EDUCATION, TRAINING AND MOBILITY: TOWARDS A COMMON EFFORT TO ASSURE A FUTURE WORKFORCE IN EUROPE AND ABROAD

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ABSTRACT

The paper highlights the main features of some Euratom projects, which have been running recently in support to education, training and mobility in the nuclear fields. The described projects address various critical aspects of nuclear knowledge management, aiming at maintaining the wealth of nuclear expertise in Europe in an environment characterised by decreased attractiveness of nuclear careers. In an effort to broaden the cooperation and to further extend the opportunities for mobility, some projects ran in parallel with similar initiatives undertaken beyond the European borders. The lesson learnt in terms of successes achieved and critical aspects revealed by the different actions are finally discussed also considering recent recommendations and assessed scenarios by the European Commission for the decarbonisation of the energy sector.

1. INTRODUCTION

Since the early days of its technological deployment, nuclear energy has been the subject of both enthusiasm and aversion. The mass intensive characteristics of nuclear energy is in fact perceived alternatively as an opportunity or a deterrent, the latter view prevailing in public opinion in the periods after the occurred nuclear reactor accidents, despite of any serious technical reflection about the causes of the faulty occurrences. This situation of biased feelings is cyclically weakening the effectiveness of efforts devoted to keep and develop an adequate nuclear workforce, creating a generally unfavourable environment for attracting young human resources to the related careers.

The results of this known phenomenon range from the presence of fluctuations in the availability of nuclear personnel with the requested skills and experience to a general shortage of adequate replacements for retiring “experts” (see, e.g., [1-2]). However, the group of experts in specific nuclear disciplines is not the only one that must be considered critical; in case of new builds, in fact, also skilled personnel in disciplines other than the nuclear ones, who have anyway to operate in the nuclear sector (e.g., civil, chemical, electrical, mechanical engineers, etc.), may be found lacking in the appropriate number. In this regard, it must be considered that the personnel with these “generic skills”, owing to the fact that they do not pertain