

Contractor:



Partners:

## The Refrigeration Craftsman

Leonardo Project EUR/02/C/F/NT- 84604 / EC Agreement N° 2002-4549/001-001LE2X

### What are the objectives of the project?

Short term objectives:

- establishing a European industrial standard for craftsmanship in the field of refrigeration; such a standard will enable the various European countries to compare, check and adapt -if necessary- their educational and training programs,
- facilitating the exchange of information between the European countries: ways of learning and ways of examining,
- spreading the relevant information and make it easily available to the industry and the end users.

Long term objectives are:

- securing a uniform level of education, training and qualifications throughout Europe,
- the mutual acceptance of every one's qualifications, enabling to work in other European countries,
- the exchange of apprentices between different countries.

### What has been done and achieved?

The work has been carried out in 4 steps :

- a detailed European **survey** (347 questions) : 355 refrigeration and air conditioning professionals from 7 representative countries have answered a questionnaire designed to make an inventory of the tasks performed by the basic refrigeration craftsman in Europe; the questions addressed 328 activities classified in 17 chapters;
- a thorough statistical **analysis** of the results reviewed by international refrigeration experts has specified the **profile** of the "European refrigeration craftsman" (final **report**);
- a **portfolio** of the **qualifications and skills** needed to work in the field of refrigeration and air conditioning with excellent craftsmanship was then established, listing the activities that the European basic refrigeration craftsman has to be capable of performing (portfolio=industrial standard);
- an intensive dissemination campaign including the publishing and distribution of **leaflets** (3,000) and **CD ROM** (400) explaining the methodology, the results achieved and how to use them.

The AREA portfolio of the required qualifications and skills of the European refrigeration craftsman consists of 4 parts :

1. the European curriculum vitae (adaptation of the document of CEDEFOP) outlining his personal education / training and work experience,
2. the general job description of the refrigeration craftsman and his work environment,
3. the description of 7 core group of activities (pre-assembly, installation, checking / reporting / technical administration, commissioning, monitoring / inspections, fault finding / repair and dismantling) which reflect the work

Contractor, Beau Site Premiere Avenue 88, B-1330 Rixensart, Belgium – Coordinator, P.O. Box 98 5324 ZH Ammerzoden, NL



This project is carried out with the support of the European Community



## The Skills Competition



inspections, fault finding / repair and dismantling) which reflect the work process in a refrigeration contracting company and the career development potential of a refrigeration craftsman in the industry,

4. the criteria - as a list of activities that the European refrigeration craftsman has to be capable of performing - on which to prove adequate competence, with related applicable European Norms, Directives or Regulations.

The criteria are classified in 7 categories : basic thermodynamics, system components (compressor, condenser, evaporator, expansion valves, other components), piping, electrical, analysis / measurements, communication (with the client, ...), environmental and safety regulations).

### Dissemination and valorisation :

The dissemination activities were and still are : results sent to EC/National Authorities and relevant VET bodies and institutions by AREA and its Member Associations; meetings with DG Environment, DG Enterprise, the Environment Committee of the European Parliament and Members of the COREPER; presentations to RAC manufacturers', producers' and end-users' EU associations; widely spread AREA newsletters; specific National industrial press releases and coverage in many articles; participation / conferences in RAC exhibitions and venues : Maastricht (Educational Summit), Nürnberg, Montpellier, Bratislava, Poznan, Birmingham, Milan, Budapest, Dublin and Marne-la-Vallée; participation in National skills competitions (NL, HU); organization of 2 European skills competitions (to be continued after the end of the project) in the largest RAC industrial fair IKK (Nürnberg in 2004 & Hannover in 2005; 34,000+ visitors); setting up of a community in the Exemplo extranet of EVTA European Vocational Training Association; AREA website with an interactive special section: MARC for Measurement system AREA Refrigeration Competencies, allowing the visitor to test / assess his qualifications; six-monthly general assemblies: AREA has grown from 14 national Member Associations to 20, during the project.

Results : acceptance of the AREA portfolio of competencies as a European industrial reference, advised by DG Environment and officially recognized by several National VET bodies and schools; support of the other RAC European associations, manufacturing companies and end users

### European Skills Competition 2004 & 2005

In October 2004 and in November 2005, the portfolio was demonstrated in the AREA European Skills Competitions. These competitions were held during the IKK fairs. Teams from seven different European countries competed to win the title of best Refrigeration Craftsman and the Morten Arnvig Memorial Award. The jury marked the participants on the basis of the AREA portfolio.



For information please contact:

Robert Berckmans, [robert.berckmans@area-eur.be](mailto:robert.berckmans@area-eur.be)

Jan Reijmers, [janreijmers@planet.nl](mailto:janreijmers@planet.nl)

