



## Clean Sky Joint Undertaking

European Commission  
Research Directorates



### Call for Proposals:

### **CLEAN SKY RESEARCH and TECHNOLOGY DEVELOPMENT PROJECTS (CS-RTD Projects):**

### Questions and Answers

Issued on 06 July 2011

Call Identifier

**SP1-JTI-CS-2011-02**



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All questions regarding the topics published in this Call can be addressed to:

[info-call-2011-02@cleansky.eu](mailto:info-call-2011-02@cleansky.eu)

Questions received until **16 June 2011** will be analysed.

Questions having a general value, either on procedural aspects or specific technical clarifications concerning the call topics, when judged worth being disseminated, will be published in a specific section of the web site ([www.cleansky.eu](http://www.cleansky.eu)), together with the answers provided by the topic managers.

All interested applicants are suggested to consult periodically. The above mentioned mailbox is the only permitted channel for asking questions concerning this call.

All questions and answers having a general value, either on procedural aspects or on specific technical clarifications concerning the call topics, when judged worth being disseminated, are published in this document.

As stated in the call fiche, all interested parties are recommended to consult periodically the Clean Sky web site for updates to this document and any corresponding updates to the call fiche.



#	Question / answer
1	<p>The call refers to <b>a funding</b> between 50 and 75%.</p> <p>Could you clarify how a value not exactly 50 or 75 can be obtained?</p> <p>The single entity applying is eligible for either 50% or 75% depending on the legal status (for example industry or SME); in case of a consortium, both funding criteria will apply and the resulting funding will be an average of the two percentages, weighted by the actual contributions of each partner.</p> <p>Example: A topic worth 100 k€ is proposed by a consortium formed by an industrial partner, developing activities for 80 k€, and by an SME providing 20 k€ effort; the resulting funding will be 55 k€ (80 * 50% + 20 * 75%), i.e. 55%</p>
2	<p>When applying to one topic, must the applicant fulfil all the special skills, certifications and equipment listed in section 2 of the topic description? If one applicant cannot fulfil all the requirements, can a consortium be built so that the <b>consortium</b> meets all the requirements?</p> <p>Of course you can build a consortium if needed.</p> <p>With respect to usual Collaborative Research Calls, Clean Sky does not require a consortium as a constraint; even a single entity can apply. Of course, a consortium is also accepted.</p>
3	<p>What is the meaning of the <b>number of pages</b> for the proposal document, quoted in section Remarks in some topics?</p> <p>In some cases the ITD Topic manager has also estimated the expected size of the proposal document.</p> <p>This must be considered an indication only, with no value of selection criteria. The applicant must assure a thorough description of the capabilities and the way to fulfil the topic requirement, in the suitable number of pages as necessary.</p>
4	<p>Among the six <b>evaluation criteria</b> there is none which specifically mentions "<b>value for money</b>" or "costs". Is this element considered in the evaluation and if so, how?</p> <p>The Call Text quotes:</p> <p><i>As indicated in section 4.6 of the "Rules for Participation and Rules for Submission of Proposals and the related Evaluation, Selection and Award Procedures", each proposal will be evaluated on 6 criteria.</i></p> <p>The Rules for Participation quote:</p> <p><i>The proposal will be evaluated against six pre-determined evaluation criteria:</i></p> <ul style="list-style-type: none"> <li>- C1: Technical excellence,</li> <li>- C2: Innovative character,</li> <li>- C3: Compliance with the Call for Proposals specification and timetable (relevance),</li> <li>- C4: Adequacy and quality of respondent's resources, management and implementation capabilities and track record,</li> <li>- <b>C5: Appropriateness and efficient allocation of the resources to be committed (budget, staff, equipment),</b></li> <li>- C6: Contribution to European competitiveness.</li> </ul> <p>It is apparent that criterion n. 5 refers to the efficient usage of resources; so, by comparing two proposals, if both fulfil the topic requirements, but one at a lower total cost or with a more appropriate distribution of cost elements (as judged by the evaluators), it will receive a higher score in this criterion.</p>



	So, although not specifically mentioned, criterion 5 is used to evaluate the proposal from the point of view of "value for money".
5	<p>How should the cost of software for equipment needed during the development of the project be considered and are there any guidelines for the <b>costing of such elements after the end of the partner contract</b>, if they are still needed by the ITD?</p> <p><i>Basically all items required to perform the intended activity must be identified and quoted in the proposal; it is assumed that any costs for renting facilities, equipment or software, will be declared in the proposals as eligible costs.</i></p> <p><i>After the end of the contract, is the same facilities, equipment or software become items to be purchased or rented by the final user (the ITD), it is advised the applicant indicates the future potential costs so that both the evaluators and the ITD topic manager are aware of all implications of a proposal, both in terms of actual direct costs and future induced costs.</i></p>
6	<p>SMEs applicants are affected by the rule of the <b>20% Flat Rate for overheads</b>; it used to be 60%. Could you explain and justify the change and whether the previous value could be used again?</p> <p><i>The Clean Sky Financial Regulations only allow for either 20% flat rate without justification or real overheads, there is nothing in between.</i></p> <p><i>This was a choice made by all the JTI' and is currently applied.</i></p> <p><b>The adoption of (simple) accounting tools to allow tracking of real indirect costs is encouraged.</b></p>
7	<p><b>Does EU/CleanSky foresee audits during or after project execution?</b></p> <p>Two types of "audits" have to be considered</p> <p><i>1/ Certificate on the financial statements if no certificate on methodology is obtained with the Commission:</i></p> <p><i>It is defined in the "GAP Annex II, Section 2.4":</i></p> <p><i>At first reporting period where the total of <b>JU contribution requested by a single beneficiary is above 200 000 €</b>, a "Certificate on the financial statements" covering cost claims of considered reporting periods should be obtained from an independent third party and sent to the CSJU with the cost claim.</i></p> <p><i>Accordingly, the applicant should budget a "subcontract" for "Certificate on the financial statements" every time the total of the Cost Claims not already covered by the previous certificate reach 200 000 €, plus one certificate due at the end of the project</i></p> <p><i>2/ Ex Post Audit requested and conducted under the authority of CSJU:</i></p> <p><i>Theses audits, which will be at initiative of the CSJU or the Commission and will be executed randomly, will be financed by the CSJU or the Commission if executed at your premise.</i></p> <p><i>The applicant is not expected to budget any cost for it, but should keep accounting documents to support the Cost Claims issued during 5 years after closure of the project.</i></p>
8	<p><b>What about the licensing costs of the tools required performing the task? How and where should we list them within the cost sheet?</b></p> <p><i>"Investments", "Consumables", "Licensing" and "Travel" costs should be identified in <b>"Others Directs Costs"</b>.</i></p>



9	<b>JTI-CS-2011-02-SFWA-01-039 Changes to text</b>
	To verify this concept the correlation between surface geometry and scattering pattern <b>shall</b> be investigated in this CfP topic
	The due dates for the deliverables to be updated to the following: <i>01.03.12, 01.08.12, 01.05.13</i>
10	<b>JTI-CS-2011-02-ECO-01-030</b>
	<p>The topic should supply a nacelle part as a TRL demonstrator.</p> <ol style="list-style-type: none"> <li>1- Would it be possibly to name the part (e.g. Fan cowl doors would be something that would come to my mind)?</li> <li>2- If you cannot give out part details: Is it possible to get a more detailed description (e.g. curvature of the part; rough dimensions, especially part thicknesses)?</li> <li>3- What is expected from the design point of view and what will be supplied by the topic manager? Will there be an existing design that can be modified or should it be a completely new design, done by the partner(s)?</li> </ol> <ol style="list-style-type: none"> <li>1- Fan cowls are the type of parts targeted for the technology.</li> <li>2- The dimensions of a typical part can be: diameter = 2.5 m, length=1.5m, perimeter=3.8 m, skin thickness 3 mm and stiffeners thickness 4 mm.</li> <li>3- A detailed definition of the demonstrator is required. There can effectively be an existing design, as a baseline, that will be modified (specifically designed for the new process).</li> </ol>
11	<b>JTI-CS-2011-02-SFWA-03-009</b>
	<ol style="list-style-type: none"> <li>1. Does have the assembly/disassembly procedure an evolution?</li> <li>2. In the picture on page 91 seems that the platform doesn't goes upside the wing. It is just a schema or it reflects the idea of the platform?</li> <li>3. No electrical or hydraulic system is mentioned into the topic. At the moment, are they not considered?</li> <li>4. In order to evaluate which tooling items could exceeds the weight limit of 25Kg, a weight list could be necessary. Could be shared a preliminary weigh list?</li> <li>5. Based on key milestone and dates, could we assume that isn't necessary a support in the period between Dec-June 2013, during the flight test?</li> </ol> <ol style="list-style-type: none"> <li>1. <ol style="list-style-type: none"> <li>a. The existing outer wing will be removed using the jig to support it and maintain stability in the joint</li> <li>b. The existing outer wing shall be stored for later return to the test aircraft</li> <li>c. The transition structure will be assembled <i>in situ</i> to the interface with the existing inner wing</li> <li>d. The completed transition structure shall provide the interface for the new NLF outer wing</li> <li>e. The tooling shall then be used to accurately locate the new NLF wing for join-up and support it throughout the jointing operation</li> <li>f. Following the flight tests the tooling shall then be used to remove the NLF wing</li> <li>g. The transition structure shall be disassembled and the interface with the existing wing returned to its original condition</li> <li>h. The existing outer wing shall then be replaced thus returning the aircraft to its full original condition</li> </ol> </li> </ol>



	<ol style="list-style-type: none"> <li>2. The image shows support only on the underside of the wing, this is only a very basic scheme. The tooling shall be designed to hold the wing with sufficient stability to allow for the very accurate root joint attachment to be completed.</li> <li>3. The hydraulic and electrical systems requirements are still being defined. It is however not envisaged that any significant tooling would be required for these.</li> <li>4. We are not in a position to provide the component weights for the wing or transition structure. It should be an objective to minimise the number of tools or fixtures which are in excess of 25kg and those exceeding this limit should have lifting points as outlined in the spec.</li> <li>5. There should be no requirement for support during the flight test campaign.</li> </ol>
12	<p><b>JTI-CS-2011-02-SFWA-01-040</b></p> <ol style="list-style-type: none"> <li>1. Is the delivery of both leading and trailing edge skins mandatory or is the delivery of a single representative shape morphing skin being also used for model verification within the scope of this SFWA ITD?</li> <li>2. Are there specific requirements for the types of structural finite element tools to be applied?</li> <li>3. Shall the focus be on the shape variable skin, or shall modeling and simulation of the actuation kinematics and its interaction with the structure be part of the tool as well? If yes, is there a preference for a type of simulation and tool?</li> <li>4. Aerodynamic loads simulation: is for the design tool to be developed an interface to a specific CFD code required? Are the flow conditions to be based on the provided low fidelity aero-elastic model? Are the provided aero-elastic models sufficient for loads determination and required aero-elastic analysis?</li> <li>5. Related to "aerodynamic and laminate optimization tool": shall the optimization of the aerodynamic shape be part of the activity and the design tool?</li> </ol> <ol style="list-style-type: none"> <li>1. A single demonstration item will be sufficient.</li> <li>2. No requirements on the FEM tools. Suitable type of "analysis" must be demonstrated and verified.</li> <li>3. The focus is not on actuation kinematics. The focus is on the interaction between actuation and skin.</li> <li>4. Low fidelity CFD tools should be sufficient for the proposed work. Interface to more sophisticated CFD tools will be considered a plus.</li> <li>5. The aerodynamic shape will be specified by the ITD partners. No aerodynamic shape optimisation necessary or recommended.</li> </ol>



13	<b>JTI-CS-2011-2-ECO-01-028</b>
	<p>1- We would like to know if the reference part for the demonstrator is a Mg alloy sheet as the title of the topic indicates and what would be the dimensions? Otherwise, can it be any Mg alloy component or do the EC have a specific component in mind?</p> <p>2- Is there any additional information we can get regarding the technical requisites of this topic?</p> <p>3- Are there any other institutions/companies interested in this topic and known to the EC?</p> <p>1- The demonstrator could be suggested by the selected partner or the topic manager could supply the demonstrator that the conductive coating will be apply on, therefore the dimensions are not important that much. The topic manager would like to fine a conductive coating on WE43 (Elektron43) or similar alloy (similar refers to mechanical properties)</p> <p>2- Please ask specific questions on which additional details you would like to know.</p> <p>3- The question is out of scope with respect to this document. If you are looking for a partner please refer to the area "Seeking partners?" under Calls on the CleanSky website.</p>
14	<b>JTI-CS-2011-2-ECO-01-030</b>
	<p>1- Deliverable 4: Nacelle. Is this Nacelle defined yet? If yes, what will it be its size and characteristics?</p> <p>2- Will the trials, tests etc make by the enterprise or by ITD (as furthermore in the remarks is indicated that the tooling shall be delivered at ITD facilities for the time it will take for the manufacturing of the demonstrator). And really, what is the meaning of this delivery? Must the work continue in ITD facilities by the subcontracting?</p> <p>1- Fan cowls are typically the type of parts targeted for the technology; the dimensions of the parts can be : diameter = 2.5 m, length=1.5m, perimeter=3.8 m, skin thickness 3 mm and stiffeners thickness 4 mm</p> <p>2- Manufacturing and tests shall be performed by the selected partner at the partner's facilities.</p>
15	<b>JTI-CS-2011-2-ECO-01-028</b>
	<p>It is stated that a conductive layer should be formed with a conductivity of &lt;math&gt;&lt;5000 \mu\text{Ohm}/\text{inch}^2&lt;/math&gt; (this is in agreement with MIL-DTL-81706B) however <math>\mu\text{Ohm}/\text{inch}^2</math> is not a unit of area conductivity should we take it to mean <math>\mu\text{Ohm}.\text{inch}^2</math> (so that <math>5000 \mu\text{Ohm}.\text{inch}^2 = 32\,300 \mu\text{Ohm}.\text{cm}^2</math>)?</p> <p>The unit for area should be take into account as <math>32\,300 \mu\text{Ohm}.\text{cm}^2</math></p>
16	<b>JTI-CS-2011-2-ECO-01-026</b>
	<p>What do you refer to "« infinite wire » weaved from the bamboo fibers"? For us it is a bit confusing because the fiber could not be weaved... it only could be only used the spinning process... Do you refer to a continuous thread (a filament) or maybe to a one-way fabric? Could it be possible it could be expressed incorrectly?</p> <p>The main goal of the development would be to obtain a weaved fabric made of bamboo fibers. This fabric could be manufactured following these different steps :</p> <ul style="list-style-type: none"> <li>- Extraction of the bamboo fibers form the plant</li> <li>- Manufacturing of a bamboo wire (using the spinning process for example)</li> <li>- Weaving of a bamboo fabric using the bamboo wire (for ex: tweed, sergé, etc...)</li> <li>- Impregnation, mechanical testing, etc.</li> </ul>





	<p><b>JTI-CS-2011-2-ECO-01-028</b></p>
17	<ol style="list-style-type: none"> <li>1. Please confirm that the demonstrator for D6 is a sheet of Mg Alloy and if so what size the demonstrator might be and what size the final component might be.</li> <li>2. If not a sheet, please provide an indication of the surface geometry or identify a typical component.</li> <li>3. Please confirm the demonstrator substrate material or component will be provided by a Clean Sky consortium member. If not, who will supply the material or component? How much budget (% of total) should be put aside for D6?</li> <li>4. Please advise whether the call is open to non-line-of-sight methods such as coating processes undertaken in a fluid or gas (specifically anodising, plasma electrolytic oxidation or other wet process, CVD or similar).</li> <li>5. Please confirm that the call is open to line-of-sight coating methods such as spraying processes.</li> </ol> <hr/> <ol style="list-style-type: none"> <li>1. It is confirmed that the demonstrator is sheet of Mg alloy. The size is not critical but it should be representative enough for a/c parts. Therefore the size of the demonstrator should be around 20mm by 30mm (samples for tests may be less than that size).</li> <li>2. Sheet is preferred; the geometry should take into account bending radii, beads and holes.</li> <li>3.1 The provision of the demonstrator substrate material should be agreed by both topic manager and selected partner during the negotiation phase due to the technology that the selected partner suggest. The option that the Topic manager will provide the substrate is not eliminated, but I don't want to lock this option or force each side about it. I think that this one of the things that should be discussed in the negotiation phase.</li> <li>3.2. About the budget, the division of the budget should be decided by the applicants, because he knows the best of his resources within the company. For example, maybe he has a mechanical lab in his facility so the invest of the budget in tests is almost nothing and than he has more budget for other activities, but if he isn't have mechanical lab and he needs to go out for a lab, he will need more budget for that activity. What I'm trying to say is that the call doesn't indicate how to divide the budget.</li> <li>4. This call is open to any method of coating as long as the main objective of the call is answered. The aviation doesn't check the method; it checks the resistivity in salt spray cell for number of hours as the aviation criteria requests. Therefore, it could be CVD, PVD, anodizing, chemical solution, etc.</li> <li>5. Same answer as in 4, as long as the objectives are achieved, there is no constraints to use specific methods.</li> </ol>
18	<ol style="list-style-type: none"> <li>1. Regarding D2: Are there certain standards for the static and Wöhler tests or are we allowed choosing the ones we are most experienced?</li> <li>2. Regarding D2: please explain the meaning of "Rough of Magnitude as environmental aspects"?</li> <li>3. Regarding D6: of which size will the reference parts be?</li> <li>4. Regarding the conductive coating: should the coating be in conductive/galvanic contact to the substrate or otherwise be applied on a corrosion-coated surface?</li> <li>5. Regarding the magnesium sheet material: will this be supplied by you, the ecodesign team?</li> <li>6. Regarding the aviation paint system: will this be supplied by you, the ecodesign team?</li> </ol> <hr/> <ol style="list-style-type: none"> <li>1. You are allowed to choose your standards as long as you answering the ASTM limitation. The aviation is testing under ASTM standards and the ASTM allows varied types of testing modes and samples.</li> <li>2. We understand that accurate calculations of environmental analysis of the process are not real, so we are asking to measure as much as possible or at least estimate the energy required</li> </ol>





	<p>for the coating process and the by-product of the process.</p> <p>3. The reference part should demonstrate real a/c part, and therefore it should be a Mg sheet, around 300mm by 400 mm (1.6mm or 2 mm thickness) that will have some drilled holes to represent fasteners that will be attached and should have at least on bended side to 90° (the bend should be no more than 20 mm - 30 mm from the end of the selected side).</p> <p>4. It should be in the galvanic contact and could be on the corrosion-coated surface on selected areas. The objective is to have conductivity, so we're not forcing to coat all the part, you can coat on selective areas but the contact point must be with conductive coating.</p> <p>5. The ecodesign team can supply some of the sheets but not for all programs. The selected partner should perform his own calculation and define how many part he needs for the testing and for the research. Certainly help can be provided in some way, but that should be discussed in the negotiation phase.</p> <p>6. The applicant should do the painting. Please refer to MIL-STD that explains how to paint and what types of paints are approved for aviation.</p>
19	<p><b>JTI-CS-2011-2-SAGE-03-012</b></p> <p>Regarding the materialization of the pipe system: is it meant that it will be flexible (like rubber tubes) or stiff (as bended steel pipes). The question arises because of the information on the pipe bend radii in the table of task 3.</p>
	<p>The nature of this CfP topic is to investigate non-metallic material piping technologies. The supplier is encouraged to issue a proposal on any non-metallic material as long as it meets the specifications laid down in the table of task 3. However, it is Topic Manager's preference that a 'stiff' material be proposed rather than a flexible like rubber.</p>
20	<p><b>JTI-CS-2011-02-GRC-01-007</b></p> <p>The speed of operation of the Gurney flap should be <b>60 Hz, not 3,200 Hz</b> as is currently stated.</p>



21	<p><b>JTI-CS-2011-02-SFWA-01-039</b></p> <ol style="list-style-type: none"> <li>1. Why is ultrafast spectroscopy mentioned whereas the emphasis on the detection method is put on scattering patterns that are usually obtained with continuous-wave lasers?</li> <li>2. Why is this ultrabroad spectral range required (UV/VIS/MIR)?</li> <li>3. The degradation features of the riblets are said to be on the order of <math>\mu\text{m}</math>, but which are the typical riblet overall dimensions that should be analyzed by the system?</li> <li>4. In the 3rd deliverable it is expected a report on "Experiments to select suitable laser system". How should it be understood? Should more than one approach be investigated experimentally to select the most appropriate one or can the choice be made based on theoretical analyses?</li> <li>5. Is it possible to have some information on the Riblet material to be delivered by the Clean Sky partners (e.g. surface profile: pitch/step, average size of the microstructure, height of the microstructures ...)?</li> </ol>
	<ol style="list-style-type: none"> <li>1. Ultrafast spectroscopy is mentioned because also pulsed laser systems shall be included in the CfP.</li> <li>2. All spectral ranges that are mentioned above have advantages/disadvantages concerning resolution and application in industrial environments. It is the aim of the project to identify the most suitable spectral range for the given application.</li> <li>3. In the end the realisation of riblet inspection will take place on larges surface areas (aircraft fuselage, aerofoil).</li> <li>4. Besides theoretical analysis it is resonable to study advantages of different laser systems experimentally.</li> <li>5. Example of relevant riblet geometry: height of riblets: 50 <math>\mu\text{m}</math>, width of riblets: 40 <math>\mu\text{m}</math>, tip distance: 100<math>\mu\text{m}</math></li> </ol>
22	<p><b>JTI-CS-2011-02-SFWA-02-017</b></p> <ol style="list-style-type: none"> <li>1. Does the boundary layer scooping concept involve surface suction or blowing or both?</li> <li>2. What is the level of suction or blowing quantities required?</li> <li>3. What is the location and surface extent of suction or blowing?</li> <li>4. Is suction or blowing through slots or porous surface?</li> <li>5. What is the size of the wind tunnel pylon model required?</li> <li>6. In WP2, dose the statement 'parametric studies of the advanced scooping and boundary layer transition effects', mean measurement of the boundary layer transition from laminar to turbulent or the effect of the pylon wake thickness due to the advanced scooping?</li> <li>7. In WP4, does the advanced scooping in harsh environment mean flight or wind tunnel environment? Since the deliverables D2.2.2.1-2 - 03 required In-flight PIV final report.</li> </ol>
	<ol style="list-style-type: none"> <li>1. Concept of advanced noise reduction solution will be provided to the applicant and is not disclosed for Intellectual property reasons. It is a device that is aiming at reducing pylon viscous wake in the most efficient way possible.</li> <li>2. The level required is the level that allow to best reduce pylon viscous wake under critical community noise (far field noise) flight conditions.</li> <li>3. It is up to the applicant to adapt the concept to the most efficient solution, taking into account typical physical constraints from the pylon (torsion box for instance). The spanwise extent is a matter of optimization as well but shall typically cover blade spanwise distance.</li> </ol>



	<p>4. Proposed concept will not fully define the solution. This could be within the design space.</p> <p>5. The model shall be sufficiently big to capture the physics: acceptable Reynolds Number and manufacturing tolerance. On the other side, it shall be compatible with an affordable Wind Tunnel within the budget of this CFP.</p> <p>6. The Reynolds effect on the pylon wake is significant therefore testing with various laminar to turbulent boundary layer transition location is required.</p> <p>7. Harsh environment means flight representative environment, simulated in wind tunnel thanks to vibration environment simulators.</p>
	<b>JTI-CS-2011-02-GRA-03-005</b>
23	<p>1. Could you provide further details regarding normal and emergency operation? · Aircraft power supply capacity and network types are essential to focus on a detailed proposal. Could you provide additional info regarding the above mentioned normal and emergency operation types?</p> <p>· It's not clear in the call text if a distinction between emergency extension and extension by gravity exists. Could you tell us if both are equivalent?</p> <p>2. To assure extension by gravity, a mechanical device for EMA release from retracted position shall be designed. Could you please clarify if an anti-jamming system is specifically asked for the screw?</p> <p>3. Considering electrical failure, could you provide an estimation of the expected failure rate?</p> <p>1. MIL-STD-704F shall be referred for A/C supply in normal and emergency conditions.</p> <ul style="list-style-type: none"> <li>■ Yes, they are equivalent. For certification purpose a Landing Gear actuation system must have an emergency "mean" for extending the LG in case of failure in the normal system or of the associated energy power supply source. On conventional/mechanical LG systems, the emergency extension is mainly assured by gravity and if necessary assisted by auxiliary means such as spring, gas assister, etc... Since the CfP focuses only on actuator development we should simulate the emergency extension somehow through the test rig.</li> </ul> <p>2. Yes, an anti-jamming device is requested. The jamming case is considered as a mechanical failure that could prevent LG extension in both normal and emergency conditions.</p> <p>3. Considering electrical failure of the actuator only, and its final application objective, the target failure rate shall be comparable to the current hydraulic actuators figure (i.e.: <math>1 \times 10^{-6}</math>). If the state of the art is not yet ready to assure this figure for EMA, the most approximate value shall be provided and analytically substantiated.</p>
	<b>JTI-CS-2011-2-ECO-01-026</b>
24	<p>In this topic it is targeted to develop a Bio-Resin. Is it aimed to Thermoset Resin or Is it open to Thermoset/Thermoplastic ? The question come from the fact that it talk about curing and delivery of 2 litres, when in thermoplastic it is more typical to talk about Kgs?</p> <p>The resin chemistry can be thermoset or thermoplastic, and so the 2 L batch can either be 2 Kg. The most important characteristic specified in the CFP is the wet Tg &gt; 120 °C.</p>



	<b>JTI-CS-2011-2-ECO-01-029</b>
25	<p>In order to apply on your topic two different participants configurations could be imagined: -a consortium of SLM/EBM machines manufactures, partners from Research and Development department, research laboratories (characterisation of manufactured parts), subcontractors; OR - the subcontractors that possess the SLM/EBM machines?</p> <p>There are no specific rules to build the consortium. It is up to the coordinator of the proposal to form the "best" consortium in order to answer the CfP.</p>
	<b>JTI-CS-2011-2-SFWA-03-009</b>
26	<p>1- is the applicant responsible for the supports necessary to support the wing sections closer to the root (away from the operation area)? 2- what is the total weight of the new wing section and interface parts? 3- we are assuming the assembly hall is a controlled environment; can you provide this information (room temperature, etc) 4- who is responsible for the assembly and disassembly of the wings? 5- what is the current and future connection type of the new wing section to the structure (rivets, bolts, ...)? 6- can you detail the drilling operations mentioned in the activity list (number of operations, travel, etc) 7- can you supply any further drafts of the current/future assembly?</p> <p>1. Yes 2. Around 2,000 kg. 3. No. The hall is a maintenance hall. It can be done if required with specific installation. 4. Airbus is responsible for this activity. 5. All joints, current and future, are bolted joints. All joints are aluminium except for one location which will be an aluminium/carbon hybrid. 6. Current level of design maturity does not enable this degree of detail, however it is anticipated that drilling operation will be a mixture of manual and semi automated (positive feed drill machines) through bushed fixtures with hole diameters ranging from 1/4 to 9/16 7. No further details can be released at this time</p>
	<b>JTI-CS-2011-02-SFWA-02-016</b>
27	<p>In SFWA, the definition of large wind tunnel tests is done on the basis of the recent results of numerical studies, smaller research type tests, and results achieved in other co-current R&amp;T projects, which is why the detailed definition of the content is not complete yet.</p> <p>Based on the outcome of work done up to now, it has become clear that another important test has to be done in the ETW on similar aspects, as explained in the topic description.</p> <p>As a result, candidates are encouraged to consider being flexible during the negotiation phase with respect to the features of the model.</p>