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To: 'Krzysztof PIWEK'
Cc: [Piwek Krzysztof](#)
Sent: Friday, November 20, 2009 11:33 PM
Subject: Letter for workshop

LETTER

Dear Mr. Piwek, dear all,

please apologize me for my absence in Brussels and allow me to use the opportunity to send you a few messages which I see as important part of workshop.

At first, let me inform you that we are continuing with the preparation of [level 2 project idea](#) aimed at GA sector. The idea is "Propulsion for small aircrafts". Taking into account suggestions from EC we have extended the scope of the engine subject on the complex propulsion system for small aircraft and asked aircraft manufacturers for direct participation. There are following reasons why we came up with propulsion oriented topic:

- 1) Engine oriented project is often difficult to properly cover by 5 mil. EUR budget.
- 2) We have engine makers currently prepared to "invest" significant money and effort into development of new family of engines for small aircrafts.
- 3) The aircraft manufacturers say that without new efficient engines they cannot make a significant step to radically increase their competitiveness.
- 4) The topic is highly relevant to both industrial competitiveness and societal needs like small aircraft reliability and environmental acceptability.

As far as other possible topics, for instance avionics for GA is covered by the current third call. Concerning other topics like the structure design we do not have at the moment any indications from industry to be fully ready for this topic, especially with regards to quite costly validation and demonstration activities, which are usually essential part of level 2 project. But I am convinced that the aircraft structure oriented topic for GA will be mature in next two years as well.

The availability of gas turbine engines (GTE) of smaller power category is very limited on the current markets; at certain category the certified engines simply do not exist, nevertheless demand is recorded. There is a worldwide growing need for efficient and environmentally friendly family of gas turbine engines with thermodynamic power range from 180 kW up to 1.5 MW. These categories of propulsion units are used to power small regional transport aircrafts, helicopters, transport utility aircrafts and future unmanned aerial systems (UAS). The aim of the project is to develop and validate technologies necessary for development of affordable, efficient and environmentally acceptable propulsion for small aircraft. This family of modern aero-engines (turboprop/turboshaft) will help to increase competitiveness of European aeronautical products on the global markets. In the lowest power category of certified turboprop and turboshaft engines below 200 kW, the ambition is even to achieve the world primacy. The project objectives are based on SRA2 principles, targeting mainly following goals: Improvement of Aircraft Efficiency (operation cost reduction), the Greening of Air Transport (reduction of NOx/COx, noise) and Ensuring Customer Satisfaction and Safety (decrease pilot load and reliability increase)

At the moment the consortium is being built. The key role will play engine makers and their systems supplier as well as aircraft manufacturers which are expected to be potential users of engine technologies developed by the project. The strong industrial core will use the specific expertise and skills of research establishments and universities. The major point of contact for the project is PBS, Czech engine and APU manufacturer.

Second issue is also very important - "How to join GA sector ?"

- 1) CESAR project showed that cooperation of GA sector is possible and fruitful, but it takes more time to be organized in a way as big industry.
- 2) The capacity and financial constraints of many companies of GA sector do not allow to work on networking and communication with the same intensity like big aviation industry.
- 3) I recommend that the initiative starts from existing bodies like ASD-EGAMA group (significant broadening of its scope) or transversal group of IMG4 (e.g.IMG4+)
- 4) I advise to build the GA stakeholders group mainly on industrial principles and interests, it means to join aircraft producers (but not only them), also engine, systems, equipment oriented producers for GA sector. The group of GA supporters represented today by research establishments, universities, individuals etc. may offer their skills and capacities, but they should not play a major role there.
- 5) The role of small aircraft in EU sky as a part of transport system should be solved separately from technology oriented projects of GA sector. And not mixing together as we unfortunately can continually witness.

Finally I very appreciate Mr. Piwek and his group initiative for GA sector and believe that CSA and some other project will be successful. We fully support progressive formation of GA community on European level because we suppose that it is one of the most important activities for better competitiveness of "small" European aircraft industry.

Faithfully yours

Josef Kaspar
General Director of VZLÚ
(The Czech Aeronautical Research and Test Institute -
Member of the Czech Aircraft Manufacturers Association)

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