

# **Industrial Clinic for Improving Productivity of Cast Aluminum at IKM Yogyakarta and Key Performance Indicator Achievements of UNY**

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## **ABSTRACT**

CV. C-Maxi Alloycast is a cast aluminum company in Yogyakarta which has a collaboration with Yogyakarta State University (UNY) in the diversification and productivity of cast aluminum products. The main problem with partners is that the number of consumers has decreased due to insufficient product innovation, less competitive product quality, less competitive prices and the absence of an industrial clinic as a forum for consultation. Viewed from the aspect of work culture, there are problems related to HR, namely competencies that tend to be stagnant and require improvement in work SOPs, as well as CV. C-Maxi has not applied an optimal work culture, especially 5R and K3 as a whole for each of its divisions. The solution to solving this problem is to implement an Industrial Clinic as an effort to increase the productivity of the aluminum casting business. The Matching Fund program aims to: (1) innovate casting aluminum bicycle component products; (2) innovating the product design of casting aluminum motorcycle wheels; (3) innovating wok products; (4) applying appropriate technology for energy efficiency with smart burners; (5) accompany the implementation of SMK3; and (6) to become a center for innovation and research on cast aluminum. The implementation of the Matching Fund program is from August to December 2022. This activity has resulted in the main output being the establishment of an industrial clinic. Each activity produces outputs including casting prototypes of tricycle electric bicycles along with publications and patents; prototypes, industrial design intellectual property rights, and publications related to motorcycle wheels; prototype and HKI aluminum frying pan; prototypes, industrial design intellectual property rights, and publications related to aluminum smelting; HKI textbooks on application of SMK3 in Industry; and Books of academic texts which are transformed into guidebooks and HKI books. The constraints faced in general were the process of disbursing funds which was a bit late which disrupted the smooth schedule of activities that had been planned. Another obstacle is the limited availability of electric motors and controllers for three-wheeled electric bicycles. The synchronization of implementation time between lecturers, students and industry practitioners is quite complex because each has its own schedule of activities such as lecture schedules for lecturers and students, as well as production targets for industry. In general, the use of funds has been carried out according to the agreed plan. The total budget that has been spent is IDR 753,364,000 for six activities. While the budget from partners is still in kind in the amount of IDR 970,000,000. The parties involved include C-Maxi Alloycast partners, students, lecturers, and industry practitioners. This activity has resulted in an increase in the quantity of MBKM students. This program also involves more than 60 students who are converted into subject recognition, such as final assignments, technology works, teaching practitioners, and 30 lecturers who are active outside the campus. Each activity has an output target in accordance with the contract and a total achievement of 100%.

Kata Kunci: *Industrial clinic, aluminum, cast, productivity, IKM*