

# EARLY ADOPTERS PROGRAMME: SUCCESS CASE

The Laboratory for Manufacturing Systems & Automation Department of Mechanical Engineering and Aeronautics (LMS) at the University of Patras has implemented close-to-market services to external companies within the framework of the DIMOFAC project.



## SUMMARY

This factsheet is the result of the interview done with Christos Papaioannou and Fotis Basamakias from LMS who collaborated to implement pioneering technological solutions through DIMOFAC to external companies to offer a test before invest market validation for the services offered.

LMS was involved in milling chatter monitoring system and led the development of a vision-based robot grasping solution. LMS seamless integration and meticulous testing resulted in enhanced operational efficiency, improved quality control, and cost optimization. **These innovations demonstrate how technology has the potential to significantly transform and drive advancements in the industry.**

## SOLUTIONS IMPLEMENTED

### 1. Milling Chatter Monitoring System

Christos introduced a low-cost cutting-edge milling chatter monitoring system, enabling the in-line and real-time assessment of "chatter" phenomenon, ensuring consistency, reliability and traceability of chatter-related defects.

### 2. Vision-Based Robot Grasping Solution

Fotis led the development of a visionary robot grasping solution, leveraging advanced machine learning algorithms. This solution empowered robots to efficiently identify and manipulate parts, optimizing assembly procedures with unparalleled accuracy.

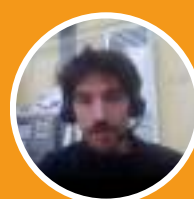
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**"Our collaboration with the beneficiaries was seamless,** from discussions with directors to hands-on testing with operators.

Their engagement provided **invaluable feedback,** enriching our understanding of real-world applications."



**CHRISTOS PAPAIOANNOU**  
Research Engineer at LMS



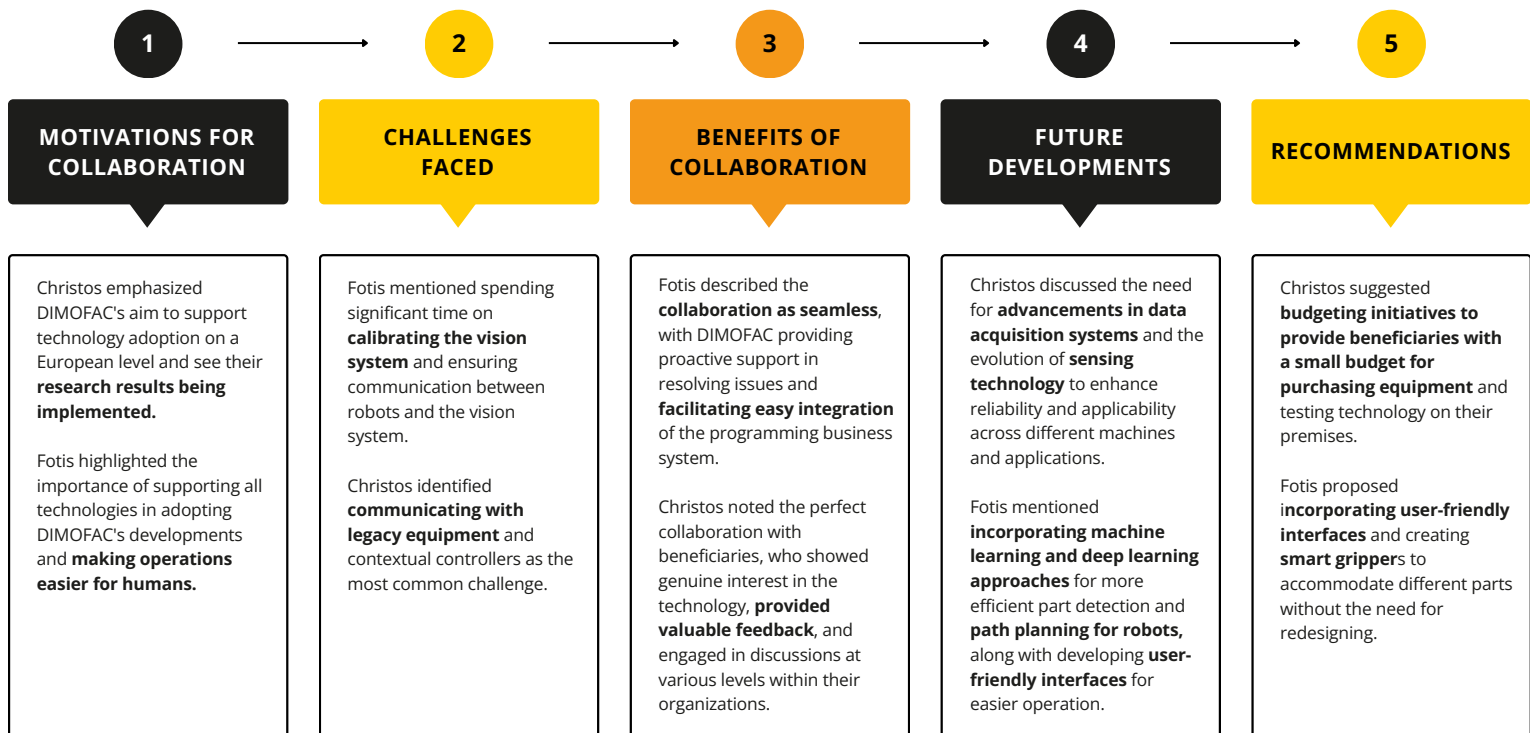
**FOTIS BASAMAKIS**  
Research Engineer at LMS



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## KEY INSIGHTS



## TAKEAWAYS

LMS has shown that **working closely with those who benefit from their technology has been crucial** in making sure it works well in **real-life situations**.

By working smoothly together and with the people who benefit from their work being eager to try out new ideas, they've created **solutions that fit exactly what's needed**.

The feedback LMS has got helped them understand **how their technology can be used in practice**, and it's has also given them ideas for making it even better in the future.

**This shows how important it is to test technologies out in real situations and to work closely with the end-users who will be using the technology to keep making it better.**

