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DOCTORAL DISSERTATION SUMMARY

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Application of selected means and methods for obtaining and processing the data for the needs of advanced quality planning taking into consideration the client's needs as an element of production preparation, illustrated by an example of a selected branch

The project of launching a product in serial production is a very important element of the company's activity. A successfully completed implementation project provides a possibility of taking subsequent production orders.

The subject of the dissertation is research on increasing the effectiveness of production implementation projects by completing the procedural gap in the area of communication, as well as increasing the assortment flexibility of Polish producers of car spare parts in response to the changeable trends of the automotive market.

The works described in the dissertation resulted in developing a concept of a new, universal model of advanced product quality planning to be applied by suppliers, based on the previous APQP model of AIAG association. This concept was verified on the basis of the results of investigations into the use of CNG as an ecological and alternative fuel for the automotive branch.

The developed model will increase the effectiveness of projects related to the launch of new products for mass production, with particular focus on the automotive branch, in two aspects:

1. Supplementing the stage of collecting the input data necessary to plan the project with an analysis of final users' needs. Knowledge on the users' needs will be a starting point for designing and developing own constructions of a product. The possibility of designing one's own product that responds to the emerging market trends is aimed at making the suppliers of parts and subassemblies more independent of corporations, as well as enabling them to propose their own technical solutions while being the owners of know-how.

2. Adding a method of design risk classification which takes into consideration the design team's communication and co-operation. Classification of risk concerning the design team applied in design checkpoints takes into account the important aspect of effective communication and co-operation. Information on the chances and threats to the design influences the scope and type of support that the team members can provide to each other. This translates into the team's skill of dealing with a crisis.

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