

Euro-ISDN

TaRgET Project - Ref 96/45503

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NEEDS ANALYSIS REPORT

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PREFACE

The following pages comprise the first deliverable entitled 'Needs Analysis Report' of the TaRgET Euro-ISDN project. The TaRgET project is a feasibility study to investigate and then pilot the development of a trans-regional distance learning platform using Euro-ISDN. The project is a co-

operation between 8 European countries and involves 10 education and training institutions.

Since the kick-off meeting in April 1996, information has been gathered by the workpackage leader and regional co-ordinators. Additionally, in co-operation with SMEs, every partner defined 1 or more pilot-projects.

We would like to take this opportunity to thank all partners for their contributions.

We hope the results of this analysis report will provide a sound base on which to build a successful project.

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1. INTRODUCTION

1.1 Background

It is now recognised that the most successful organisations are those which provide rigorous and targeted training programmes.

In comparison with their American counterparts, European companies have not benefited as much from tele-teaching, teleconferences and a whole range of systems and practices capable of improving their competitive capacity.

The importance of a company's commitment to training and lifelong learning was acknowledged in the White Paper on Growth, Competitiveness and Employment. This commitment makes a significant contribution to the continued competitiveness and profitability of a company. Research has shown that conventional educational courses and vocational courses are inadequate for the emerging needs of SMEs.

Within the context of this framework, the TaRgET project partnership will address all issues involved in the design, implementation and operation of a flexible, easily accessible, cost-effective means of delivering training materials in collaboration with SMEs across Europe.

1.2 TaRgET - Key Aims and Objectives

The specific aims of the Target project are as follows:

- to link training centres (developers and trainers) to a transnational training network to address all issues involved in the development and delivery of flexible, accessible, cost-effective training materials and programmes;
- based on the results of feasibility studies and technical evaluations, implement and operate a trans-regional distance learning platform using Euro-ISDN to be piloted at various sites across Europe.

1.3 Objectives - Deliverable 1: Needs Analysis Report

The Needs Analysis Report (Deliverable 1) has been conducted during Phase one of the TaRgET project activities.

The principal objectives of this deliverable were to:

- Define the training needs in each region;
- Identify the training and development needs to be addressed during the TaRgET project.
- Clarify the learning topics to be piloted via Euro-ISDN;

The activities of Workpackage 1 were also seen as fulfilling a number of subsidiary, but nonetheless important objectives including:

- Establishment of a list outlining current conventional and distance learning training offered throughout the partnership. It is envisaged that this information will encourage course collaboration and exchange activities amongst the partnership both during the project and after it's completion;
- Identification of regional strategic sectors, the technological developments occurring in SMEs and associated training needs and also wider SME training needs of the future.

1.4 STUDY PLAN AND METHODS

The activities which took place during Workpackage 1 were divided into the following three sections (outlined in Figure 1).

1. Initially, each partner was requested to provide an overview of the training materials which they currently offer to SMEs. The information collected consisted of both training delivered by conventional methods and via distance learning.

90 % of partners returned the information requested .

2. During the second phase, partners were requested to provide information detailing regional strategic sectors, technological developments taking place within these strategic sectors, training target groups of their organisation and future training needs of their region.

The questionnaires used to obtain this information were compiled using research findings of the Technology Centre Limburg¹. Partners were presented with the findings from the Limburg region of the Netherlands and then requested to complete the data for their region. This method ensured accurate results and also provided the opportunity to obtain total regional overviews within a short period of time.

100 % of partners returned the information requested.

3. The final phase of the study involved identifying the regional training activities to take place during the TaRgET project. Each regional co-ordinator² was requested to identify an SME in their region to become involved in the Pilot platform training activities.

90% of partners completed this activity.

Finally, the Workpackage Leader, in collaboration with the Project Management, integrated and analysed the above information and produced the report on training and development needs.

Although relatively time-consuming, the collation of extensive information concerning regional training activities was viewed as being an important factor. As a result, from the outset, the regional partners will gain a clear understanding of the training activities to take place in each region and will be able to view these activities within the context of wider training needs of each region.

Each regional partner has been engaged in the Workpackage 1. The Technical management have also monitored the developments during Workpackage 1 activities.

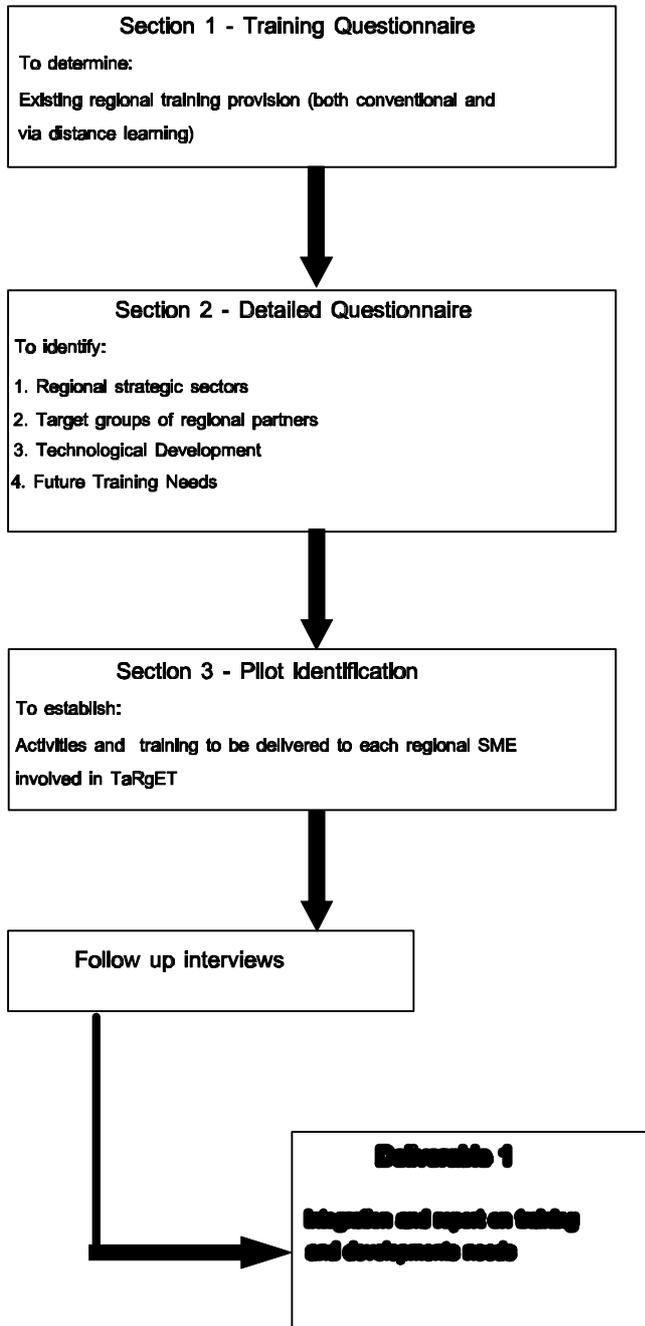
STUDYPLAN TaRgET - Deliverable 1 Information Needs Analysis

1

'Investigation in Distance Learning in the Province of Limburg' -Intercai Netherland BV / Technology Centre Limburg, March 1995. 'Training infrastructure within the framework of the Regional Technological Plan', Technology Centre Limburg, February 1996.

2

With the exception of North Trafford College



2. INFORMATION AND NEEDS ANALYSIS

2.1 SECTION 1: REGIONAL TRAINING PROVISIONS OFFERED TO SMEs

A wide range of both conventional and distance learning training programmes are currently being offered to SMEs by regional co-ordinators.

Co-ordinators provided selected descriptions of training courses currently offered to SMEs. The main subject areas appear to be: technical training; electronics training, process control and maintenance training, PLC training and machine training. Other training areas currently delivered to SMEs include: information technology; languages; business administration and guidance on safety regulations and how to use the Internet.

The research indicated that the extent of distance learning delivery of training programmes differs widely amongst the regional co-ordinators.

Whereas some organisations are at present predominantly delivering conventional training programmes to SMEs, others are delivering distance learning programmes using sophisticated information and communication technologies. However, of those regional co-ordinators who do not currently deliver training via distance learning, a high proportion have indicated that plans to adapt existing conventional training courses to the distance learning mode are currently underway. Participation in this project will accelerate this process.

Most partners appear to deliver training to industry. Within industry, individualised, practical training learning methods were identified as being extremely important. These individualised, practical training elements are not easy to deliver via the distance learning mode. Nevertheless, from the training information obtained, examples of practical training offered to SMEs via distance learning have been found. Simulation training in combination with distance learning delivery and training on the job, appears to be a well suited method to overcome the barrier of practical, individualised training needs.

A list of selected distance learning courses delivered to SMEs throughout the partnership is provided in Appendix 1.

Details of conventional training courses are provided in Appendix 2.

2.2 SECTION 2: DETAILED INFORMATION RESEARCH

2.2.1 REGIONAL STRATEGIC SECTORS AND TARGET GROUPS

In order to define the training needs and target audiences of each region, co-ordinators were requested to complete detailed questionnaires. The responses identified regional strategic sectors and the existing target groups of each partner organisation.

Summary

90% of the partners (all apart from Sweden) identified one or more of the industry sectors provided in the questionnaire as a strategic sector in their region³. 90% of partners are currently targeting these regional strategic sectors with their training activities.

80 % of the partners also mentioned Hotel and Catering/Tourism as an important regional sector, but only 50% are training employees of this sector.

Also Business Services and Telecommunications & Telematics are important in 70% of the regions and 60% mentioned Transport and Logistics and Health Care too. However, less than 50% of partner organisations are targeting training groups from these sectors.

The table overleaf provides an overview of the results and ranks those sectors which are currently strategic to regions. Additionally, the table further illustrates of these sectors, which are currently being targeted by regional co-ordinator organisations.

³

Excluding the metal and printing and graphics industries where only 50% of partners identified these sectors as being strategic to their region further still, only 20-30% of partners classify these industries as training target groups of their organisation.

Strategic sectors and target groups

STRATEGIC SECTORS	% Of partners who identified sectors as being strategic in their region	% Of partners who identified this sector as a training target group of their organisation
PROCESS INDUSTRY	90	90
- CHEMICAL INDUSTRY	80	80
- FOOD INDUSTRY	80	60
METAL-ELECTRONIC INDUSTRY	90	90
- AUTOMOTIVE	40	40
- ELECTRO TECHNOLOGY AND ELECTRONICS	90	70
- INSTRUMENT INDUSTRY	70	40
HOTEL AND CATERING/TOURISM	80	50
BUSINESS SERVICES	70	40
TELECOMMUNICATION & TELEMATICS	70	40
TRANSPORT AND LOGISTICS	60	10
HEALTH CARE	60	40
PRINTING AND GRAPHICS INDUSTRY	50	30
METAL INDUSTRY	50	20
OTHERS ⁴	10	10

Detailed regional information is available by request from the project management.

4

Only mentioned by 1 partner and strongly connected with his/her region or training centre.

2.2.2 TECHNOLOGICAL DEVELOPMENTS AND FUTURE TRAINING NEEDS

Technological developments

Research has shown that the implementation of new technologies in combination with the need for skilled labour are particular barriers to SME growth.

Desktop research conducted by the Technology Centre Limburg⁵ found barriers to SMEs growth are due to:

- lack of technical skills;
- lack of skills in handling New Technologies;
- lack of skills in handling Information Technology;
- lack of skills in handling New Materials;
- difficulties in implementing New Technologies and Information Technology;
- environmental/ecological problems;
- managing skills;
- managing new developments.

It is significant that technical and management skills figure so highly. Consequently, most training needs will be in these areas.

In order to be able to identify future training needs, co-ordinators were requested to provide an overview of the technological developments occurring in strategic sectors of their region.

In summary the responses indicated that:

- within most of sectors production automation, proces-control automation and automation is important;
- the implementation of new techniques and technologies is an ongoing process

Detailed information outlining regional technological developments is provided in Appendix 3.

Future training needs

In combination with the technological developments, regional co-ordinators were asked to comment on future training needs in SMEs.

If we consider the identified (future) training needs, we can divided them into 7 sections:

1. Skills in relation to New technologies and Information Technology;
2. Skills in relation to Management;

⁵

Findings from: "Investigation in Distance Learning in the Province of Limburg (NL)", Intercai Netherland BV / Technology Centre Limburg, March 1995.
J.E. Rönnlund - "Skills and competence needed in the region", Fokuz, March 1995.

3. Skills in relation to Quality Management (=TQM);
4. Skills in relation to Total Productive Management (=TPM);
5. Languages in relation to export in the European and Global Market;
6. Social and communication skills.
7. Skills in relation to the knowledge concerning the surrounding world (Policy, environment, laws, economy etc).

Not everybody in an SME will be confronted with the same level of challenges and needs. Nevertheless, to varying extents, the developments will have an impact on the following Target groups who need to be trained:

1. Management;
2. Workfloor Staff and production operators;
3. Line managers;
4. Bookkeepers and marketing and sales staff.

Detailed regional information concerning the above information can be found in Appendix 4.

During this phase, the regional priorities for the learning topics to be delivered during the operational trans-regional pilot platform were clarified.

Regional partners then contacted SMEs in their regions who were faced particularly faced with these training challenges and selected one (or in some cases two) to be involved in the pilot training activities.

2.3 DESCRIPTIONS OF REGIONAL TaRgET PILOT PROJECTS

As indicated in the previous section, regional co-ordinators were requested to identify an SME in their region to be involved in the trans-regional Euro-ISDN distance learning platform. This platform will become operational under the second phase of the TaRgET project and training activities will commence in December 1996.

The training to be delivered during this phase will be focused on the regional needs analysis activities which have taken place during Workpackage 1.

As foreseen in the original TaRgET proposal, the training activities identified by regional co-ordinators fall mainly under the following categories:

- Supervisory management;
- Electronics training;
- Language training;
- AUTOCAD;
- Production Planning and Safety and security regulations.

These areas are focused on the individual training needs of the regions concerned.

The pilot projects will therefore cover a wide spectrum of training areas all of which are well suited to delivery using the Euro-ISDN platform.

The regional pilots will mostly use videoconferencing and application sharing over ISDN to support the training activities. On a regional level, some partners plan to use videoconferencing to actually deliver parts of the pilot course. In comparison, other partners will use the videoconferencing facilities in a supporting role rather than as a primary delivery medium.

On a transnational level, some of the pilots aim to use the videoconferencing facilities to gain direct transnational input into the course. It is envisaged that for specific lectures such as business economy in different countries and EU related matters, international experts will be invited to participate via videoconferences.

Additionally, Euro-ISDN will be used amongst the regional co-ordinators to exchange experiences of using videoconferencing to deliver training. The project has established a training working group which will meet every 4-6 weeks via video or teleconference to evaluate the regional experiences.

The transnational activities will be further defined during Workpackage 3 when co-operation models amongst the regional co-ordinators will be established. These activities will further develop and formulate trans-regional co-operation activities.

These activities will greatly raise the regional awareness of the possibilities offered through Euro-ISDN. This impact will be greater given that the majority of partners have little experience of using these applications to date.

To ensure a thorough evaluation procedure, 30% of partners will monitor the progress; of the trainees studying the programme via distance learning methods (utilising new technologies such as videoconferencing) with a group of trainees studying the same programme via conventional means.

The table overleaf provides an easy reference point for the regional operational pilot activities.

Detailed descriptions of individual regional pilot project activities is provided in Appendix 5. This information includes details of the aims, target groups, training materials and methods and the new technologies to be used in each pilot.

OVERVIEW

TaRgET PROJECT

REGIONAL PILOT PROJECT ACTIVITIES

TRAINING	TARGET GROUP	SECTOR	COUNTRY/(REGION)
Maintenance and TPM	Operators	Non-specific sector bound	Belgium (Belgian Limburg)
Language competence development	Technical and commercial staff	Non-specific sector bound	Spain (Asturias)
New techniques	Staff	Health care	Italy (Lazio)
Training in line with new laws on safety and security	Staff, nurses, physicians	Health care	Italy (Lazio)
Electrical and mechanical skills development	Operators	Telecommunication and telematics	Ireland (Dublin)
Mechanical operator	Managers	Process Industry	Netherlands (Limburg)
Management competence development	Managers	Food Industry	Sweden (Jämtland)
Language competence development	Sales staff	Timber Industry	Sweden (Jämtland)
Autocad	Draughtsmen/designers	Non-specific sector bound	United Kingdom (Hertfordshire)
BTEC Electronics	Students	Non-specific sector bound	United Kingdom (Northern Ireland)

3. Conclusions

The activities which have taken place during Workpackage 1 have successfully met all of the original objectives.

The list of core current and future distance learning programmes offered throughout the

partnership will be valuable both during the project and after its completion. This information will provide the opportunity for regional co-ordinators to pool training resources thereby reducing unnecessary material development costs in the future.

Current and future training needs of each region have been defined and based on these needs, the learning topics and SMEs to be involved in the pilot platform have been identified. Consequently, from an early stage, partners will have a clear understanding of the regional activities to take place during the project.

Preliminary information has indicated that certain regional co-ordinators, and a high proportion of SMEs to be involved in the pilot training activities, have little experience to date of using Euro-ISDN technology. Consequently, training in the use of these technologies will be an important factor prior to the operational activities.

The information from this Workpackage will provide a sound platform on which to build future project activities. The descriptions of the aims of each pilot project activity and the new technologies to be used during these pilots will aid the Technical Evaluation process.

Additionally, the extensive regional information will help to ensure that successful co-operation models amongst the regional co-ordinators are identified during Workpackage 3.