

enterprise europe



Business Support on Your Doorstep

Technology Offer - Profile Template

Updated - July 2014



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 *	Accumulator with air as agent and the capacity up to 100 kW.
Internal Reference	
Summary * (1-500 characters)	A small enterprise from Karelia, Russia, has developed a compact heating system based on solid-phase heat accumulators made of soapstone with the capacity up to 100 kW. The system uses night electric energy, surplus energy of wind power stations, solid or gaseous fuel as energy sources. The system is ecologically safe, it costs 2-3 times less than analogues. The company seeks partners for technical cooperation.
Advantages and Innovations * (50-2000 characters)	<p>Innovation of the technology is the developed compact low-cost heating system of sufficient capacity (up to 100kW) that can be integrated into any cottage, village house, flat or industrial building interior. The system uses several energy sources for heating and hot water supply.</p> <p>The advantages of heating systems with soapstone heat accumulators are:</p> <ul style="list-style-type: none"> - greater unit capacity (up to 100kW) in comparison with analogs (up to 7kW), - less cost per 1kW of capacity, - there are specially located heat isolating ceramic air channels preventing air overheating in the heat accumulator (not more than +100-150C) - heat accumulating medium is an ecologically safe natural mineral – soapstone (talcum peach), - due to heat distribution regulation across the heated premises, air temperature is uniform over the height, - reserve sources of energy can be used (solid fuel: firewood and peat, including waste in form of briquettes and granules, gas) in some models of heat accumulators, - it is possible to accumulate a great amount of surplus energy from autonomous electric energy sources (wind power stations, floating and mini hydro power stations).

<p>Stage of Development *</p>	<p><input checked="" type="checkbox"/> Already on the market</p> <p><input 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 * (100-4000 characters)</p>	<p>One of the ways for optimization of energy consumption in buildings is application of autonomous energy supply systems, including the ones using night energy. These systems are economically, technically and ecologically more efficient than conventional boilers.</p> <p>The developed solid-phase heat accumulator with air as agent and the capacity of 2-100 kW can provide a house of up to 300 sq.m. with heat and, if necessary, hot water. The heat accumulators can use night electric energy, unused (surplus) energy of wind power stations and (or) mini hydro power stations. Some models can use solid fuel, including granules, briquettes obtained from wood waste, peat, coal, etc. or gaseous fuel as additional and equivalent energy sources.</p> <p>The proposed heating system based on these heat accumulators is equipped with ventilation equipment, automatic monitoring and operating control system, devices for safe operation and indoor air humidity control. The heat accumulator is assembled onsite from supplied components.</p> <p>The heat accumulating working medium in these systems is natural mineral – soapstone with a high heat resistance (temperature range from -50C to +1000C), heat capacity and heat transmission. The service time of soapstone stoves is over 50 years, that is, equal to basic elements of brick buildings.</p> <p>Application of soapstone allows creation of ecologically safe heating systems with a great integral heat capacity. The heat accumulator regulates air temperature in the heated premises; it is compatible with ‘Smart House’ systems, safe, easy to install, service and repair.</p> <p>Use of heat accumulators with autonomous electric energy sources (wind power stations, floating hydro power stations) reduces the pay-back period of autonomous energy supply systems by 20-40% and increases the performance by 20-40%. The heat accumulator’s ability to keep heat up to several days, if necessary, improves the reliability of heating systems with autonomous energy sources and in the areas with unreliable electricity supply.</p> <p>Development of a heat accumulator of up to 200kW capacity is planned, basing on the company’s experience.</p> <p>The company is looking for partners for cooperative development and testing it, and adaptation to the customer`s needs .</p>

<p>IPR Status *</p> <p>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>6.8. 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>
<p>Sector Group</p>	<p><input type="checkbox"/> Aeronautics & space</p> <p><input type="checkbox"/> Agrofood</p> <p><input type="checkbox"/> Automotive, transport and logistics</p> <p><input type="checkbox"/> Bio Chem Tech</p> <p><input type="checkbox"/> Creative Industries</p> <p><input type="checkbox"/> Environment</p>

	<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	EU, USA, Canada, Latin America
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 type="checkbox"/> <1M <input checked="" 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 scientific and research organization, government agencies, large enterprise.</p> <p>Specific area of activity of the partner construction, electrical installation works, production or (and) selling of heating equipment</p> <p>Tasks to be performed Joint adaptation of the proposed heating systems to local conditions. Joint improving of technical and economic parameters of heating systems based on solid-phase heat accumulators.</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>