ECO TEX

Research on Anticipating Skills based on evidence

Circular Economy Innovative Skills in the Textile Sector
Report
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Centro Tecnológico das Indústrias Têxtil e do Vestuário de Portugal, CITEVE, Portugal

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	P2 *Hellenic Fashion Industry Association - SEPEE (Greece)*
	P3 *Technical University of Iasi – TUIASI (Romania)*
	P4 *Rigas Tehniska Universitate - RTU (Latvia)*
	P5 *Centro Tecnológico das Indústrias Têxtil e do Vestuário de Portugal – CITEVE (Portugal)*

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ANOFM	National Agency for Employment
ATP	Associação Têxtil e Vestuário de Portugal
BCI	Better Cotton Initiative
BNS	National Trade Union Bloc
BSCI	Business Social Compliance Initiative
CD2E	Creation Development EcoEntreprises

CE	Circular Economy
CNDIPT	National Centre for Technical and Vocational Education and Training Development
CNIPMMR	National Council of Small and Medium-Sized Private Enterprises in Romania
CSR	Corporate Social Responsibility
DWOR	Durable Water and Oil Repellents
ECO-TEX	Circular ECOnomy Innovative Skills in the TEXtile Sector
ECSR	European Consortium for Sociological Research
ECUVal	ECUVal: Water, treat to reuse
ECVET	European Common Framework on Vocation, Educational Training
EQF	European Qualification Framework
ETUC	The European Trade Union Confederation
EU	European Union
FDSC	Foundation for the Development of Civil Society
FEPAIUS	Federation of Textiles, Clothing and Leather
GOTS	Global Organic Textile Standard
GRS	Global Recycled Standard
HR	Human Resources
IO	Intellectual Output
ISO	International Organization for Standardization
ITUC	International Trade Union Confederation
LWARB	London Waste and Recycling Board
NGO	Non-Governmental Organization
OCS	Organic Content Standard
OHSAS 18001	Occupational Health and Safety Management Systems - Requirements
R&D	Research & Development
UCECOM	National Union of Handicraft and Production Co-operatives

1. Summary

This report was prepared as part of the ECO TEX project: Circular ECOnomy Innovative Skills in the TEXtile Sector, which is a project action supported by the Erasmus+ Programme, Key Action Cooperation for Innovation and exchange of good practices 2017-1-ES01-KA202-038419.

The overall objective of ECO TEX project is to design, develop and piloting a new job qualification profile and correspondent training curricula on the subject of *"How to implement circular economy techniques in Textile Industry"*. Able to cope with the visible shortage of vocational skills, potentiating the best use of outcomes in the field of design patents, use of recycle materials, machinery, processes, developed in the frame of other EU and non EU funded Research & Development Projects with sustainable purposes, improving competitiveness in Textiles, based on the development of skills and competences of the workforce.

This report is a result of the Intellectual Output 1 (IO1) R*esearch on Anticipating Skills based on evidence and Report*. Working on this IO consists on individual approaching companies around Europe in order to understand what they know about sustainability, how they consider it within their business strategy, what they are doing and what more they need in this field and what are the competencies and skills would have to be included in the definition of the "Sustainability Expert".
For this propose the *Confederación de la Industria Textil* - TEXFOR and *Hellenic Fashion Industry Association* – SEPEE developed one questionnaire, which was translated and distributed to the companies in Spain, Greece, Romania, Latvia and Portugal.
Each partner developed a national report and Centro Tecnológico das Indústrias Têxtil e do Vestuário de Portugal - CITEVE was responsible of analysis, compilation and aggregation all partners reports into a single report.

This report is divided into 8 parts: (1) *Summary*: brief explanation of the report and short summary of the key results, (2) *Introduction:* project framework, impacts and beneficiaries; (3) *Countries Best Practices* (4) *Methodological Approach:* the methodological approach starts with the definition of the objectives followed by the analytical and practical approach used; (5) *Survey analysis:* Interpretation of the results; (6) *Conclusion;* (7) *References* and (8) *Annexes*. Also gives the necessary starting point and information for followings intellectual outputs.

The quantitative findings show considerable variations among countries partners, and the information collected allows us to understand, in a general way, company's expectations on the sustainability subject.

This report will show us how the companies act in their working activity and what they consider to be the skills and competencies of the sustainability expert.

2. Introduction

2.1 ECO TEX Project Description

For the Textiles Sector companies, the circular economy provides an opportunity to create new profit streams, increase their resilience to volatile input costs, and support their efforts to become completely sustainable and social responsible.

The market for the "green textile" is an expanding development, reflecting the big change in the consumer behaviour, representing a huge opportunity of growth for the textiles sector in Europe.

The availability of adequately skilled employees has become one of the major issues for the Textile industry. Companies still face the shortage of trained and qualified personal in green and circular economy techniques in both design and manufacturing. This segment of textiles is constituted by SMEs without qualified resources in the matter of sustainability, for whom it´s important to develop competences and skills.

The textile industry urgently needs a flexible workforce that can respond to the development and the globalized market and the need for sustainable design and manufacturing in order to face the global demand for sustainable creative products.

In this frame the main objective of the ECO TEX project is to design, develop and piloting a new job qualification profile and correspondent training curricula on the subject of "How to implement circular economy techniques in Textiles Industry". Able to cope with the visible shortage of vocational skills, potentiating the best use of the outcomes in the field of design patterns, use of recycle materials, machinery, process, with the sustainable purposes, improving the competitiveness in Textiles, based on the development of skills and competences of the workforce.

During the project implementation, we propose to:

- develop a deep knowledge on occupation and training needs to implement the sustainable manufacturing in textiles sector;
- develop a new occupation/qualification profile of the expert in sustainability, capable to deal with all frameworks around sustainable;
- develop a training toolkit able to cope with the identified training needs, according to the ECVET;
- develop training units;
- develop e-learning courses;
- create a specific course in a digital training platform;

- pilot the results;
- Exploit the results through European, National and local networks platforms and enterprises, business organizations and guidance organizations;

2.2 Project Impact

The foreseen impact is in line with needs addressed by the project, proposed aims, objectives and innovative results. We expect:

- Increasing the level of knowledge and skills by a new training content and curriculum;
- Increasing the employability among textile sector specialists;
- Increasing the mobility by offering a learning informed on interdisciplinary issues (as end users);
- Providing easy usable teaching and learning tool suitable for lifelong learning;
- Improving the vocational education and training and contribution to its expanding to the Textile industry with respect to EQF and EQVET principals;
- Increasing the quality of textiles sustainable products;
- Offering of additional opportunities for non-formal learning;
- Achieving long-term impact by continuation of the partnership work on other projects and by implementing the project outcomes into other sector and / or other countries.

2.3 Project Beneficiaries

The project beneficiaries are (1) Target Groups such as Textile Sector´s Personnel; Industry´s Business Owners; Students in fields related to Textiles sector; Individuals with the interest in joining the textile sector and (2) Target Sectors such as Textile Industry; Vocational Education and Higher Education.

3. Countries Best Practices

3.1 Sustainability in our lives

The sustainability concept is not a new concept and there are several definitions. According European Commission the *"Sustainable development means meeting the needs of the present whilst ensuring future generations can meet their own needs."*

http://ec.europa.eu/trade/policy/policy-making/sustainable-development/#_trade-agreements

Sustainability is no longer a concern to environmentalists and ecologists, and has become a concern of individuals. The new generations are adopting increasingly sustainable habits and lifestyles, the concerns with the environment and consequently excessive consumption of natural resources have led to a paradigm shift in consumer choices. Individuals are increasingly informed and aware of these issues and the industry must follow these changes in order to meet consumer demands.

Sustainability defines, in fundamental ways, the communities in which we live and is the source of renewable and non-renewable resources on which civilization depends. Our health and well-being, our economy, and our social life and safety all require a high-quality environment[1].

Sustainable development has developed as a concept through several decades of profound international scientific debate and has acquired distinct political connotations in the context globalization.

The concept of sustainable development is built on the premise that human civilization is a sub-system of the Ecosphere and is dependent on its material and energy flows, on its stability and capacity for self-adjustment. The essential pillars of sustainability are:

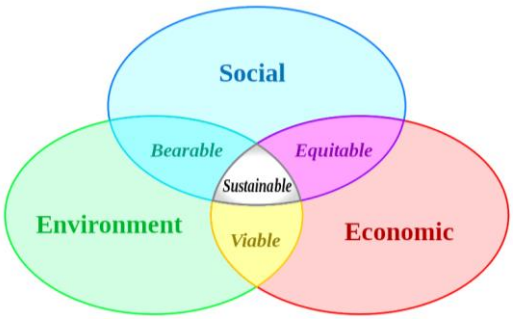


Fig. 1. The "three pillars" of sustainability bounded by the environment (earth, life)[2]

[1] Ozek HZ (2017) Sustainability: Increasing Impact on Textile and Apparel Industry. J Textile Eng Fashion Technol 2(5): 00076. DOI: 10.15406/jteft.2017.02.00076, http://medcraveonline.com/JTEFT/JTEFT-02-00076.pdf

[2] From Wikipedia, the free encyclopedia, Sustainable clothing https://en.wikipedia.org/wiki/Sustainable_clothing

- Social: The social aspect of sustainability focuses on balancing the needs of the individual with the needs of the group.
- Environment: Environmental sustainability occurs when processes, systems and activities reduce the environmental impact of an organizations facilities, products and operations
- Economic: Economic sustainability is used to define strategies that promote the utilization of socio-economic resources to their best advantage. A sustainable economic model proposes an equitable distribution and efficient allocation of resources.

The idea is to promote the use of those resources in an efficient and responsible way that provides long-term benefits and establishes profitability. A profitable business is more likely to remain stable and continue to operate from one year to the next.

Social initiatives have an impact on consumer behaviour and employee performance, while environmental initiatives such as energy efficiency and pollution mitigation can have a direct impact on reducing waste. Economic sustainability involves making sure the business makes a profit, but also that business operations don't create social or environmental issues that would harm the long-term success of the company.

3.2 Textile stakeholders and initiatives: Spain, Greece, Romania, Latvia and Portugal

3.2.1 Spain - Catalonia

INTERREG CIRCE, Textile sector, improving public policies, opportunities and barriers
https://www.interregeurope.eu/circe/

CircE Project (European regions toward Circular Economy) involves 8 partners both at regional and local scale and representatives of different European social and economic scenarios: Lombardy Region, Government of Catalonia, Marshal's Office of Lower Silesia, Province of Gelderland, London Waste and Recycling Board (LWARB), Creation Development EcoEntreprises (CD2E), Sofia Municipality, Association of Municipalities and Towns of Slovenia (SOS). The project aims at strengthening the diffusion of Circular Economy (CE) in Europe, consistently with the European Commission's Circular Economy Package (2015).

In particular, the project aims at helping the Partners involved to increase the capability of their Policy instruments to steer economy towards a circular model. The project carries out this task by aiming at modifying or readdressing the selected policy instruments through an exchange of knowledge/experiences among Partners, through a continuous involvement of Stakeholders and

through a deeper analysis of economic system.

ECUVAL | http://www.ecuval.eu/sustainability

The main idea of the ECUVal is to introduce in the textile sector an eco-friendly technology, which can achieve significant savings on water and salt and the reuse of treated water. Consequently, the textile industry will become ecological and sustainable.

For this purpose, an industrial plant will be built and the optimization of wastewater treatment conditions in the textile finishing industry will be carried out to demonstrate the technique viability. The ECUVal system will be scaled up and implemented in the textile dyeing industry sector by Icomatex (textile machinery SME), exploited either as an independent module or together with the dyeing machines. In both cases, the ECUVal cell is an eco-innovative product where the environmental and economic factors are considered.

It will be installed in the textile finishing company GRAUSA that is representative of a medium size enterprise. Finally, ECUVal system could be marketed and used in others mills.

MIDWOR-LIFE | Mitigation of Environmental Impact caused by DWOR textile finishing chemicals www.midwor-life.eu

The main objective of the MIDWOR-LIFE is to mitigate the environmental, health and safety impacts of current Durable Water and Oil Repellents (DWOR) and their alternatives by analysing their environmental impact and technical performance in order:

- To assess manufacturers on the best available technologies to provide liquid repellence on textiles. Specially focus on current DWOR that contains fluorinated compounds;
- Policy recommendations will be set in order to promote the widespread implementation of the less toxic and most effective DWOR alternatives to fulfil REACH Regulation.
- Evaluate the environmental impact of current DWORs and their available alternatives.
- Evaluate the risks posed by current DWORs and their alternatives for human and environmental health.
- Evaluate the technical performance of DWORs alternatives and compare them to current DWORs.
- Elaborate a road map and policy recommendations.

3.2.2 Greece

TCBL |Business Pilots - Natural Cotton https://tcbl.eu/business-pilots/natural-cotton

TCBL is building a multi-faceted business ecosystem of sector enterprises, innovation labs, service providers, and business advisors, all working together to transform the Textiles and Clothing industry. The common objective is to build alternative paths to over-production and diminishing value while returning 5% of production capacity and reducing environmental footprint by 20%, within 2025.

TCBL is a research and innovation project funded by the European Union's Horizon 2020 programme under Grant Agreement 646133. It brings together 22 organisations from 11 EU Member States.

The Natural Cotton business case investigates ways in which TCBL can promote sustainable and eco-friendly choices in textile and clothing value chain by concentrating on the use of natural materials (cotton, silk, wool, …). Firstly, the case will exploit the increasing interest of consumers for eco-sustainable products, which is an existing market trend offering new business opportunities and secondly, the Natural Cotton case seeks to revitalise these value-chains by renewing the way they operate. This revitalisation will also be achieved through the building of more direct connexions between the producers.

3.2.3 Romania

Government institutions

Ministry for Economy, Trade, Industry and the Business Environment (http://www.minind.ro/)

Ministry of Labour, Family, Social Protection and the Elderly (http://www.mmuncii.ro/)

Labour Inspectorate (http://www.inspectmun.ro/site/)

National Agency for Employment (ANOFM) (http://www.anofm.ro/)

Research Institute for Quality of Life (Member of the European Consortium for Sociological Research (ECSR), (http://www.iccv.ro/)

Employers' organisations

National Council of Small and Medium-Sized Private Enterprises in Romania (CNIPMMR) (http://www.cnipmmr.ro/)

The National Union of Handicraft and Production Co-operatives (UCECOM) (http://www.ucecom.ro/)

The Federation of Textiles, Clothing and Leather (FEPAIUS) (http://www.fepaius.ro/)

Trade unions

National Trade Union Bloc (BNS) (www.bns.ro)

National Trade Union Confederation (Cartel ALFA) (www.cartel-alfa.ro.)

Both BNS and Cartel Alfa are affiliated to the International Trade Union Confederation (ITUC) and The European Trade Union Confederation (ETUC).

Syndex Romania (http://www.syndex.ro/).

Trade Union Federation UNICONF, Conftex and Light Industry Workers Federation CONFPELTEX, all members affiliated with IndustriALL Europe. (http://www.industriall-see.ro/etu-see/afilieri.php)

Labour NGO

Comitex (http://www.imipqnet.ro/autoritati/comitetul-sectorial-ramura-textile-confectii/)

Romanian Textile Concept (http://clustero.eu/romanian-textile-concept/)

The Foundation for the Development of Civil Society (FDSC) (http://www.fdsc.ro/)

Companies operating in the textiles and fashion sector

In Romania, more than 9000 are active in the field of textiles and leather, from which**,** 5457 are specialized in clothing production.

Clusters in textiles, clothing and fashion sector

The clusters represent the common platform of communication and cooperation between their members, aiming to increase the competitiveness of its members and, consequently, to support a sustainable development in the field. They also represent, sustain and promote the interests of its members nationally as well as internationally, initiate and elaborate programs and financially supported projects for development, modernisation, work labour training, with the intent of developing strong and economically profitable activities.

The following four clusters are active in the textiles, clothing and fashion sector:

1. Romanian Textile Concept - RTxC (http://www.romanian-textile.ro/)
2. Astrico Nord-Est Textile Cluster (http://www.astricone.eu/en/)
3. Traditions Manufacture Future -TMV (http://www.tmv-cluster.ro/)
4. Transylvania Textile & Fashion Cluster http://www.transylvaniatextile.com/

Universities and research institutes in the textiles, clothing and fashion sector

Technical universities

- The "Gheorghe Asachi" Technical University of Iaşi, Faculty of Textiles, Leather and Industrial Management (http://www.tpmi.tuiasi.ro)

- The “Aurel Vlaicu” University of Arad, Faculty of Engineering

(http://www.uav.ro/ro/facultati/inginerie)

- The "Lucian Blaga" University of Sibiu, Faculty of Engineering (http://www.inginerie.ulbsibiu.ro)

Universities of arts

- The University of Art and Design, Cluj Napoca

(http://www.uad.ro/structura/facultati/arte_decorative/)

-The "George Enescu" National University of Arts, Iasi (http://www.arteiasi.ro/?page_id=1675)

- National University of Arts Bucharest (http://www.arteiasi.ro/?page_id=1675)

Research Institute

- The National Research & Development Institute for Textiles and Leather, Bucharest http://www.certex.ro)

Schools operating in the textiles and fashion sector

Schools are involved in designing the local component of the curriculum in co-operation with its relevant social partners in order to better adapt to the specific needs of the local labour market. The core part of the curriculum is defined at national level, under the authority of the Ministry of Education. The total number of technological high schools that activate in the field of textiles and leather (day and evening courses) and the corresponding professional qualifications (EQF level 4) are 163 , while the post-secondary and foremen schools are 25.

(Source: National Centre for Technical and Vocational Education and Training Development – CNDIPT)

Examples of Textile stakeholders initiatives:

Sustainable production methods including cost-effective processes (saving water, chemicals, raw materials and energy consumption): *LIFE Environment and Resource Efficiency, call 2016, project title: "Product Environmental Footprint for Romanian Textile Industries by cluster-based approach".* Partnership: ASTRICO NE cluster (Romania), Centro Tessile Cotoniero e Abbigliamento SpA – CENTROCOT (Italy), Scuola Superiore di Studi Universitari e di Perfezionamento Sant'Anna (Italy), The Technical University "Gheorghe Asachi"– Faculty of Textiles, Leather and Industrial Management (Romania), The National Research&Development Institute for Textiles and Leather, (Romania). (http://www.astricone.eu/)

Sustainable value chains (e.g. sustainable hemp value chain): *INNOSUP-01-2016-2017: Cluster facilitated projects for new industrial value chains*

Hemp and flax- amazing textile fibers for developing sustainable value chains, project proposed by Katty- Fashion SRL Company (http://www.fobero.eu/wp-content/uploads/2015/11/Katty-Fashion-Ltd-The-bast-fiber-project-proposal.pdf)

Project objectives: Providing a holistic and long-term strategic vision for building a new chain of value for hemp and flax, from farmer to consumer, including the new processing, manufacturing, application and marketing opportunities. Building a structured environment for innovation and development aiming to offer an integrated support service to enable different actors involved in specific phases of processing hemp and flax fibers to improve their technological base and increase their potential of innovation.

Developing skills and competencies for textile production (projects where TUIASI is a partner) (http://www.tpmi.tuiasi.ro/)

a) Erasmus + "Textile *and Clothing Knowledge Alliance. Future textile and clothing managers for export, marketing, innovation, sustainability and entrepreneurship-oriented companies* (TECLO) (http://teclo.eu). The project main objectives were the development of sectorial methods for anticipation of skills needs; the set-up of the EU curricula of the new professional profile of the Textiles and Clothing Managers (TECLOM), endowed with more advanced social, entrepreneurial and management skills; the development and pilot of a MOOC for the new TECLOM.

b) *"Skills for a better and safer life- SBS" Project financed by Swiss- Romanian Cooperation program* (http://www.sbs.tuiasi.ro/index.php/objectives/)

   The objective of the project was to develop a sustainable knowledge for young people or with many years of experience (especially women, living and working in structurally weak peripheral regions of South-Eastern Romania) to reach a qualified job in the middle or top management of the textile and garment industry with enhancing their poor life quality.

c) Erasmus + "*Integrating companies in a sustainable apprenticeship system*"- ICSAS (http://icsas-project.eu/). The ICSAS project aims to give countries with no or short experience in work-based learning the opportunity to get a first-hand practical impression how this training system works. The sector chosen for this project is the footwear industry.

3.2.4 Latvia

Association of Textile and Clothing industry of Latvia

Founded in 1994 as a non-profit organization. The purpose of the association's activity is to promote the development of the enterprises of the sector: promoting the acquisition of new markets, participation in exhibitions; organizing mutual co-operation and training of field specialists; helping to establish contacts with businessmen from other countries; defending the interests of industry entrepreneurs in national and international institutions as well as in the Textile Commission of European Union; regular analysis of changes in exports and imports of textiles and clothing by commodity groups and countries; issuing to companies licenses confirming that the exported products were manufactured in the Republic of Latvia. More than 130 companies are registered in Latvia, whose main activity is the manufacture of textiles and clothing.

Textile, Clothing, Leather and Leather Products Sector Experts Council

http://www.nozarueksperтupadomes.lv/nozaru-ekspertu-padomes

The sectoral expert councils are a sectoral advisory bodies whose objective is to promote the improvement of the efficiency and quality of vocational education in the sector by promoting cooperation between the government, industry employers and their organizations, employees (trade unions), professional organizations and industry specialists in the field of human resources development issues.

FOLD | http://www.fold.lv/en/about-fold/

FOLD brings forward the best in Latvian and foreign creative industries to help discover, understand, learn and collaborate. FOLD focuses on design and design thinking. FOLD was launched in April 2013 as a merger of three long–lived self–initiated projects — «DesignBlog», «Plikums» and «Fine Young Urbanists».

FOLD is financed by the Ministry of Culture of the Republic of Latvia and the State Culture Capital Foundation.

«Orgamint Home» — textile from nature - home textile label «Orgamint Home» creates high–quality bedding and night gowns in an environmentally friendly production manner, using only organic materials and applying the knowledge of craft and workmanship of Latvian masters. The main value of «Orgamint Home» is creating sustainable products for a contemporary family home by using environmentally friendly methods and ecological materials only. «Orgamint Home»

textiles are produced of 100% organic cotton, flax and bamboo that have been grown without any chemical care and cultivation substances and the label's production has been certified according to the international principles of GOTS (Global Organic Textile Standard).

Green Liberty | http://www.zalabriviba.lv/greenliberty/

Green Liberty was founded in 1991 and registered as a non-profit NGO in 1993 (then as the Green Library of Environmental Protection Club). In 2000, the organization was re-registered with a new name – Green Liberty. Green Liberty's mission is to develop a society where people live in harmony with each other and their environment. Green Liberty aims at:

- informing people about social and environmental implications of current trends in consumerism, trade and globalization;
- empowering people to make meaningful decisions connected with their lives directly and indirectly;
- Opposing abuses of power.

Green Liberty organizes press briefings, conferences, exhibitions, public lectures, expositions, and runs webpage and online campaigns. Green Liberty publishes environmental information, organizes different cultural and environmental actions, as well as carries out studies on socio-environmental issues and works on sustainable development and lifestyles, development issues and particularly on fair trade, climate and energy and waste related issues. Green Liberty also advocates government on the integration of sustainable development and environmental policy in various policy sectors.

Green Liberty participates in national (Environmental consultancy board) and international networks (including CAN Europe, European Environmental Bureau, European Eco-Forum) and co-operates with civic and state organizations in Latvia and abroad.

We are advocating for efficient use of resources, by promoting green public procurement, eliminating unsustainable subsidies and promoting green budget reform in Latvia. We have also done research and implemented campaigns to promote the zero-waste concept and the introduction of a deposit-refund system in Latvia. Currently we are working on the issues of food waste and global development.

Other examples:

http://www.zalais.lv/en/about-us/

http://www.zaao.lv/en

http://www.zalajosta.lv/en/about-company

3.2.5 Portugal

CITEVE | https://www.citeve.pt/producao_sustentavel

CITEVE is the Technological Centre for the Portuguese Textile and Clothing Industry, as a private non-profit organization, it has 600 associated companies and more than 2000 customers. CITEVE's main activities are technology transfer, laboratorial analysis, IPR information, training, technical and vocational secondary education, certification & standardisation activities and R&D activities at national and European level. CITEVE through its Sustainable Production department provides consulting to the companies in the national and international certifications process.

ATP - Textile and Clothing Association of Portugal| http://www.atp.pt

ATP is a National Association of Employers, which groups around 500 companies, which guarantee about 35 thousand jobs and almost 3,000 million euros of billing, two thirds of which export markets. In July 2003, becoming the largest representative organization of the Textile Sector and one of the most important in Europe. Recently, ATP merged with ANET - the National Textile Companies Association, thus giving continuity to its strategy of concentrating and strengthening the sector's associativism, thus ensuring the representativeness of all activities of the industrial activities upstream and downstream of services, with particular emphasis in this case on textile and clothing distribution.

CLUSTER TEXTILE

https://www.clustertextil.pt

CLUSTER TEXTILE: Technology and Fashion is a sectoral support structure whose main objective is to stimulate processes of interaction, articulation, collaboration and sharing information within the economic aggregate itself, acting in a supplementary way to the performance of its own members, such as instrument of obtaining increments of competitiveness by innovation and internationalization, in a logic of collective efficiency.

Has currently implemented 9 Special Interest Groups with fundamental functions of reflection formulation strategic, around the structuring pillars of Cluster intervention.

RESET project: RESearch centres of Excellence in the Textile sector
https://www.citeve.pt/projeto_reset

RESET Project, in which CITEVE is a partner, is funded by INTERREG EUROPE Program and is coordinated by Municipality of Prato (Italian Public Entity).

The overall objective of the project is to generate/influence a policy change in the implementation of regional policies and programs of the Structural Funds, linking the strengthening of research, the technological development and innovation with the sustainability of the T&C sector in the partners' regions.

The aim is to improve the policy instruments of the partners to support the creation, management and upgrade of R&D and innovation infrastructures in the T&C sector with sustainable approaches, enfolding ecological, safety, ethical, social and economic values.

Sustainability Good Practices Guide
http://greentextilesclub.pt/guia_boas_praticas_de_sustentabilidade.pdf

The guide was produced by CITEVE, for the ATP, in the framework of the Green Textile Club project. This guide addresses some of the Good Sustainability Practices adopted by the Green Textiles Club member companies collected by CITEVE as part of their involvement in the companies or shared by them during the project, which may be adopted by other companies in order to improve their level of sustainability and their responsibility to stakeholders.

4. Methodological Approach

This topic describes the methodological approach of the research. The methodological reports start with the definition of the objectives followed by the analytical and practical approach used.

The next topics present an action plan and describe how the questionnaire was developed, designed, implemented and the technology used by the consortium.

3.1 Survey objectives

The survey is the basis of this report part of IO1: "Research on Anticipating Skills based on evidence and Report" and the objectives are:

- ✓ Collect information about what companies understand by the concept of sustainability and how they include it in their own business strategy;
- ✓ Obtain a picture of what are the company's current needs, priorities, concerns;
- ✓ Identify the competencies and skills that "Sustainability Expert" should have.

3.2 Questionnaire design

The questionnaire is an elaborated semi-structured questionnaire with pre-defined options combined with open questions and it`s divided in 6 sections:

- *Section 1:* general information about the companies – company dimension; product/ service and location;
- *Section 2:* information about the concept of sustainability – starting from the definition of Sustainability of the *Word Commission on Environment and Development*, some sentences were defined and the companies rank their importance;
- *Section 3:* information if companies consider the sustainability concept in their business strategy – identify if the companies have a sustainability office or if companies are certified or follow the management systems/guidance or if the company's products are ecolabel certificated;
- *Section 4:* why is sustainability important for companies – some sentences were defined and the companies rank their importance level;
- *Section 5:* what skills the Sustainable Experts should have – rank the importance about skills and competencies of the Sustainable Expert.

- Section 6: General Questions - collect information about their confident level to learning online and to know if the companies want to receive information about the ECO TEX project.

3.3 Action plan

First phase: Questionnaire Design

TEXFOR and SEPEE were responsible to design the questionnaire, after the inputs and validation of the consortium, each partner was responsible to translate the questionnaire in their country language. The deadline to collect the information was stablished until 13th of April 2018.

Second phase: Guidelines for National Reports

CITEVE with collaboration of TEXFOR design a document called *Guidelines for the National Reports.* The guidelines contemplate suggestions/ orientations to develop the national reports such as:

- *Brief introduction* about why the sustainability is important in our lives, providing examples of Textile stakeholders initiatives in this field (at least 3 examples per country);
- *Resume* about the strategy used to apply the survey (how many companies where contacted and how many companies answered the questionnaire; how did you select the companies to fill the questionnaire, which methods you used to collect the data (personal contacts, by phone, or through a digital platform...)
- *Finding surveys* about the different section;
- Each Partner send to CITEVE one questionnaire filled with the information collected;

Third phase: Final Report

CITEVE received the national reports, analyse the information, summarize the data collected and developed the *Final Report*.

3.4 Technology Used

The survey/questionnaire was implement simultaneously in the 5 EU countries: Spain, Greece, Romania, Latvia and Portugal with the minimum five (5) intended responds of analysis in each country, 25 in total according to the application form. However, in total the partners filled thirty-eight (38) questionnaires. Following shows the number of questionnaires filled by country.

Spain	6 questionnaires, no blank, no missing answer and 2 incomplete answers
Greece	8 questionnaires, no blank, 1 missing answer and no incomplete answer
Romania	7 questionnaires, no blank, 2 missing answers and no incomplete answers
Latvia	7 questionnaires, no blank, no missing answers and 10 incomplete answers
Portugal	10 questionnaires, no blank, 1 missing answer and 1 incomplete answer

The questionnaire was designed in excel format and each country used their own tools to collect the data (e.g. digital platforms, emails) as we can observe in the following information:

Spain	The companies were informed by telephone about the project and the questionnaire was sent out electronically by email.
Greece	The companies were informed by telephone and personal meetings, the questionnaire was sent out electronically by email.
Romania	The information was collected using personal contacts, by telephone and electronically by email.
Latvia	The survey was sent out electronically by e-mails and calling to each of the representatives of the companies personally informing about the project as well as the information necessary for the project.
Portugal	The companies were informed by personal meetings and the questionnaire was sent out electronically by email.

5. Survey analysis

4.1 Section 1

In this section, we give the general overview of the thirty-eight (38) companies that participated in the questionnaire in terms of its size and its production. The targeted companies were classified as *Micro* (1 to 9 employees), *Small* (10 to 49 employees), *Medium* (50 to 249 employees) and *Large* companies (>250 employees).

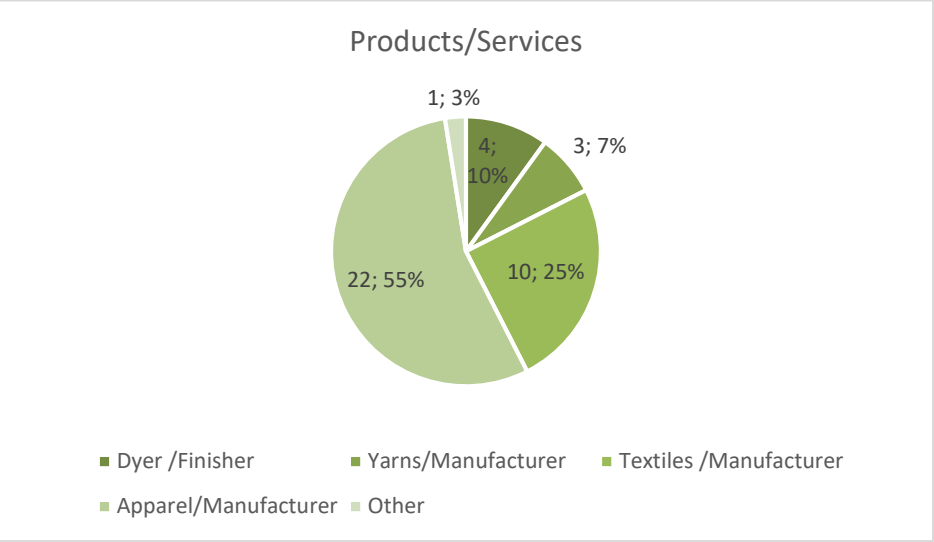
From the collected results, the table below show us that: two (2) companies are *Micro* companies; nine (9) are *Small* companies; twenty-one (21) are *Medium* companies and six (6) companies are *Large.*

	Spain	Greece	Romania	Latvia	Portugal	Total
Dimension						
Micro	2					2
Small	3	2	1		3	9
Medium	1	5	3	6	6	21
Large		1	3	1	1	6
						38
Products						
Dyer/ Finisher	1	1		1[3]	1[4]	
Yarns /Manufacturer	2	1				
Textiles /Manufacturer	3		1	2	3	
Apparel / Manufacturer		6	6	5	7	
Other						
Total	**6**	**8**	**7**	**7**	**10**	

Table 1: Company Details

Regarding to its products, **63.2%** of the companies respond *Apparel Manufacturer* as their activity, **23,7%** of the companies are *Textiles Manufacturer*; **7.8%** of the companies respond Dyer/ Finisher and **5.2%** Yarns *Manufacturer*.

[3] Same company which is textile manufacturer
[4] Same company which is textile manufacturer



Graphic 1: Products / Services

4.2 Section 2

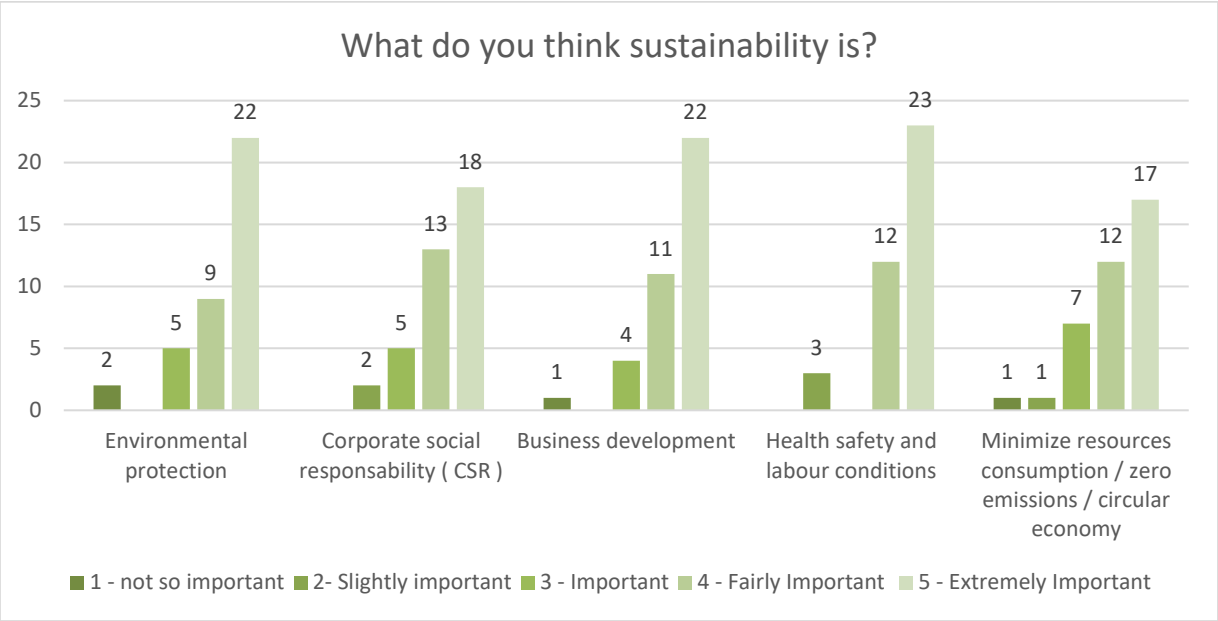
Through the definition of sustainability from The World Commission on Environment and Development,

"A process of change in which exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations"

The survey respondents rank the importance for the followed syntheses:

- Environmental protection;
- Corporate Social Responsibility;
- Business Development;
- Health safety and labour conditions;
- Minimize resources consumption / zero emissions / circular economy

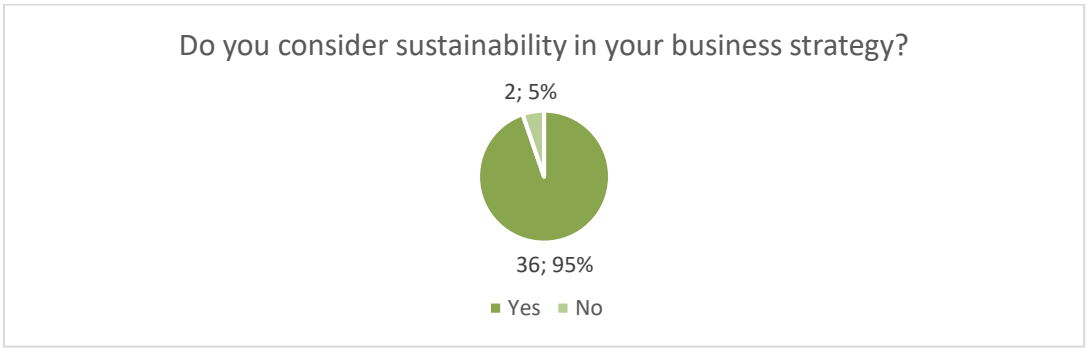
On the following graphic, we observe that **60.5%** of the companies consider that ***Health Safety and Labour Conditions*** are extremely important for the sustainability concept. **57.9%** consider the ***Environmental Protection*** as extremely important and **47.4%** consider the ***Bussiness Development*** as extremely important as well.



Graphic 2: Sustainability

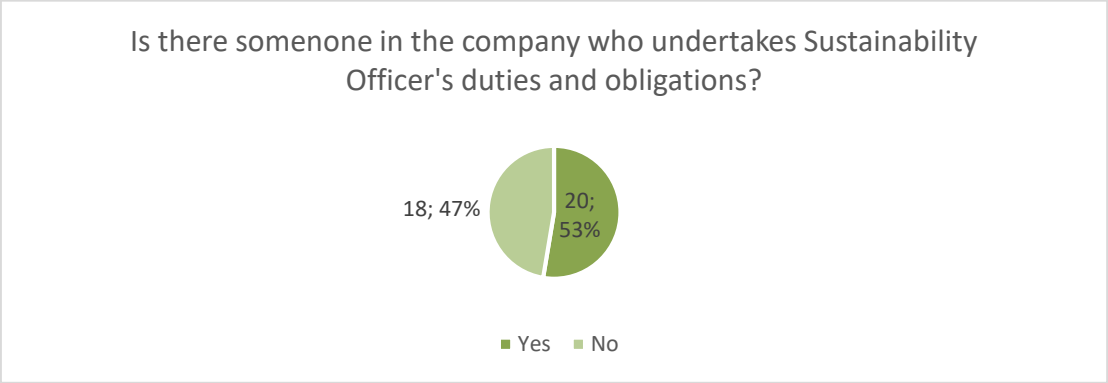
4.3 Section 3

In this section we can observe that **95%** of the companies consider sustainability in their business strategy, as we can observe on the graphic bellow.



Graphic 3: Sustainability in business strategy

Regarding to the question *"if someone in the companies undertakes sustainability officer´s duties and obligations"* **47%** of companies answer ***No*** and **53%** of companies answer ***Yes*.**



Graphic 4: Sustainability Officer´s duties and obligations

In the following table, we specify the title and the department of the person in charge for the sustainability department in the companies.

Title	Department
Sustainability Manager; Sustainability Director; R&D Project Manager; HR Manager; General Manager; R&D Project Manager; HR/CSR Manager; CSR and Quality Coordinator; Regional System Manager – EUROPE; SCR / ISO.	Quality and Sustainability; Financial Department; HR; Regional System Manager – EUROPE; SCR / ISO; Different departments; New Projects; Sustainability.

Table 2: Title & Department

Depending of the type of the company and their products/production, the most of the companies are certified one or more than one management systems / guidance.

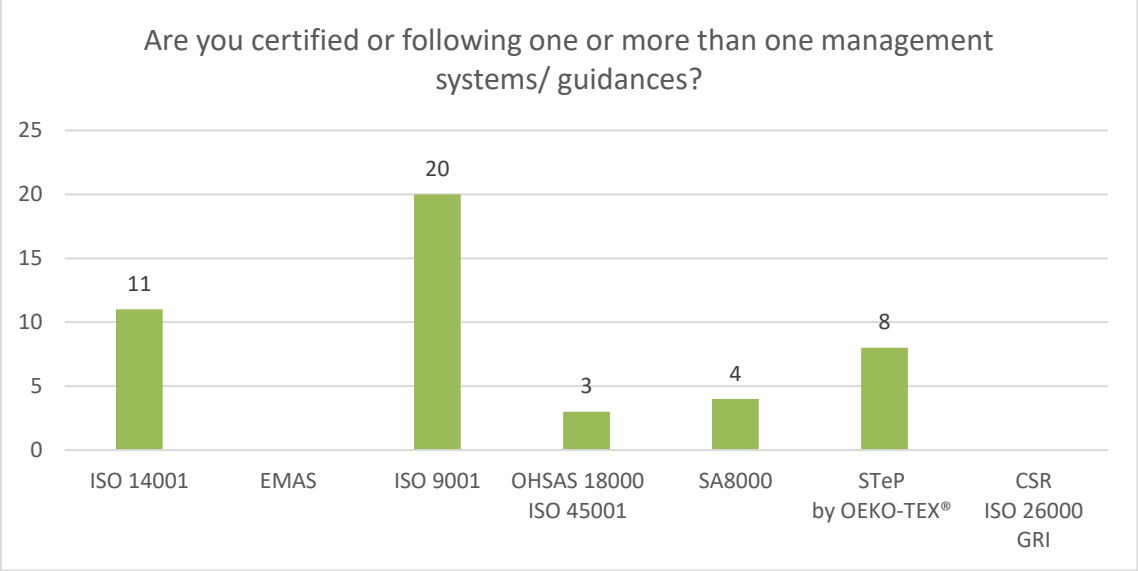
The most recurrent management systems/ guidance used by companies is ISO 9001, **52.6%** of companies use the international standard that specifies requirements for a quality management system. The companies use the standard to demonstrate the ability to provide products and services that meet customer and regulatory requirements.

28.9% of companies use ISO 14001 standard that sets out the criteria for an environmental management system and can be certified, can provide assurance to company management and employees as well as external stakeholders that environmental impact is being measured and improved.

21% of companies are STeP by OEKO-TEX® certified (Sustainable Textile Production), which is related with sustainability management in the textile production. This certification is based on the Triple Bottom Line of sustainability: in the *Economic*, *Environment* and *Society dimensions*, and examines requirements in six different areas: (1) *environmental performance*, (2) *occupational health and safety*, (3) *social responsibility*, (4) *environmental management*, (5) *quality management* and (6) *chemicals management*.

10.5% of companies are certified in SA 8000 (Social Accountability 8000) that measures social performance in eight important areas to social accountability in workplaces, anchored by a management system element that drives continuous improvement in all areas of the Standard.

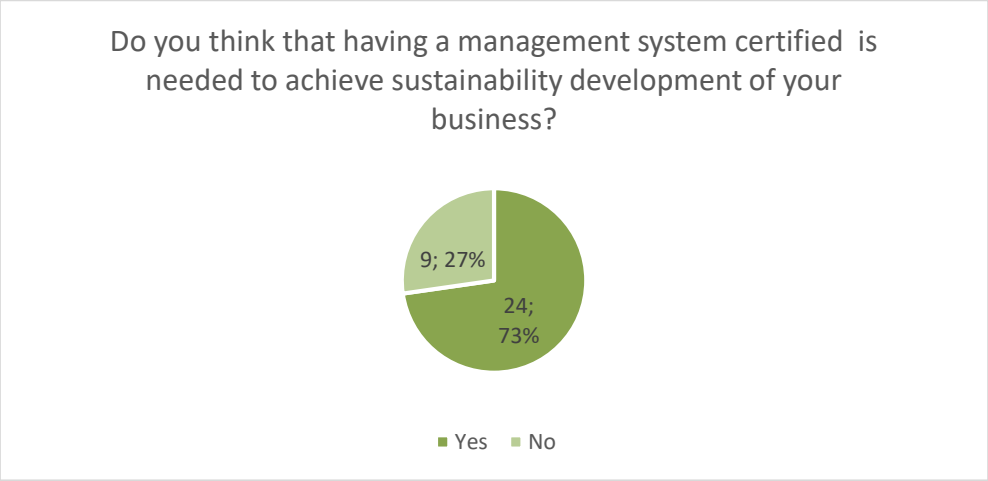
7.8% of companies are certified according to OHSAS 18000 - Occupational Health and Safety Assessment Series, an international standard, which provides a framework to identify, control and decrease the risks, associated with health and safety within the workplace. The standard ISO 45001, will substitute the standard OHSAS 18001.



Graphic 5: Management systems / Guidance

Regarding to the question: *having a management system certified is needed to achieve sustainability development on the business* the response rate was **86.9%**, we got: 1 missing answer from Portugal; 2 missing answer from Romania and 2 missing answer from Spain.

In the following graphic, we perceive that **73%** of companies that replied consider that having a management system certified is important and needed to achieve the sustainable development in their business.



Graphic 6: Importance of having a management system certified

47,4% of companies have their products certified in the STANDARD 100 by OEKO-TEX®. The STANDARD 100 by OEKO-TEX® certification is a globally recognized program of ecological responsibility and human health, which proves through the certified tests, the absence of harmful substances in the textile materials.

18.4% of companies have their products certified in GOTS standard, which define worldwide recognized requirements that ensure organic status of textiles, from harvesting of the raw materials, through environmentally and socially responsible manufacturing up to labelling in order to provide a credible assurance to the end consumer.

1 company have the GRS certification an international, voluntary, full product standard that sets requirements for third-party certification of recycled content, chain of custody, social and environmental practices, and chemical restrictions.

18.4% of companies mention that have other types of certification or guidelines such as: *High Index; OCS; BCI; OHSAS 18001; SMETA ETI[5]; BSCI[6]; Certified sustainability Fibermax.*

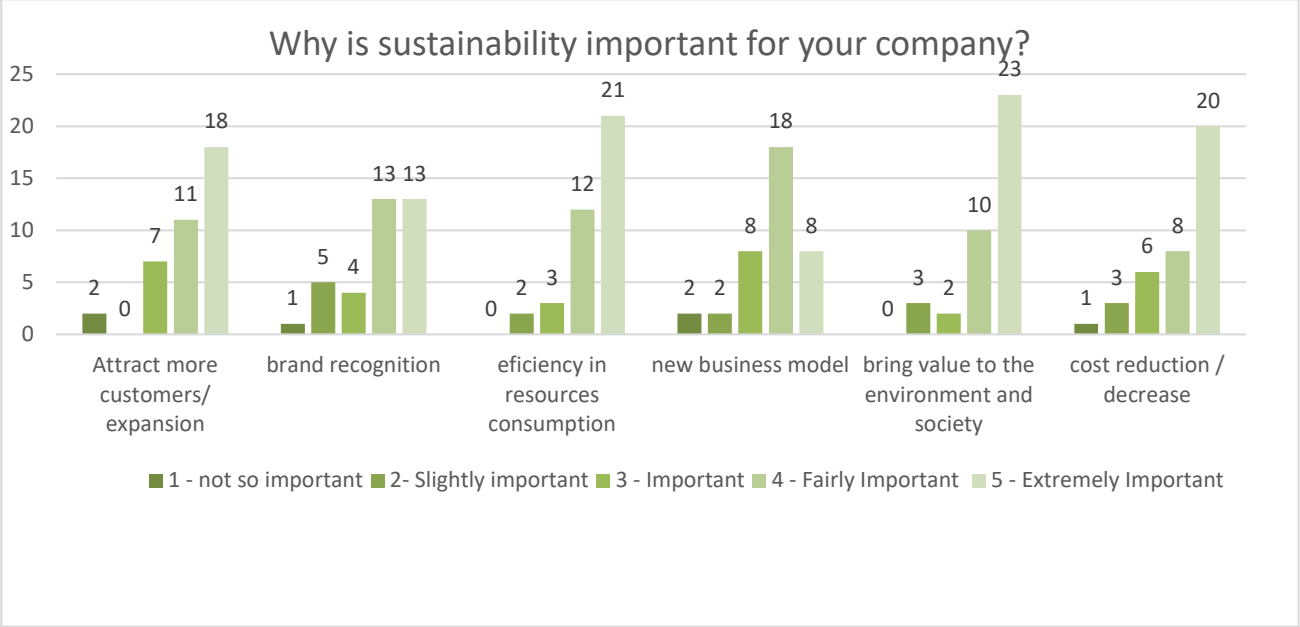
[5] SMETA is an audit procedure, which is a compilation of good practice in ethical audit technique. It is not a code of conduct, a new methodology, or a certification process. SMETA methodology uses the ETI code and local law as the measurement tool. https://www.sedexglobal.com/products-services/smeta-audit/

[6] The BSCI program is not a program for certification - a supplier may not receive a formal certificate upon conclusion of the BSCI audit. The BSCI program is a voluntary system by which BSCI members (retailers and brands) work with their suppliers to be in compliance with the BSCI code of conduct. http://www.saasaccreditation.org/bsci

Graphic 7: Ecolabel Certificates

4.4 Section 4

The survey shows that the sustainability is *extremely important* or *important* for the companies. **60.5%** of companies consider that the sustainability is *extremely important* to *Bring value to the environment and society*; **55.3%** consider that the sustainability is extremely important for the *Efficiency in resources consumption* and **52.6%** mention the *Cost reduction / decrease*. Only **34.2%** refers that the sustainability is important for their *Brand Recognition,* as we can observe on the graphic bellow.



Graphic 8: The importance sustainability in the companies

4.5 Section 5

The section 5 listed 27 competencies and skills considered fundamental by the consortium for the sustainable expert profile.

This section gives us indications about company's expectations and the skills required for the *sustainable expert*.

According to the information collected and the followed graphic:

- **68.4%** of companies consider that the sustainable expert should have competencies and skills in ***Sustainability (environmental, social and economic) Analysis and Management*** as *extremely important;*
- **52.6%** of companies also mention the ***Corporate social responsibility;*** **42.1%** of companies consider ***Environmental legislation; Health & Safety Legislation and Industrial Sustainability*** and **39.5%** of companies mention the ***Energy management*** as *extremely important*;
- **50%** of companies consider as *important* to have skills in ***Carbon footprint;*** **44.7%** in ***Climate change*** and **42.1%** of companies mention the ***Sustainable business models, Environmental economics and Social responsibility legislation.***

The following skills and competencies were considered with *slightly importance*:

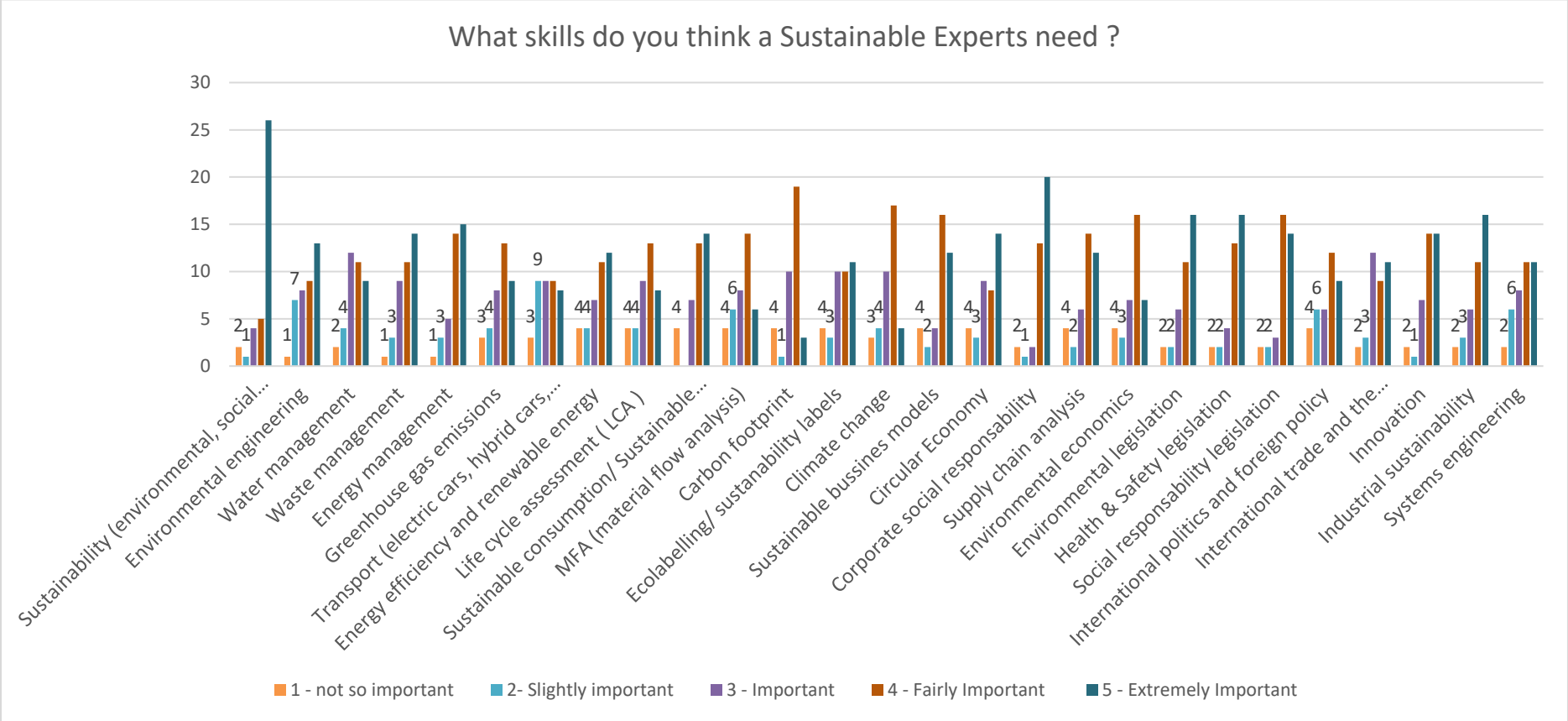
- **23.7%** of companies consider ***Transport (electric cars, hybrid cars, fuel cells, biofuels,***

international transport, maritime transport);

- **18.4%** of companies mention the ***Environmental engineering***;
- **15.8%** of companies mention the ***MFA (material flow analysis); International politics and foreign policy and Systems engineering.***

The skills and competencies ranking as *not so important* for the sustainability expert are indicated below:

- **10.5%** of company's mention:
  - ***Energy efficiency and renewable energy;***
  - ***Life cycle assessment (LCA);***
  - ***Sustainable consumption/ Sustainable procurement;***
  - ***Ecolabelling/ sustainability labels;***
  - ***Circular economy;***
  - ***Supply chain analysis;***
  - ***Environmental economics.***



Graphic 9: Sustainable Expert Skills

This report shows us that companies are increasingly aware of the demands of the market, consumers and their workers. Investing more in the sustainable certification of its products and in the qualification of its workers in order to become more competitive.

On the graphic 10, we observe that the **95%** of the companies consider that the ***Sustainability Expert*** should ***hold a qualification***.

Graphic 10: Qualification

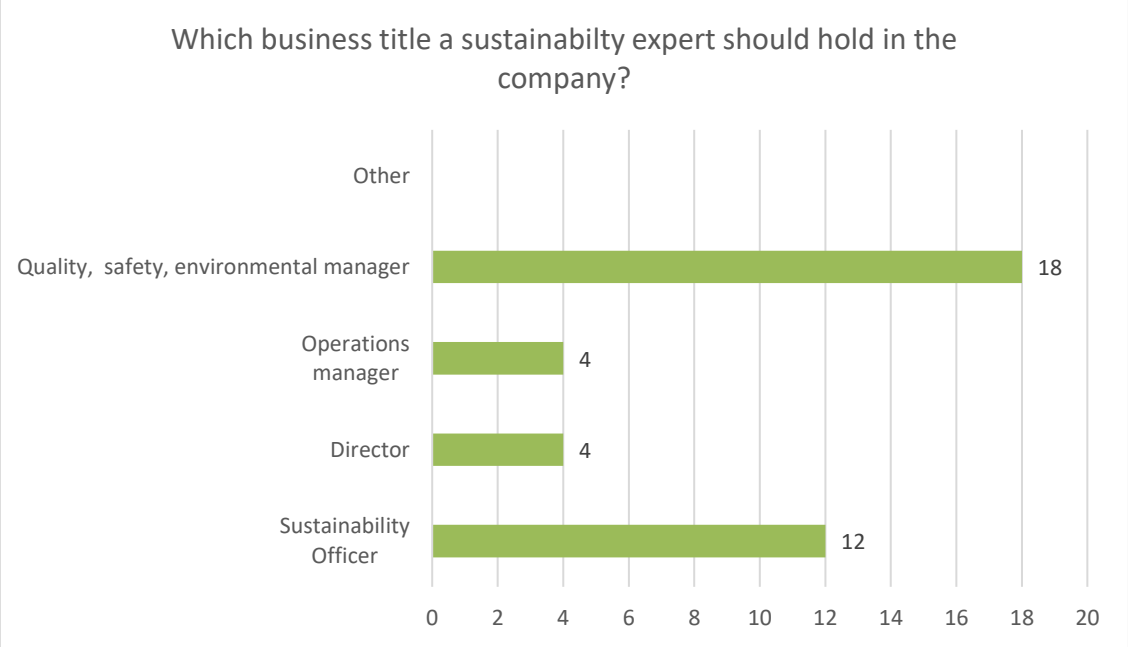
Regarding to the question *what qualification should have the Sustainability Expert*, the graphic 11, show us that **39.5%** of companies consider the ***Higher Degree;*** **34.2%** ***Master*** or ***Professional Degree*** and **5.3%** ***Undergraduate Degree,*** 1 ***company*** mention ***Doctorate.***

On this question, we obtain more than one answer from the companies:

- 1 Portuguese company mention Master and also Higher Degree;
- 1 Spanish company mention Higher Degree and also Professional Degree;
- 1 Latvian company mention Master, Higher Degree and also Professional Degree;
- 1 Romanian company has selected several levels of education.

Graphic 11: Qualification level

The graphic 12, show us which business title a sustainability expert should hold, **47.4%** of companies mention the **Quality, Safety, Environmental Manager** and **31.6%** mention the **Sustainability Officer**.

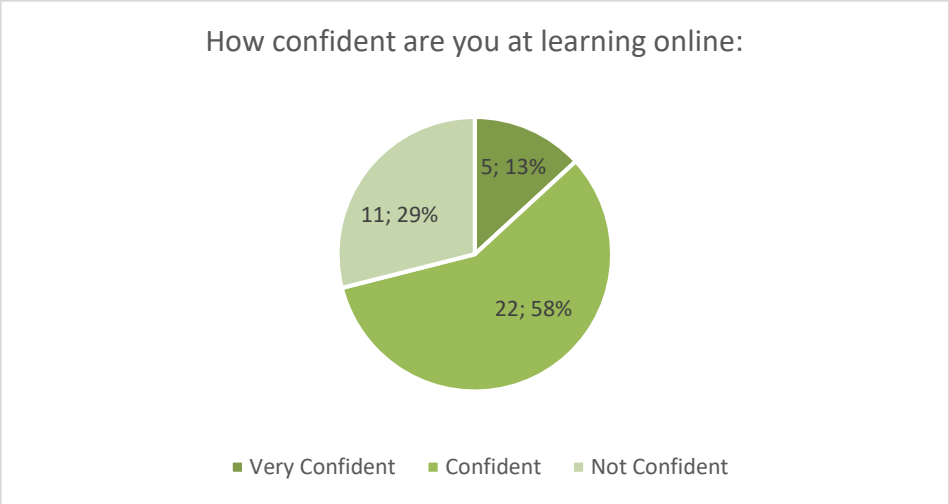


Graphic 12: Sustainability Expert Title

4.6 Section 6

This section refers to general questions. The objective was to know how confident the companies are to learning online and collect some suggestions.

The results show that most of companies feel very confident on learning online. On the graphic 13, we can observe that **71%** of the companies feel **very confident** or **confident** on learning online, and **29%** mention **not confident**.



Graphic 13: Online Learning

Regarding suggestions, companies from Latvia mentioned:

"By legislation of LR, all production sites MUST have a work and safety specialist with university degree already! Do not make it double: it is also a waste to have yet another person who has studied the same topics."

"Apparel industry is on verge of survival, the sustainability must focus on topics of how to sustain the business and workplaces at the very first. The most important topic is productivity; the need is to invest in modern technologies."

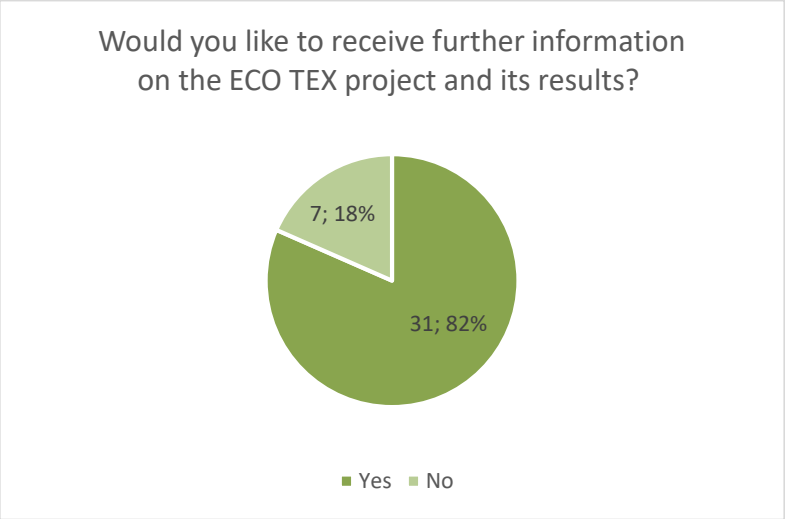
"Fabric waste management includes also sales and marketing of reprocessed goods - it is a main obstacle, why we have not moved into processing leftovers."

"I am sorry to express my personal opinion that business have already many compulsory and costly

obligations that are not creating real value added. Please do not create one more. This topic may be important if really gets out of offices and conference halls down to earth. These specialists must be at first production engineers and only then their knowledge of resource waste reduction (not only natural resources, but also labor and fabric) would be an asset."

"We are discussing about this new thinking model not only theoretically. `Green` projects where all processes will be controlled, even those which are not ours (because we do not produce fibers and materials) but it is important that the full production and delivery process of the product meets the principles of sustainability, which is a big challenge for an international company."

The graphic 14, shows us that the most of the companies **82%** would like to receive information about the ECO TEX project and its results. In this sense, each partner country collected contacts.



Graphic 14: Companies interest in receive further information on the project

6. Conclusion

The questionnaires were send to fifty-four (54) companies and thirty-eight (38) replied. Concerning to company's dimension: two (2) companies are Micro companies; nine (9) are Small companies; twenty-one (21) are Medium companies and six (6) are Large companies. Twenty-three (23) companies are Apparel Manufacturers, ten (10) are Textiles Manufacturers; four (4) are Dyer/ Finisher and three (3) are Yarns Manufacturers.

- ✓ Most of companies, 36 out of 38 consider sustainability in their business strategy, and the sustainability concept is related with Health Safety and Labour Conditions, Environmental Protection and the Business Development are extremely important for the sustainability concept.
- ✓ 20 out of 38 companies have someone in charge by sustainability officer´s duties and obligations and the professional functions are: Coordinator; Manager; Project Manager and are integrated in several departments such as: Quality and Sustainability Department; Human Right Department; Financial Department.
- ✓ 24 out of 33 companies consider that having a management system certified is important and needed to achieve the sustainable development in their business (1 missing answer from Portugal; 2 missing answers from Romania and 2 missing answers from Spain).
- ✓ Depending of the type of the company and their products/production, most of the companies (20 out of 38) are certified by one or more than one management systems / guidance, the most used is ISO 9001.
- ✓ 23 out of 38 consider that the sustainability is extremely important to Bring Value to the Environment and Society; 21 out of 38 – that it is extremely important for the Efficiency in resources consumption; 20 out of 38 mention the Cost reduction / decrease. Only 13 out of 38 refers that the sustainability is extremely important for their Brand Recognition.

From the 27 skills indicated by the consortium, the companies considered that the sustainability expert should have skills and competencies in:

- Sustainability (environmental, social and economic) Analysis and Management;
- Corporate social responsibility;
- Environmental legislation;
- Health & Safety Legislation and Industrial Sustainability;
- Energy management;
- Carbon footprint;

- Climate change;
- Sustainable business models, Environmental economics and Social responsibility legislation.

✓ The most of companies consider that the Sustainability Expert should hold a qualification. 15 out of 38 mention the Higher Degree (EQF level 6); 13 out of 38 Master (EQF level 7) or Professional Degree (EQF level 5).

This report shows us that companies are increasingly aware of the demands of the market, consumers and their workers. Investing more in the sustainable certification of its products and in the qualification of its workers in order to become more competitive.

7. References

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Centro Tecnológico das Indústrias Têxtil e do Vestuário de Portugal – CITEVE
www.citeve.pt

European Commission Website
http://ec.europa.eu/environment/sustainable-development/index_en.htm

National Reports:

- Spain National Report
- Greece National Report
- Romania National Report
- Latvia National Report
- Portugal National Report

8. Annexes

Annex 1 – Questionnaire

Co-funded by the Erasmus+ Programme of the European Union

Sustainable Expert Questionnaire:

Purpose: research on anticipating skills needs for Sustainability Expert in the Textiles Sector

Section 1/About your company

please tick the box most relevant

1) How big is your business:

MICRO	SMALL	MEDIUM	LARGE
1-9 employees	10 to 49 employees	50-249 employees	250+ employees
☐	☐	☐	☐

2) your company:

Dyer /Finisher	Yarns Manufacturer	Textiles Manufacturer	Apparel Manufacturer	Other
☐	☐	☐	☐	☐

3) your company location: your manufacturing location (if different)

Country	Country
☐	☐
City /Town	City/Town
☐	☐

Section 2 / What do you think sustainability is?

Definition of sustainability:
"A process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations" ***The World Commission on Environment and Development***

4) rank from 1-5 important — 1 being not so important 5 extremely

Environmental protection	
Corporate social responsability (CSR)	
Bussines development	
Health safety and labour conditions	
Minimize resources consumption / zero emissions / circular economy	

Section 3 /How do you consider sustainability in your business strategy ?

5) Do you consider sustainability in your business strategy?

YES ☐ NO ☐

6) Is there somenone in the company who undertakes Sustainability Officer's duties and obligations?

YES ☐ NO ☐

If yes please specify Department and Title (e.g. R&D Project Manager)

Department: Title:

7) Are you certified or following one or more than one management systems/ guidances?

ISO 14001	EMAS	ISO 9001	OHSAS 18000 ISO 45001	SA8000	STeP by OEKO-TEX®	CSR ISO 26000 GRI
☐	☐	☐	☐	☐	☐	☐

OTHERS

☐

8) Do you think that having a management system certified is needed to achieve sustainability development of your business?

YES ☐ NO ☐

9) Are your products certified by one or more than one ecolabel certificates?

EcoLabel	STANDARD 100 by OEKO-TEX®	GOTS	GRS	Others
☐	☐	☐	☐	☐

Section 4 / Why is SUSTAINABILITY important for your company ?

10) rank from 1-5 1 being not so important 5 extremely important

Attract more customers/ expansion	
brand recognition	
eficiency in resources consumption	
new business model	
bring value to the environment and society	
cost reduction / decrease	

Section 5 / What skills do you think a Sustainable Experts need ?

11) rank from 1-5 1 being not so important 5 extremely important

Competences and skills

Sustainability (environmental, social and economic) analysis and management	
Environmental engineering	
Water management	
Waste management	
Energy management	
Greenhouse gas emissions	
Transport (electric cars, hybrid cars, fuel cells, biofuels, international transport, maritime transport)	
Energy efficiency and renewable energy	
Life cycle assessment (LCA)	
Sustainable consumption/ Sustainable procurement	
MFA (material flow analysis)	
Carbon footprint	
Ecolabelling/ sustanability labels	
Climate change	
Sustainable bussines models	
Circular Economy	
Corporate social responsability	
Supply chain analysis	
Environmental economics	
Environmental legislation	
Health & Safety legislation	
Social responsability legislation	
International politics and foreign policy	
International trade and the sustainability	
Innovation	
Industrial sustainability	
Systems engineering	
Others	

12) Should a Sustainability Expert hold qualifications?

Yes ☐ No ☐

If you answer yes, please specify what kind

Doctorate ☐ Master ☐ Higher Degree ☐ professional degree ☐ Undergraduate degree ☐

13) Which business title a sustainabilty expert should hold in the company?

Sustainability Officer ☐ Director ☐ Operations manager ☐ Quality, safety, environmental manager ☐ Other ☐

Section 6/ General Questions

14) How confident are you at learning on line:

Very Confident ☐ Confident ☐ Not Confident ☐

15) Anything you would like to add

☐

16) Would you like to receive further information on the ECO TEX project and its results?

YES ☐ NO ☐

IF YES, please indicate the email adress (optional) ☐

THANK YOU FOR YOUR TIME !!!