

MICA PROJECT

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by CENFIM, PORTUGAL

The Metalworking Industry is the biggest export sector in Portugal (16,400 M € Exports) and the largest sector of all manufacturing industries (18% Gross Domestic Product). It is mainly composed of small and medium-sized enterprises (approximately 20,000 companies in total); and employs around 200,000 workers. It is a very active sector and has sustained a remarkable growth - even in the recent period of economic crisis, this sector did not cease to grow its production and exportation, in counter cycle with the global economic scenario at that time.

The greatest impact of this "crisis of growth" perhaps results on the demand of skilled labor. At the end of last year the Companies Sector Association announced that the sector is demanding for more than 20,000 workers. CENFIM, as the reference Training Center for the sector, and created by a protocol between the government and associations of the sector, has to be necessary committed to this objective, although it means having to face a challenge in the near future.

As the largest sectorial training center in Portugal, CENFIM qualified about 12,000 trainees in 2017, around 2/3 of these trainees are workers in updating processes by means of short term courses; and 1/3 are young people and adults who attend medium and long-term courses (with emphasis on dual training) aimed for qualification and accessing to the labor market of the metalwork sector. Despite these exceptional activity indicators, it is clear that faced with the demand of skilled labor, we are having pressing need to increase even more these values.

There is, however, a low appeal for this type of profession (manufacturing sector), what is common to all Europe. Therefore we have been focusing on strategies that make this sector and the associated professions more appealing, and we have studied which factors could be the cause of the lack of interest in the training.

We have identified two fundamental vectors in regards to the two populations of trainees we have:

- In the Active people training, there's low participation in the short-term courses for retraining and updating.

Presently the training rate of the workers is around 10% of all active population (in line with the European average). The main factor for this absenteeism is the lack of time, according to the response in our training needs surveys close to companies and workers. In fact, to conciliate the learning effort with professional and personal availability is becoming more and more difficult nowadays. Thus the solution would be an individualized response, where the trainee could choose the best moment to start his training and the most suitable timetable in regard to his own availability. It is indeed a personalized / individualized training, that represents an ambitious challenge for the Training at the pedagogical and the organization levels.

- To make young people and adults training more appealing in medium / long-term qualification courses, to face the increasing difficulty to recruit new professionals to the sector which begins to be a real problem. Here, to change the image of the sector (usually associated with old manufacturing environments) and to value the technical skills are fundamental. But not just that. It is also necessary to modernize training methods and learning resources, innovate them, incorporate the XXI Century technologies and create learning challenges which would render to the trainees a more active and creative role in the learning process, rather than the passive postures we have become accustomed to.

These two above mentioned approaches can and have been combined in a project that CENFIM has developed in 2015/2016 with a European partnerships. This project has produced new training strategies and a truly set of innovative resources in the CNC area, which does not only effectively allow to individualize the training (regarding timetables, start and end dates, pace and learning styles), but also introduced more stimulating learning resources and proposals, as they are designed on Learning outcomes based and Work Based Learning / Project based Learning approaches.

The MICA Project was an opportunity to improve the resources of this new and innovative training workshop, but also helps to test and explore yet again, its learning outcomes. In this respect, it should be noted that the course carried out in Portugal under MICA, and described in a due document, has greatly contributed that CENFIM could offer nowadays this type of approach to the market, and be prepared to extend its framework to other technical training areas and to other training entities, also in a European scope.

The participation in MICA, still within these two purposes, was very important to witness different and innovative processes and approaches practiced by the partners. From the outcomes of the evaluation, we believe that the experience provided to the trainees and trainers by the workshop in Portugal has been highly valued, and this fact leads us to think that the approach of training with focus on the trainee (in terms of pedagogy, time schedule and learning pace), must have continuing development.