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Business Support on Your Doorstep

Technology Offer - Profile Template

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European Commission

Technology Offer Profile

The following table can be used as a template for drafting a Technology Offer. Please be sure to refer to the Profile Drafting Guidelines for what information you should include in each field.

Please note:

- Fields marked with asterisk (*) are mandatory
- Fields that can be ticked should only have one selection when drafting the profile unless specified under the field title.

FIELD	Field to be populated
Title *	Heated by solid-phase heat accumulator steam room.
Internal Reference	
Summary * (1-500 characters)	A small enterprise from the Republic of Karelia, Russia, designed a compact healthy sauna, heated by solid-phase heat accumulator and heat-accumulating electric stove made of soapstone. The heat accumulator allows using the cheap night electric energy, thus reducing the power cost by 1.5-2 times. The company is looking for partners for further development and promotion of the technology.
Advantages and Innovations * (50-2000 characters)	<p>The innovation of the sanative energy-saving sauna is in using a solid-phase heat accumulator that allows accumulating heat during the low-cost night time, and an electric stove, both made of soapstone.</p> <p>The proposed sauna design provides following benefits:</p> <ul style="list-style-type: none"> • energy cost can be reduced by 1.5-2 times, • surfaces are not overheated, • due to the even heating of floor and walls through built-in air channels, no height temperature drop is occurred, making it comfortable for people taking sauna, • suitable humidity can be easily created and maintained, service life of heating elements is increased, because they are fully embedded into the stove shell.

<p>Stage of Development *</p>	<p><input type="checkbox"/> Already on the market</p> <p><input checked="" type="checkbox"/> Available for demonstration</p> <p><input type="checkbox"/> Concept Stage</p> <p><input type="checkbox"/> Field Tested / Evaluated</p> <p><input type="checkbox"/> Project Already Started</p> <p><input type="checkbox"/> Project in Negotiations - Urgent</p> <p><input type="checkbox"/> Proposal under development</p> <p><input type="checkbox"/> Prototype available for demonstration</p> <p><input type="checkbox"/> Under development / lab tested</p>
<p>Comments regarding Stage of Development</p>	
<p>Description *</p> <p>(100-4000 characters)</p>	<p>A small enterprise from Karelia develops and manufactures cost-effective heating and heat-accumulating devices made of soapstone. Soapstone is an environmentally friendly natural mineral mined in Karelia. It has a high heat capacity, heat resistance and heat transfer factor. The great heat insulation of soapstone provides heat conservation for 16 hours and thus allows for using cheap night electric energy.</p> <p>The company designed a compact energy-saving sauna that solves some common problems of existing saunas: great energy consumption, long preparation before the needed temperature is achieved, a great vertical temperature gradient: 60-80C (120C at the head level and 40-60C at the feet level, while the norm is 5C) and a low relative air humidity (5%, while the norm is 40-70%).</p> <p>The proposed sauna is equipped with 2 heat sources:</p> <ul style="list-style-type: none"> - solid-phase heat accumulator made of soapstone that provides warm air supply to ceramic panels through special holes, - soapstone electric stove that provides even heat circulation. <p>Electric heating elements are fully embedded into soapstone panels and do not contact with air of the sauna room. Thus, oxygen and organic dust are not burnt out, and the outer surfaces are heated up to 200-250C. Since the electric heating elements are embedded, water cannot touch them, it passes through waterways made in the soapstone and goes out as a dry steam.</p> <p>Two heat sources enable to heat sauna quickly. Solid-phase heat accumulator delivers warm-air feed in walls, benches, floor and ceiling, due to built-in air channels, heating them to 40-50C and thus creating an even distribution of temperature over the sauna volume. This enables to avoid the height temperature gradient, making it comfortable for people taking sauna.</p> <p>Temperature and humidity conditions are regulated automatically by a pre-defined program, or manually and/or distantly. To prepare the sauna for a visit, ventilation fans are switched on that deliver warm air from the heat accumulator to the channels in ceramics panels. After that, electric stove is turned on. At a later stage, warm air-feed is distributed to various channels built in the walls, according to required air temperature. If demanded, the heat accumulator is</p>

	<p>provided with a water heating tank. Humidity is controlled manually or automatically by delivering to the electric stove a programmed water portion of special temperature and volume.</p> <p>The company is looking for partners to participate in the cooperative venture, in a cooperative production, assembly and development.</p>
<p>IPR Status * Note: Multiple fields can be selected.</p>	<p><input type="checkbox"/> Copyright</p> <p><input type="checkbox"/> Design Rights</p> <p><input type="checkbox"/> Exclusive Rights</p> <p><input type="checkbox"/> Other (registered design, plant variety, etc.)</p> <p><input type="checkbox"/> Patent(s) applied for but not yet granted</p> <p><input checked="" type="checkbox"/> Patents granted</p> <p><input type="checkbox"/> Secret Know-how</p> <p><input type="checkbox"/> Trade Marks</p>
<p>Comments Regarding IPR Status</p>	<p>4 patents RF 2004, 2004, 2004, 2008</p>
<p>Technology Keywords *</p>	<p>4.1.1. Heat storage</p> <p>4.1.2. Heat transport and supply, district heating</p> <p>4.2.7. Heating, ventilation</p> <p>4.5.10. Wind energy</p> <p>4.5.8. Unconventional and Alternative Energies</p>
<p>Market Keywords *</p>	<p>.8. Energy Conservation Related</p> <p>6.5. Alternative Energy</p> <p>4) Wind energy</p> <p>8.2. Industrial Automation</p> <p>1) Energy management</p> <p>9.3. Services</p> <p>1) Engineering services</p> <p>9.8. Utilities and Related Firms</p> <p>4) Other utilities and related firms</p>
<p>Responsible *</p>	<p>Spitsyna Olga</p>

Sector Group	<input type="checkbox"/> Aeronautics & space <input type="checkbox"/> Agrofood <input type="checkbox"/> Automotive, transport and logistics <input type="checkbox"/> Bio Chem Tech <input type="checkbox"/> Creative Industries <input type="checkbox"/> Environment <input type="checkbox"/> Healthcare <input type="checkbox"/> ICT Industry and Services <input checked="" type="checkbox"/> Intelligent Energy <input type="checkbox"/> Maritime Industry and Services <input type="checkbox"/> Materials <input type="checkbox"/> Nano – and Microtechnologies <input type="checkbox"/> Services and Retail <input type="checkbox"/> Sustainable Construction <input type="checkbox"/> Textile and Fashion <input type="checkbox"/> Tourism and Cultural Heritage <input type="checkbox"/> Women entrepreneurship
Restrict Dissemination to specific countries	
Type and Size of Client *	<input type="checkbox"/> Industry SME <= 10 <input checked="" type="checkbox"/> Industry SME 11-49 <input type="checkbox"/> Industry SME 50 – 249 <input type="checkbox"/> Industry 250-499 <input type="checkbox"/> Industry >500 <input type="checkbox"/> Industry MNE >500 <input type="checkbox"/> Inventor <input type="checkbox"/> Other <input type="checkbox"/> R&D institution <input type="checkbox"/> University
Year Established	2006
NACE keywords *	E 40.1 : Production and distribution of electricity
Turnover (Euros – Millions)	<input checked="" type="checkbox"/> <1M <input type="checkbox"/> 1-10M <input type="checkbox"/> 10-20M

	<input type="checkbox"/> 20-50M <input type="checkbox"/> 50-100M <input type="checkbox"/> 100-250M <input type="checkbox"/> 250-500M <input type="checkbox"/> >500M
Already Engaged in Trans - national Cooperation?	<input checked="" type="checkbox"/> Yes (In Merlin tick the check box for yes) <input type="checkbox"/> No
Additional Comments	
Certification Standards	
Languages Spoken *	Russian, English
Client Country	Russian Federation
Type and Role of Partner Sought *	<p>Type of partner sought small, medium enterprise, spas, fitness clubs</p> <p>Specific area of activity of the partner construction and operation of saunas, production or (and) selling of heating equipment for saunas</p> <p>Tasks to be performed Joint adaptation of the proposed sauna and electric stoves to a country's existing conditions. Joint finalization of heat accumulating heating systems for saunas.</p>
Profile is Opened for Expressions of Interest?	<input checked="" type="checkbox"/> Yes (In Merlin tick the check box for yes) <input type="checkbox"/> No
Type and Size of Partner Sought Note: Multiple fields can be selected.	<input type="checkbox"/> SME < 10 <input type="checkbox"/> SME 11-50 <input type="checkbox"/> SME 51 – 250 <input type="checkbox"/> 251-500 <input type="checkbox"/> >500 <input type="checkbox"/> MNE >500 <input type="checkbox"/> Inventor <input checked="" type="checkbox"/> R&D institution <input type="checkbox"/> University

<p>Type of Partnership Considered *</p> <p>Note: Multiple fields can be selected.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Commercial agreement with technical assistance <input type="checkbox"/> Financial agreement <input type="checkbox"/> Joint venture agreement <input type="checkbox"/> License agreement <input type="checkbox"/> Manufacturing agreement <input type="checkbox"/> Research cooperation agreement <input type="checkbox"/> Services agreement <input checked="" type="checkbox"/> Technical cooperation agreement
<p>Attachments</p>	<p>To be added in Merlin</p>