

Application for Project Ideas

for the AeroPortal 3rd Call FP7 Workshop



Would you like us to try to find interested companies with your projects ideas, please send us a short project abstract (by the 7th October) which we will display on this webpage under the match-making section.

The match-making concept is only designed to help you to find partners, a coordinator, technology,...

This webpage can be found at: <http://www.aeroportal.eu/ap3callfp7workshop.html>

<i>Proposer Information</i> (NOT to be published in the AeroPortal website)	
Are you registered in the AeroPortal on-line database : Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (You can complete the registration form at www.aeroportal.com)	
Organisation	Internet site

Project Ideas (to be published in the AeroPortal website)	
<u>Proposers of the idea:</u>	UNIS, a.s., SE Ivchenko-Progress, Jihostroj, PBS, VZLU, VUT, +
<u>Type of Organisation:</u> (SMEs, University, Research Center,...-	UNIS - SME VZLU - Czech aeronautics research centrum VUT - Technical University of Brno SE-Ivchenko-Progress, Zaporozhye, Ukraine, Jihostroj Velesin, Czech, PBS Velka Bites, Czech - big industrial companies
<u>Call identifier:</u>	FP7-AAT-2010-RDT-1
<u>Topics called:</u>	transport - aeronautics
<u>Funding Instruments:</u>	CP-FP (Small or Medium scale focused research) <input type="checkbox"/> CSA-CS (Coordinating) <input checked="" type="checkbox"/> CSA-SA (Supporting) <input type="checkbox"/>
<u>Project Title:</u>	"Innovation and new technologies of affordable electronic engine control and diagnostics for small aircraft turbine engines"
<u>Project objectives:</u>	<p>Improving cost efficiency:</p> <p>More efficient development technology (model based design, COTS based technology and COTS development tools utilization, code testing tools, HALT/HASS testing procedures,..)</p> <p>New technologies validation (energy harvesting, independent. power supply, power inverters technology based on solid state relays, IGBT,.., electrically (BLDC motors) driven aggregates,..)</p> <p>Increase time efficiency:</p> <p>Decrease time to market</p> <p>Decrease development time</p> <p>Support certification process</p> <p>Green engine technology:</p> <p>Improve fuel consumption efficiency</p> <p>Improve emission and noise load</p>
<u>Project abstract:</u> Be concise! Avoid abbreviations (Max. 3000 characters incl. spaces. Any exceeding words will be discarded.)	<p>Affordable turboprop engines powered of 200-400 kW are not available on the European market. The only option for today airplane manufacturers which need such power-plants is to buy them from the companies based in the North America. Project can give a real chance to change this nearly monopoly situation. Fully integrated and improved version of AI-450 engine (400kW) produced by Ukraine's SE Ivchenko Progress and a new 200 kW engine based on TJ100, TP100 or TS100 engine from Czech PBS could serve to European manufacturers of small turboprop aircraft as a very modern and affordable power unit in the near future. Needed technologies and design tools will be gained through the proposed project to facilitate ongoing development processes.</p> <p>The European authorities imposes stringent requirements to the power unit for small aircraft which consists in requirements for high reliability of the engine, propeller and systems, decreasing the weight and overall dimensions of the power unit, decreasing specific fuel consumption, ensuring environmental friendliness and ensuring affordable price of the power unit combined by low operational costs meeting high demands of operators.</p> <p>In order to meet these requirements it is necessary to fulfil considerable amount of work on updating the design of the engine, propeller, engine control system and propeller system control, systems of fault diagnostics of power unit conditions, optimization of maintenance, and also development of systems and</p>

Please return the completed form **BY THE 7th October 2009** to AeroPortal, Ms. Monica Ibido, aeroportal@asd-europe.org.
For more details refer to the AeroPortal homepage www.aeroportal.com.

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	methods of ensuring environmentally friendly of the power unit. In this connection it is necessary to solve the following proposed WP's.	
Project structure (WPs, duration,...) *	Project period: 3 years Project structure: WP1 New small turbine engine concept, (SE Ivchenko-Progress, PBS,+) WP2 Modeling and simulation of complex power plant control, (UNIS, VZLU, SE Ivchenko-Progress,+) WP3 Innovation of electronic driven fuel pump/propeller (Jihostroj, UNIS, SE Ivchenko-Progress+) WP5 Affordable engine electronic control based on COTS technology (UNIS, SE Ivchenko-Progress, PBS, +) WP6 Engine instrumentation (sensors, energy harvesting,...), diagnostics and health monitoring (UNIS, SE Ivchenko Progress, VZLU, VUT, +....) WP7 Sub-systems integration, power plant system demonstration and test bed verification (SE Ivchenko-Progress, UNIS, Jihostroj, PBS, VZLU,+)	
Estimated budget *	5 mil EUR	
Project Coordinator	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
What are you looking for (a coordinator, partners, technology, other,...)? Please specify.	Potencial Coordinator, technological partners (SMEs), sensor and instrumentation technology for engine	
The person identified above confirms that the data provided in this form are correct and that permission is given to publish this data in the MatchMaking table located in the Workshop page.	Yes <input checked="" type="checkbox"/>	

* Not Mandatory