Survey: World Map of Solar Process Heat Specialists 2017

Your company is one of worldwide around 110 suppliers of turnkey solar process heat systems which receive this questionnaire in November 2016. The survey is the basis for the **World Map of Solar Process Heat Specialists 2017**. All companies that have planned and delivered a certain number of turnkey solar process heat installations will be listed on the world map. Companies that use in-house produced collectors for their solar process heat installations will be marked with the specific collector icon.

The world map and the results of the survey will be published in Sonne Wind & Wärme 1/2017 and on solarthermalworld.org in January 2017. They will be used as well for the Technology Overview Brochure of the project *SolarPayback* which aims at increasing the deployment of solar process heat installations in four target countries: Mexico, Brazil, South Africa and India. All companies that take part in the survey will receive a summary of the results in January 2017.

Please note that the data from part 1 of the questionnaire is used for the world map, part 2 and 3 will be anonymously evaluated. You are kindly asked to send us photos of your projects to illustrate the publications.

Please fill in this questionnaire and send it back by e-mail to epp@solrico.com
or by fax to 0049/521/1642953 **Thank you very much!**

Company name: **Web page:**

Who filled in this questionnaire?

Name: **Position:**

Your mobile number for enquiries:

	Solar Heating and Cooling (SHC)	Solar Process Heat	Solar Power (PV or CSP)	Other renewables (wind, biomass, etc)	Others (please specify)
What is your core business?					

	Yes	No	Not yet
Do you offer *turnkey* solar process heat systems? (turnkey means to plan, deliver and install a solar process heat system which is ready for use?)			
Do you offer a *guaranteed solar yield* as part of your turnkey delivering contract?			
Do you *plan* solar process heat systems?			
Do you *install* solar process heat systems?			
Do you *operate/maintain* solar process heat systems?			
Do you offer solar process *heat delivery contracts* as an Energy Service Company?			
Do you manufacture / assemble solar *process heat collectors* in-house?			

In which year did your company deliver the first turnkey solar process heat system?

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1. Data for the Word Map of Solar Process Heat Specialists 2017

**How many turnkey* solar process heat systems have you realised so far (in whole company history)? ** **		
The total number of turnkey solar process heat systems add up to which amount of collector area?		m^2
How many turnkey* solar process heat systems have you realised in 2015? **		

***Turnkey includes the design, delivery and installation of solar process heat systems**
****Please note that solar cooking even in large-scale is not recognised as a solar process heat system in this survey**

Give details about your largest and second largest realised turnkey solar process heat system:		
	Largest reference project	Second largest reference project
Name and web site of client		
Site of installation (city, country)		
Type of process		
Year of installation		

Do you manufacture collectors for solar process heat systems in-house?	Yes ☐	No ☐

	Vacuum tube	Flat plate	Parabolic Trough	Fresnel	Dish	Other *	No collector model produced in-house
If yes, please choose the in-house produced collector type that you sell most for process heat installation.	☐	☐	☐	☐	☐		☐

What is the recommended working temperature range of your in-house produced solar process heat collector?	from		to [°C]	
Your in-house produced collector is tested/certified under which certification scheme? (e.g. Solar Keymark, SRCC, MNRE, SAI)				

	Prototype	Pilot / demonstration	Commercial
Development state of your in-house produced process heat collector	☐	☐	☐
Please describe special features of your in-house produced solar process heat collector.			

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2. Information about the market development (anonymous evaluation)

	Extremely satisfied	Very satisfied	Satisfied	Fairly dissatisfied	Dissatisfied
Were you satisfied with your business development in 2015?	☐	☐	☐	☐	☐

	1st country	2nd country	3rd country
Which are the three countries where you installed most of your solar process heat systems so far?			
Which major drivers pushed the solar process heat market in these three countries?			

Which are the most relevant criteria for a good market development (select max. two)?

High fossil energy prices	Growing economy	Financial support schemes	Political regulations that require solar process heat	Easy to access project financing	Others (please specify)
☐	☐	☐	☐	☐	

Which are the two most helpful support mechanisms to stimulate solar process heat markets?
Please select only two options!

Rebate/ grant scheme	Tax credit (investment share is deducted from income tax)	Performance-based incentives / Feed-in tariffs for solar heat	Solar/renewable heat obligations for the industry	Support for demonstration projects / R&D	Low-interest loans	Renewable Energy Certificates (RECs)	Renewable Portfolio Standards	Marketing campaigns
☐	☐	☐	☐	☐	☐	☐	☐	☐

Please give reasons for your choice.	
Please name a successful support scheme for solar process heat (name of programme and country).	

	Food and beverage industry	Agriculture	Textile / leather industry	Mining	Commercial and service sector	Oil & gas industry	Others
What have been the main *sectors* for your realised process heat systems? Please tick only two sectors!	☐	☐	☐	☐	☐	☐	

	Cleaning / washing	Drying	Cooking	Cooling / refrigeration	Surface treatment	(support of) steam production	Others
What have been the main *processes* for your already realised solar process heat systems? Please tick only two sectors!	☐	☐	☐	☐	☐	☐	

Which planning tool/software are you using for designing solar process heat installations?	
Give reasons for the choise of your planning tool / software	

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3. Trends in the solar process heat segment (anonymous evaluation)

What are the major barriers in enlarging the solar process heat segment on a global level?	

Please rate the four countries as solar process heat markets:

	Extremely good potential	Good potential	Low potential	No Potential	Give reasons for your choice
Mexico	☐	☐	☐	☐	
India	☐	☐	☐	☐	
Brazil	☐	☐	☐	☐	
South Africa	☐	☐	☐	☐	

Can you agree with the following statements regarding trends in the global segment of solar process heat?

	Strongly Agree	Agree	Tend to agree	Disagree	Strongly disagree
The process heat segment will stay a niche market because the investment costs of the sytems are still too high.	☐	☐	☐	☐	☐
Process heat is already competitive in many market segments today, it is just not known well enough to customers	☐	☐	☐	☐	☐
Heat from photovoltaics is becoming more and more a competitor for solar thermal process heat	☐	☐	☐	☐	☐
The oil and copper industry is an important future client group for solar process heat	☐	☐	☐	☐	☐
There are very view financing programmes for solar process heat available	☐	☐	☐	☐	☐
There is a lack of planning / design tools for solar process heat installations	☐	☐	☐	☐	☐
Internal Rate of Return is more convincing for clients than solar payback periods	☐	☐	☐	☐	☐
Difficulties with obtaining financing is one of the main retarding factors of market deployment	☐	☐	☐	☐	☐
Achieving bankability of solar process heat projects requires a huge effort	☐	☐	☐	☐	☐
Banks hesitate to finance solar process heat projects within their financing services	☐	☐	☐	☐	☐
Energy heat delivery contracts are an important modell to increase deployment of solar process hea	☐	☐	☐	☐	☐
It is challenging for Energy Service Companies to receive contingency or cancellation insurances for solar heat contracts.	☐	☐	☐	☐	☐

Are you aware of the online database ship-plants.info?	Yes	☐	No	☐
Have you reported reference projects to the database *ship-plants.info*?	Yes	☐	No	☐

Thank you very much for your effort!

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