and DHW
prEN15378-3	Measured energy performance
prEN12831-1	Design heat load: space heating
prEN12831-3	Design heat load: water heating
prEN15316-1	General and Energy performance expression
prEN15316-2	Space emission systems (heating and cooling)
prEN15316-3	Space distribution systems (DHW, heating and cooling)
prEN15316-4-1	Space heating generation systems, combustion systems (boilers, biomass)
prEN15316-4-2	Space heating generation systems, heat pump systems
<b>prEN15316-4-3</b>	<b>Thermal and PV solar systems</b>
prEN15316-4-4	building-integrated cogeneration systems
prEN15316-4-5	district heating and cooling
prEN15316-4-8	Space heating generation systems, air heating and overhead radiant heating systems, including stoves (local)
prEN15316-5	Space heating and DHW storage systems (not cooling)

# Solar Thermal relevancy

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- FprEN15316-4-3
  - Solar thermal
    - 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
    - Method 3: components testing & calculation (new)
      - Hourly calculations of the solar collector loop only
  - Solar PV
    - Three methods, three time steps

# And next...

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- Vote before Feb 2017
  - Important! SOLCAL included and better methods
  - Through EPBD mirror committees
- TC371:
  - Further steps into ISO (also the underlying systems standards)
- TC228:
  - Improve link to Ecodesign
  - Stimulate development of tools for EPBD (Soltherm,...)
  - Validation of methods
  - Transition from CEN to CEN-ISO



# TC 164



- On its way to revision EN 806 series
  - Solar thermal standards refer to this
  - Input requested from TC312
    - Through Jean-Marc Sutter

# ST relevant items

- Conversion coefficient value;
- Third party certification
- Appropriateness of the package fiches and labels
  - Solar thermal collector?

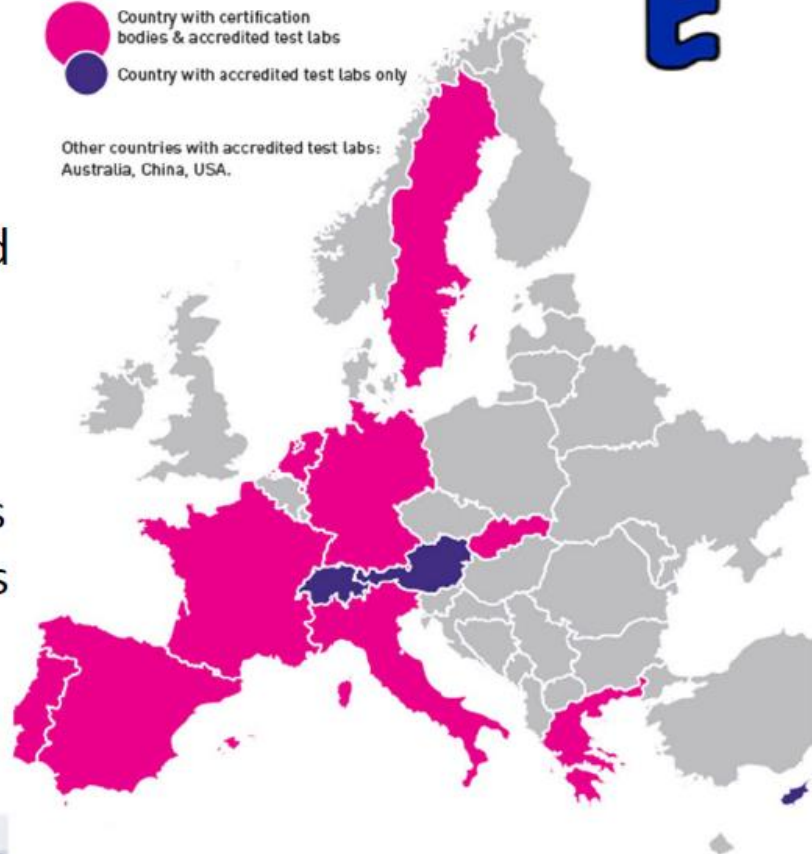
# Status of Solar Keymark certification



Country with certification bodies & accredited test labs

Country with accredited test labs only

Other countries with accredited test labs:  
Australia, China, USA.



- 13 Solar Keymark empowered certification bodies
- 28 Solar Keymark test labs
- 1800 different products/brands
- 700 Manufacturers/distributors
- 35 Different countries



**The Solar Keymark**  
CEN Keymark Scheme

*THE Quality Label for Solar Thermal Products in Europe*



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# Solar Keymark database



The Solar Keymark Database

www.solarkeymark.org

SYSTEM CERTIFICATES

COLLECTOR CERTIFICATES

## COLLECTOR CERTIFICATES

Search; Company, Collector Name or License No (please input text string):

GO

Country Code

Certification Body

1 of 1 13 Items 100 /Page GO

Company	Website	Collector Names	License No	Data Sheet Link	Certification Body	Country Code	System License No
ARCON Solar A/S	<a href="#">Go To</a>	HT-SA 28-10	011-7S1520 F	<a href="#">Go To</a>	DIN CERTCO	DK	
ARCON Solar A/S	<a href="#">Go To</a>	HT-A 28-10	011-7S1521 F	<a href="#">Go To</a>	DIN CERTCO	DK	
ARCON SOLVARME A/S	<a href="#">Go To</a>	HT 28/8	SP SC0959-09	<a href="#">Go To</a>	SP	DK	
ARCON SOLVARME A/S	<a href="#">Go To</a>	HT-SA 28/8	SP SC0960-09	<a href="#">Go To</a>	SP	DK	
ARCON SOLVARME A/S	<a href="#">Go To</a>	HT-SA	011-7S110 F	<a href="#">Go To</a>	DIN CERTCO	DK	
Batec A/S	<a href="#">Go To</a>	BA22, BA30	SP 46 97 01	<a href="#">Go To</a>	SP	DK	
METRO THERM A/S	<a href="#">Go To</a>	Metrosol Exclusive	011-7S958 F	<a href="#">Go To</a>	DIN CERTCO	DK	
METRO THERM A/S	<a href="#">Go To</a>	Metrosol Standard	011-7S959 F	<a href="#">Go To</a>	DIN CERTCO	DK	
SUNMARK	<a href="#">Go To</a>	GJ 140A/ GJ 140 D.5	SP 50 93 01	<a href="#">Go To</a>	SP	DK	
VELUX A/S	<a href="#">Go To</a>	CLI U10 3000	011-7S088 F	<a href="#">Go To</a>	DIN CERTCO	DK	
VELUX A/S	<a href="#">Go To</a>	CLI M08 / S06 / S08 / U12 4000	011-7S087 F	<a href="#">Go To</a>	DIN CERTCO	DK	
VELUX A/S	<a href="#">Go To</a>	Velux CLI 5000 (M08, S06, S08, U12)	011-7S1279 F	<a href="#">Go To</a>	DIN CERTCO	DK	
VELUX A/S	<a href="#">Go To</a>	Velux CLI U10 3001	011-7S1280 F	<a href="#">Go To</a>	DIN CERTCO	DK	<a href="#">011-7S1282 A</a>

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# The “Global Solar Certification Network”



## How will GSCN work for manufacturers

- ☐ A manufacturer having already a certificate accepted by the GSCN, simply apply directly to a certification body issuing the next wanted certificate (also accepted within the GSCN), showing his existing certificate and related test and inspection reports and other relevant documentation.
  - ☐ **NB. Test lab and inspector shall be recognized by both certification bodies.**
- ☐ The “new” certification body will then tell the manufacturer if any additional testing/inspection will be needed.
- ☐ If no additional testing/inspection is required – or when such additional testing/inspection has been completed – the manufacturer is granted the license to mark his product with the “new” certificate too.
- ☐ Fees will apply for using the system:
  - ☐ Fee to test lab for re-use of test reports
  - ☐ Fee for inspection body for re-use of inspection reports (annual)
  - ☐ Fee to GSCN (annual)



# The “Global Solar Certification Network”



## Become a member of the GSCN!

### Membership is possible for:

#### Active members

- manufacturers
- test laboratories
- inspectors
- certification bodies

#### Passive members

- individual persons
- organisations
- future active members

### Apply for membership

- <http://gscn.solar/members/Become%20member.html>

### Fees

- Active members: 125 €/year
- Passive members: 75 €/year





# The “Global Solar Certification Network”



## Status for the Global Solar Certification Network

- ☐ Final set of working rules approved summer 2016
- ☐ Applications for formal membership from industry and operating bodies are being processed:
  - ☐ Industry: 3
  - ☐ CBs: 4
  - ☐ Inspectors: 2
  - ☐ Test labs: 2
- ☐ Ongoing promotion of the GSCN ...
- ☐ System should be ready to operate in beginning of 2017
- ☐ **More members are needed**

