Report with the results of research on training needs and innovative learning methods in Portugal

English version

Lisboa, December 2015

Project 554486-EPP-1-2014-1-ES-EPPK2-SSA
This project has been funded with support from the European Commission

1. Overview of the Research

How was the methodology, following the guidelines, implemented on national level?

The research although following the methodological guidelines provided by the WP leader where adapted to the national context. For instance, synergies among WP2 and WP3 were exploited and a team work between the 3 national Portuguese partners was developed answering to the objectives and targets of the two work packages. So besides developing questionnaires in Portuguese answering to the WP2 and WP3 information needs, also the focus groups were organised to answer the information needs of both work packages. The reasoning behind this common work was that, if the target groups were the same or similar we could benefit from a synergic work. Also, working as a team of 3 organisations – independently of the formal responsibilities within the project – seemed to be beneficial to the work and to the results.

In summary, questionnaires to the different target groups were applied, following different means and procedures.

Questionnaires:

Employers (N=44): included questions WP2 and WP3; applied via e-mail/paper; distributed and collected by CCP

Employees (N=20): included questions WP2 and WP3; applied via google forms; distributed and collected by CECOA

VET providers (N=8): included questions WP2 and WP3; applied via e-mail/paper; distributed and collected by CCP and CECOA

Stakeholders (N=6): included questions WP2 and WP3; applied via e-mail/paper; distributed and collected by CCP

Also the opinion of the different target groups were collected via focus groups and/or request of written contributions when the organisation of a focus group was not possible (employees and employers).

Focus Groups:

VET providers (N=10): included questions WP2 and WP3; common organisation of the national partnership; hosting partner CCP; 09/10/2015

Stakeholders (N=9): included questions WP2 and WP3; common organisation of the national partnership; hosting partner CCP; 09/10/2015 - NOT FORESEEN IN THE GUIDELINES

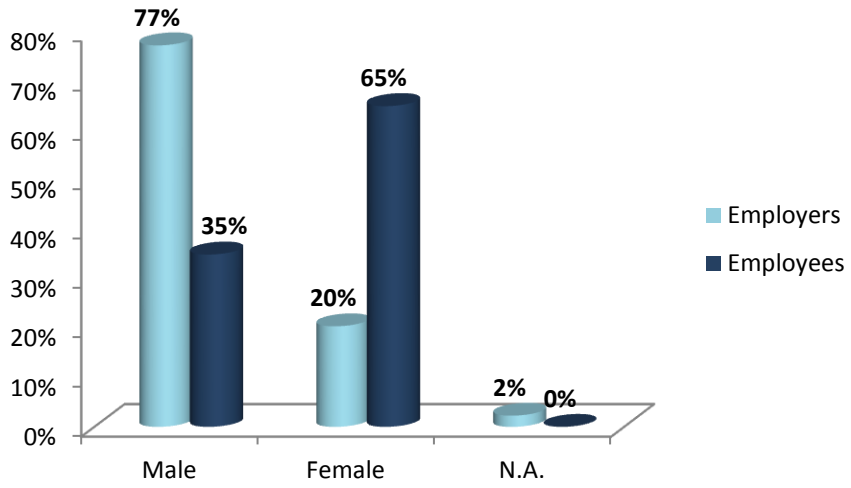
Employers (N=10): Request of Written Contributions

Employees (N=145): Request of Written Contributions

Regarding analysis and reporting, CECOA treated and analysed WP3 related data and produced the WP3 National Report that was validated by the National Partnership.

2. Target Groups

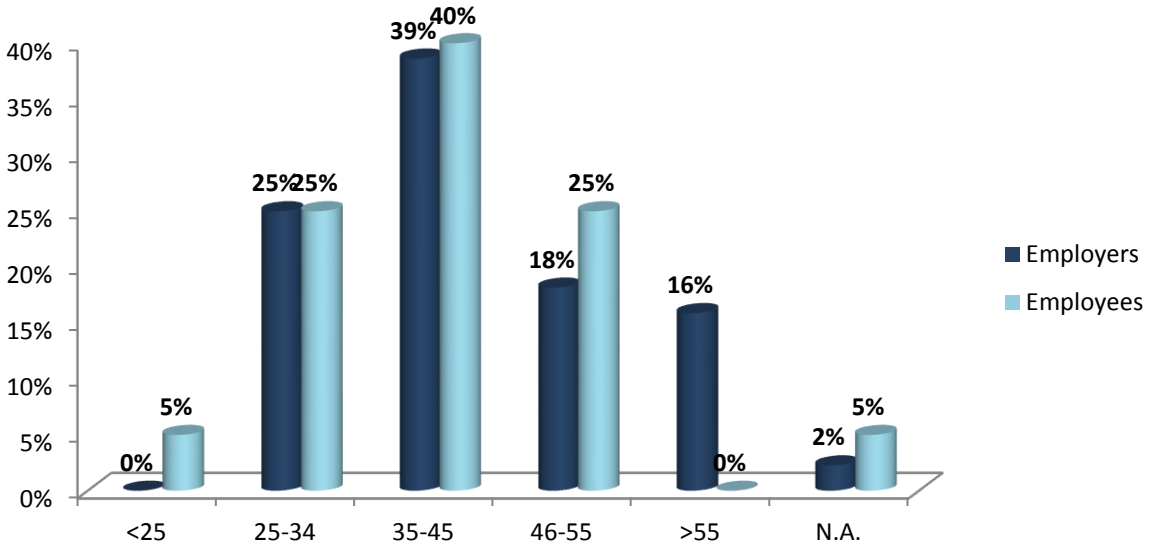
2.1. Distribution by Gender *(employees, employers)*



(Total Nº of Respondents: 44 employers; 20 employees)

Regarding Gender, the data show that the majority of answers come from male employers (77%) and female employees (65%).

2.2. Distribution by Age (employees, employers)

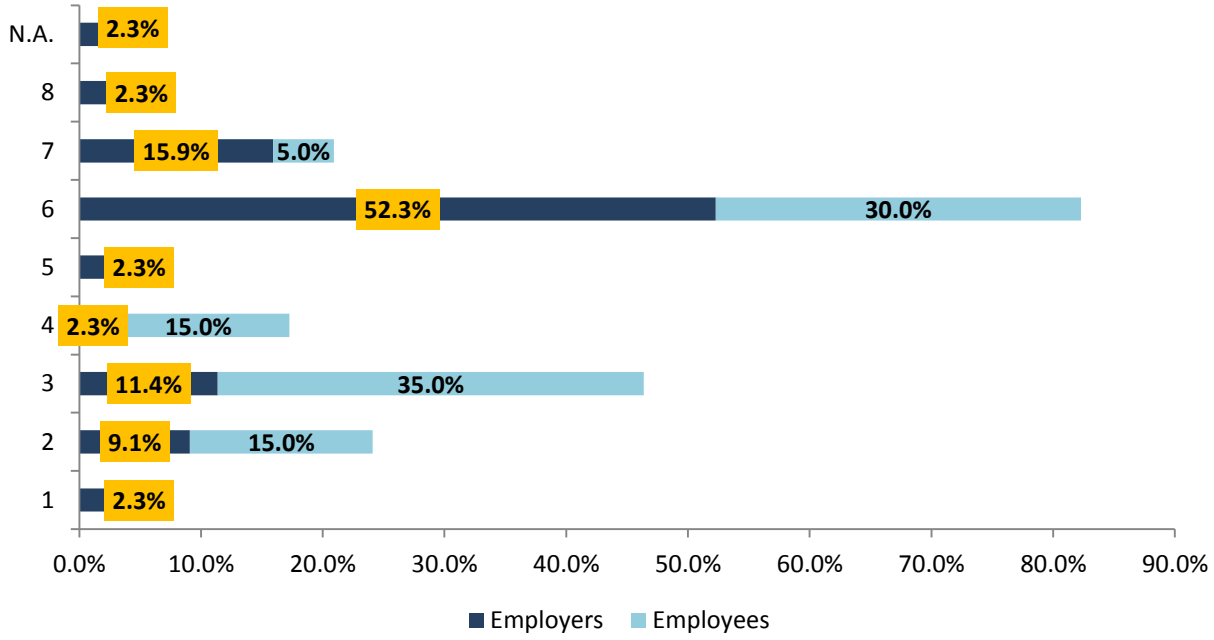


(Total Nº of Respondents: 44 employers; 20 employees)

As far as Age, the results show a balance between employees and employers and also show that the age group with a higher level of participation is the one from 35 to 45 years old, representing around 40% of the target group, followed by the group from 25 to 34 years old.

In this way the sample is representative of the data universe reported by the National Institute of Statistics (INE) in Portugal once in 2013, 75% to 80% of the persons employed in the commerce sector were in the age group from 25 to 55 years old.

2.3. Distribution by Qualification Level *(employees, employers)*

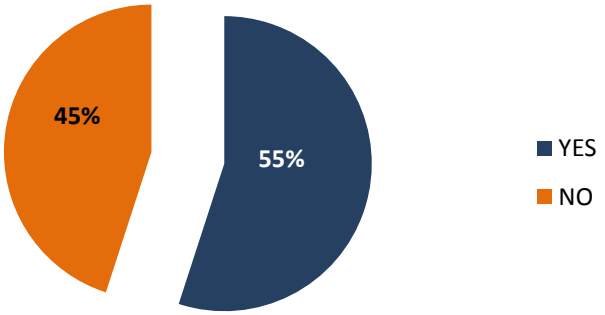


(Total Nº of Respondents: 44 employers; 20 employees)

Respondents have mostly a level 6 of qualification (European Qualification Framework and National Qualification Framework) – 52.3% employers and 30% employees – but level 3 is also well represented in the employees cohort.

In this case it's possible to say that the sample is not representative of the data universe reported by the National Institute of Statistics (INE) once in Portugal in 2013, 30% to 35% of the persons employed in the commerce sector had between level 3 to level 5 qualification. The fact that respondents have mostly a level 6 of qualification can be explained by the fact that probably people with lower levels of qualification tend to be less responsive to surveys especially surveys with a medium to high level of complexity and technicality .

2.4. Distribution of ICT/E-commerce Workplaces *(employees)*

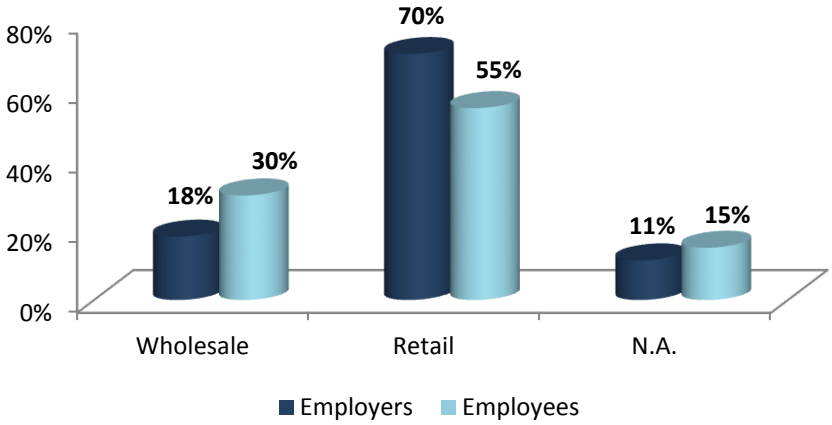


(Total Nº of Respondents: 20 employees)

When asked employees respondents stated that 55% have jobs in the ICT or e-commerce area and 45% said they have not.

Employees who answered the questionnaire come from the following professional background: Graphic designer, Marketing Manager, Manager, Teacher, Administrative, Marketing support and product disclosure, Store manager, Commercial Manager / Technical Support and Administrative and commercial.

2.5. Distribution by Sector of Activity *(employees, employers)*

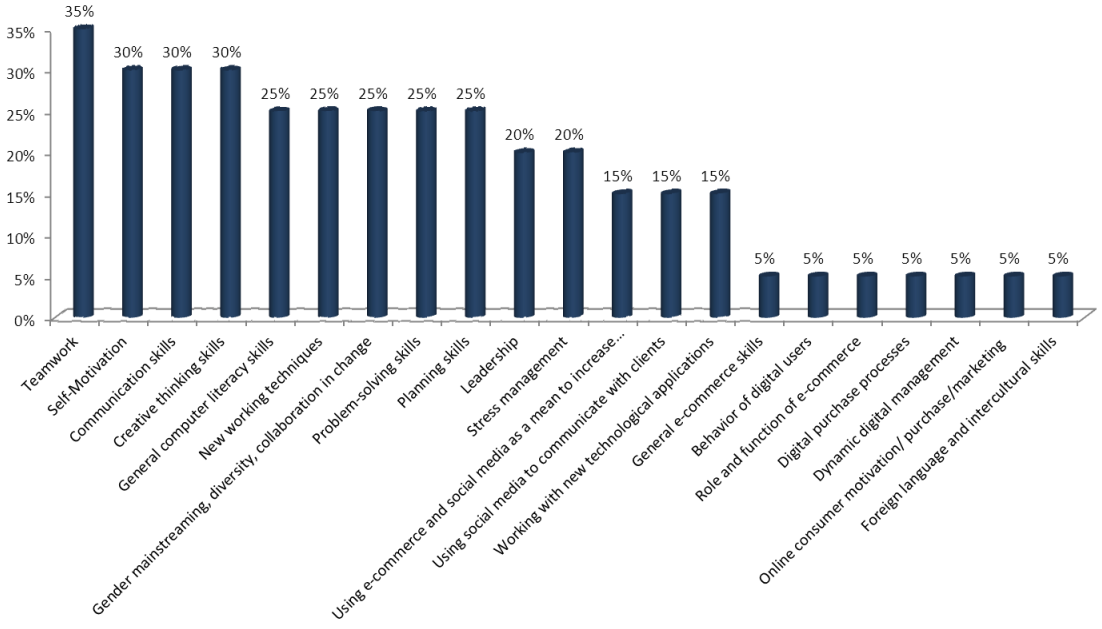


(Total Nº of Respondents: 44 employers; 20 employees)

Respondents come mostly from the Retail Sector (in average 62.5%), which is congruent with the distribution of the commerce companies in Portugal (according to data reported by the National Statistical Institute in Portugal in 2013, the commerce sector accounted for more than 198.500 companies from which around 70% were from the retail sector and around 30% from the wholesale sector).

3. Qualifications

3.1. What training-offers are available for the target group, to what extend? (*employees*)



(Total Nº of Respondents: 20 employees)

According to employees' assessment, training available is mostly focused on transversal/soft skills in areas such as team work, communication, self-motivation, creative thinking, problem-solving, leadership, stress management, etc. Training focused on the development of digital and technological skills more linked with e-commerce seems not to be so well represented apart from "general computer literacy skills" (25%); "new working techniques" (25%), "using e-commerce and social media as a mean to increase sales" (15%), "using social media to communicate with clients" (15%) and "working with new technological applications" (15%).

3.2. What training-offers are required/important for the target group, to what extend? (*employees, employers, stakeholders, VETs*)

In annex 1 to this report it is highlighted in blue light the training offers most often chosen by respondents.

There is a consensus, among the target groups who answered to this question, around the fact that "General computer literacy skills" are one of the most important and required training offers (Stakeholders 83,3%; Employers 63,6%; VET Providers 62,5%; Employees 40%). Employees gave a lower level of importance to this training but it represents, nevertheless, 40% of the answers.

Employees' answers although presenting high level of responses, that could be read as employees having training needs in several areas, also show a great dispersion of results making hard to prioritise and conclude on specific training offers they really miss or need. Training in the following areas are pointed out as the training offers employees miss the most: "online consumer motivation/purchase/marketing" (80%), "foreign languages and intercultural skills" (75%) and "Working with new technological applications" (70%).

Employers most important and required training offers are: "General computer literacy skills" (63.6%), "Teamwork" (43.2%), "Leadership" (36.4%), "Self-Motivation" (36.4%) and "Planning skills" (25%). This could mean, according to the answers obtained that employers considered soft skills as the most needed and important skills and not "digital and technological skills".

Stakeholders clearly emphasize the importance of training offers focused on the development of "digital and technological skills" and some even mentioned that the "soft skills" presented are not "specific" to work in e-commerce but necessary to work in any field of operation:

- Training concerning digital purchase processes: 100%
- General e-commerce skills: 83.3%
- Training concerning dynamic digital management: 83.3%
- Training concerning online consumer motivation/purchase/marketing: 83.3%
- Using social media to communicate with clients: 83.3%

From the VET providers' side, the highest demand is from the "soft skills" side, apart from "Training concerning foreign languages and intercultural skills" (37.5%) which we considered, for the project purposes, as a "digital and technological skill":

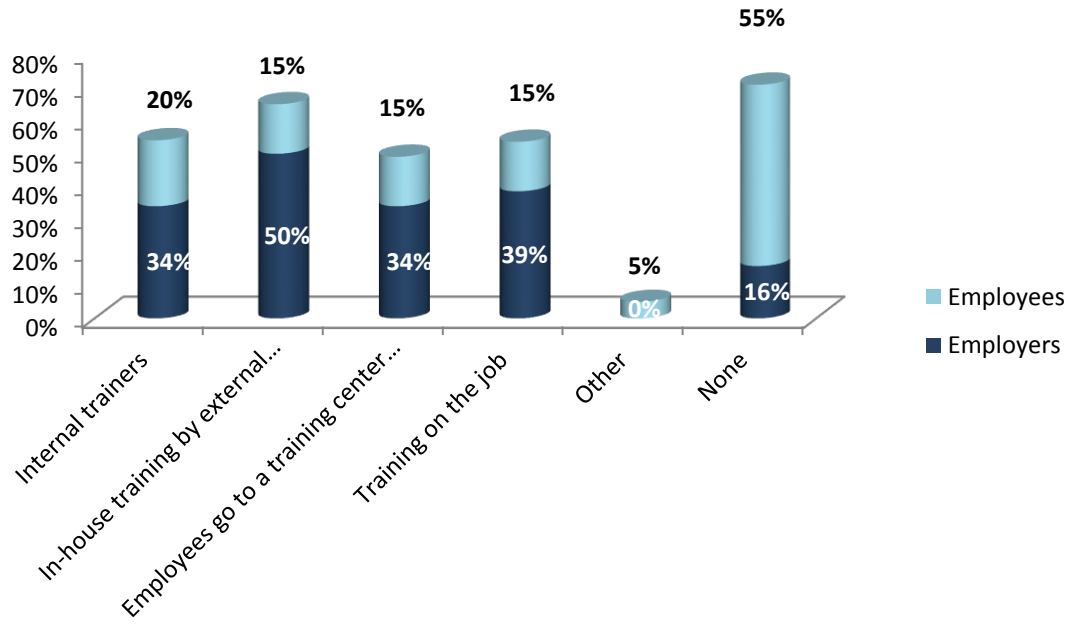
- Teamwork: 37.5%
- Leadership: 37.5%
- Self-Motivation: 37.5%
- Communication skills: 37.5%
- Problem-solving skills: 37.5%

Nevertheless, according to data collected there is still a medium level demand to training offers targeted to develop "digital and technological skills":

- General e-commerce skills: 62.5%
- Training concerning digital purchase processes: 62.5%
- Using e-commerce and social media as a mean to increase sales: 62.5%
- Working with new technological applications: 62.5%
- Training concerning role and function of e-commerce: 50%
- Training concerning online consumer motivation/ purchase/marketing: 50%
- Using social media to communicate with clients: 50%

A very important suggestion on a training offer relevant to the e-commerce sector come out from the stakeholders' side (questionnaire and focus group) but also from the VET providers' side: Legal framework for e-commerce. It was considered that security in online transactions is a fundamental issue to raise the level of online sells and that knowing the rights and duties of both sides (seller and buyer) is fundamental to raise the confidence and trust on online transactions. The importance of the legal framework was considered particularly important when facing international commerce.

3.3. What kind of professional trainings regarding e-commerce are used in companies, to what extend? (*employees, employers*)



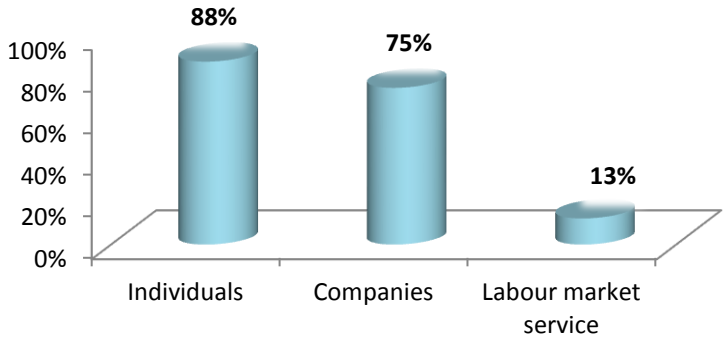
(Total Nº of Respondents: 44 employers; 20 employees)

In-house training by external trainers is the kind of training mostly used by commerce companies according to employers: 50%.

In-house training using internal trainers, employees go to a training centre (paid by company) and on-the-job training got, more or less, the same results. Also, the results show that, according to employees respondents (55%) much need to be done by companies in terms of training offer available.

3.4. Who required offers in e-commerce-trainings? (VETs)

Training offers in e-commerce are mostly required on an individual basis (88%) but also very substantially by companies (75%). Labour market services were not much referred as a "demander" of training. This fact, can be explained by the fact that VET providers who answered are not working with them but it does not mean that unemployed people are not one of the targets of the VET providers in question (in fact, around 70% of them work for unemployed people but maybe unemployed people looks directly for training and do not go through the labour market services).



(Total Nº of Respondents: 8 VET providers)

3.5. Are there any differences concerning age, sex, qualification-level, regarding motivation and willingness to learn e-commerce skills? (employers, stakeholders)

Generally, there is the perception that the (still) low level of digital literacy of the Portuguese population is a constraint to the development of e-commerce skills.

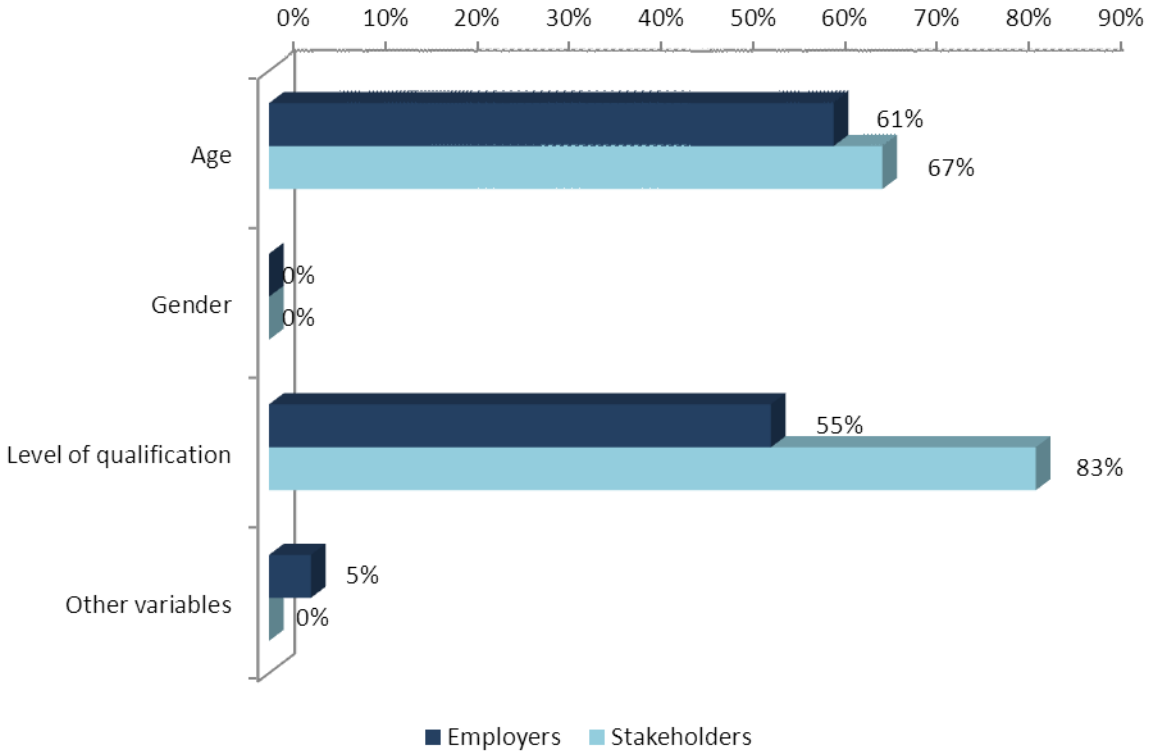
This conclusion is consistent with the fact that "general computer literacy skills" are, according to employers, VET providers and stakeholders (respectively 63.6%, 57.1% and 83.3%) still required and important to the commerce sector manpower.

In fact, although the investment made by the Government and companies in digital literacy is considerable there is still a long way to go to provide the Portuguese population with the general computer literacy skills required by the labour market and by the "Era of Millennials". According to the "Digital Economy and Society Index" developed by the European Commission [1] Portugal although well positioned in criteria such as "use of digital public services" or "connectivity" (respectively in nº 7 and nº 13 among the 28 European countries integrating the Index) show a lower performance in digital literacy. In fact, in 2014, only 51% of the population aged 16 to 74 years old use internet, from once a week to daily.

Also, the still low level of qualification of the commerce sector employees particularly of the commerce entrepreneurs and managers is still a constraint to a higher Internet penetration in businesses and a better use of the benefits coming from e-commerce. According to data reported by the National Statistical Institute in Portugal in 2013, more than 50% of the persons working in the commerce sector had a qualification at level 1 to 2 of the National and European Qualification Frameworks.

Both employers and stakeholders were asked about their perception regarding people motivation and willingness to acquire/develop e-commerce competences.

[1] The "Digital Economy and Society Index" analyse the European countries performance in terms of digital technology using criteria such as connectivity, Internet skills, the use of online activities from news to shopping, how key digital technologies (e-invoices, cloud services, e-commerce, etc) and digital public services such as e-government and e-health are developed.



(Total Nº of Respondents: 44 employers; 6 stakeholders)

Clearly the level of qualification and the age of people seem to influence motivation and willingness to acquire/develop e-commerce competences. On the other hand, gender was clearly declared as being a variable having no influence in people's motivation to learn.

Age:

According to the answers given, older people are more resistant to learn particularly this kind of competences and young people are more flexible and open to new learning. Working with technology latu sensu seems to be more difficult to older people.

It is however worth to mention, that in the focus group with stakeholders come up the idea that even if the "Millennials Generation" is for sure more prepared to work with technologies, there are not yet available statistical research that prove the relation age/more motivation and willingness to acquire/develop e-commerce competences.

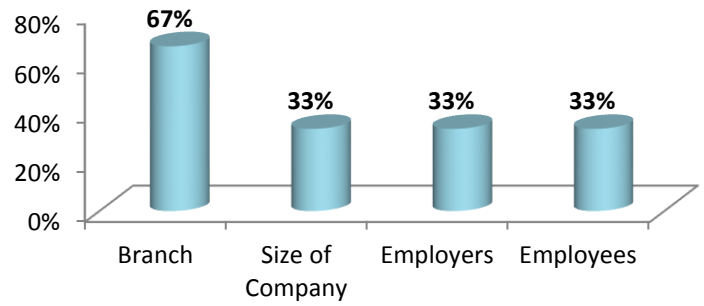
Also, employers made a parallelism regarding the profile of their e-commerce customers by stating, several times, that young people (up to 45/50 years old), as customers, are more likely to shop online and are more open to multichannel marketing and purchases.

Level of Qualification:

According to the answers collected it seems to be an high relation between motivation and willingness to acquire/develop e-commerce competences and an high level of qualification (minimum level referred at level 4 EQF; preferably at level 6 EQF) and this relation seems to be stronger with "not so young people". Nevertheless some comments went in the sense that although its truth that a higher level of qualification makes learning easier, a lower level of qualification may increase the willingness and resilience to learn.

Also it seems that another criteria could be taken into account. In fact “the area of studies” has influence in the motivation to develop e-commerce competences. If you come from a technological or scientific studies background its more likely that you feel comfortable in e-commerce, once you already have some more advanced ICT skills.

Stakeholders were also asked about a set of other variables that can/could influence the motivation and willingness to learn e-commerce skills: branch, size of company, employers’ point of view and employees’ point of view.



(Total Nº of Respondents: 6 stakeholders)

From the answers given, the branch where people work seems to have the greatest influence (67%) in the motivation and willingness to develop e-commerce skills. Employees working in technological companies are more likely to be motivated to acquire e-commerce competences.

No reasons to consider the “size of companies” as a variable likely to influence was declared.

As far as the criteria “employers” and “employees”, it was mentioned that survival of the businesses, from the employers’ point of view, along with maintenance of the jobs, from the employees’ point of view, are powerful motivations to trigger the investment in the development or acquisition of e-commerce competences. Also a link between employees and their level of qualification was declared.

3.6. What could be done to attract more people to take part in vocational trainings in the field of e-commerce? (employees, employers, stakeholders)

Contents:

Employers	Employees	Stakeholders
Targeted to the needs of the region, the branch and the specific company needs Attractive and updated contents Practical, useful, immediate applicability Specific, not generic Diversified contents but simple Targeted and focused on results Informal learning Few theoretical contents followed by on-the-job training or simulated training Several suggestions on contents that will increase the attractiveness of e-commerce training were given: • Awareness-raising toward the need of companies to evolve to e-commerce, as an inevitable trend • Behaviour of digital customers • Digital contents • Digital law • Digital Marketing Integrated Communication • Distribution through Internet; • E-Business Plans; • E-Business versus E-Commerce • Email marketing • How to develop online promotional contents (videos, spots to web, etc) • How to implement and maintain online shops • How to improve sales with e-commerce • Multichannel customer • Online Payment Means and Security • Practical aspects of e-commerce (how to reach customers through the web) • Social networks • Use of Content Management Systems (CMS) Open Source preferable • Web design (e-commerce relays a lot on attractive online "shops")	Training in foreign languages Contents more focused and targeted Few theoretical contents followed by on-the-job training or simulated training	To reinforce training on digital literacy Continuous access to training (lifelong learning) in new technologies and digital communication, assuring permanent update of knowledge and skills in those areas

(Total Nº of Respondents: 44 employers; 20 employees; 6 stakeholders)

Level of Expected Qualification:

Analysing the comments made it seems that the level of qualification expected from employers have a direct link with the job/tasks HR are expected to have within the organization and e-commerce in concrete, so basically the answer goes in the sense, that training on different levels of qualifications should be promoted to answer to different needs of the organisations/persons.

The idea that the level of qualification attained should be the one "good enough" to enable the person to be autonomous in his/her job within e-commerce was also an idea that come out from the employers answers.

The idea that a medium level of qualification is required to work on e-commerce come out from the results as well (level 4 to 5 EQF). The same idea can be extracted from the comments presented by employees.

Methods:

Training in the classroom and e-learning were both methods more or less equally referred by employers and employees, so one can conclude that promoting more training using b-learning methods could be something that could be done to attract more people to take part in vocational training in the field of e-commerce. Stakeholders went fare on their suggestions and referred other forms of distance learning such as mobile learning and the use of social networks as a learning environment and tool. Clearly stakeholders highlighted the positive contribution that the use of innovative learning environments, resources and methods can give to attract people to e-commerce training.

Employers also mentioned more classic didactics methods but is worthwhile to mention the fact that many employers referred to the importance of more practical training, sharing of experiences, on-the-job training and even classroom training followed by an internship in a company to put in place the competences acquired. Stakeholders also emphasized the importance of experimenting (experiential learning) as an important training method.

Employers suggested linking the method with the qualification level of the participants (classroom training for lower qualification levels and e-learning for higher qualification levels).

Modularisation of training was also mentioned by employees as an important element to attract people to training in e-commerce.

Duration:

Analysing the comments made by employers it seems that the most important is that the duration answer to the needs in terms of competences to develop. Nevertheless, there is a clear tendency to indicate short-term training as something that could attract more people to training (ranging from 4 hours to 25 hours). Presumably linked with the organization of the Portuguese National Qualification Framework that foresee modules of 25 or 50 hours, those durations where regularly mentioned, but suggestions on longer courses (200 hours) or pathways of around 100 hours organized in smaller modules were also presented.

Employees were less consistent on their comments and it seems that training duration can range from 12 to 100 hours, depending on the training objectives.

Framework (time, place):

Clearly, after work time is the mostly chosen by employers and employees as a motivator factor to increase participation in e-commerce training (around 70% of the employers and employees who answered to this question mentioned after work schedule). In terms of place, some few comments were made by employers on the advantages of organising training in the workplace, both during work time and after work time.

An interesting suggestion was made by an employee: to have training courses organised in a mix schedule (labour time and after work time) to be compatible with a very important issue for those who work in the commerce sector (especially retail): shift work.

Entry Requirements:

The entry requirements suggested both by employers and employees and that should be taken into account by VET providers are, from one side, connected with a more personal perspective of the learning process (participants' motivation to learn, personal interest on technologies) and from the other side, linked with the professional background of the participants (previous experience of the participant in the sector; working in the e-commerce sector; previous ICT skills).

Financial Aspects:

Although it was mentioned by employers that a key element for VET providers to make training more attractive to companies is to give concrete information on training return on investment (ROI), many mentioned that training need to have low costs, to be subsided or even, be for free (42% of those who answers to this question stated that being for free is a way to attract more people to training in e-commerce).

Controversially, employees who answered to this question did not mentioned "for free" as criteria for training attractiveness but only being subsided or having a low cost. Also flexible payment arrangements that could facilitate payment of the training costs were mentioned.

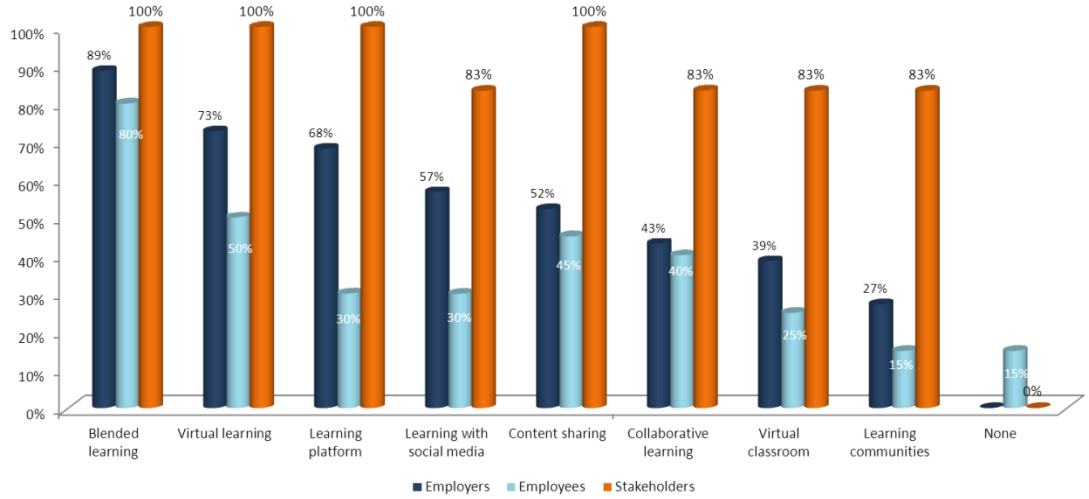
Other aspects mentioned by employers were the following: to make sure that training groups are not large and that suitable learning materials are provided to participants.

Also stakeholders produced valuable suggestions on how to make e-commerce training more attractive, but most of them not fitting in the categories above, once their suggestions are more at a macro and institutional level:

- Internet access to all;
- Improve the diversity of the products/services accessible via e-commerce;
- Campaigns targeted to raise sellers and buyers trust on e-commerce, protecting the selling companies and the buyers;
- Campaigns involving the Public Administration and local and sectorial associations, targeted to raise attention to the importance of digitalization and technologies and to increase the presence of businesses in the web (websites, e-commerce shops, etc);
- Training used as an advantage in employees' career progression.

4. Innovative Learning Methods

4.1. What "innovative learning methods" are known, to what extend? (*employees, employer, stakeholders*)



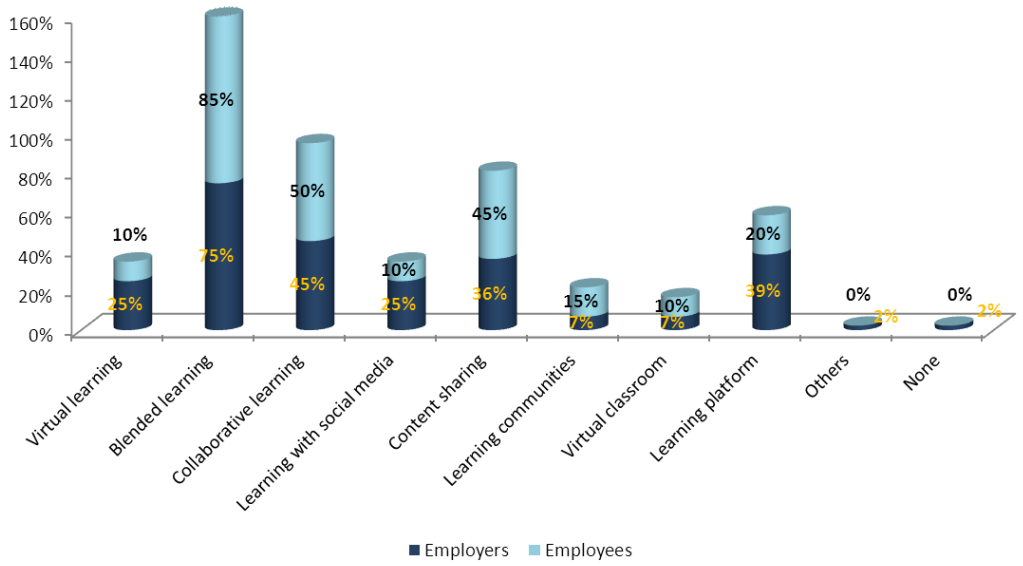
(Total Nº of Respondents: 44 employers; 20 employees; 6 stakeholders)

Apart from the 15% employees who stated that they do not know any of the learning methods suggested, all learning methods seems to be known. Stakeholders clearly are the ones who stated to know almost all the learning methods suggested.

Employers know better blended learning (89%) and virtual learning (73%) and the 3 methods with less than half of the respondents answering are "Learning communities" (27%), "Virtual classroom" (39%) and "Collaborative learning" (43%).

The results show that employees are the less familiar with innovative learning methods. The categories with equal or more than 50% of the respondents answering are "Blended learning" (80%) and "Virtual learning" (50%).

4.2. What "innovative learning methods" are required, to what extend? (*employees, employers*)



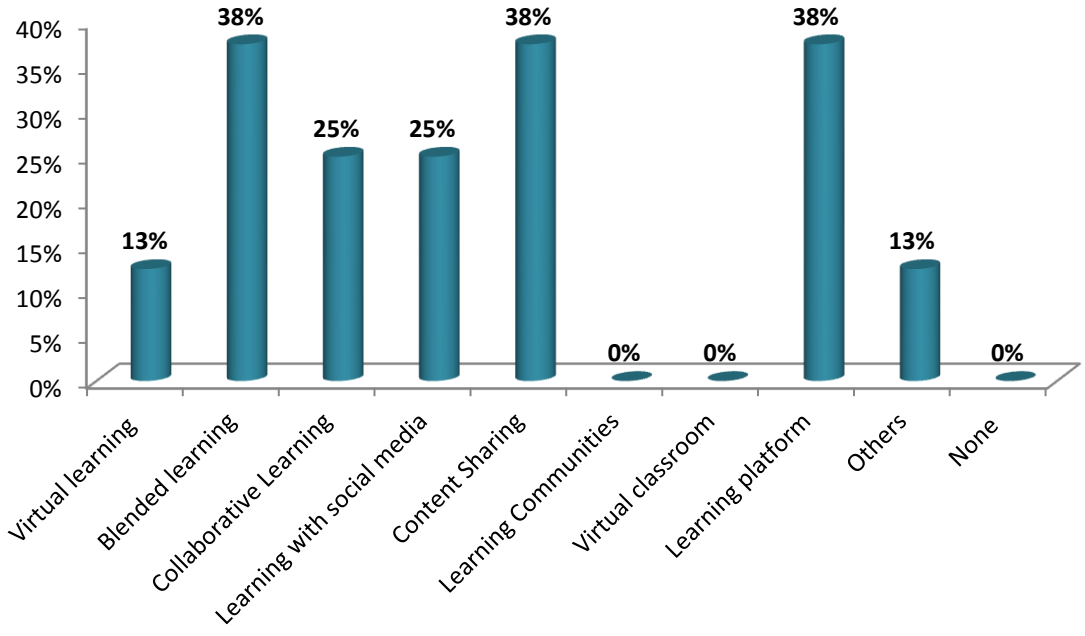
(Total Nº of Respondents: 44 employers; 20 employees)

According to the answers obtained, employers and employees are in accordance regarding the most adequate learning method, once "blended learning" seems to be, from the employers side, the learning methods that fit better their staff (75% of respondents) and from the employees side the preferred method (85% of the respondents).

Other methods that fit the preferences of both staff and management are the following: collaborative learning and content sharing.

Reinforcing this consensus, stakeholders clearly stated in the focus group organised within the project that "blended learning" seems to be the learning method that fit better all types of targets.

4.3. What "innovative learning methods" are used, to what extend? (*VETs)*



(Total Nº of Respondents: 8 VET providers)

VET providers answering to the questionnaire (mostly VET providers that develop qualifications and training in the field of commerce sector) seem not to use a lot of the innovative learning methods proposed (none of the methods is used by more than 38% of the respondents, nevertheless, the ones more used are "blended learning", "learning platforms" and "content sharing" (38%) followed by "collaborative learning" and "learning with social media" (25%).

This relatively low level of use of innovative learning methods was somehow confirmed in the focus group with stakeholders who declared that there is no generalised use of technologies to learn in the Portuguese population and that the (still) important challenge to overcome is the digital literacy of population.

On-the-job training was suggested as being an important learning method but also "gaming" was considered as a very innovative and interesting learning method, in the focus group organised with VET providers.

Also from the focus group with VET providers come out the consensus around the idea that the best solution is to use a mix of methods that can combine classroom theoretical training, practical training, work experience, simulation, gaming and web based training solutions of any source. The focus must be on the learner and that the best learning methodologies would be the ones that combine "motivation" and "doing" (learning by doing).

4.4. Which “innovative learning methods” fit to which participants? (*VETs)*

The criteria “gender” was declared as being not relevant to choose a certain learning method.

Regarding the criteria “age” it was considered that more innovative and technological based learning methods can fit better young people.

In the focus group organised with stakeholders within the project, it was stated that “blended learning” seems to be the learning method that fit better young and older people. It was clearly consensual that the methods would vary according to the age of the participant. Nevertheless the following controversial idea got the consensus from everyone: from one side, adults have more discipline to distance learning, although young people have more natural inclination towards ICT and technologies.

As far as the “level of qualification”, it was also considered that innovative learning methods fit better participants with an higher level of qualification and that a good level of performance in ICT and foreigner languages is essential to make good use of those innovative learning methods.

Nevertheless, in the focus group organised with stakeholders come out the idea that more important that the criteria “level of qualification” is the criteria ”profession” (someone who work in an office with a PC is more likely to be open to web based learning methods than someone who works in a warehouse being responsible for handling products, for instance).

5. Overall Conclusion

5.1. Challenges in E-commerce from the perspective of stakeholders/political actors

Generally, there is the perception that the (still) low level of digital literacy of the Portuguese population is a constraint to the development of e-commerce in Portugal. This conclusion is consistent with the fact that "general computer literacy skills" are, according to employers, VET providers and stakeholders still required and important to the commerce sector manpower.

Also, the still low level of qualification of the commerce sector employees particularly of the commerce entrepreneurs and managers is still a challenge to overcome and a constraint to a higher Internet penetration in businesses and a better use of the benefits coming from e-commerce.

Another important challenge that the economic actors need to overcome is the realisation that developing skills in this area is fundamental because e-commerce is a business opportunity valued by Society and that the commerce sector cannot jeopardise. Management of the commerce sector need to follow – or even better – to anticipate the changes in the consumer behaviour and understand that there is a new consumer profile that can be described as "older, living longer, urban, coming from smaller households, better qualified and informed, internet aware, environmentally conscious, more demanding and less tolerant to inefficiency" that represent a challenge but also a business opportunity in terms of potential market niches to be exploited using e-commerce.

Other business related challenges that can be pointed out are the following: the future (and already the present) is characterised by a coexistence of online and offline business models, by multichannel business models that combine the presence on the internet, the physical space, the participation in social networks and the use of mobile communications, and that this tendency represent, from one side, the raising of new job profiles, new "professions" in the sector (e-shop assistant; e-merchandiser, online store controller, etc); and from the other side, an increasing need of specific skills that need to be developed through training and working practice.

Other challenges that can be mentioned are technological (the development of user friendly platforms for the online sales; the need to increase the diversity of products/services accessible via e-commerce) and legal (security in online transactions was considered as a fundamental issue to raise the level of online sells and that knowing the rights and duties of both sides (seller and buyer) is fundamental to raise the confidence and trust on online transactions. The importance of the legal framework - also in it competition dimension - was considered particularly important when facing international commerce. Internationalisation and competition in a global market characterised by a raising prominence of global supply chains were also identified as being change drivers that need to be addressed and that demand from businesses clever and focused corporate strategies and efficient business structures that exploit the e-commerce advantages for their benefit. It was also mentioned that the evolution of the digital economy will reduce the difference between large and small enterprises in terms of their offer capacity and that this fact can be (need to be) exploited using integrated business models.

5.2. Training

5.2.1. Which trainings related to e-commerce have to be offered/ developed in your country?

The (still) low level of digital literacy of the Portuguese population justify to conclusions coming from the qualitative and quantitative research: a consensus around the fact that "General computer literacy skills" are one of the most important and required training offers in Portugal.

From the "demand point of view" (employers), soft skills are the most needed and important skills to be developed (e.g. teamwork, leadership, self-motivation, planning skills, communication and problem solving skills), need that was confirmed by the "offer side" by the VET providers. On the other way around, stakeholders emphasize the importance of training offers focused on the development of "digital and technological skills"

- General e-commerce skills
- Training concerning online consumer motivation/purchase/marketing
- Training concerning digital purchase processes
- Training concerning dynamic digital management
- Training concerning role and function of e-commerce
- Using e-commerce and social media as a mean to increase sales
- Using social media to communicate with clients
- Working with new technological applications

Clearly the idea that commerce employees generally speaking need to be prepared to work with online and offline realities and "sell" to offline but also to online customers were emphasised.

Training concerning foreign languages and intercultural skills was also pointed out as fundamental to develop e-commerce. The same way, training entrepreneurs and companies managers in digital entrepreneurship seems to be fundamental to leverage e-commerce business models.

A list of Key Competences to be developed to be successful in e-commerce comes out from the focus group with VET providers summarizing the trainings that need to be developed in Portugal:

- Information management
- Critical skills
- Analytical skills
- To evaluate/assess critically
- How to search; how to "google"
- Learn to learn / to be updated / LLL
- Ability to communicate "at distance" (oral and written communication) in foreign languages / intercultural skills
- Technological skills
- Legal framework for e-commerce: legislation regarding data protection; fiscal law (international), web security, security in online transactions

From a more system level approach these training needs mean that the national qualification framework (NQF) and the existing qualifications in the commerce area need to be revised in order to integrate the dimension "e-commerce" in several of the existing qualifications but also that new qualifications need to be created and integrated in the NQF (example: "E-commerce Specialised Technician/"Digital Commerce Technician" – at a level 4/5 NQF/EQF).

5.2.2. What has to be done to increase motivation for people to improve their competencies on e-commerce?

Continuing raising the level of digital literacy of the Portuguese working population seems to be a pre-requisite to increase further development of digital competences such as e-commerce.

Several other motivator factors were referred in the qualitative and quantitative research.

The results show that contents with the following characteristics can increase motivation to participate in training and improve e-commerce competencies:

- Targeted to the needs of the region, the branch and the specific company needs
- Attractive and updated
- Practical, useful, immediate applicability
- Specific, not generic
- Diversified but simple
- Targeted and focused on results

In terms of methods, promoting more training using b-learning methods could be something that could be done to attract more people to take part in vocational training in the field of e-commerce. It was highlighted the positive contribution that the use of innovative learning environments, resources and methods can give to attract people to e-commerce training. Other “attractive and efficient” methods were mentioned: theoretical training followed by on-the-job training or simulated training; practical training, sharing of experiences, on-the-job training and even classroom training followed by an internship in a company to put in place the competences acquired. Stakeholders also emphasized the importance of experimenting (experiential learning) as an important training method.

The duration of training also play it role in the motivation level of people. Although it was consensual the idea that the most important is that the duration answer to the needs in terms of competences to develop, there is a clear tendency to indicate short-term training as something that could attract more people to training (ranging from 4 hours to 25 h).

After work schedules seems to be also a motivator factor to increase participation in e-commerce training (around 70% of the employers and employees who answered to this question mentioned after work schedule). In terms of place, some few comments were made by employers on the advantages of organising training in the workplace.

Finally, the costs associated to the participation in training also play a role as a motivator factor: offering “for free” or low cost trainings courses associated to flexible payment arrangements seem to be something that can be done to increase participation in e-commerce training.

5.2.3. What are the suggestions for optimizing the training offers in your country?

The following contributions to this topic were collected via the qualitative and quantitative research:

- To offer training more targeted to the specific needs of the users (companies and staff)
- To invest on individual training needs assessments and on the evaluation of the prior level of competences in order to design training pathways that answer to the individual needs of people
- To have experienced and qualified trainers who "talk the language of the companies" and who have a market oriented vision, able to provide technical knowledge but also their examples and experience as professionals
- To organise very practical training in the workplace
- To insure some continuity on the training provided
- To offer training at affordable prices
- To offer training in different time schedules that can answer to different needs and learning styles
- To exploit the possibilities offered by social networks and mobile devices was also a suggestion to optimize the training offers namely in terms of time management

Generally speaking, distance learning or learning mediated by technology was presented as a way to optimize the training offers in Portugal.

5.3. Innovative Learning Methods

5.3.1. How did the target groups define "innovative" learning methods? (all 4 groups)

All the "innovative" learning methods suggested in the questionnaires seems to be known, although stakeholders were clearly the ones who stated to know almost all the learning methods suggested and employees the ones who declared to know less of those methods.

So if we have to find a common definition of "innovative learning methods" it would be: "blended learning" and "virtual learning".

5.3.2. Which innovative learning methods fitting to employees (with their various needs) have to be provided?

According to the answers obtained employers and employees are in accordance regarding the most adequate learning method once "blended learning" seems to be, from the employers side, the learning methods that fit better their staff (75% of respondents) and from the employees side, the preferred method (85% of the respondents).

Other methods that fit the preferences of both staff and management are: collaborative learning and content sharing.

Reinforcing this consensus, stakeholders clearly stated in the focus group organised within the project that "blended learning" seems to be the learning method that fit better all types of targets.

5.3.3. What has to be done to motivate employees (with their various needs) to use innovative learning methods?

Methods need to be adapted to participants profile (learning style, level of qualification, entry level, etc), learning goals and competences to be developed, so “innovative” learning methods are not always the adequate solution and the use of a complementarity of learning methods (theoretical training in a classroom, e-learning, simulated training, on-the-job training, etc) having as focus “the learner” seems to be the wiser solution.

Even if for instance, young people are more motivated to use ICT tools in their learning process, older people are more disciplined and more apt to use innovative learning methods, so the key element seems to be the “motivation to learn”. Once people fell motivated to learn (and the trigger can be that they want it at a personal level or they need it at a professional level) then it is all a question of understanding the learning styles of each person, being aware of the learning goals and the competences to be developed and then choose the more adequate learning methods.

Nevertheless it seems logical that if the competences to develop are around the “e” (e-marketing, e-consumers, e-commerce, etc) than the “e” methods could be appropriate, because:

- The method reinforce the content
- Make use of the experimental learning that most people (especially adults) prefer

ANNEX 1

Training-offers needs according to the different target group (*employees, employers, stakeholders, VETs*)

	Employees "Miss It"	Employees "Not Relevant"	Employers "Very Important"	Employers "Important"	Employers "Not Relevant"	VET Providers "High Demand"	VET Providers "Demand"	VET Providers "No Demand"	Stakeholders "Important"	Stakeholders "Not Important"
General computer literacy skills	40.0%	30.0%	**63.6%**	20.5%	11.4%	**62.5%**	12.5%	12.5%	**83.3%**	0.0%
General e-commerce skills	45.0%	40.0%	20.5%	25.0%	18.2%	12.5%	**62.5%**	12.5%	**83.3%**	16.7%
Training concerning the behavior of digital users	5.0%	25.0%	15.9%	29.5%	11.4%	12.5%	37.5%	37.5%	**50.0%**	16.7%
Training concerning role and function of e-commerce	55.0%	30.0%	11.4%	**36.4%**	15.9%	12.5%	**50.0%**	25.0%	**50.0%**	33.3%
Training concerning digital purchase processes	**60.0%**	25.0%	20.5%	22.7%	18.2%	12.5%	**62.5%**	12.5%	**100.0%**	0.0%
Training concerning dynamic digital management	**60.0%**	20.0%	6.8%	18.2%	11.4%	12.5%	12.5%	50.0%	**83.3%**	0.0%
Training concerning online consumer motivation/ purchase/marketing	**80.0%**	10.0%	13.6%	25.0%	9.1%	25.0%	**50.0%**	12.5%	**83.3%**	16.7%
Training concerning foreign language and intercultural skills	**75.0%**	15.0%	9.1%	31.8%	15.9%	37.5%	37.5%	12.5%	**66.7%**	0.0%
Using e-commerce and social media as a mean to increase sales	**65.0%**	10.0%	20.5%	29.5%	11.4%	12.5%	**62.5%**	12.5%	**66.7%**	16.7%
Using social media to communicate with clients	**65.0%**	10.0%	20.5%	**36.4%**	11.4%	12.5%	**50.0%**	25.0%	**83.3%**	0.0%
Working with new technological applications	**70.0%**	5.0%	20.5%	**38.6%**	2.3%	25.0%	**62.5%**	12.5%	**66.7%**	16.7%
New working techniques	**60.0%**	5.0%	15.9%	**40.9%**	4.5%	25.0%	12.5%	37.5%	33.3%	16.7%
Teamwork	45.0%	15.0%	**43.2%**	34.1%	4.5%	**37.5%**	37.5%	25.0%	33.3%	33.3%
Leadership	**60.0%**	15.0%	**36.4%**	**43.2%**	2.3%	**37.5%**	37.5%	12.5%	0.0%	50.0%
Self-Motivation	55.0%	5.0%	**36.4%**	31.8%	0.0%	**37.5%**	25.0%	37.5%	16.7%	33.3%
Stress management	**60.0%**	5.0%	15.9%	**38.6%**	11.4%	25.0%	**50.0%**	12.5%	0.0%	50.0%
Gender Mainstreaming, Diversity, collaboration in change	50.0%	10.0%	18.2%	**40.9%**	6.8%	12.5%	0.0%	62.5%	16.7%	33.3%
Communication skills	**60.0%**	5.0%	22.7%	**45.5%**	2.3%	**37.5%**	**50.0%**	12.5%	33.3%	16.7%
Problem-solving skills	45.0%	15.0%	20.5%	**40.9%**	0.0%	**37.5%**	12.5%	37.5%	33.3%	16.7%
Planning skills - focus on targets an results	**60.0%**	5.0%	**25.0%**	**43.2%**	0.0%	25.0%	12.5%	50.0%	16.7%	50.0%
Creative thinking skills	**60.0%**	5.0%	20.5%	31.8%	4.5%	25.0%	12.5%	50.0%	0.0%	33.3%

(Total Nº of Respondents: 44 employers; 20 employees; 8 VET providers; 6 stakeholders)