

D2.2 Needs assessment for future professional training in Europe

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TIME2LEARN

D2.2 Needs assessment for future professional training in Europe

DATE 07 July 2003

ABSTRACT This document presents a qualitative view of the e-learning market in companies, and above all, to determine precisely the customer needs on that market in the near future

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1 Introduction

This document aims at offering a qualitative view of the e-learning market in companies, and above all, to determine precisely the customer needs on that market in the near future.

We have based our work on a questionnaire of purchasers and users of e-learning solutions (mainly Human Resources Directors) in companies of different sizes and of different industry sectors all over Europe.

The objectives of this analysis are as follow:

In a first step, we will hinge our understanding of e-learning market on four points:

- To study the current usage of e-learning in companies.
- To study the perception of e-learning solutions purchasers and users
- To evaluate customer satisfaction.
- To identify the expected evolution of e-learning seen by customers

The results on that analysis, as well as Time2Learn's deliverable 2.1, will enable us, in a second step, to operate a segmentation of the e-learning market, in order to pave the way for the next steps of the project in its roadmapping activity.

Finally, in a third step, we will highlight our detailed recommendations for the oncoming work of the Time2Learn consortium, especially the definition of scenarios and the main dimensions to be treated in these scenarios.

2 Scope and Methodology

We have based a large part of our studies on answers from purchasers and users of e-learning solutions in companies of different sizes, of different industry sectors and from different European countries.

Time2Learn consortium members have carried out studies in their respective country.

The final sample counts 278 surveys that were treated using statistical analysis software.

14 more surveys were done after this treatment and could not be incorporated in the crossed analysis.

Description of the sample

Industry sector

	#	%
Bank/Insurance	16	6.2
Industry	105	40.7
Public sector	17	6.6
Consulting / law	7	2.7
Health	22	8.5
Services	24	9.3
Information technologies	26	10.1
Food	11	4.3
Other	53	20.5
Total / answers	258	108,9

The selection of companies is quite balanced between industry and tertiary activities.

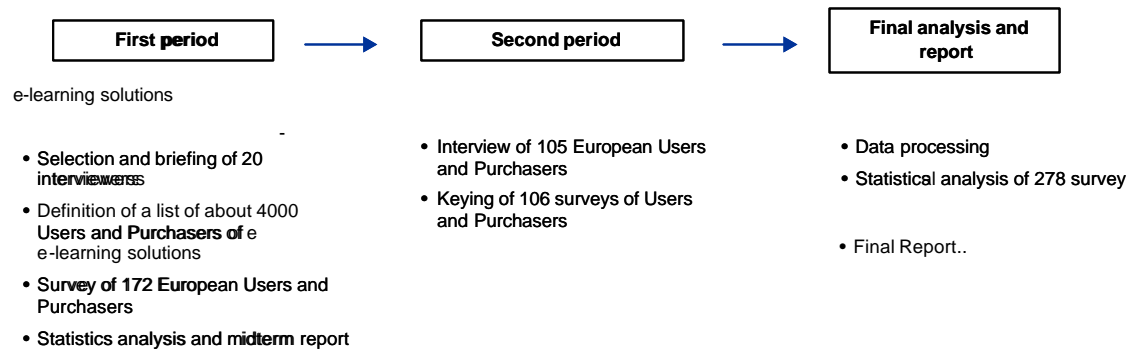
Size

	#	%
<20	12	4.4
20-49	17	6.2
50-99	21	7.7
100-249	45	16.4
250-499	38	13.9
500-999	49	17.9
1000+	92	33.6
Total	274	100

51% of the companies are medium to big companies employing more than 500 people.

Methodology

The methodology used for this study is illustrated below:



The statistical analysis were done in three layers :

- collecting answer to each question
- crossed-analyses between the answer and :
 - o The size of the corporation
 - o The activity field of the corporation
 - o The fact that e-learning exists / does not yet exist within the corporation
 - o The fact that the people answering was a purchaser or a user of the e-learning solution
- Crossed analyses of two answers using two of the above criteria

The four criteria were chosen as being the first 'logical' division of the sample. Size of the corporation directly impacts its need and resources for e-training. It had a direct impact on the people we contacted. The bigger the company, the more our first contact would be the Human resources, and even the training department. The smaller the company, the more we would ask to talk to a chief executive officer or chief manager.

The activity field supposes that corporation in business where the intellectual capital is most important would have a more accurate vision of e-learning. The existence of e-learning in the company is also a major segmentation criteria, as people react quite differently when they have already had a practical experience (they think according to this experience). Then, as the questionnaire dealt both with the purchase and the use of e-learning, it was important to us to make a segmentation between purchasers and users, whose logics would be quite different.

The questionnaire used is available in the appendices.

We also conducted face to face interviews to get a finer view and understanding of our interviewees' point of view. The questions on the expected future (the last part of the questionnaire) were naturally easier to ask in face to face interviews.

The statistical analysis of these surveys and the interviews enabled us to reach our conclusions and recommendations for the professional e-training market.

3 Main conclusions

We have gone through these steps:

1. Definitions
2. draw conclusions from e-learning users
3. draw conclusions from e-learning purchasers
4. Draw conclusions from individuals within organizations which are neither e-learning users nor e-learning purchasers.
5. assemble our conclusions and draw up a vista of the future of e-learning
6. define the corporate user profile
7. define the corporate purchaser profile
8. define the profile of a user which is neither user nor purchaser

3.1 Definitions

Sample definition

- 65% of the organisations are companies, with internal training services. The selection of companies is balanced between industry and tertiary activities.
- 51% of the companies are very large companies and employ over 500 people.
- 60% of the interviewed organisations have never used e-learning before

E-learning definition

One of the main difficulties when interviewing people about “e-learning” is their understanding of the word itself. As the questionnaire is quite long, we found it difficult to spend time giving the interviewees a thorough definition of the term.

Therefore we defined them ‘e-learning’ as ‘the fact to train people of the company using new technologies’. If asked what ‘new technologies’ were, we defined them as “new communication technologies, such as computers with internet, mobile phone or TV on demand for example”.

However, despite our mentioning the two last one, it was clear that elearning was clearly associated solely to computers and internet by the interviewees.

3.2 Conclusions from e-learning *users*

Users are people trained using e-learning solutions in the corporations. They had no responsibility in the selection and purchasing process. They give their feeling on the tools on an operational level.

General matters: what for, the targets, the providers

In this section, we focus on general matters related to the vista of e-learning given by users.

- E-learning is especially used for training in computer science and foreign languages.
- E-learning is used both for generic training (**learning on demand**) and in relation to the activity of the company (**problem-based learning**)
- Companies are clearly split between choosing generic courses or customized trainings.
- For 37% of the users, e-learning is assessed automatically.
- For only 16% of the users, e-learning leads to a degree.
- E-learning is often targeted at several categories of employees, mainly administrative staff, sales force, management and engineers
- Resorting to external suppliers is the most common solution in companies, but e-learning content allows for a mix of internal and external solutions.

The following three trends could be sorted out from the users' side; flexibility, interactivity and availability of the resource after the course.

Flexibility

The main advantage of e-learning lies in its flexibility: training can be delivered at any time and can be adapted to the needs of the company.

- 53% of the companies use e-learning on basic computers with web browsers. Fewer than 10% of the companies use specific equipment (camera...) for their e-learning activities.
- Learning takes place mainly in the company and especially at the learner's office.
- For 73% of the users, e-learning occurs at no specific date or time.
- **The main advantage of e-learning lies in its flexibility: training can be delivered at any time and can be adapted to the needs of the company.**

Interactivity

For 60% of the users, the main disadvantage of e-learning tools lies in the lack of human interaction. But interactivity within e-learning activities remains possible.

- E-learning takes place with a tutor in 66% of the cases.
- In 53% of the cases, there is some degree of interactivity between teachers and students.
- The most used communication means are Internet-based: email, web forums, mailing lists, and telephone conferences.
- For 60% of the users, the main disadvantage of e-learning tools lies in the lack of human interaction.

Availability of Resources after Learning

- In 80% of the cases, people still have access to the resources after the training. Session sites seem to be the best way to have access to the resources after the learning session.

3.3 Conclusions from e-learning purchasers

Purchasers are mostly human resources directors who have or will spend a budget for the acquisition of an e-learning solution (LMS) or who purchase electronic training content.

They have a view based on the functionality of the solution, its cost and return on investment.

E-Learning and overall training expenditures

This section aims to provide us with a better understanding of the structure of training (and especially e-learning) expenditures.

- The majority of the organisations do not spend more than 50 000 Euros on e-learning per year.
- E-learning content represents a very low part of overall e-learning expenditures.
- For 65% of the organisations, e-learning represents less than 10% of the training budget.
- 61% of e-learning purchasers want to increase the share of e-learning in the global training budget.
- For 69% of the companies, e-learning expenditures are forecasted to be higher than 10% of their overall training expenditures within the next 5 years.
- For 54% of the purchasers, e-learning investment started less than 2 years ago.
- For all organisations e-learning expenditure should not exceed 30% of their overall training expenditures in within the next 2 years.

Why do they invest in e-learning?

- For 51% of the organisations, e-learning is purchased for the Management, Engineering or Administration departments.
- About 46% of the companies decide to invest in e-learning to reduce training costs; the focus is on autonomy and retention of information by the employees.

- 53% of the organisations choose to invest in e-learning because of the features of the solution.

Structure of e-learning investment

- Companies are clearly split over choosing packaged products. (e-learning courses and software)
- Generic products represent 67% of the e-learning products bought by the purchasers.
- 59% of the courses bought by the organisations are updated by the e-learning supplier, but 18% have not developed any system for updates.
- In 62% of the organisations, no specific employee is responsible for day to day e-learning management operations.
- 56% of the companies have not integrated their e-learning system with a global Human Resources management system; the integration is closely linked with the presence of employees having e-learning experience.
- 65% of the companies stress that the main disadvantage of e-learning is the lack of human interaction.

3.4 Conclusions from individuals which are neither users nor purchasers

The smaller the company, the less we find implemented e-learning solutions of any kind. It is therefore interesting to understand, firstly what prevented these company to engage in e training, and secondly what could motivate them to “cross the river”.

Thus this section helps us to understand what the main remaining hurdles are to an e-learning implementation within a company.

-
- Except for companies with a specific demand, all companies will invest in e-learning, even if they do not use or purchase it today.
- About 45% of the organisations which decide to invest in e-learning in the future do not know today what their agenda will be.
- There is no single specific improvement which can trigger the decision to purchase e learning services, but a whole set of factors: price, lack of information or inability to understand the offer being the two main factors.
- On a less rational level, about 33% of the companies think that e-learning is not appropriate for their structure and their culture.

3.5 Vista of the future of the e-learning

In that section, we identify and classify results from our study in order to build a relevant vista of the future of the e-learning.

The hurdles

It is necessary to identify hurdles since they represent the pitfalls to avoid and ways of improvement.

- E-learning is not relevant at all for some of the people interviewed.
- Companies are torn between the need for information about e-learning and the waste of time needed to collect the information in forums and exhibitions.
- For the moment, e-learning projects may be too abstract to interest everyone.

Opportunities

Opportunities represent concrete actions that can be carried out to develop e-learning markets. It enables us to understand some of the customers' expectations.

- A communication plan may be a good means to reach new customers.
- Precise information on e-learning all over the time is important for a majority of companies.
- A majority of companies would welcome an objective instrument to measure the efficiency of e-learning.
- A large majority of purchasers needs a system that helps them to optimise training budget allocation.
- E-learning brokers are a good means to inform users, purchasers and non-users.
- 53% of companies need the capacity to align the training value of various providers' content with the company's own goals.

Most organisations favour the emergence of a certification scale which should be linked to the reality of their own company and their specific needs

- Everyone is interested in a way to simplify the use of e-learning.
- Purchasers are really interested in system integration services.
- No investment to acquire specific platforms would be the better solution for everyone.
- Purchasers fully endorse the concept of systematic certification.
- Adaptability to the work of the company is one of the strongest needs.
- High bandwidth for everyone is seen as essential to develop the use of e-learning.

Don'ts

This section enables us to recognize some actions that could appear relevant, but that however not answer customers' expectations.

- A system of recognition of qualification needs is not a priority for the companies.

- The wish for simplicity in buying products and the lack of information may put a brake on the development of the e-learning market.
- The concept of extended enterprise does not arouse the interest of companies.
- People are quite divided over e-learning services, maybe for reasons of flexibility and cost.
- On-line staff development consultancy is not a project which should be initiated.
- The use of virtual reality does not seem more relevant than standard e-learning tools.
- Users are split over the possibility of customising courses.

3.6 Profile of 'Users'

Sections 3.6, 3.7 and 3.8 aim at determining as precisely as possible the profiles of the three categories we previously defined: Users, Purchasers, Neither Users nor Purchasers.

- The existence of an employee responsible for elearning profoundly changes the view a company has concerning the use of e-learning services.
- The existence of an employee responsible for elearning is a requirement in order to efficiently update the e-learning system.

3.7 Profile of 'Purchasers'

- Human Interactivity in e-learning courses, especially with teachers, is linked to the choice of a tailor-made solution.
- The presence of a teacher and synchronous access is clearly linked to the choice of a tailor-made solution.
- Assessment of the courses is strongly linked to contact with a teacher during e-learning sessions.
- 95% of the companies which have automatically assessed e-learning do not wish for more awareness and promotional information.
- this result underlines the co-existence of two categories of customers
- Companies that favour specialised training are more interested in off the shelf training.

3.8 Profile of individuals which are 'Neither Purchasers nor Users'

The following results are pretty interesting given that it enable the e-learning actors to know and understand the expectations of potential customers that have not yet chosen e-learning implementations.

The questions this section is to answer are: what e-learning actors have to do (or not) in order to bring reluctant customers into e-learning?

- Systematic certification can be a way to convince some companies to invest in e-learning in the future
- Using forums can be a good way to inform people who want more awareness about e-learning.
- Many users would be interested in getting information about the evolution of elearning tools before investing. A costs management system is a relevant tool to develop.
- Potential users prefer be informed through discussion with elearning users. They are probably more interested in real experience than in advertisement.
- There is a category of people who are not interested in e-learning, and do not want more information about it.
- Forums may be a good tool to compare providers and benchmark their offers.
- Easier calculation of ROI is a good element to convince some perplexed prospects.
- Potential buyers would like to combine forums and cost management systems.
- E-learning brokers are a good means to complete the information given by the forums.
- Corporate culture concerning the use of computers and the Internet have a great influence on their perception of e-learning.
- Off the shelf training implementation is linked to the recognition of trends and problems in continuing training.
- Transferability and recognition of qualification is linked to the goal of efficiency underlined by the companies.
- The recognition of trends and problems in continuing training may allow an easier calculation of the ROI.
- The availability of generic elearning brokers is favoured by a majority of companies but they do not see it as a way to improve the efficiency of the training.
- Certified training offer may complement off the shelf training but is not an implementation of the recognition of trends and problems in continuing training.
- Potential customers are interested by both systems: recognition of qualification needs and off the shelf training. Their preference depends on the importance they give to the control of the choice of the training content.
- Companies are very interested in recognising qualification needs and adapt their choice by benchmarking the different providers.
- Recognising qualification needs can be a step towards a complete integration of human resources and knowledge management.
- The two proposals are quite in contradiction. Either employees choose by themselves or the Human resources department regularly propose them new training sessions.

- Depending on the organisation of the company, these two solutions may be either complementary or completely redundant.
- It is essential to develop off the shelf training and transferability & recognition of qualification at the same time to reassure purchasers and users.
- Purchasers find it essential to be able to calculate the ROI of off the shelf training.
- Costs management systems would be a good solution to control expenditures for off the shelf training.
- Learners interested by off the shelf training are not likely to resort to generic elearning brokers.
- A complete integration of HR and knowledge management can be achieved when using solutions such as off the shelf training.
- It is not relevant to give access to off the shelf training and to propose training on a permanent basis at the same time.
- Off the shelf training and regular interviews with the trainees seem quite contradictory.
- On-line staff development consultancy for employees is not a very relevant solution.
- The possibility of developing e-learning services and usage with no specific investment is a good way to optimise the use of off the shelf training.
- The possibility of developing e-learning with no specific investment would be a good way to optimise the use of off the shelf training.
- Potential customers are very interested in both systems: costs management and calculation of ROI.
- Purchasers may favour financial criteria to buy e-learning solutions for their company.
- The complete integration of Human Resources and Knowledge Management may be an interesting project in the long run, but it is not a short-term goal.
- Purchasers are afraid of wasting time and money with interviews of the learners.
- On-line staff development consultancy for employees is not a system to develop at the moment, because people do not need it.
- Purchasers seem to fear too large a flexibility of use of e-learning. They may want to control the use of the training sessions in order to make their investment profitable.
- The use of virtual reality rooms or helmets is not to be developed immediately.
- System integration services are not considered as a very urgent need for prospects.
- A system which would require no specific investment would be a good solution to influence the ROI.
- The inclusion of corporate knowledge would satisfy both users and purchasers, thanks to a potentially high ROI.
- The availability of generic e-learning brokers is one of the solutions to improve the efficiency of the RH department.
- Companies are not ready to give individuals an access to catalogues. E-learning brokers seem more efficient.
- Generic e-learning brokers and a global offer may be a solution to customize professional development schemes and attract new customers.
- Interview at regular times may not be considered as an alternative to the development of generic e-learning brokers.
- Human Resources directors promote access to all e-learning products to train individual or teams without restriction

- The restriction of the training constraints may be the most important expectation of Human Resources directors concerning e-learning.
- High bandwidth is not a priority in Human Resources departments; availability of generic e-learning brokers or ROI calculation is.
- Systematic certification may be a potential evolution but does not seem to be a commercial advantage.
- Brokers may not give access to customisable courses.
- The combination of e-learning brokers and inclusion of corporate knowledge is an extremely relevant solution.
- Even if companies favour the integration of Human Resources and e-learning management, they are reluctant to accept giving individuals access to catalogues.
- E-learning is considered as a means of training and should be integrated with the Human Resources management system to improve customisable professional development schemes.
- Autonomy of the employees raises some opposition in companies despite the advantages it provides in training efficiency.
- A training session adapted to the needs (place and moment) is the goal of the Human Resources department.
- Companies want to have references but want, at the same time to compare them with the company's own scale.

3.9 General conclusions and recommendations

3.9.1 A great majority of companies do not buy or use e-learning solutions because they do not know them well

The survey shows that few companies really know e-learning solutions and few of them use them frequently.

For the moment, the results of the survey show that companies do not dare to use e-learning for reasons that sound like clichés.

- Like all new technological innovations, e-learning seems to give rise to a certain **scepticism and suspicion**: many companies answer that they are convinced that employees would be more stimulated by a teacher than by a computer.
- Indeed, as it was the case for computers, companies want some more time to discover the products, to hear a lot about them and to know more about their features.
- They react as if they were **waiting for proof** that investing in e-learning solutions will benefit their company. It is quite a normal reaction, at a time when technological progress is very fast, but not always efficient at first.
- For companies that are more accustomed to computing, there may be apprehension concerning the durability of the tools they are supposed to invest in. They have in mind the problems of computers that became quickly obsolete.
- The most striking element about the people that are neither users nor buyers is the fact that they really give the impression that they do not know exactly what e-learning is. Actually, they wonder what the interest of such a tool is in comparison with traditional forms of training, they do not really know about the costs involved and the equipment required, and they really fear that the tool can not be really adapted to their needs.

But when we ask them about their **investments plans in training programs**, most of them plan on investing in e-learning this year or within two or three years. They answer as if they knew that using e-learning, in the long run, was sort of **inevitable or necessary**, the same way every company had to buy computers at a certain time if they wanted to remain competitive and efficient.

But they want to get more information about the difference between cost and quality of service. These companies are interested and eager to be more informed. They represent a **very high potential** for providers of e-learning solutions.

3.9.2 The needs and benefits from e-learning for both users and purchasers

Both users and purchasers of e-learning are interested in three precise elements concerning e-learning: information, flexibility and efficiency.

In terms of **information**, they express very precise needs:

- they are really interested in obtaining information about the different offers that exist, and particularly to determine the offer adapted to their needs
- but as they admit that they do not really know which kind of products exist, because the product description is too technical, they would appreciate some consulting service which would help them define their own needs and find the offer that may correspond to their needs.
- However, there are two points of views concerning information according to the activity. Companies in sectors with few people involved in complex training or with cultural training habits are very reluctant to use e-learning in general.
- Finally, they would like to have a very detailed view of the whole range of offers that exist in e-learning, and not only the offers of one or two different providers.

As for **flexibility**, it has been noted as one the best advantages of e-learning, and it is also one of the features that encourages companies to invest in e-learning.

- Flexibility must occur at different moments: first, when you buy the tool; it must be easy to find, to buy and then to install. Secondly, the tool must be simple and easy to understand. Last, but not least, a flexible tool means a tool that you can use whenever and wherever you want, with or without teachers.
- Maybe one element is not convenient enough for the moment: the interaction with teachers or students during or after the training session.

Lastly, as far as **efficiency** is concerned, it is a very decisive factor in choosing a training tool.

- Efficiency is achieved through the real adaptation between the offer and the needs of the company in terms of training.
- Moreover, the fact that a training session may lead to a form of assessment makes it possible for the company to have a real tool to analyze the evolution of the skills of the employees.
- However, the most important means to calculate the efficiency is still, according to the human resources directors, the ROI.

In a few words, **the ideal tool** should

- be perfectly linked with the needs of the company and with its activity
- be used at any time, in any location
- the efficiency of the training should not lead to a loss of control on training services by the human resources department

- Finally, it would be particularly interesting to reduce the cost of the initial investment, so that companies can choose different courses and only pay for the training content that are implemented by different providers and which is finally used.

3.9.3 The specific point of view of the purchasers

The purchasers seem to be interested in tools that would involve a low investment at the beginning, that is to say few indirect costs. Indeed, it would be easier to pay for each course which is purchased.

They prefer having the possibility to choose specific offers at the expense of the packaged offers, in spite of a trend that leads providers to offer generic courses. The purchasers want to be sure of the quality and the effectiveness of their investment.

As for their investment plans, it seems that the budget share specific to training will increase within the next few years, but nothing is definitely planned for the moment. They can only mention a global trend of the market.

The price of e-learning seems to be an advantage in comparison with traditional training sessions. It can sound surprising but we must take into account the fact that many e-training services are now designed for managers or engineers. Such a tool is usually cheaper than hiring a consultant or a coach to help the managers.

The presence of an elearning specialist in the company underlines the decision to use e learning as the other means of training in the company. It requires regular updates and the integration of company information in the content of the courses. This has often been a solution to the main disadvantage of e-learning: the lack of human relation with asynchronous access to a teacher and interactivity with the other students of the course.

There are two types of purchasers and there is a risk of creation of a two tier market.

4 Our recommendations

The analysis of the results of the studies allows us to operate a double segmentation of the e-learning market.

The first major factor that impacts a potential e-learning implementation within a given company is the size of that company. The larger the company, the more likely an e-learning implementation could be done in the short to middle term.

The second major factor that is to be cautiously taken into account is the goals that management has assigned to an e-learning implementation: we have to distinguish between “learning on demand” and “problem based-learning”:

- Learning on demand covers generic course aimed to improve global abilities of the targeted workforce (foreign languages, IT...)
- Problem-based learning covers specific courses aimed to train the targeted employees in the specific problems related to the production work of the company.

4.1 Segmentation of e-learning market

4.1.1 Related to size segmentation

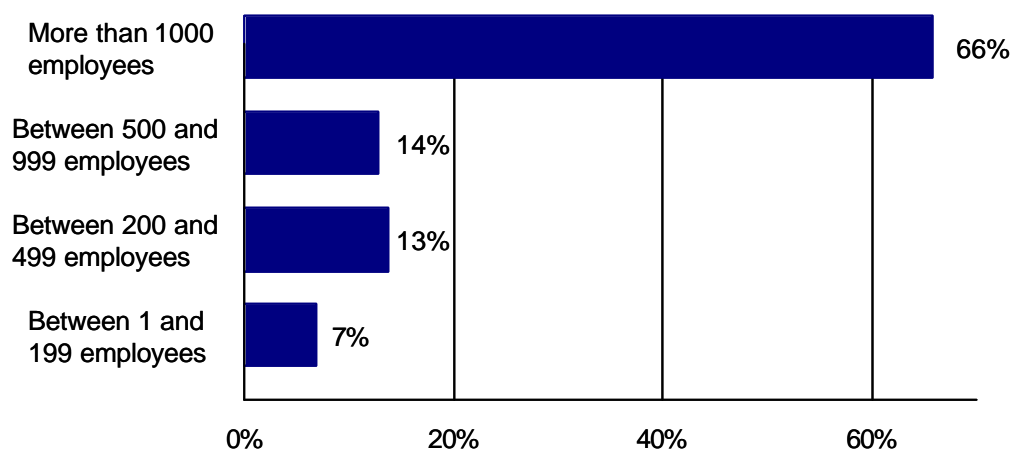
According to the survey **fa e-formation en France en 2002**", the size of the company considered has a major impact on a potential e-learning implementation.

The following graph shows that, on the sample used, the companies with over 1,000 employees account for 66% of the companies that declare being concerned by e-learning.

Conversely, smaller companies with between 1 and 199 employees account for just 7% of the companies that declare being concerned by e-learning.

However, we have to be cautious when using these statistics, because what they do not show is the progressive increase of Small & Medium size enterprises that declare themselves concerned by e-learning: they are twice as many as two years ago.

**Proportion of e-learning implementations in
different categories of companies**



4.1.2 Segmentation 2: two types of e-learning approaches can be distinguished:

Learning on demand

This type of learning does not directly address the specific difficulties that a given category of employees can encounter in their professional activity.

Learning on demand is more seen as learning than training. The Learning resources' offering related to that category is generic.

The subjects covered are more general than specific: it can typically be computer science (an Excel improvement programme for example...) or foreign languages. As a result, these products can have a high level of standardization.

The targeted category of employees is more administrative staff and sales force.

We tried to determine the profile of Learning Resources which should be used in this environment. They:

- can be used alone
- at your desk or even at home
- Often give access to automatic assessment or maybe to degrees or certifications (such as TOEIC or TOEFL). To date, 13% of e-learning activities lead to a diploma.
- Possible delivery systems include: CD ROMs, Intranet-based course catalogue, download of resources from web-based providers...
- These Learning Resources require a medium update.
- A plethora offer has always been identified: Knexa,....

Goal-oriented / Problem-based learning

This type of learning is aimed at providing users with a highly specific content to help them solve highly specific problems.

Problem-based learning is more seen as training than learning. The related Learning Resources are far more specific than in the "learning on demand" category.

The potential subjects are as wide as the range of the problems raised by the company's activity: law, technical training...

The targeted category of employees is sales force, management, engineers.

We tried to determine the profile of this type of Learning Resources, but it already appears that requirements will be higher than in the "learning on demand" category.

- Tailor-made training.
- contact with a tutor / teacher (31,4 % of present elearning implementations are made through interactivity with teachers)
- generally does not lead to a degree but to the improvement of skills (own performance scale)

- Content of such Learning Resources can be confidential, it will be therefore essential to protect the access to these LR.

4.2 Scenario Dimensions

4.2.1 Synthesis of this market segmentation: 4 scenarios to distinguished

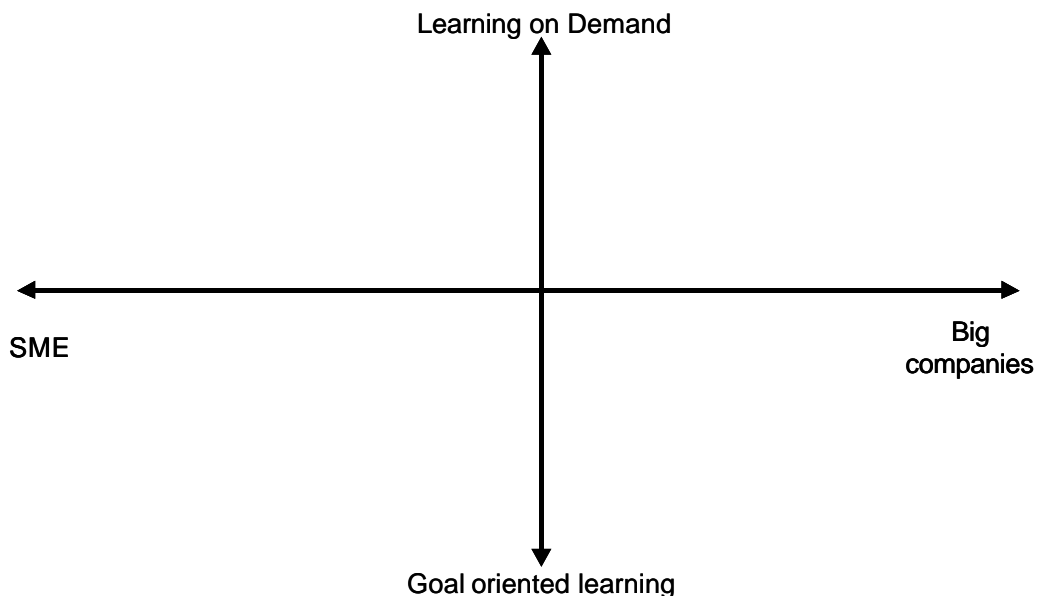
Size of the company and the goals of the learning are two main segmentations to classify the corporations' needs in terms of e-learning.

Throughout this double segmentation of the e-learning market, we can develop a better understanding of future needs.

To date, the major proportion of potential outlets is to be searched within large companies, even though the increase of e-learning implementations in SME has to be kept in mind.

About the second dimension of segmentation, the survey indicates that, to date, both types offer roughly the same outlets. (see calculate sheet below)

This double segmentation of the market allows us to develop four different scenarios (which will represent four specific categories of potential customers).



4.2.2 Future scenarios definition

Each segment of this matrix represents a specific future demand for e-learning solutions.

SME / Learning on Demand

For most SMEs, especially the smallest one, including one-person companies, e-learning is still something of the future because of the weak market transparency and the complexity of implementing e-learning.

Learning on demand for SMEs would result in finding the needed course on the internet (various possible channels here) and have it delivered at any time blended with the concrete need (i.e. being trained while solving the problem that brought the training need).

A most basic hardware and software configuration is required, basic computer with internet browser and high bandwidth connection.

SME / Goal oriented learning

Combining the low resources of SMEs with the solutions for goal-oriented learning is a specific challenge.

Developing and delivering the content at the lowest possible costs and the easiest possible way will need new providing options.

The goal-oriented learning having a specific measurable objective, control tools of the learning path and results will be also necessary.

Big companies / Learning on Demand

Today's recognized best practices in e-learning are all big corporations. Those which business requires a lot of intellectual capital have been the early adopters of e-learning and knowledge management solutions.

Their future seems the most advanced one, as they shall remain the early adopters of the new solutions (talking with the e-learning specialists of these firms shows that these people have the clearest understanding of what their future could be, as they have a several year long experience of e-learning already and can imagine how their system could evolve).

Their needs are to access all kind of personalized content, from several sources, at any time, any place, to track the learning path and all this with a lot of human interaction and/or virtual reality.

The scenario can be the most futuristic.

Big companies / Goal oriented learning

This scenario would focus on complete solution for specific task to be implemented in an existing system. The sharing of information to build the content, the delivery of complex, multilingual training in real-time would be key elements.

Identifying the training needs, delivering them and seamlessly assessing them in a bigger general Human resources system could be envisioned.

4.3 Seven major needs to be addressed

Size of the company and the goals of the learning are two main segmentations to classify the corporations' needs in terms of e-learning.

However, these main 2 dimensions must not lead us to overlook other important dimensions to be addressed in the various "desired future" scenarios.

The size/goal matrix allows a first categorization for designing scenarios in the next phase of the Time2Learn project; however, the scenarios will have to address 7 major customers' expectations.

4.3.1 General presentation

We identified 7 key-market needs that allow us to characterize the 4 scenarios:

- market transparency
- personalization and customization
- standardization
- flexibility
- ability to track the the learning path
- cost management
- tax and regulatory policies

Completing the understanding of those 7 key-points is compulsory to build scenarios that cover precisely the expected needs with the profiles created by the size/goals matrix.

4.3.2 Market transparency

In terms of **information**, they express very precise needs:

They are really interested in obtaining information about the different offers that exist, and particularly to determine the offer adapted to their needs

But as they admit that they do not really know which types of products exist, because the product description is too technical, they would appreciate consulting services which can help them define their own needs and find the offer that best meets to their needs.

However, there are two points of views concerning information according to the activity. Companies in sectors with few people involved in complex training or with cultural training habits are very reluctant to use e-learning in general.

Finally, they would like to have a very widespread view of the whole range of offers that exist in e-learning, and not only the offers of one or two different providers.

MARKET TRANSPARENCY

Main Topics

* Increased awareness and promotional information on e-learning offer (ie pushing information on available training, news, that can be directly used by individuals to get the right training)

*E-learning industry forums freely available and recognized

*Recognising trends and problems in continuing training (getting the information that standard training used in the corporation are evolving (ie offer or demand make them change), that current training is qualified as not sufficient or not efficient by the trainees)

*off the shelf training (ie go to an online catalogue of training, pick one, pay it, deliver it, all seamlessly)

*Availability of generic e-learning brokers allowing to browse multiple providers' catalogues at once

Secondary Topics

*transferability & recognition of qualification (ie being able to assess the training value of various providers' content in order to align it with the company's own scale)

4.3.3 Personalization and Customization

44% of the companies that use e-learning use it for tailor-made courses.

33% of the purchasers have bought a tailor-made product.

53% of companies think it would be a good idea to customize courses, but, on the other hand, they admit that it is harder to know what kind of training the learner has had.

80,6 % of the companies think tailor made courses are relevant because it is possible to integrate corporate knowledge into e-learning solutions.

When a company chooses tailor-made courses, it is more likely to have an employee responsible for elearning. It also positively impacts the interactivity between students and teachers.

Companies that have already tailor-made courses are more curious about elearning. They want to have additional information and are interested in e-learning forums.

PERSONALISATION AND CUSTOMISATION

Main Topics

*extended enterprise(ie direct access to other companies training, designed to be shared, in order to foster specific co-operations)

*Ability to adapt immediately the training to the level of the trainee (ie the training is able to adapt its level to the perceived level of the trainee)

*Customer customisable course (ie elearning courses are not directive but at specific points ask the trainee what they would particularly like to be trained at)

*Inclusion of corporate knowledge (ie from a standard universally-designed course, being able to easily insert specific knowledge from your corporation)

Secondary Topics

*Recognising qualification needs (ie through the analysis of demanded training within the organization, push the information that there is a general need for training for specific qualification)

*Increased awareness and promotional information on e-learning offer (ie pushing information on available training, news, that can be directly used by individuals to get the right training)

*transferability & recognition of qualification (ie being able to assess the training value of various providers' content in order to align it with the company's own scale)

*Proposing new training to individuals on a permanent basis

*Giving individuals an access to complete catalogues of learning resources to chose from

*Customisable professional development schemes available for each individual in the organization (ie competence mapping allowing to know who needs what training at what time and where)

*Interview at regular intervals (ie have e-learning systems regularly ask quick questionnaires in order to probe the interests of individuals for specific training)

*On-line staff development consultancy for employees (ie instead of having the system say what training does one need, let each individual find out its own needed training)

*Availability of generic e-learning brokers allowing to browse multiple providers' catalogues at once

4.3.4 Standardization

53,6 % of the companies that use e-learning use it for generic courses.

67% of the purchasers have bought a generic product.

63% of e-learning activities are related to IT,

48% are related to foreign languages.

Currently, e-learning is more used for the development of individual skills rather than for training related to the company's activity.

STANDARDIZATION

Main Topics

*Use of virtual reality rooms/helmets (ie to put the trainee in a "real life" situation)

*High bandwidth for everybody allowing videoconference, video on demand on a standard material (ie PC)

*system integration services (ie managing complex multi-actors project and being able to deliver the training of one provider using another provider LMS)

*No specific investment needed to deliver the training (ie use of standard PC or standard PDA or standard mobile phones without any piece of specific additional hardware or software)

*Systematic certification (if the successful training leads to a certification, make this process automatic and seamless once the training is completed)

Secondary Topics

*off the shelf training (ie go to an online catalogue of training, pick one, pay it, deliver it, all seamlessly)

*transferability & recognition of qualification (ie being able to assess the training value of various providers' content in order to align it with the company's own scale)

*world or European certification for on-line courses

*MLearning (ie next generation mobile phones used as medium to deliver e-learning)

*Easy deployment (ie use of standard software, standard technologies that allow the training to be available without specific developments and investments)

*Interlocking of learning and working (ie being able to insert the training software into regular operational software in order to propose training and teaching directly adapted to the current work of the employee)

4.3.5 Flexibility

As for flexibility, it has been noted as one the best advantages of e-learning and it is also one of the features that encourages companies to invest in e-learning.

Flexibility must occur at different moments: first, when you buy the tool; it must be easy to find, to buy and then to install. Secondly, the tool must be simple and easy to understand. Last, but not least, a flexible tool means a tool that you can use whenever and wherever you want, with or without teachers.

One element is probably not convenient enough for the moment: the interaction with teachers or students during or after the training session.

FLEXIBILITY

Main Topics

*No restriction to train individual or teams (ie knowing that, at will, either one people or a whole team can be trained on a given subject)

*Deliver the training at any time/any place (ie not having to regroup the trainee at a specific date in a specific place at the office or at the providers' offices)

*MLearning (ie next generation mobile phones used as medium to deliver e-learning)

*Interlocking of learning and working (ie being able to insert the training software into regular operational software in order to propose training and teaching directly adapted to the current work of the employee)

*Easy deployment (ie use of standard software, standard technologies that allow the training to be available without specific developments and investments)

Secondary Topics

*Giving individuals an access to complete catalogues of learning resources to chose from

*Customisable professional development schemes available for each individual in the organization (ie competence mapping allowing to know who needs what training at what time and where)

*Use of virtual reality rooms/helmets (ie to put the trainee in a "real life" situation)

*system integration services (ie managing complex multi-actors project and being able to deliver the training of one provider using another provider LMS)

*No specific investment needed to deliver the training (ie use of standard PC or standard PDA or standard mobile phones without any piece of specific additional hardware or software)

*Ability to adapt immediately the training to the level of the trainee (ie the training is able to adapt its level to the perceived level of the trainee)

*Customer customisable course (ie e-learning courses are not directive but at specific points ask the trainee what they would particularly like to be trained at)

*Inclusion of corporate knowledge (ie from a standard universally-designed course, being able to easily insert specific knowledge from your corporation)

4.3.6 Ability to track learning path

There are three manners to assess e-learning activities:

- 47% is not assessed (more a development of personal skills than activities required by the company),
- 16% is assessed by a teacher who receives the works
- 37% is automatically assessed by the software.

Only 16% of e-learning activities lead to a degree.

Overall, 60% of companies assess that a systematic certification process would be a great progress.

A system of recognition of qualification needs is not a priority for companies. That is why they are less likely to track learning paths.

Tracking learning paths, especially with teachers, would be a good way to humanize e learning.

ABILITY TO TRACK THE LEARNING PATH

Main Topics

*Recognising qualification needs (ie through the analysis of demanded training within the organization, push the information that there is a general need for training for specific qualification)

*transferability & recognition of qualification (ie being able to assess the training value of various providers' content in order to align it with the company's own scale)

*Complete integration of HR and e-learning/knowledge management

*Proposing new training to individuals on a permanent basis

*Giving individuals an access to complete catalogues of learning resources to chose from

*Customisable professional development schemes available for each individual in the organization (ie competence mapping allowing to know who needs what training at what time and where)

	<p>*Interview at regular intervals (ie have e-learning systems regularly ask quick questionnaires in order to probe the interests of individuals for specific training)</p> <p>*On-line staff development consultancy for employees (ie instead of having the system say what training does one need, let each individual find out its own needed training)</p>
Secondary Topics	<p>*Increased awareness and promotional information on e-learning offer (ie pushing information on available training, news, that can be directly used by individuals to get the right training)</p> <p>*Costs management systems (ie intelligent analyses of existing training (groups or individuals ; mode of delivery, costs...) to be able to decide how to optimize the training budget allocation)</p>

4.3.7 Cost Management

E-learning expenditures account for a small part of the training expenditures (65% of the companies spend in e-learning less than 10% of their global training expenditures). In addition, 69% of companies cannot forecast or forecast that the expenditures related to e-learning will remain below 10% of the global training expenditures.

46% of the companies that have already invested in e-learning expect a reduced cost of training.

A large majority of companies (65%) expect an easier way to calculate ROI of an e-learning investment. Easier calculation of ROI would be a good element to convince some perplexed potential customers. The problem of an easier calculation of the ROI is closely linked to the problem of assessing training needs.

A large majority of companies (72%) prefer to use e-learning without additional investments.

The perspective of off the shelf training is linked to the autonomy of learners. If they can buy their resources themselves, it is essential that the Human Resources department give them an estimate of the amount they can spend.

COST MANAGEMENT	
Main Topics	<p>*Easier calculation of ROI (ie by assessment or calculation, always include in a given training a ROI calculation module for each trainee)</p> <p>*Costs management systems (ie intelligent analyses of existing training (groups or individuals ; mode of delivery, costs...) to be able to decide how to optimize the training budget allocation)</p>
Secondary Topics	<p>*Availability of generic e-learning brokers allowing to browse multiple providers' catalogues at once</p> <p>*E-learning industry forums freely available and recognized</p> <p>*off the shelf training (ie go to an online catalogue of training, pick one, pay it, deliver it, all seamlessly)</p>

4.3.8 Tax and Regulations

Although the market need concerning tax and regulatory issues is not explained directly as such, some aspects, especially concerning the quality/recognition and the copyright issues of training content lead to develop these aspects in the future scenarios.

TAX AND REGULATIONS

Secondary Topics *transferability & recognition of qualification (ie being able to assess the training value of various providers' content in order to align it with the company's own scale)

*Systematic certification (if the successful training leads to a certification, make this process automatic and seamless once the training is completed)