

## **ABSTRACT**

*PT. Dirgantara Indonesia (Indonesian Aerospace, IAE) is a state-owned company engaged in the aircraft manufacturing industry. Currently, PT. Dirgantara Indonesia had problem with the project's single aisle Dnose component with part Door FS Root A320 managed by Division of Program Management and Planning, which can not meet the target realization of customer demand in a timely manner. In the production process Door FS Root A320, was found waste transportation at machining area of production floor which affect the target realization of production. Based on data from the company, the target realization Door FS Root A320 production from January to September 2015 only reached 94%. Therefore, it should be designed an improvement proposal that is useful to minimize waste transportation in the machining area with lean manufacturing approach.*

*The research begins with the collection of primary and secondary data were processed so as to give the results of Value Stream Mapping (VSM) and Process Activity Mapping (PAM) is useful to provide information about the flow of information and material production processes Door FS Root A320. The next step is identification waste with fishbone diagram and 5 why. The final step is problem solving for each root cause of waste transportation can apply the material handling system.*

*Based on the application of the material handling system, the proposed improvements obtained in the form of allocation of material handling equipment for each area of production floor, procurement of preventive maintenance for material handling equipment and material handling systems implementation which refers to the principles and the proper handling of material handling in the machining area.*

*Keywords: Lean Manufacturing, Waste Transportation, Value Stream Mapping, Process Activity Mapping, Material Handling Systems*