

LEONARDO Pilot Project

Metallurgical Training On-line

(METRO)

Abstract

The specific objective of the project was the realisation of Training Courses on Metallurgy, which could be easily participated by those (already employed or waiting for a job) interested in developing and widening their knowledge on this special topic. Perhaps, it is not strictly needed to specify the leading role that metallurgical (or however correlated to metallic materials) aspects play in the industrial field (manufacturing and transformation processes, semi-finished products, finished components, etc.); it is however fundamental to recall that, in this specific field, up-grade and innovation are really essential for workers, technicians, engineers, managers. This need is witnessed by the fact that the Italian Association of Metallurgy (i.e. the promoter of this project) has observed a continuous growth in the number of Courses requested (and organised) and of Participants (the data are: 21 Courses with 860 participants in 1995, 37 Courses with 1720 participants in 2000, 53 Courses organised in 2003). At the same time, there is, in the industrial field, an increased attention paid to productivity, cost reduction, rationalisation, etc.: this makes more and more difficult for Companies to accept that personnel goes away for one or more days, even for qualified training initiatives. To avoid this “contradictory” situation (training and courses are really and strongly needed, but the time available for participating to them is always shorter) it is necessary to completely re-consider the training activities offered and the methods adopted for carrying them out.

The Italian Association of Metallurgy, by means of the METRO (“Metallurgical Training On-line”), proposal, wanted to set up an innovative action in this direction. The objective was that of keeping and, possibly, increasing the number of Training Courses, to maintain the actual high quality level of them (which can be easily documented), making them completely “free” from the conventional operative methods. In fact, a Course on metallurgical topics, even if complex and with a significant duration, with the help of modern e-learning technologies can be followed by “remote students” and can be distributed in a “tailored” way (few hours a day for several days or some weeks), without any loss of its quality content. From this consideration, A.I.M. has individuated the TCN Consortium as the optimal and qualified “technological” Partner. TCN is operating, since various years, in the field of conventional training and distance learning; it has built the *Improve.it* internet site, representing one of the most innovative solution actually available for e-learning. The point was that of “thinking”, developing, setting up, implementing and then making available these “new” metallurgy Courses: this was the “hearth” of the METRO Pilot Project. The contents of these Courses was elaborated on the basis of the wide experience of the “panel” of teachers (from Universities and from Industrial Companies) already involved in A.I.M. training initiatives, as well as by some specific contributions given by metallurgically qualified European Universities (University of Joenkoeping, University of Trondheim and Institute of Fundamental Technological Research Polish Academy of Science).

The METRO Project had a duration of 18 month; the activity was scheduled according to the following Work-Packages:

WP1 (month 1-6): Definition of requirements for the implementation of metallurgical courses into e-learning tools and individuation of topics of the Courses;

WP2 (month 5-14): Implementation of Courses into e-learning tools (at least 3 Courses in Italian and English for AIM, and at least 2 Courses in English for each of the Scientific partners) and set up of books, slides, etc. (as detailed in C2);

WP3 (month 12-18): “Testing” of Courses and e-learning technology, carrying out training activities for the Industrial Companies associated to AIM and for all the potential users individuated; collection of comments from teachers and “users”;

WP4 (month 16-18): Final evaluation of Courses and Technologies adopted and exploitation of the results of the project (including an “editorial plan” for implementing all the AIM Courses into e-learning technologies).

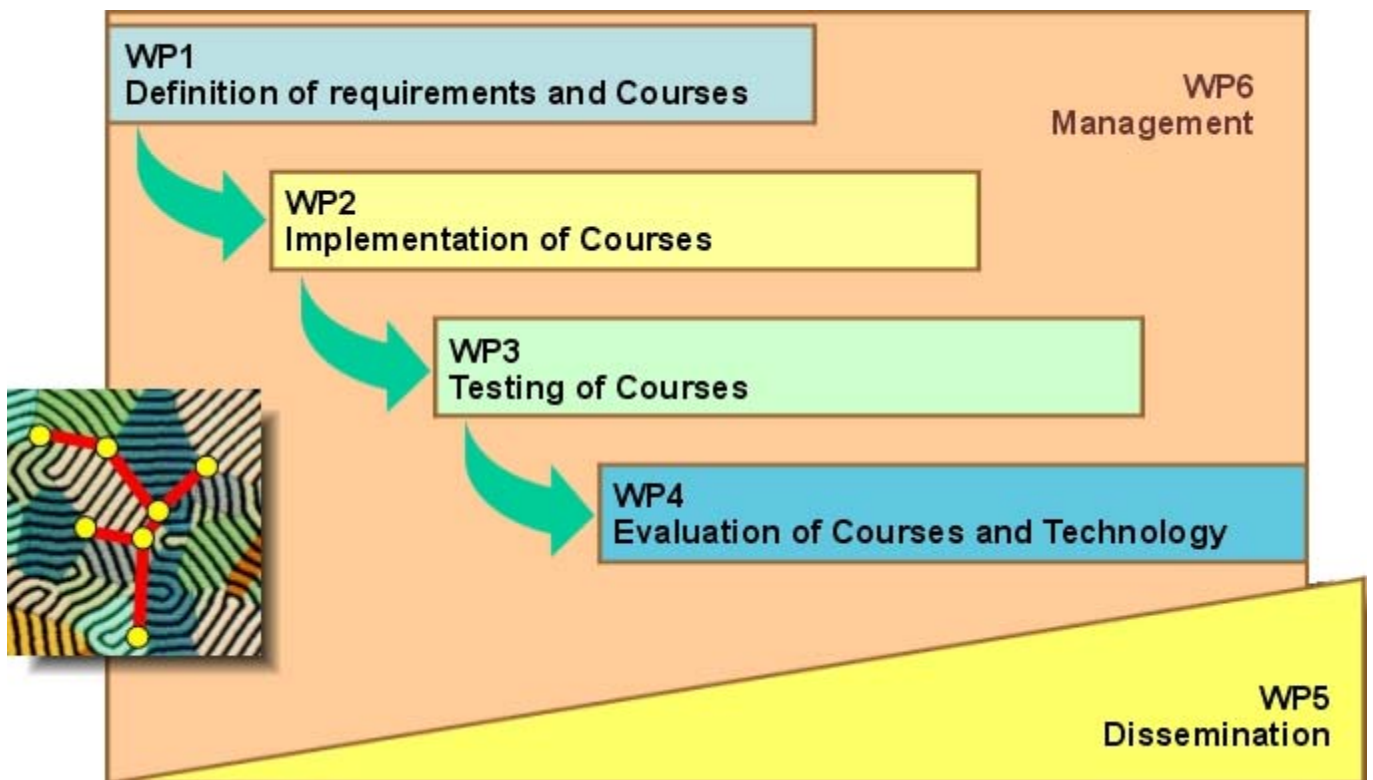


Fig. 1: Logo and Flow-Chart of the METRO Project