**General comments and recommendation for the project: \_\_\_\_DEBUR\_\_\_\_\_\_\_\_**

The final evaluation of DEBUR experiment, after the onsite visit, is very good.

During the session, experimenters presented the tasks developed during the project, with the initial objectives and the final results. Those results fulfilled the expectations at the start of the experiment.

The goal of the experiment was to design and set up an automated robotic station prototype for laser deburring of metal casting 3D parts and it has been accomplished.

As a solution, experimenters have developed a flexible, low-maintenance and environmentally friendly automated laser deburring prototype, able to replace the current hydraulic deburring machines and manual operations of casting industries, focused on aluminum components with different geometry and burrs thickness (< 2.0 mm).

After some deviations regarding the initial proposal, the most important achievements are:

\* Cost reduction up to 20% per part for the deburring operation (to be measured 1 year after end of experiment).

\* Volume of new lubricants and abrasives reduced by 30% (to be measured 1 year after end of experiment).

\* Reduction of scrap parts by 30% (to be measured 1 year after end of experiment).

\* Regarding the improved quality of the resulting parts, lower protrusion and smoother surface (roughness), they have obtain difficulties to achieve this impact, mainly when trying to reduce the protrusion and maintain it below 0.2 mm. They argued that this quality was limited by the loss of precision of the robot system used because the deburring trajectories require long robot axis movements for small displacements of the TCP (Tool Center Point). The experimental results presented during the discussion confirmed this argumentation.

Experimenters provide means to measure those achievements.

Experimenters visit the Bristol RIF although some difficulties in the contact and execution of the visit.

The documents (deliverables) have been uploaded in the ECHORD portal though some delays.

During the evaluation session, a live demonstration of the prototype and functioning has been shown. The developed system performed the tasks very good demonstrating the feasibility of the pre-industrial solution.

We consider that the experiment passes the evaluation with a very good mark.