

Education and Research **THE BENCHMARKING REPORT**



**fashion
SEEDS**

FASHION SOCIÉTAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY



Fashion SEEDS

Fashion Societal, Economic & Environmental Design-led Sustainability

Erasmus+ 2018

KA2 - Cooperation for Innovation and the Exchange of Good Practices

KA203 - Strategic Partnerships for higher education

Grant Agreement No: 2018-1-UK01-KA203-048232

PROJECT CO-ORDINATOR

University of the Arts London, London College of Fashion, London, United Kingdom

Dilys Williams, Professor and Director of Centre for Sustainable Fashion

Nina Stevenson, Education for Sustainability Leader, Centre for Sustainable Fashion

Julia Crew, Specialist Sustainability Lecturer, School of Design Technology

Natasha Bonnelame, Digital Learning Producer

Egle Juospaityte, Project Manager

PROJECT MEMBERS

Politecnico di Milano, Dipartimento di Design, Milan, Italy

Federica Vacca, Assistant Professor

Chiara Colombi, Associate Professor

Erminia D'Itria, PhD Candidate

Estonian Academy of Arts, Tallinn, Estonia

Reet Aus, Senior Researcher

Piret Puppert, Professor, Head of Department

Harri Moora, Consultant and Teaching Staff

Julia Valle-Noronha, Professor

Design Skolen Kolding-DK, Kolding, Denmark

Vibeke Riisberg, Associate Professor

Ulla Ræbild, Assistant Professor

Karen Marie Hasling, Assistant Professor

Liv Eskholm, Designer, Head of Accessories

ADVISORY BOARD

Anna Detheridge, Connecting Culture, Milan, Italy

Kirsi Niinimäki, Aalto University, Espoo, Finland

Sara Jivenius, & Otherstories, Stockholm, Sweden

Saikh Khalid Raihan, Utrecht University of Applied Sciences, Utrecht, Netherlands

Silke Lieser, Gegenpol, Trier, Germany

Alex Ryan, University of Gloucestershire, Gloucester, United Kingdom

October, 2019

ISBN 978-1-906908-58-4

The project partners would like to thank the representatives of the higher education institutions and companies that contributed their time and insights to the writing of this report through participating in surveys and interviews.



This work is licensed under a Creative Commons Attribution-Non Commercial licence (CC BY-NC)

Erasmus+ 2018
KA2 - Cooperation for Innovation and the Exchange of Good Practices
KA203 - Strategic Partnerships for higher education

Fashion SEEDS

Fashion Societal, Economic & Environmental Design-led Sustainability

THE BENCHMARKING REPORT

CONTENTS

CHAPTER 1.

FashionSEEDS: Foreword

Seeding change across the fashion education system
The four pillars of sustainability
Benchmarking report
FashionSEEDS partners

CHAPTER 2.

Research methodology

Research methodologies
Findings and limitations

CHAPTER 3.

Taxonomy of experience in Fashion Design for Sustainability

European area: The data analysis
European area: Discussion of findings and study limitation
Nordic region report
UK region report
North American report
South American report
Indian report
Australian and New Zealand report

CHAPTER 4.

Approaching sustainability practices

Sustainability practices in higher education institutions
Sustainability practices in companies
Discussion of findings and limitations
FashionSEEDS' vision: A reasoned analysis
Concluding reflections

CHAPTER 5.

Bibliography

CHAPTER 6.

Annex

Annex A - HEIs' questionnaire
Annex B - Companies' questionnaire
Annex C - HEIs' semi-structured interview
Annex D - Companies' semi-structured interview

CHAPTER 1.

FashionSEEDS: Foreword

Seeding change across the fashion education system
The four pillars of sustainability
Benchmarking report
FashionSEEDS partners

We live in times of unprecedented environmental and social change and we sit at a crossroads. Our actions today will help determine whether we can keep within - or overshoot - the goal to limit global temperature increases, enabling us and future generations to enjoy the hospitable conditions that living on earth currently affords us. There is an urgent need to upscale and accelerate far-reaching, multilevel and cross-sectoral climate mitigation and to engage in both incremental and transformational change (IPCC, 2018).

This predicament affects and is affected by people across a range of professional, personal, political, social, economic and cultural activities. Our anthropocentric behaviours are destroying vital elements of life on earth and deepening social divides at local and global levels (Crutzen, Steffen and McNeill, 2007). Fashion's current business and social practices exacerbate, and in places instigate, devastating ecological destruction and social injustice (Quantis, 2018). Fashion design education¹ can and indeed must understand and seek to transform such practices and redirect our current trajectory towards irrevocable climate change and social unrest towards a new engagement in and deeper understanding of place, resources and relationships. Fashion has a distinctive role to play in change-making, through its artistic, business and social practices that involve everyone who conceives of, makes, buys, sells, wears, exchanges, communicates or services the resources of nature and labour that are manifest and mediated through fashion.

FashionSEEDS seeks to contribute to our ability to live well, together, in nature through fashion's educational processes and practices.

FashionSEEDS seeks to contribute to our ability to live well, together, in nature through fashion's educational processes and practices. It is a three-year project, supported by the European Union through the Erasmus+ action KA203 - Strategic Partnerships for Higher Education, connecting four partner universities and interacting with a wide range of other higher education institutions (HEIs). The project draws on research, policy and practice in academia, non-governmental organisations (NGOs), industry, and other organisations and communities, across a range of scales and locations. By connecting the distinctive approaches and expertise of the project team, spanning different geographic, academic and disciplinary contexts and engaging in participatory methods, the project seeks to enable critical reflection by project teams of their own practices as they seek to enable wider change in academia and industry.

1. the term fashion education in this report covers: Fashion, Textile, Accessories (Jewellery, Footwear, Bags)

FashionSEEDS' core partners are: THE UNIVERSITY OF THE ARTS LONDON (UAL) – Centre for Sustainable Fashion – London College of Fashion; POLITECNICO DI MILANO (POLIMI) – Design Department – Fashion in Process Research Collective; ESTONIAN ACADEMY OF ARTS (EKA) – Fashion Design Department; DESIGN SCHOOL KOLDING DENMARK (DSKD) – Design for Planet - Lab for Sustainability. The ambition of the project is to develop a holistic framework that integrates design-led fashion and sustainability research and practice into a multi-directional navigation system for higher education institutions to apply and adapt. The content created and housed in the framework will be applicable to teaching and learning, staff development, student experience and livelihood creation (employability). It will be open-sourced and connected to existing networks and communities.

The project will synthesise findings and learning from the six stages of the programme into a construct for a transformed education system, with guidelines and proposals for wider recognition of sustainability processes and practices in fashion design programmes and professional practice. This will include an outline for potential accreditation of fashion design and sustainability curricula, which may be applied across levels, locations and institutions in and beyond the EU. The objectives of the project are to:

- Carry out a benchmark to align knowledge and build a context reference for designing the proposed Framework Document for Design-led Sustainability Education;
- Develop an innovative framework for Design-led Sustainability Education that spans levels (BA to MA) encompassing a design-led sustainability approach;
- Develop a design-led sustainability approached learning resource repository;
- Trial new training materials and innovative pedagogies to support training of teachers;
- Undertake a joint staff training for consortium teachers;
- Undertake two intensive study programmes for students to test the framework, learning resource repository and training materials;
- Identify the next fashion design for sustainability competencies for future workforces through academia-industry dialogue;

- Evaluate the learnings of the project, prepare guidelines for adoption of the design-led sustainability framework by other HEIs to contribute to systems change in fashion's industrial & cultural practices;
- Disseminate the project results by organising two transnational multiplier events targeting fashion and design manufacturers, brands and retailers, and educators.

These objectives will be realised through a set of intellectual outputs, participatory learning, teaching and training activities, and multiplier events with diverse audiences. The project will develop a distinctive framework that includes courses, pedagogies, practices and learning environments and experiences that can develop new knowledge, understanding and agency in fashion educators and students to realise a fashion system that recognises prosperity through a set of skills and capabilities that can help us to thrive together in a finite world.

Seeding change across the fashion education system

FashionSEEDS takes a systemic approach to fashion and sustainability education, looking at relational aspects of the fashion education system across its nested sub-systems (Figure 1.1). It recognises that research takes place and intervenes at each level of the system and that change takes place within each level and through connecting activities across levels. The project focuses on direct change within the four levels of: i) teaching and learning at course content level; ii) staff development and related pedagogies, tools and methods; iii) student experience including learning environments, hierarchies, roles and relationships inside and outside the academy; and iv) employment including recognition of needs, skills and values. The project interconnects these direct interventions with fashion's wider economic, social, cultural and ecological pillars.

"...the unhealthiness of our world today is in direct proportion to our inability to see it as a whole." (Senge, 1990, p.68)

It is vital that we create useful, applicable and relevant outcomes from this project that can offer multiple ways in which tutors and others can engage in FashionSEEDS. This involves specific resources that are broadly applicable, whilst understanding that the framework and resources can never be static, as they represent living systems (Capra and Luisi, 2016), and thus they must be designed in ways that can inform and be informed by participants.

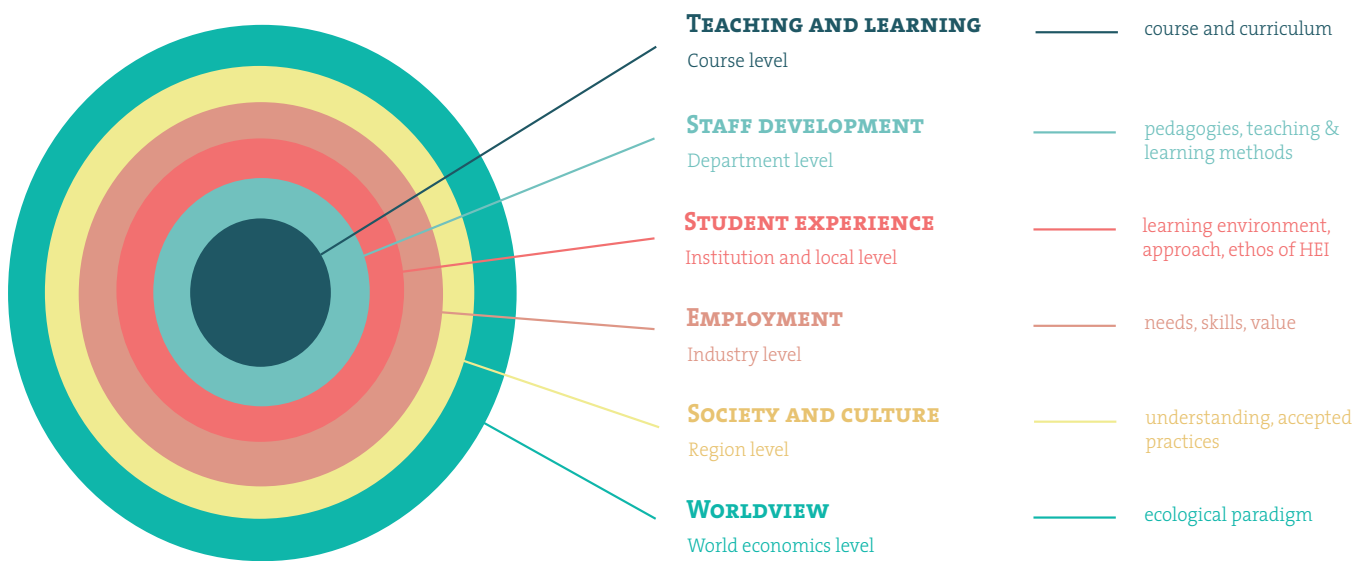


Figure 1.1

The Fashion Education System
(Williams and Stevenson, 2012)

The framework and resources will be based on an understanding that, “You can never direct a living system. You can only disturb it” (Maturana and Varela in Wheatley, 2005). In this way, the project facilitates, rather than directs change.

Over the past decade, there has been a groundswell of activity relating to fashion and sustainability. Whilst increasing awareness of fashion’s implications in climate change and social inequality is to be welcomed, there is a need to recognise that systemic change requires relationships and activities that take place across a spectrum from learnt responses, through to transformation of the educational paradigm. Change-makers must be encouraged to act across a range of evolutionary to transformational levels according to their circumstance.

As a whole, the project seeks to ensure that a critical approach is taken to progress substantial, radical change of the fashion system.

The four pillars of sustainability

FashionSEEDS takes an expansive view of the ecological, social, cultural and economic pillars of sustainability underlying fashion's artefacts and activities. It has a focus on design and designers, defined for the purposes of this research, by Herb Simon's well-referenced articulation of design: "[e]veryone designs who devises courses of action aimed at changing existing situations into preferred ones" (Simon, 1969). The scope of the project encompasses fashion education relating to the design of fashion products, services and systems. Reference points for the project's four pillars of sustainability draw on substantial research and policy documents outlining climate imperatives (Meadows et al., 1972; Brown et al., 1994; Rockström et al., 2009; Akenji et al., 2019; WCED, 1987;

UN, 2015; UNESCO, 2005; IPCC, 2018).

Consideration is also given to the proliferation of industry reports and business strategies that increasingly contribute to, and in places shape, a

narrative of fashion and sustainability (The Business of Fashion & McKinsey and Company, 2016; Ellen MacArthur Foundation, 2017; Kering, 2017; H&M Group Sustainability Report, 2018). The research also draws on tacit knowledge and practice relating to small and medium-sized enterprises (SMEs) and social enterprise taking place in the partner locations.

FashionSEEDS takes an expansive view of the ecological, social, cultural and economic pillars underlying fashion's artefacts and activities

Many cross-cutting approaches to sustainability, particularly in policy and industry reports, have focused on three dimensions: economic development, social inclusion and environmental balance. This construct, whilst connecting these elements, has a clear anthropocentric focus and does not recognise and cultivate diversity, or foreground an ecological world view, as identified through responses from international institutions, and academia (Ceschin and Gaziulusoy, 2016). The Sustainable Development Goals are far-reaching and increasingly identified, committed to and applied in education and business practice. However, it is recognised that insufficient thought has been given to how the goals and their targets interconnect and are mutually supportive of sustainability (Sterling, 2016; ICSU&ISSC, 2015).

This project references culture as a fourth agenda for sustainability, first introduced into policy documents by the Executive Bureau of United Cities and Local Governments (UCLG, 2010), and increasingly recognised as a key element of sustainability (UNESCO, 2002; 2010) (Figure 1.2):

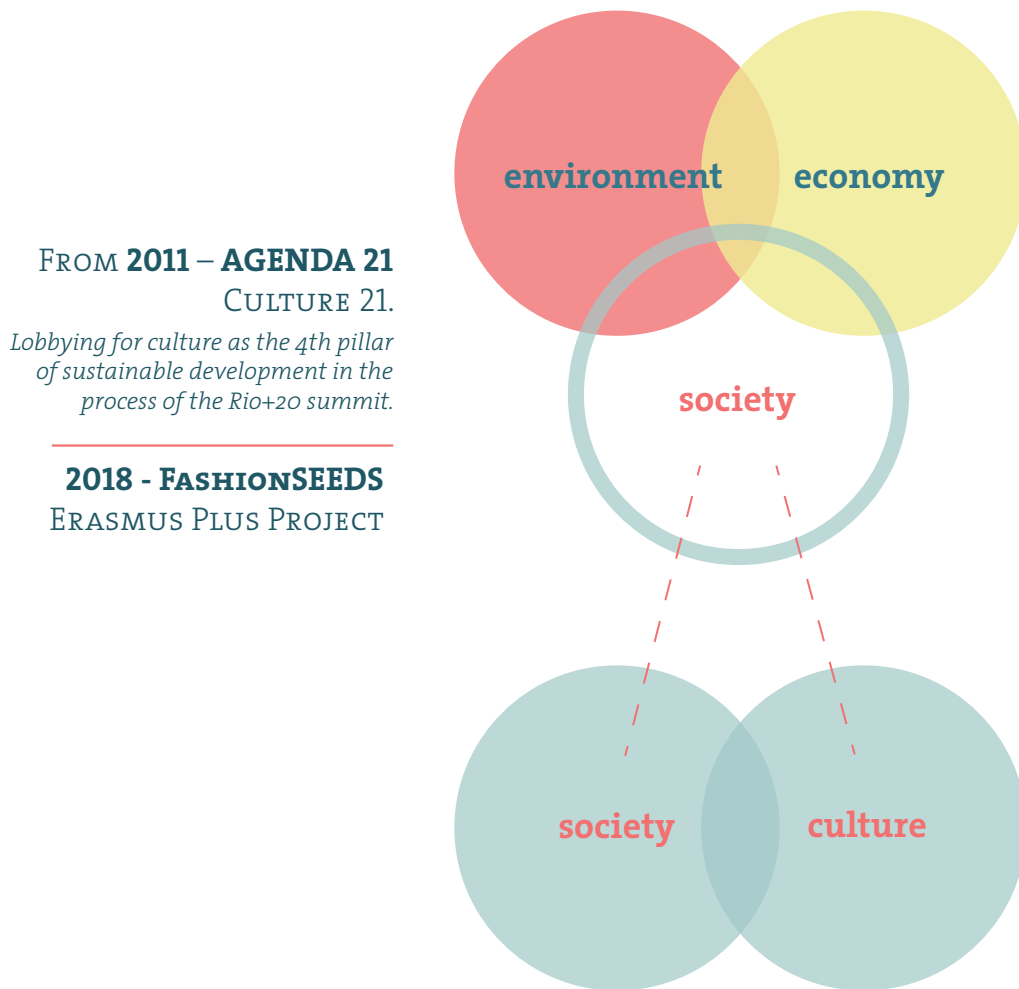


Figure 1.2

The four pillars of sustainability

For the purposes of this project, an assessment of academic literature has been carried out to form pillar descriptions, drawn from multiple sources and co-written by the team members as outlined below. Their intersection is seen as the nexus of fashion design and sustainability. In each pillar, we refer to the present and long-term futures.

Economic sustainability: refers to the ability of citizens to enjoy living conditions that are within agreed boundaries in terms of wage levels relative to costs of living and the gap between lowest and highest wages. It refers to regional and inter-regional access to investment and to a healthy relationship between productivity, employment and economic status.

Environmental sustainability: refers to our ability to live within biosphere limits, recognising planetary boundaries (Rockström et al., 2009). It draws on ecological principles and various practices that recognise people as part of nature and looks for ways to preserve the quality of the natural world on a long-term basis.

Social sustainability: refers to the ability of a community to interact and collaborate in ways that create and exemplify social cohesion. It considers places, communities and organisations, formal and informal, and their resources, opportunities and challenges. It involves the agency of diverse participants in voicing and acting with autonomy and in harmony with others.

Cultural sustainability: refers to tolerant systems that recognise and cultivate diversity. This includes diversity in the fashion and sustainability discourse to reflect a range of communities, locations and belief systems. It includes the use of various strategies to preserve First Nations cultural heritage, beliefs, practices and histories. It seeks to safeguard the existence of these communities in ways that honour their integrity.

Benchmarking report

The first element of the project is the creation and realisation of a Benchmarking Report that maps existing good practice in fashion and sustainability across the European fashion education system. It also identifies gaps and possible points of intervention that can enable subsequent outputs to be of greatest benefit in realising change towards sustainability within HEIs. The methodology of the research involves collation, comparison and mapping following quantitative and qualitative analysis techniques. It combines analysis of desk-based research with that of surveys and semi-structured interviews, carried out face-to-face or via digital communication channels. Questions were developed by the team to enable an overview of current fashion education system practices including research, teaching and learning, and courses relating to fashion, design and sustainability.

The report, whilst broad in scope, is limited by the language restrictions of the researchers involved, access to data, and access to and availability of relevant respondents. It is anticipated that this report will be of interest and value to academic researchers, HEI tutors, fashion professionals and others interested in fashion, design and sustainability.

Partner profiles

University of the Arts London-UAL. London. United Kingdom.

PROJECT TEAM: Dilys WILLIAMS, Nina STEVENSON, Julia CREW, Natasha BONNELAME

University of the Arts London (UAL) is Europe's largest specialist art and design university, bringing together six arts, design, fashion and communication colleges with more than 3,000 academic, research and technical staff and about 19,000 students from more than 100 countries. The university specialises entirely in design, the arts, fashion, architecture, communication and media. UAL is actively engaged in research and innovation as well as artistic, cultural and education projects. In the latest REF (UK Research Excellence Framework), 83% of UAL research was classified as 'world leading' or 'internationally excellent'. UAL is ranked in the top two universities in the world in art and design. Across its six constituent colleges, UAL offers a thousand courses, which share an approach of exploring the boundaries of their discipline. Students and staff are continually curious and always restless in developing beyond the accepted norms of their subject, so the work emerging from these practitioners and researchers is at the forefront of their areas. UAL graduates include many of the leading designers and artists who have shaped contemporary visual culture. This tradition, explored through its colleges, has provided a long history of research and creative practice that has championed social and environmental justice for more than half a century.

Delivery of this project is through the Centre for Sustainable Fashion (CSF), a UAL research centre based at London College of Fashion (LCF). Established in 2008 by Professor Dilys Williams, CSF places holistic approaches to sustainability as the starting point; fashion is the means of application. CSF's aim is to bring these approaches to fashion through academic research, education (for both undergraduate and postgraduate students), and to share these approaches through a two-way knowledge exchange with key players in the fashion industry. It's a unique approach that enables CSF to offer new perspectives on fashion's relationships and processes, which balance ecology, society and culture within both the artistic and the business context of fashion. With strong relationships with small designers, high street companies and luxury houses, CSF is well placed to cultivate new knowledge and practice in education and in business, to sustain livelihoods and design as professional and personal practices.

CSF's engagement with sustainability is multi-faceted, recognising the need for deeper change. CSF continues to challenge binary approaches to sustainability within the fashion context, bringing system-level thinking to the field. This has led to the development of a curriculum that not only addresses the needs of the industry but the needs of wider society as well, creating graduates that have skills, understanding and capabilities to positively influence their place of work.

Education is a fundamental element of CSF's work. Research and outputs in this area are underpinned by approaches termed Education for Sustainability (EfS). Building on a longstanding knowledge and practice base, CSF has developed a framework for EfS in fashion. It is an approach that examines agendas, contexts, issues and mindsets as applied to fashion and is used in studio-based, as well as in open-access online courses. The curriculum developed by CSF recognises sustainability as a holistic, interconnected concept. Most recently this has been demonstrated in CSF's latest offering, *Understanding Luxury Fashion in a Changing World*, the first online course to be created in luxury fashion and sustainability. CSF has co-created this curriculum with Kering, to create awareness within the field of the interconnections between individual and institutional responsibility and as a step towards whole systems change.

Additionally, CSF works with the schools across LCF to implement the Education for Sustainability Transformation Strategy, a five-year commitment to change in both informal and formal education settings across the college including the School of Design and Technology which will also contribute to this project.

LCF's School of Design and Technology, under the guidance of its Dean Professor José Teunissen, will be engaged in this project. Its staff and students use fashion alongside historical and cultural practice to challenge social and ethical agendas and to stimulate forward thinking in close relationship with the global fashion and lifestyle industries to 'Fashion the Future'. Students from the renowned BA Womenswear course will take part in the project.

Politecnico di Milano-POLIMI. Milan. Italy.

PROJECT TEAM: Federica VACCA, Chiara COLOMBI, Erminia D'ITRIA

Politecnico di Milano (POLIMI) is a scientific-technological university in the fields of Engineering, Architecture and Design founded in 1883. It has always focused on quality and innovation in teaching and research developing a fruitful relationship with the economic and productive realm through experimental research and technology transfer. Its Design Department was founded as the first Italian Department for Research in Design. The department's founding core of critical-theoretical definition and operational development of research and education includes theories, methods, tools, techniques, poetics, and cultures related to design, design process, material artefacts, communication, and service – also defined as product-system and environment-system, typical of the advanced industrial economies. Since 2013, the design department has had more than 100 members (full, associate and assistant professors, post-doc researchers and research fellows) and has been coordinating the POLIMI Design PhD Programme.

With its 5,000 students and 800 faculty and lecturers from the industry, POLIMI Design School is today the largest international school for the training of product, communication, interior and fashion designers, both by number of students and teaching staff. It has been ranked best design school in Italy, third in Europe, and sixth in the world for Art and Design (<https://www.topuniversities.com/university-rankings/university-subject-rankings/2019/art-design>). In particular, the bachelor's course in Fashion Design (BSc) offers an interdisciplinary approach in different areas of study – menswear, womenswear, jewellery, fashion accessories, knitwear, sportswear, underwear, and beachwear – providing the student with the cultural, scientific, methodological and technical-instrumental elements constituting the foundation of design activities in the fashion field (i.e. materials and production technologies, 3D modelling and prototyping, visualisation, management). Referring to the culture of making in Italy and its aim of combining tradition with innovation, crafts with technologies, and heritage with progress, the Master of Science in Design for the Fashion System (MSc) moves the attention from product design to product-service-system design and focuses on three aspects: (i) development of integrated design skills (product-communication-service) orientated to the “fashion system”; (ii) development of knowledge of the fashion system and the relations between the various players; (iii) development of specific multidisciplinary knowledge concerning economic, humanistic, sociological and artistic disciplines.

Estonian Academy of Arts – EKA, Tallinn, Estonia.

PROJECT TEAM: Reet AUS, Piret PUPPART, Harri MOORA, Julia VALLE-NORONHA.

Established in 1914, EKA is the leading university in Estonia in the fields of fine arts, design, architecture, media, visual studies, art, culture and conservation. Devoted to continuous progress and an advocate for institutional flexibility, EKA is striving to be among the leading international centres of innovation in the field of visual culture. Currently, the Academy enrolls around 1,200 students and contributes to 30 specialities with 200+ staff members. This results in a unique teaching perspective – offering a wide selection of specialities through individualised study and personal mentorship by members of the faculty. The departments are strong bodies of competence and research on their own, while at the same time facilitating synergy and interdisciplinary studies. In 2017, for the first time and as the only university from Eastern Europe, the Estonian Academy of Arts was ranked 151st among the world's top 200 art and design universities (QS World University Rankings, <https://www.topuniversities.com/university-rankings/university-subject-rankings/2017/art-design>).

EKA Department of Fashion Design provides practice-oriented education in fashion design and associated fields, such as innovation and new technologies, along with mapping the needs of target groups at both a consumer and producer level. Having established a long-term partnership with the industry – e.g. Baltika Group, the leading fashion enterprise in the Baltic states which operates five brands and has a high street presence in nine markets – teaching assignments and student placement are effectively merged with real-life cases. In addition, manufacture-focused practice bases in Asia are continually expanding, ranging currently from Vietnam and Bangladesh to India and enforcing the transparency of the industry on a student level. Moreover, the fashion department is the pioneering branch and cornerstone of sustainability at the Academy, running numerous projects over the years, including Trash to Trend, and creating the Sustainable Design Laboratory (SDL) in 2016 – a new hub of up-to-date design education and research that focuses on cooperation with companies, public sector organisations and professional designers. The objective of the SDL as a design and sustainable innovation platform is to accelerate and support practical and problem-based design education at EKA. It aims to link the theoretical learning of product development and design with practice by bringing together researchers, students and practitioners. For the past few years, SDL has concentrated on cooperating with closed organisations like the Estonian Defence Industry Association, Estonian Police and Estonian Army, with the aim of analysing and rethinking their surplus and finding multiple ways to upcycle it without exiting the institutional realm.

EKA's strategic partner in matters of sustainability is Stockholm Environment Institute (SEI) in Tallinn. SEI Tallinn specialises in sustainable development and education methods, sustainable consumption and production-related approaches such as eco-innovation and sustainable design as well as teaching and capacity building in these areas in the region. SEI Tallinn is considered a leading institution in Estonia in the circular economy and it collaborates with other international and local organisations and universities, the public and private sectors, and NGOs. SEI Tallinn experts have participated as experts and trainers in several projects mainly financed by the Leonardo da Vinci and Erasmus+ programmes, such as "INNOLABS" and "GIFT for Europe".

Design School Kolding – DSKD, Kolding, Denmark.

PROJECT TEAM: Vibeke RIISBERG, Ulla RÆBILD, Karen Marie HASLING, Liv ESKHOLM.

Design School Kolding is an independent institution under the Danish Ministry for Higher Education and Science. The school trains designers at undergraduate and graduate levels. Design School Kolding has 380 active students and a number of PhD students including industrial PhDs. The school admits around 90 new students annually and employs around 100 people, plus a large number of guest lecturers from Danish and foreign schools and design consultancies. In addition, the school offers a Masters programme in design management in collaboration with the University of Southern Denmark and the world's first and only play designer education with toy-makers LEGO. With the University of Southern Denmark and a number of companies, including LEGO and Bjert Invest, Design School Kolding runs the initiative Design2Innovate which aims to teach SMEs how to use design, including sustainable design, as a driver of growth and innovation. The school cooperates with a wide range of international universities and design institutions, including two outposts at foreign universities: one at Tongji University, Shanghai and one at Universidade de São Paulo. The objective is for all students to earn at least 15 European Credit Transfer System (ECTS) points abroad. The school houses three research and development laboratories – for Sustainability, Social Design, and Play & Design. Here, teams of professional designers work on how design and design methods can make a difference to the world.

DSKD has accrued considerable experience in developing sustainability-centred learning and creative disruption tools for working with students as well as public organisations and private companies. The project Sustainable Disruptions examines how businesses can design services, products, materials and business models for the 'triple bottom line': the balance between profit, environmental effects and social justice. Sustainable Disruptions works by examining an entire business value chain to identify points of opportunity for sustainable change. The school pioneered the discipline of wardrobe studies: the academic study of how people interact with garments in their everyday lives. DSKD works with circular economy and other green business models and has created the Sustainability Cards, a toolkit for students, teachers, businesses and public organisations to facilitate sustainable change in their internal organisational set-ups.

In addition, the school's strengths include interdisciplinary design thinking and facilitating design methods through various workshop formats as well as a wide-ranging and diverse international network of students, staff, researchers, companies, organisations and decision-makers. User-centred design and user involvement are core strategies in the school's approach to both learning and working, and are evident through its entire value chain, including in project outputs such as services, tools and business models.

Kolding is a design city, and not in name only. The city is full of design institutions ranging from international branding initiatives to educational institutions, design museums, innovation houses, and not least a local city council whose development strategy is design centred. Kolding places design on the map; with Design School Kolding at the centre. Always with an eye on development potential, DSKD is part of a number of cross-disciplinary and intersectoral collaborations. Design School Kolding's unique competences in education, research and development within the field of design not only benefit the students but society as a whole. The school is keen for industry, the public systems and others to experience the creative and innovative potential offered by a collaboration between a designer and a company. Design School Kolding has therefore created a tradition of working with local, regional, national and international companies, institutions and organisations. The research and development laboratories consolidate the school's collaborations. The laboratory's team of professional designers are specialists in design methods and can offer companies, institutions and organisations identification of the users' experiences and needs, analyses and recommendations that promote the development of meaningful products and services, and facilitation of workshops that qualify knowledge, new ideas and concepts. Design School Kolding rests on a three-pronged knowledge base: research, artistic development and practice. The school works on the principle that "doing is thinking"; through specific collaborations and artistic development projects, the laboratories and research department generate knowledge and examples of how design contributes to the development and implementation of meaningful products, services and systems.

CHAPTER 2.

Research Methodology

Research methodologies
Findings and limitations

This report aims to map existing practices in the teaching of fashion and sustainability at higher education institutions, as well as uncovering the extent to which a small sample of companies are pursuing fashion design for sustainability. The data analysed in this report has been collected among stakeholders active in this field, in Europe and worldwide, through desk research complemented by surveys, face-to-face and long distance semi-structured interviews. All data has been compared and mapped towards quantitative (Chapter 4) and qualitative analysis (Chapter 5).

The initial desk research conducted individually by each partner takes into account three main considerations:

- the partner's knowledge and experience, based on academic study, teaching, networks, projects and other research and practice carried out by team members in fashion design for sustainability;
- desk-based research to complement quantitative and qualitative data gathering, including literature review, website reviews, publication reviews;
- a geographical division among partners (Figure 2.1) to identify who are the main players active in the field of interest in the European and selected non-European areas.

The division of the countries among the partners is allocated as follows:

UAL is responsible for Central Europe, mapping case studies among the UK, Ireland, Netherlands, Germany, Holland, Belgium, Austria, Switzerland, and Hungary. In addition, researching Australia and New Zealand.

POLIMI is responsible for the Mediterranean countries, mapping case studies among Italy, Spain, France, Malta, Slovenia, Croatia, Greece, Albania, Turkey, Cyprus, Former Yugoslav Republic of Macedonia, Bosnia & Herzegovina, Serbia, and Montenegro. In addition, researching India.

EKA is responsible for Eastern Europe, mapping case studies among Estonia, Latvia, Lithuania, Ukraine, Moldova, Bulgaria, Romania, Czech Republic, Slovakia, Poland, and Russia. In addition, researching Central and South America.

DSKD is responsible for Northern Europe, mapping case studies among Denmark, Sweden, Norway, Finland, and Iceland. In addition, researching North America.



Figure 2.1

Geographical area visualisation for HEIs and for ccompanies

Research Phases

Following the preliminary desk research phase, a case study methodology was applied to narrow down a very broad field of research into easily researchable topics. This methodology was chosen because it is appropriate when existing knowledge in the subject is insufficient (Yin, 2003; 2008). As fashion design for sustainability is still an underexplored and relatively young discipline, the case study methodology offers pragmatic knowledge that while not generalisable, permits the development of interpretation through case studies (Nixon and Blakley, 2012).

Following the preliminary desk research phase, a case study methodology was applied to narrow down a very broad field of research into easily researchable topics

Once case studies were identified by each partner, following the assigned geographical areas of investigation, research continued in two phases. First, using a quantitative research methodology to uncover more descriptive data on the activities of participants through surveys. Second, applying a qualitative research methodology to address the character of the phenomena under examination through case study interviews.

This empirical research method uses numeric and quantifiable data to enable measurement and independent verification. The conclusions in this phase are based on objective and systematic observations and statistics (Muratovsky, 2016). This quantitative data analysis consists of different stages (Allen, 2017):

- ⦿ data preparation: the translation of raw data into meaningful and readable files in order to have all of the data at the same level of completeness;
- ⦿ data validation: ensuring that the respondent has understood and replied correctly to all questions;
- ⦿ data editing: preventing any bias or incomplete answers. Missing data can be managed by the researcher by contacting the respondent or revisiting desk research to fill the unanswered questions;
- ⦿ data coding: categorising questions, assigning values and grouping responses.

Following this methodology, data is statistically analysed through descriptive tools (such as median, percentage, frequency and range) and then investigated to highlight their relational aspects (correlation and variance). This research method provides tools to draw research conclusions as well as identifying meaningful insights in highlighted practices.

According to the methodology, the data is gathered through surveys (Annexes A and B) to collect information from a pool of respondents by asking multiple closed questions, structured to organise the data into specific information clusters (Groves et al., 2009). In drawing up the FashionSEEDS survey the challenge is to understand how to balance each of the components of the survey to make best use of the value of the data. It is important to create a common meaning in the exchange of questions and answers which can guarantee that questions are asked in the simplest possible form while remaining faithful to the conceptual intentions of the research (Pawson, 1989).

For HEIs (Annex A), the survey structure is organised in five parts:

1. Institution identity, which aims at deepening all the aspects related to programmes, curriculum, faculty, student number and levels of training;
2. Pedagogical approach/format used to embed sustainability in fashion curriculum;
3. Practices of sustainability which are already happening (self-assessment);
4. Level of collaboration between academia and industry;
5. Future goals of the institution.

For companies (Annex B), the survey structure is organised in four parts:

1. Company identity, which aims at identifying the company's core business, dimension, location, foundation year;
2. Sustainable approaches that companies are already performing;
3. Sustainable actions that they are already practising;
4. Level of collaboration between academia and industry;

The case study interviews follow an iterative process of qualitative research development with phases that are not necessarily consequential. This builds through identifying key words, recurring themes and framing topics that need to be further explored. For the purposes of this research, the following methods were applied:

- Content analysis: a research method at the intersection of the qualitative and quantitative traditions (Duriau, Reger & Pfarrer, 2007: 5) to compare, contrast and interpret qualitative data;
- Narrative analysis: a method whereby researchers interpret stories that are told within the context of research (Allen, 2017). This involved reporting and decoding the narratives shared by interviewees into the research questions to draw an interpretative framework.

According to this methodology, the present report collects data from selected highlighted practices through semi-structured interviews (Annexes C and D) that

are designed through both closed-ended questions and open-ended questions. Semi-structured interviews are a qualitative research technique which involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, programme or situation (Boyce & Neale, 2006). The questionnaires are almost entirely open-ended questions, with probing instructions providing scope for greater exploration than is normally possible (Brace, 2018). In this case, the interview structure consists of open-ended and a few rating-scale questions (self-assessment) that are designed to help the partners to frame their highlighted practices. Most of them (70%) have been selected according to the findings from the surveys, where highlighted practices were identified. Others (30%) have been included from the list of interviewees since they were part of the preliminary desk research phase.

HEIs' interviews are divided into seven parts:

1. Institution identity chart;
2. Institution curriculum to investigate the extent to which the institution offers fashion courses which address topics related to sustainability;
3. Student opportunities in practising sustainable practices;
4. Research and scholarships to consolidate collaboration between industry and academia;
5. Practices as part of the institution strategy approach;
6. Faculty staff development and rewards;
7. Planning to respond to highlighted barriers, gaps, valuable progress and future goals.

Companies' interviews (Annex D) are divided into four parts:

1. Company identity chart;
2. Description of the sustainable approach of the company;
3. Collaboration with academia;
4. Company management and human resources.

CHAPTER 3.

Taxonomy of experience in Fashion Design for Sustainability

European area: The data analysis

European area: Discussion of findings and study limitation

Nordic region report

UK region report

North American report

South American report

Indian report

Australian and New Zealand report

The European Area: Data analysis

This chapter presents analysis and findings from the closed-question surveys which explore the educational and research approaches of HEIs (75) and the applied research experiences led by companies (63) active in the field of interest. These findings informed the identification of the case studies (described in Chapter 5) as well as offering specific findings of value to the next phases of FashionSEEDS.

Europe is the primary area of research and constitutes 112 of 138 surveys, of which 62 are HEIs and 50 are companies. The number of respondents constitutes a critical mass of data sufficient to determine trends and behavioural attitudes.

To contextualise the European focus, HEIs and companies were identified in other regions - North America and South America (ten HEIs, nine companies); Asia (one HEI, three companies); and Australia and New Zealand (two HEIs). Specific reports were prepared for some non-EU areas to broaden understanding of the state of progress with respect to Fashion Design for Sustainability both for HEIs and companies. It is acknowledged that there are gaps in terms of representation, these are due to time and accessibility constraints. Through the next stages of the project, there will be an opportunity to include reference to sustainability-related teaching and learning and industry practice in Africa and China.

Through the desk-based research and surveys, the Nordic region and UK region demonstrated particular maturity in its Fashion Design for Sustainability practice in HEIs and companies. Therefore, specific region reports have been created to further explore practices in this part of Europe.

Results are organised into two sections.

i) The first refers to the whole European area, where the data collected from HEI and company surveys are formulated into specific findings, represented by graphs and visualisations.

ii) The second section details region-focused reports both within and outside Europe:

- the Northern European regions: Denmark, Finland, Iceland, Norway and Sweden;
- the UK region;
- the South American region based on the sustainability-related practices identified in Brazil, Colombia, Argentina and Mexico;
- India;

- Australia and New Zealand.

This section provides a critical reading of the data through an analysis of the representative international education programmes (Figure 3.1) and companies (Figure 3.12) mapped in the European area within the Fashion Design for Sustainability field. All the data in this section is presented through infographics to allow a more rapid and immediate understanding of the topics covered and percentages are rounded up to the nearest whole number.

Higher education institutions

The survey on higher education institutions was conducted to map sustainability-related practices in 39 nations of the European continent, of which 28 belong to the European Union. As shown in Figure 3.1, it was possible to collect data from only 23 nations that constitute the analysis area of the present study.

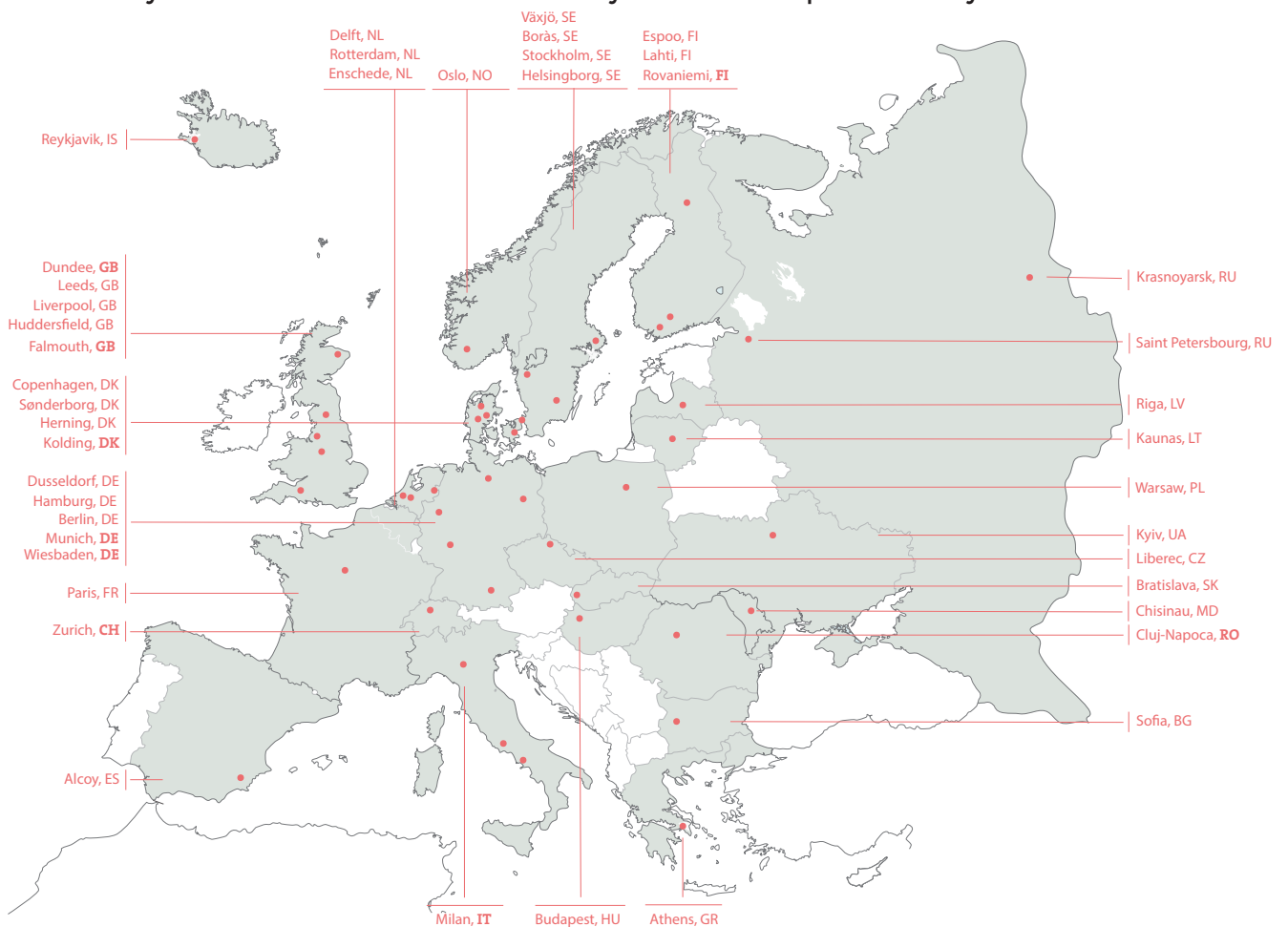


Figure 3.1

Geography of surveyed HEIs
(Source: Annex A, ID section)

The composition of the 62 higher education institutions involved in this study presents a significant number of design schools that offer fashion programmes related to sustainability, not only in the design field but also related to economics and management, technology/engineering and humanities disciplines. As shown in Figure 3.2, the majority of HEIs offer fashion programmes related to design disciplines, while 15% are related to economics/management, 13% to humanities or technology/engineering, and only 7% are related to sustainability in a broader sense.

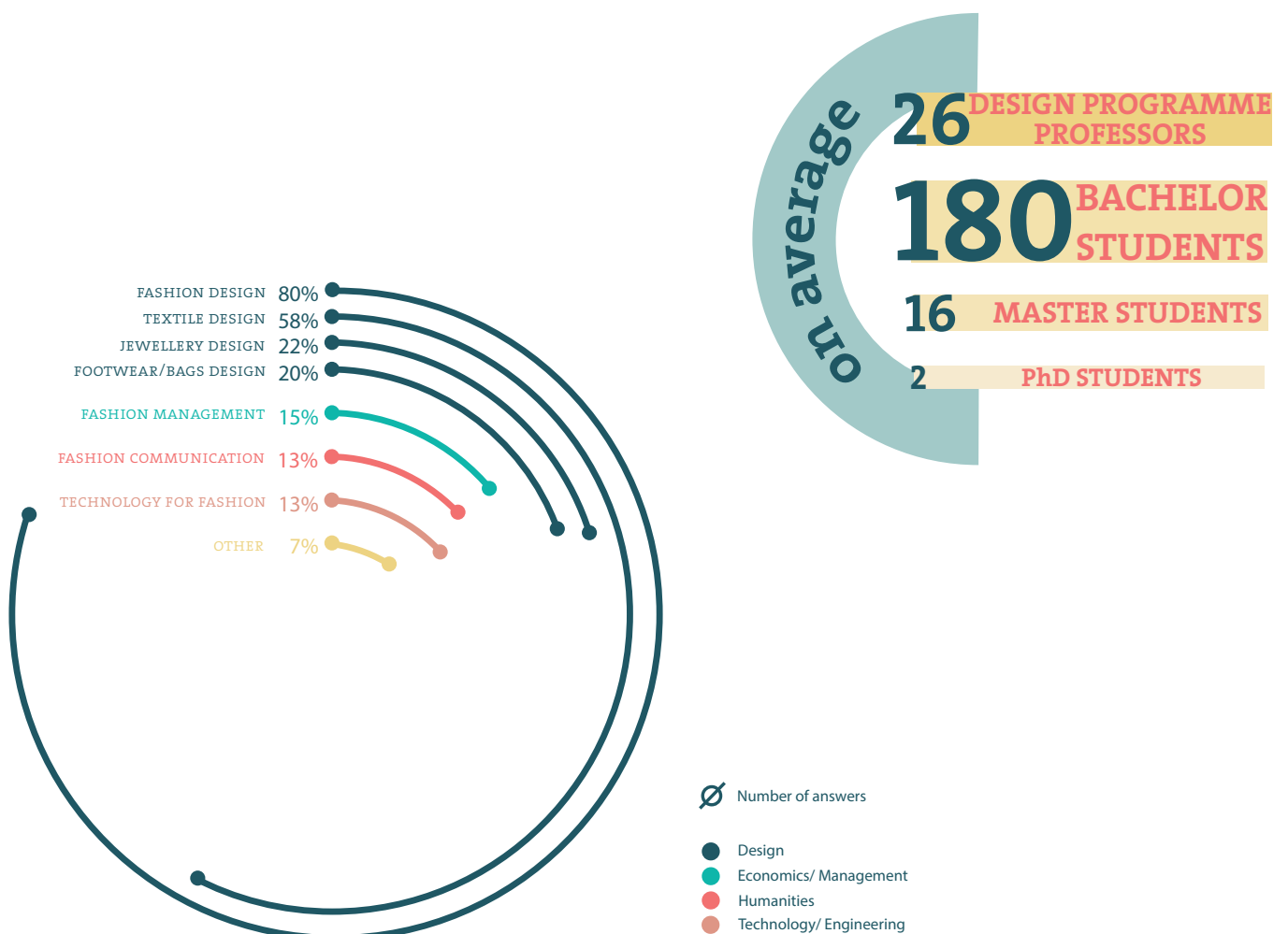


Figure 3.2

Fashion programmes offered by the HEIs
(Source: Annex A, Question 3)

Fashion programmes relate to a range of disciplinary areas with faculty members offering diverse and distinctive backgrounds, as demonstrated in Figure 3.3, handling a range of topics and related knowledge.

What is the faculty background in your institution?



Figure 3.3
Faculty Background in HEIs
(Source: Annex A, Question 2)

These courses collectively represent a holistic view of the fashion system, in line with the FashionSEEDS researchers' collective understanding of Fashion Design for Sustainability as challenging the status quo of the current fashion system. It seeks to change fashion from its root, to shift its focus from contribution to the economy, to a wider focus on a contribution to society, nature, culture and economy. More than half of the respondent HEIs (60%) work with the Sustainable Development Goals and 65% of them consider sustainability as a value that influences the fashion curriculum 'very much - completely' (Figure 3.4).

Indicate the extent to which your institution offers fashion courses related to sustainability and how much this influences the fashion curriculum.

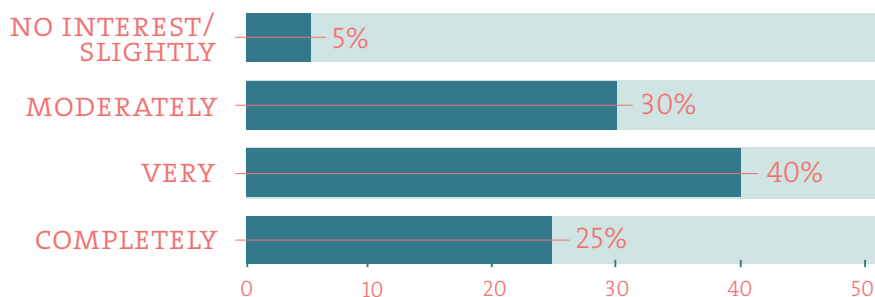


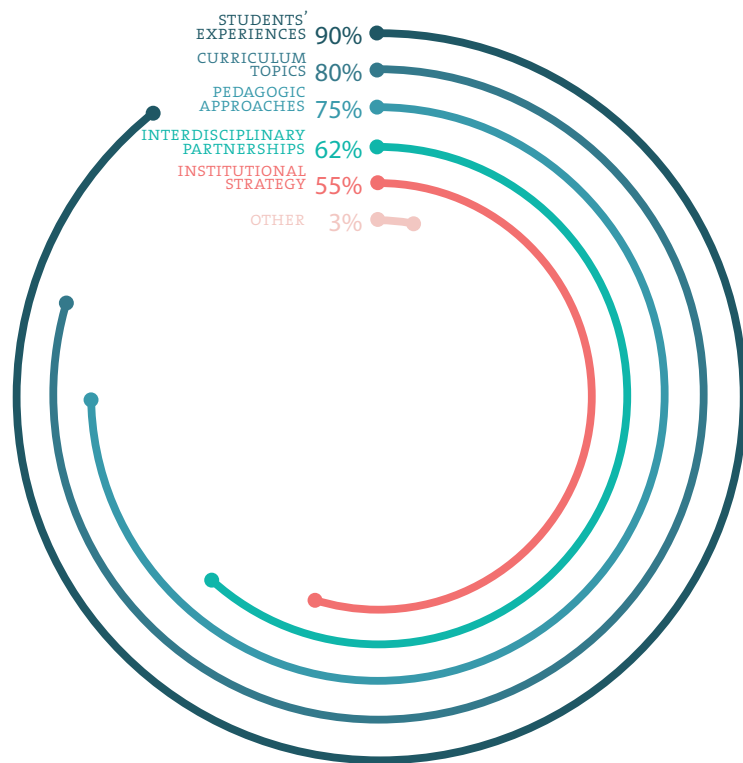
Figure 3.4

How much sustainability influences the fashion curriculum in HEIs

(Source: Annex A, Questions 1 and 4)

The findings demonstrate that sustainability influences the fashion curriculum across a spectrum of formal and informal learning experiences, as shown in Figure 3.5, including student experience (90%) and curriculum topics (80%), pedagogical approaches developed within the institutions (75%), interdisciplinary partnerships (62%), and institutional strategy/values (55%).

**In your opinion,
how does
sustainability
influence your
fashion
curriculum?**



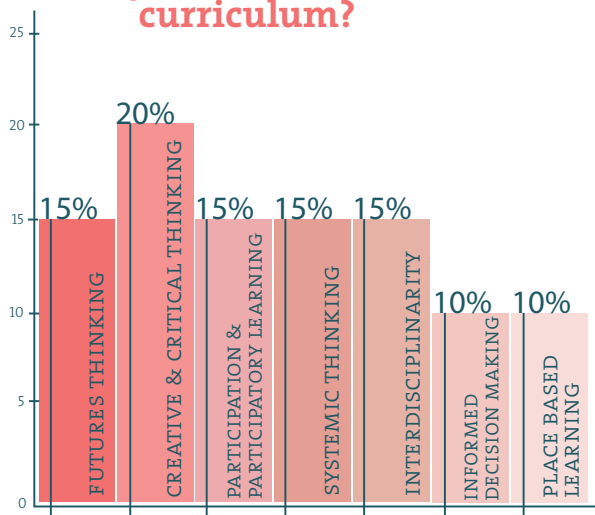
 Number of answers

Figure 3.5

How sustainability influences the fashion curriculum in HEIs
(Source: Annex A, Question 6)

When questioned about pedagogical approaches, data shows significant engagement across the seven identified pedagogies (Figure 3.6), based on the Centre for Sustainable Fashion framework (Williams 2019). Perhaps not surprisingly for a predominantly design-centred set of respondents, the most frequently cited pedagogy is *Creative and Critical Thinking* (88%) offering a deep analysis and challenging of traditional and accepted modes of practice through creation of new alternative practices, followed by *Interdisciplinarity* (70%) offering ways to work between fields of study and combining learning across different courses and disciplines; *Systemic Thinking* (63%) involving the understanding of interconnections and holistic approaches; *Futures Thinking* (62%) a method for informed reflection on short and long-term feedback loops between ideas and actions, and *Participation & Participatory Learning* (55%) as a collaborative working approach in breaking through traditional hierarchies in relationships; *Informed Decision Making* (50%) which bases decisions on verified data and employs analytical skills informed by expert knowledge, and *Place-based Learning* (42%) which considers how location (physical, cultural etc.) or experience has a direct influence on learning, including experiential learning.

Which pedagogic approaches are used to embed sustainability in your fashion curriculum?



Would you say that your institution's approach to date has prioritised theoretical approaches to education for sustainability, or practical realisation of sustainability through hands-on assignments?

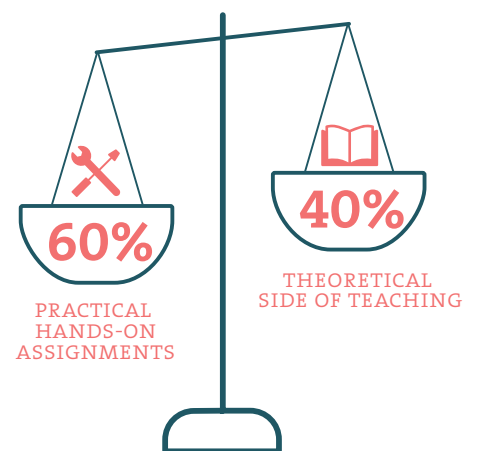


Figure 3.6

On the right, pedagogic approaches to embed sustainability in the fashion curriculum (Williams and Stevenson, 2012)
(Source: Annex A, Question 7)

On the left, theoretical vs practical approach to Education for Sustainability
(Source: Annex A, Question 8)

The formats (Figure 3.7) used to embed sustainability in the fashion curriculum are lectures (95%) and workshops (83%), followed by study groups (48%), design studios (47%), conferences (40%), meetings (28%) and hackathons (15%). The courses related to sustainability practices are mainly offered to students at Bachelor level (58%), then Master's level (42%), then PhD (18%).

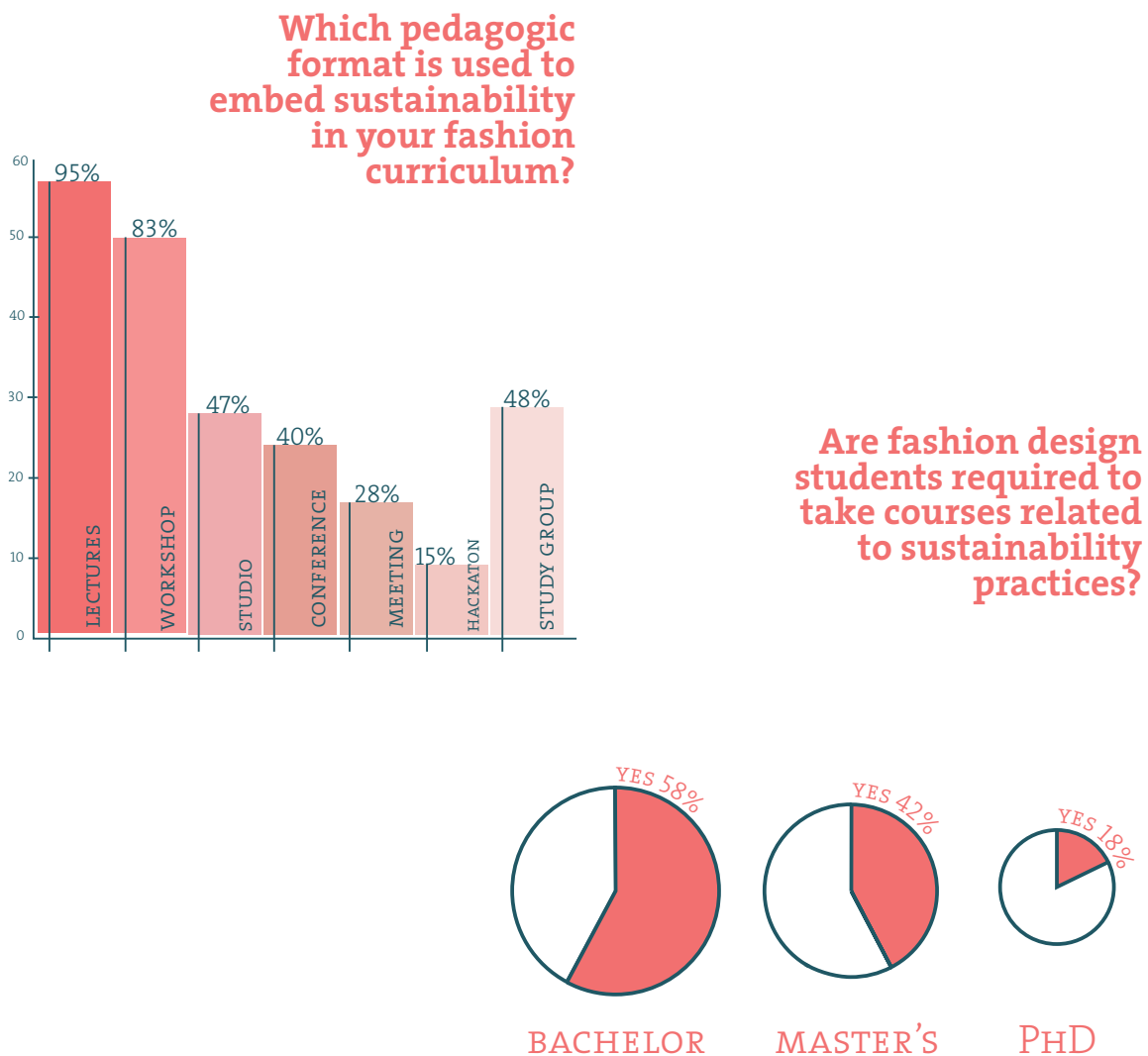



Figure 3.7

On the left, the formats for embedding sustainability in the fashion curriculum
(Source: Annex A, Question 9)

On the right, how many fashion design students at undergraduate/graduate/postgraduate levels are required to take courses related to sustainability practices
(Source: Annex A, Questions 10, 11 and 12)

 Number of positive answers

According to this, HEIs provide student development opportunities such as courses, training, internships, etc. to enhance, very (50%) or moderately (40%), their understanding and research in sustainability (Source: Annex A, Question 13). 70% of the HEIs interviewed encourage students to consider sustainability practices when choosing a career path (Source: Annex A, Question 14). This aspect is further highlighted by the number of projects, research or curricula delivered in the fashion disciplines in sustainability during the past five years (Figure 3.8). In fact, 55% of the institutions state that they deliver up to 10 projects related to fashion for sustainability topics, while the remaining 45% have delivered more than ten projects. Among them, only 10% of respondents have developed more than 30 projects in the last five years related to sustainability.

93% of the HEIs state they have collaborated with industry to support sustainable practices. The key aspect of success in this collaboration is related to knowledge sharing and new ideas development (83%), followed by researchers' commitment to questioning the status quo (60%) and contributing to industry needs (52%). Less significant was to gain support from industry collaborators (42%) and to gain short-term results and impact on industry (40%).

How many projects have been delivered in the fashion disciplines in sustainability during the past five years?

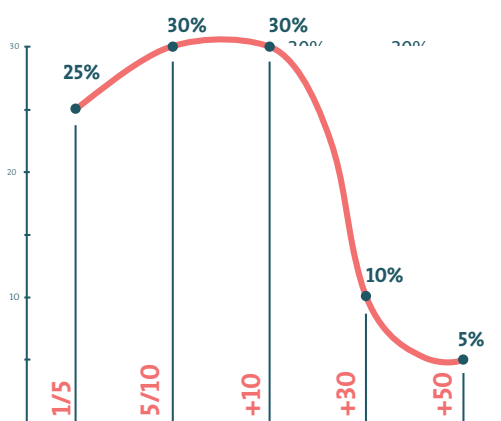
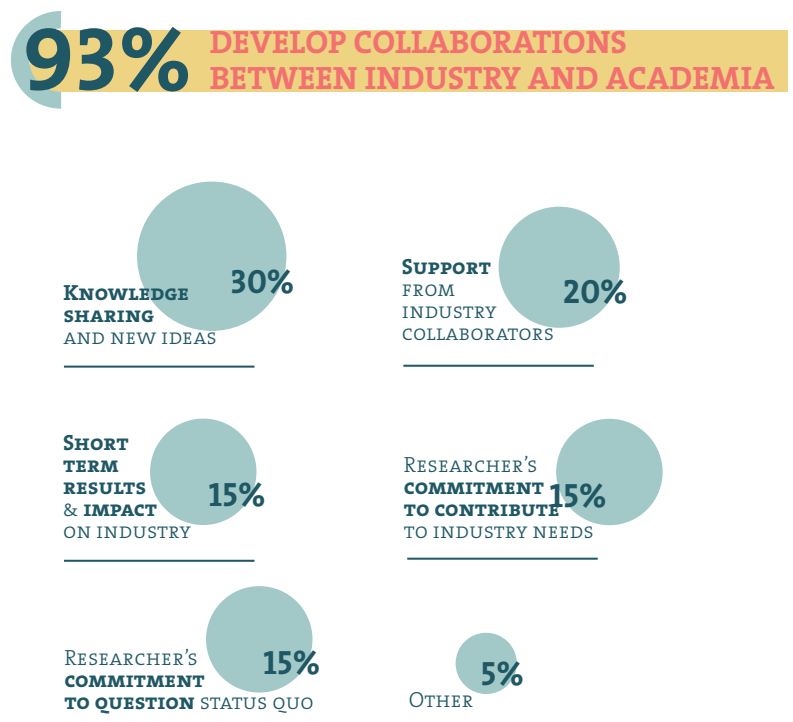


Figure 3.8

On the left, projects delivered in the fashion disciplines in sustainability during the past five years (Source: Annex A, Question 15)

On the right, collaboration between industry and academia (Source: Annex A, Questions 19 and 20)



The HEIs in the study have shown that, on average, eight professors per institution teach fashion sustainability practices regularly, while ten professors conduct research in this sector (Figure 3.9). About 40% of institutions estimate that more than ten faculty members would be interested in teaching and/or research in fashion sustainability practices, highlighting the relevance of the sustainability educational paradigm as an emerging phenomenon.

In this scenario, 40% of HEIs have already established multidisciplinary and interdisciplinary structures, such as an institute or centre for research, education and policy development on sustainability practices.

About teaching and researching on fashion sustainability practices

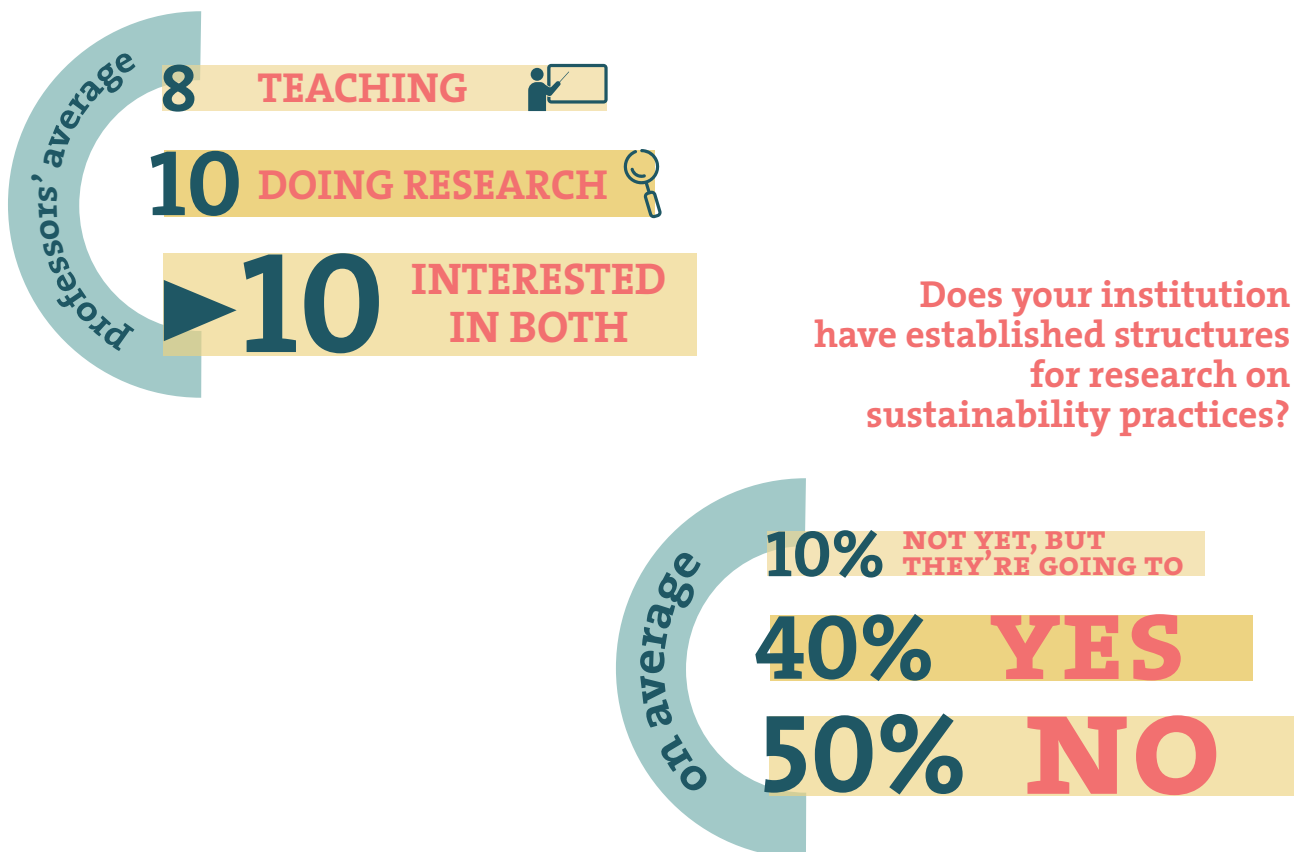


Figure 3.9

On the left, faculty members' propensity for teaching or researching sustainability practices (Source: Annex A, Questions 16, 17 and 18)

On the right, the establishment of an institute or centre to support sustainability practices (Source: Annex A, Question 21)

Another interesting aspect that gives consistency to the purpose of the Fashion SEEDS project in developing an holistic framework for embedding sustainability into higher education fashion design curriculum, is given by the propensity of HEIs recognising themselves as performing well or making valuable progress in the Cultural Sustainability pillar (35%), followed by Environmental Sustainability (32%) and Social Sustainability (25%) pillars (Figure 3.10). The lower presence of the economic sustainability pillar (8%) may be due to a tradition of fashion curricula focusing on creative and technical elements of fashion practice rather than engaging in a critique of economic practices within their teaching and learning.

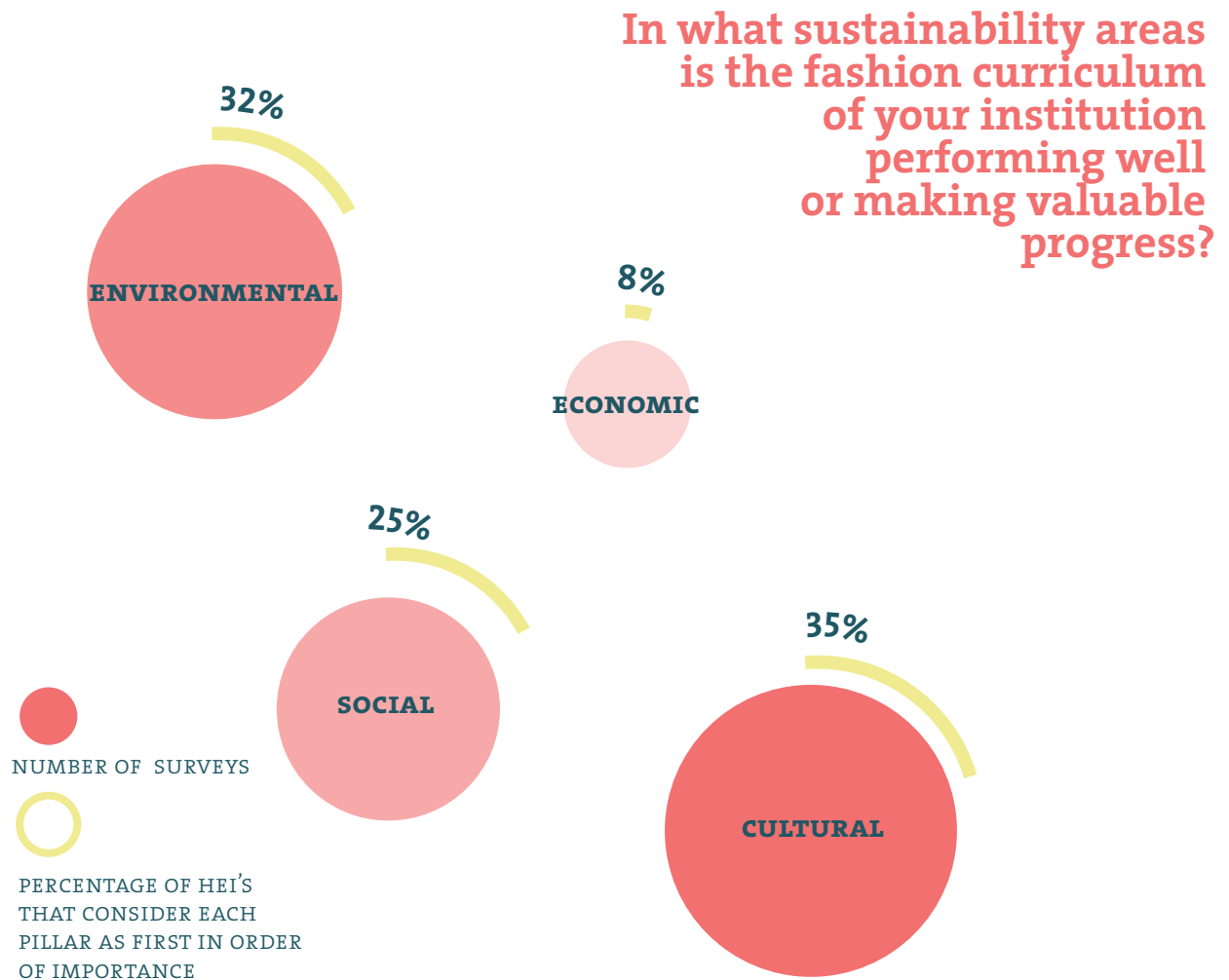


Figure 3.10

In what sustainability pillars the HEIs perform well or are making valuable progress
(Source: Annex A, Question 25)

This study ends with the goals each institution aims to achieve in the next five years (Figure 3.11). The highest ranking aims of HEIs are to question consumption and growth (25%) and to focus on the role of design research (25%); followed by amplifying public understanding of sustainability (20%), design for socio-cultural change (20%); and finally, exchange with business and politics (10%).



Figure 3.11

HEIs' sustainability practice goals in relation to content to explore within the fashion curriculum in the next five years. Font size reflects number of responses (Source: Annex A, Question 26)

Fashion businesses

The study was conducted mapping sustainability-related practices among companies from 39 nations of the European continent, of which 28 belong to the European Union. As shown in Figure 3.12, it was possible to collect data from only 16 nations that constitute the analysis area of the present study.

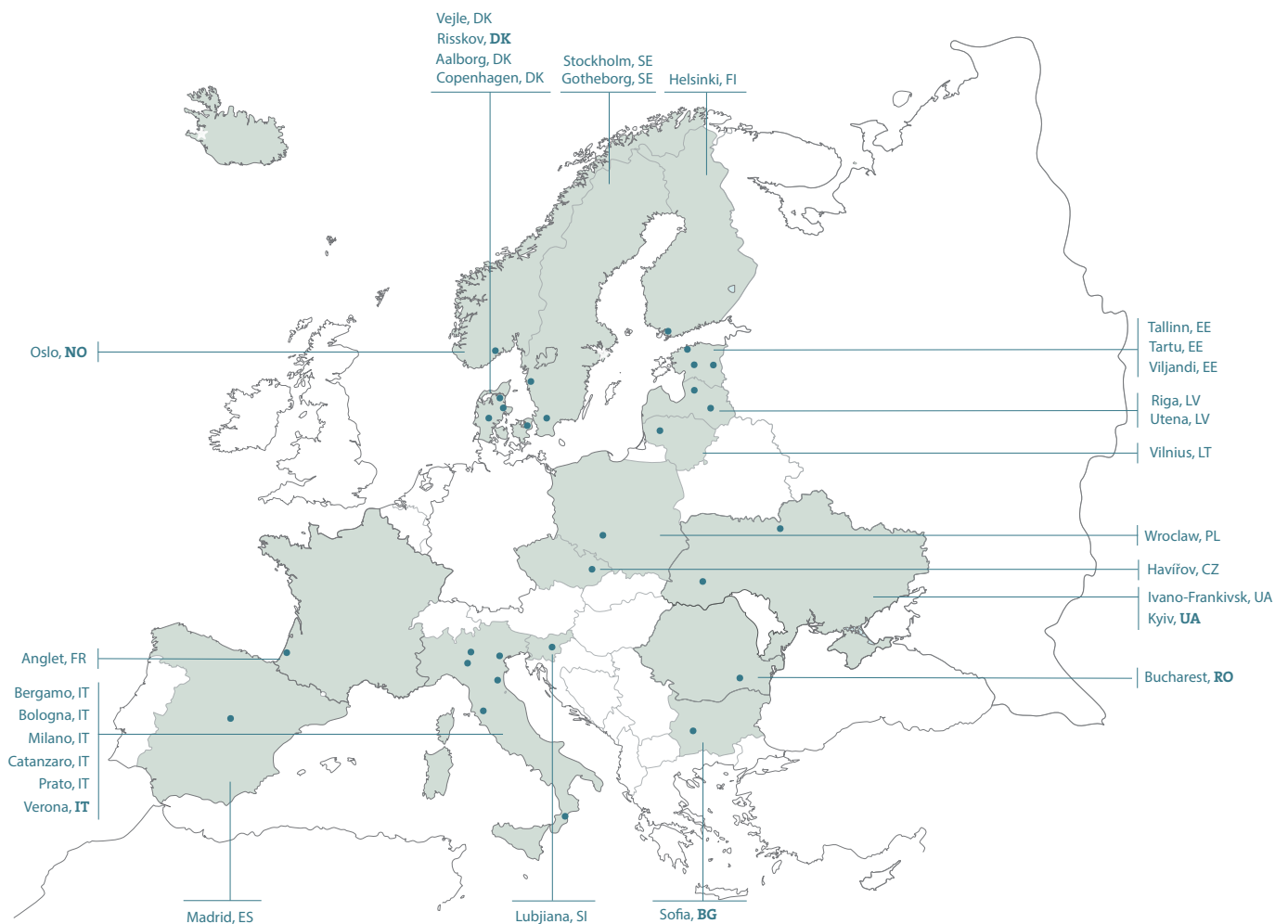


Figure 3.12

Geography of fashion businesses surveyed
(Source: Annex B, ID section)

Of the 50 companies analysed in this study (Figure 3.13) 70% are micro enterprises active in the sector, 15% are small enterprises, 10% are medium-sized enterprises and 5% are large enterprises. Of the companies surveyed, 65% identify as apparel, 30% knitwear and 30% accessories. The accessories companies can be further segmented as 55% bags, 15% footwear, 30% jewellery and 5% textiles.

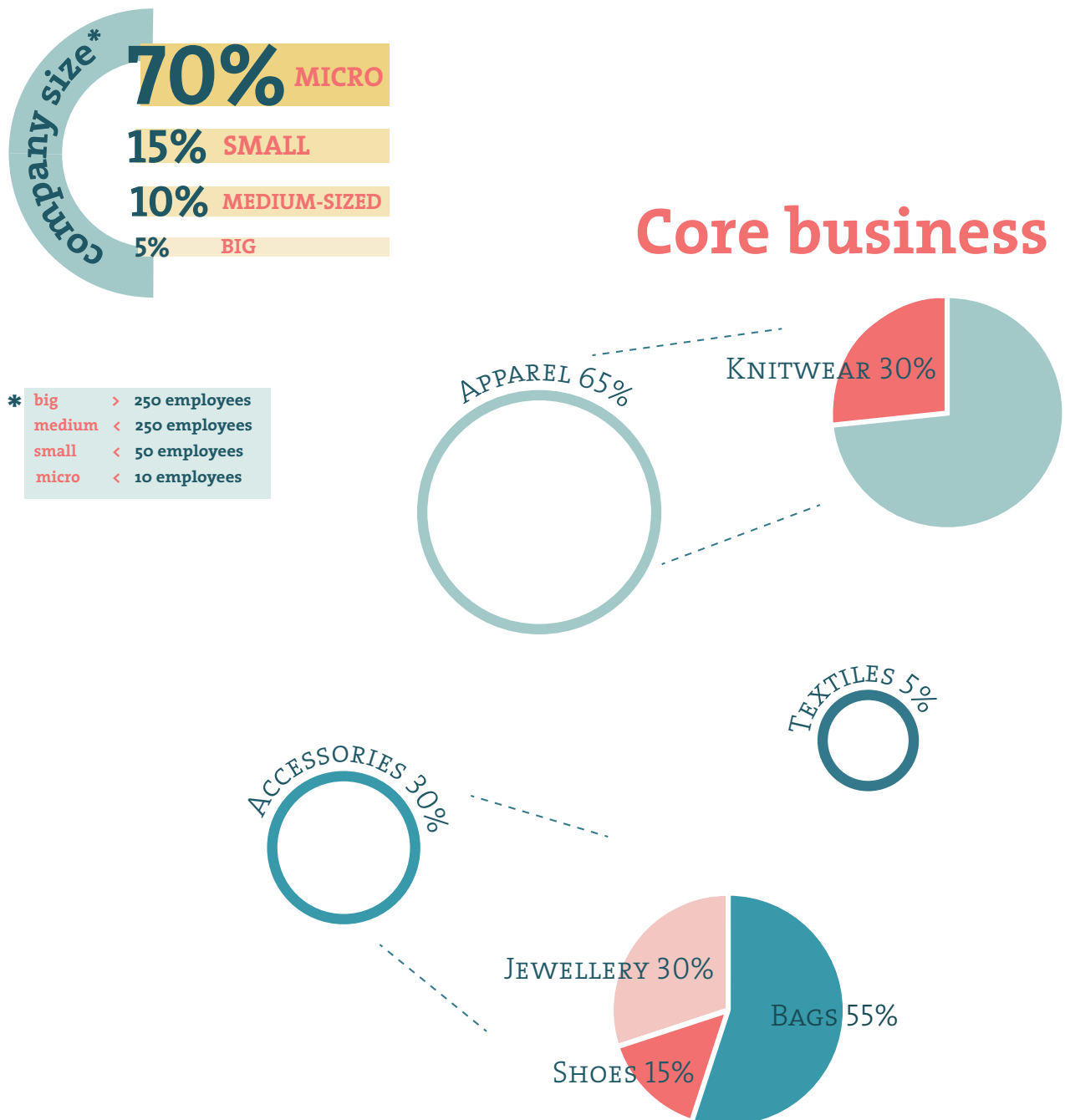


Figure 3.13

Mapping of fashion businesses in the study
(Source: Annex B, ID section)

60% of the businesses in the study (Figure 3.14) declare themselves to be strongly committed to fashion design for sustainability (FDS). This is applied through roles and departments such as sourcing (96%) and ethics (88%), followed by resource efficiency (86%), branding/marketing (82%), waste & recycling (78%), design approaches (74%), business model (64%), stakeholder relations (60%), cultural heritage (54%), certificates (54%), and philanthropy (42%).

60% OF THE COMPANIES ARE STRONGLY COMMITTED TO FDS

How important do you feel the following areas are for your company's sustainability programme?

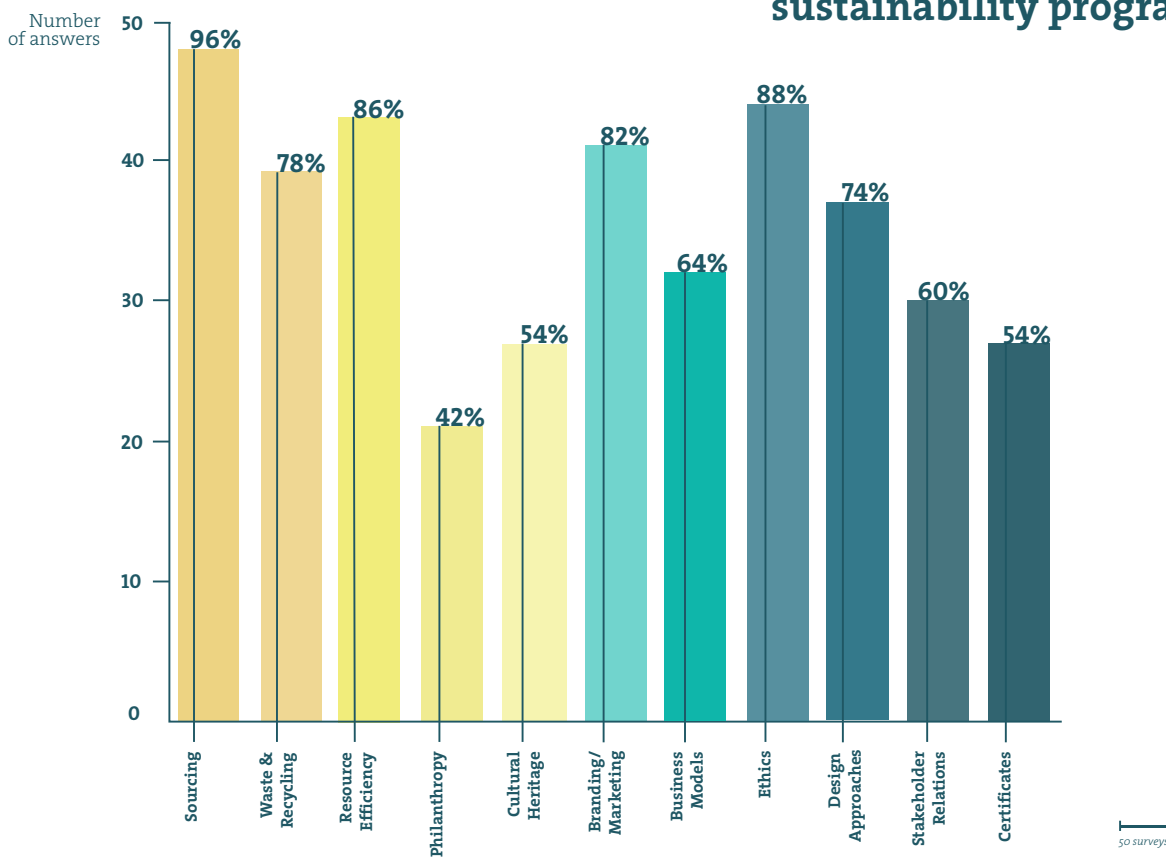
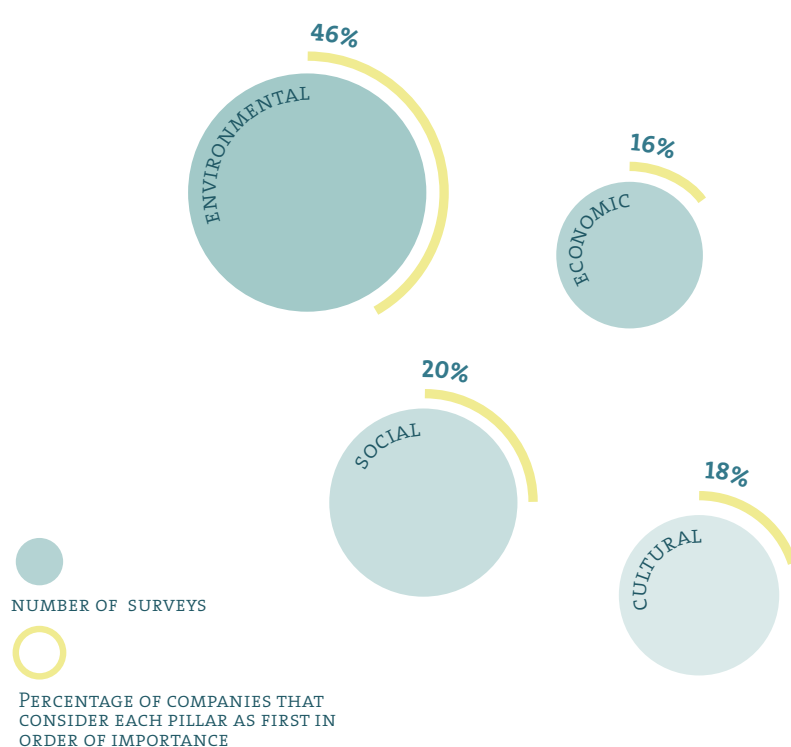


Figure 3.14

Areas of importance in a business' sustainability programme

(Source: Annex B, Questions 1, 2, 3 and 4)

According to the four pillars of sustainability model (Figure 3.15), businesses state that they prioritise their goals through an environmental sustainability (46%) lens followed by social sustainability (20%), cultural sustainability (18%) and economic sustainability (16%).



In what sustainability areas is your company performing well or making valuable progress?

Figure 3.15

The lens through which businesses prioritise their goals
(Source: Annex B, Question 7)

As highlighted in Figure 3.16, the major risks relating to sustainability identified by companies are, in order of importance, customer expectations (31%) linked to product and the continuous evolution of the shopping experience; climate change (20%) linked to long-term risks to business models tied to agriculture (e.g. disrupting the supply chain, extreme weather events, rising energy costs); financing and investment (16%) as the traditional sources of capital have recognised the value of sustainability and are including sustainability in funding and lending calculations; cultural and social issues (13%) relating to ethical and transparent supply chains, especially regarding the place of origin of products and working conditions.

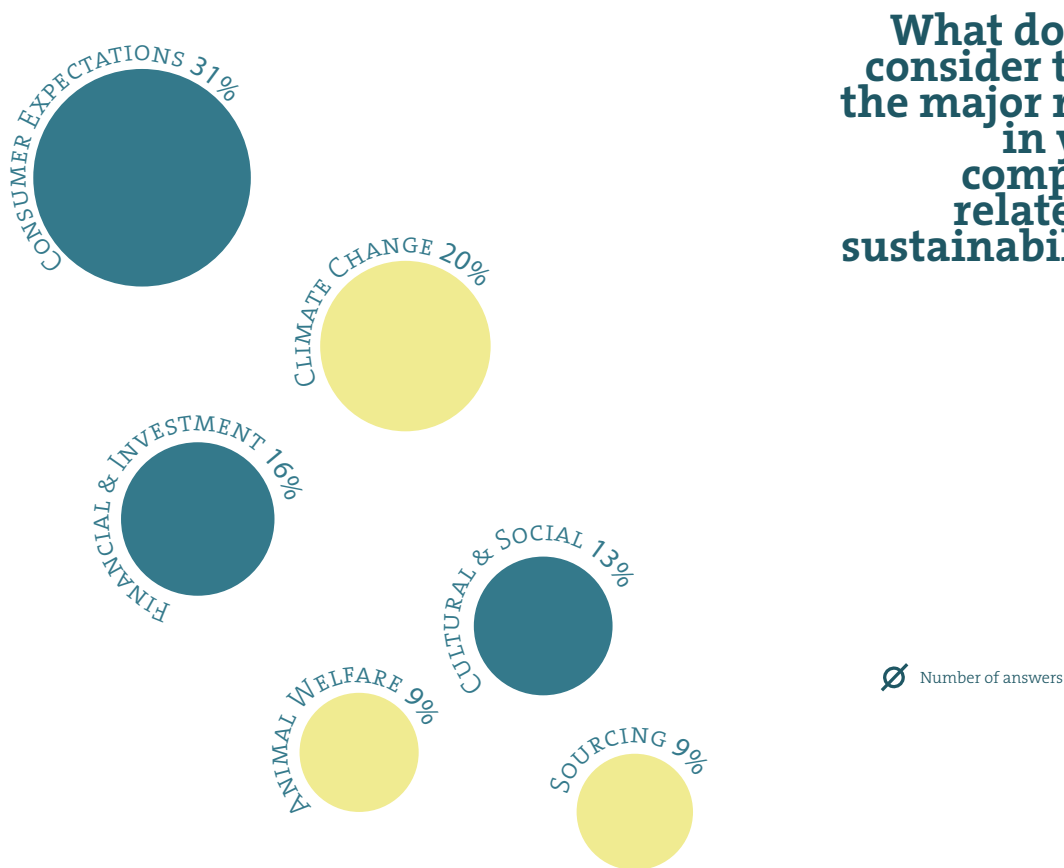
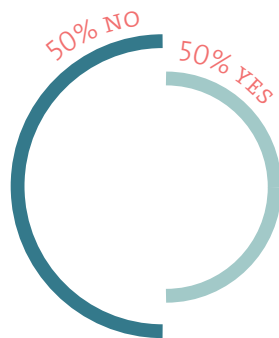


Figure 3.16

Major risks related to sustainability identified by businesses
(Source: Annex B, Question 8)

50% of companies surveyed have a corporate social responsibility (CSR) policy or programme (Figure 3.17) and only 25% have established multidisciplinary and interdisciplinary structures, such as an institute or centre for research, education and policy development on sustainability practices.

**Does your company
have a CSR
policy or
programme?**



**Has your company
established
multidisciplinary
structures on
sustainability
practices?**

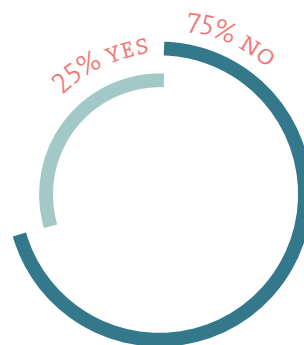


Figure 3.17

Corporate social responsibility (CSR) policy or programme and multidisciplinary and interdisciplinary structures to develop sustainability practices

(Source: Annex B, Questions 9 and 15)

40% of companies (Figure 3.18) develop collaborations between industry and academia to support sustainable practices through projects or research - 60% of these collaborations last one semester, 35% last one year and 5% last more than three years. Moreover, 40% of the companies state that they collaborate with academia every semester, 35% of them for one-off projects, and 25% of them once every year.

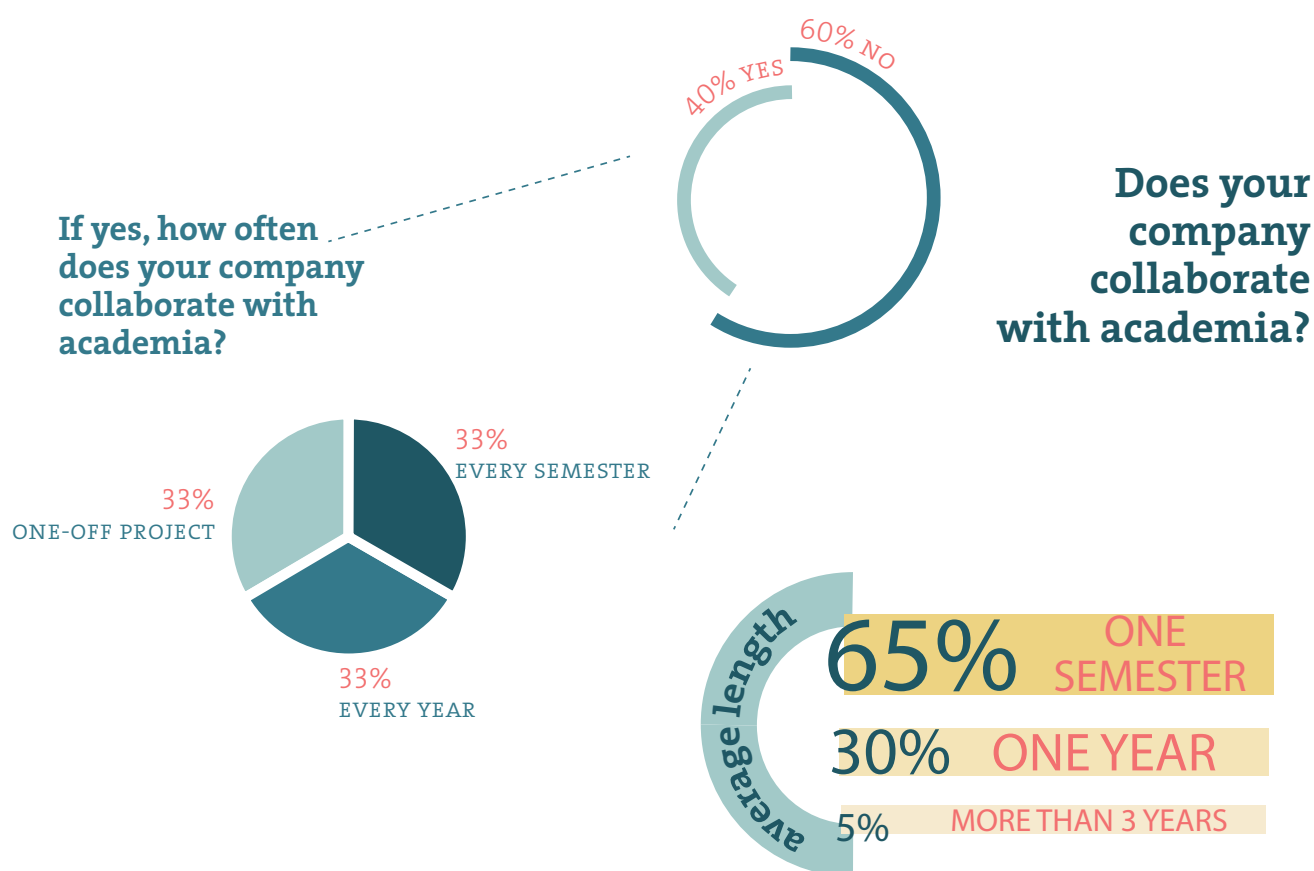
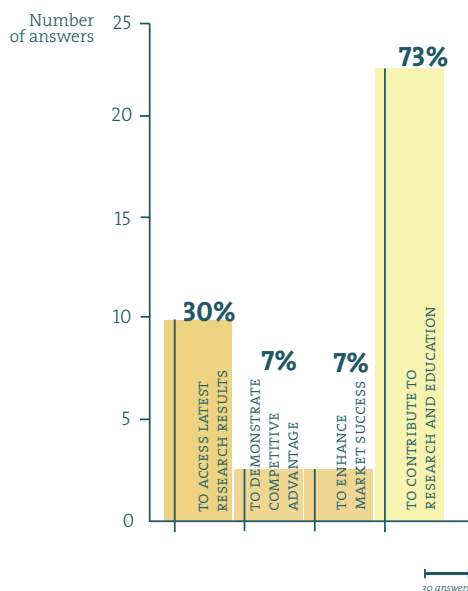


Figure 3.18

Collaboration between industry and academia
(Source: Annex B, Questions 10, 11 and 12)

The purpose of collaboration between industry and academia (Figure 3.19) is, in most cases, to contribute to research, education and student experience (73%). Some companies are collaborating to access the latest research results and innovative new methodologies (30%), while a few companies collaborate to demonstrate competitive advantage (7%) and enhance market success (7%). Furthermore, 77% of companies state that successful collaboration is related to a process of knowledge-sharing and new ideas development. Researchers' commitments to contribute to industry needs (30%) and long-term results and impact on industry (30%) should not be underestimated, while stated as less relevant is the support from industry collaborators (10%) and contribution to cultural heritage (7%).

What is the purpose of this collaboration?



What makes collaborations between industry and Academia successful?

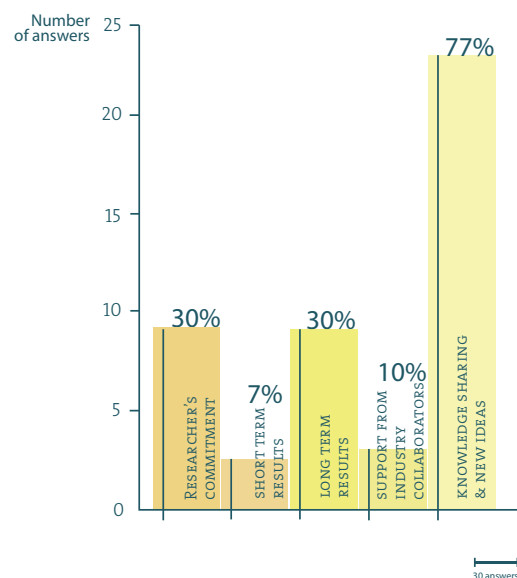


Figure 3.19

Purpose and motivation for industry and academia collaboration

(Source: Annex B, Questions 13 and 14)

Businesses commit to learning and development in sustainability (Figure 3.20) in most cases in the interest of ethics (70%), closely followed by brand reputation (68%), then through community or environmental concern (50%), employee interest (30%), followed by pressure/interest from stakeholders (14%) and for cost reduction and efficiency (8%).

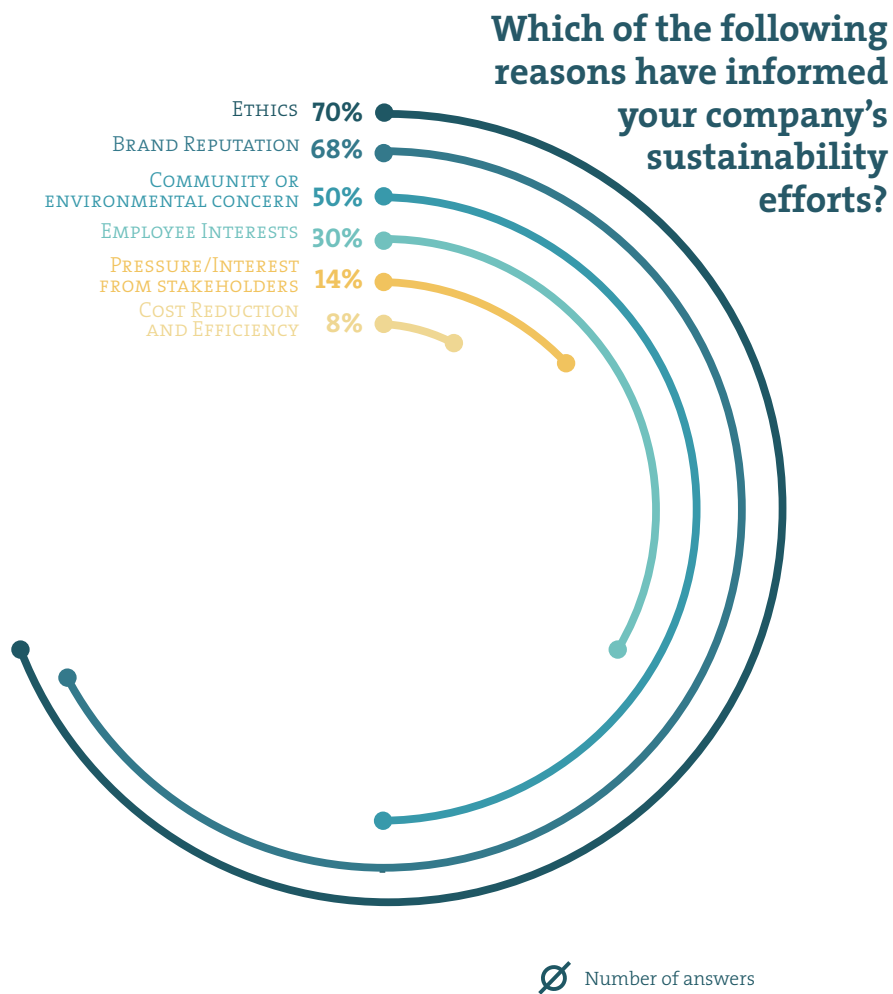
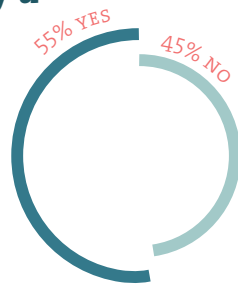


Figure 3.20

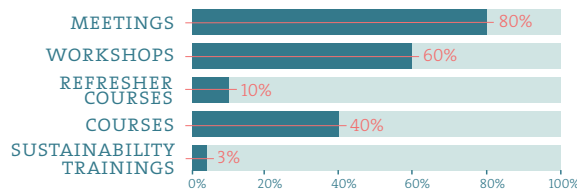
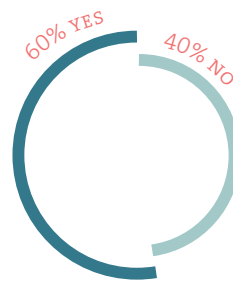
Companies' commitment to learning and development in the sustainability field
(Source: Annex B, Question 16)

In the companies analysed in this study, the issue of sustainability emerges as a priority factor as demonstrated in Figure 3.21. In fact, 55% of companies affirm that staff members' contributions to sustainability is a criterion for hiring and/or promotion. Moreover, 60% provide development opportunities to enhance employees' understanding in sustainability through training meetings (80%), workshops (60%), courses (40%), refresher courses (10%) and other opportunities (3%). Furthermore, 55% of the companies demonstrate (Figure 3.21) their frequent commitment in learning and development in the sustainability field, while only 15% of them cannot guarantee a commitment in this area more than once a year (Source: Annex B, Question 20).

Are staff member contributions to sustainability a criterion for hiring and promotion?



Does your company provide workers with development opportunities to enhance understanding in sustainability?



If yes, what kind of opportunities does your company provide?

Figure 3.21

Sustainability and employees

(Source: Annex B, Questions 17, 18 and 19)

This study ends with businesses' comments on Fashion Design for Sustainability, resulting in key words and emerging topics, as shown in Figure 3.22.

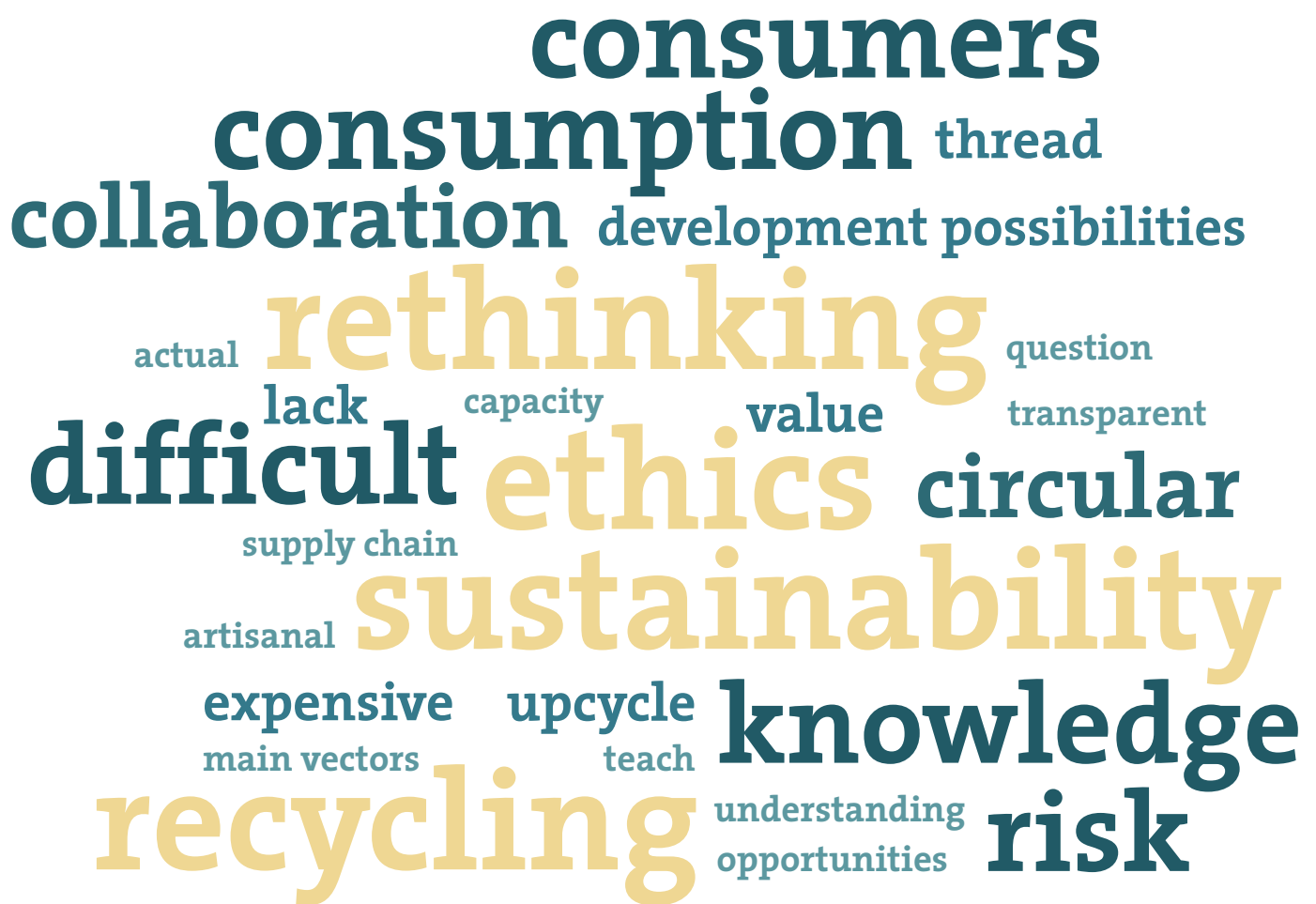


Figure 3.22

Key words and emerging topics
(Source: Annex B, Question 21)

Analysis of findings

Integral to sustainability is a connecting of interdependent parts, including education and industry practice. This is exemplified through a range of courses collectively representing a holistic view of the fashion system, with design, economics, humanities, fine arts, technology, and engineering being represented in the study (Figures 3.2, 3.3). The range of formats and modes of engagement in sustainability reinforce

There is a need to explore how and where these disciplinary approaches intersect, cross-reference or co-inform each other, either directly or indirectly

this through formal and informal learning opportunities (Figure 3.6). There is a need to explore how and where these disciplinary approaches intersect, cross-reference or co-inform each other, either directly or indirectly.

The evidence of engagement in sustainability across levels suggests its inclusion in a broad range of courses at undergraduate level, with fewer courses at Master's level and even fewer at PhD level. This suggests that an underpinning of sustainability informs student knowledge and practice at an entry level in a range of courses and locations, but that advanced level and specialist study into the subject matter is less widespread. As there is a need for advanced level as well as entry level study of fashion in relation to nature and equity, the survey results suggest that there is a need to identify and expand the study of sustainability at advanced levels.

The survey suggests that a range of pedagogic approaches and formats (Figure 3.6 and Figure 3.7) are employed to explore sustainability. In support of this, creative and critical thinking is the pedagogic approach most practised by HEIs in the study. This is congruent with art and design teaching and learning, often applied as a deep analysis and challenging of traditional and accepted modes of practice through the creation of new alternatives. The level of this creative and critical thinking can be researched further to see if it extends across levels of learning and levels within the fashion system beyond product to infrastructures and world views. As six of the seven pedagogies are well represented, there is evidence that sustainability is viewed through a set of principles and practices rather than as a technical or single-issue challenge. This holistic approach can be mapped to evidence ways in which these pedagogies co-inform curriculum and

whether they are leading to change in skills, competencies and capabilities of graduates and contribution to industry practice at local and global scales.

Industry and academic collaboration is prevalent according to the findings and is seen as an opportunity to challenge current practice (questioning the status quo 60%); however, only 40% of respondents name impact on industry as a key aspect of success. This suggests that this may be seen to be beyond the control of actors in the academic partnership, thus a gap between creating challenge and enabling change is revealed. There is evidence that 60% of the HEIs are prioritising practical realisation over theoretical approaches to Education for Sustainability. The balance of theory and practice and ways in which to bridge this gap are places in need of further exploration. The ground is set for this as strong collaboration between academia and industry is reported, with 93% of HEIs collaborating with industry in sustainability in order to share knowledge and develop new ideas (Figure 3.8). Conversely, the industry analysis shows only 40% of businesses (Figure 3.18) reporting this type of collaboration, with 65% of the cases reporting only short-term (lasting one semester) partnerships. The evidence that academic-industry relationships are considered extremely effective for the businesses that do undertake them, due to knowledge sharing and new ideas development, commitment from researchers, long-term results and impact on industry (Figure 3.19), suggests that there is a need to find ways to connect, enable and support co-learning and knowledge exchange between HEIs and businesses, as well as other organisations, in a range of locations.

The misalignment between academia and industry in recognising mutual collaboration is assumed to be determined by differences in practice, pace and stakeholder expectations, widely reported outside this study. There is an opportunity to further explore how educational intentions of academia and related expectations and pressures, through teaching and research (often long term as well as short term in nature) can be better cross-referenced with the intentions, expectations and pressures in industry, where businesses are often compelled to be oriented to market realities. There is an opportunity to better understand these relationships and interactions as the study lacks data on the typology of academy and industry collaboration and how many of these are ongoing.

There is evidence that while many HEIs approach sustainability from a holistic perspective, most businesses take a more role or issue based approach. This is demonstrated by the fact that only 25% of the businesses in the study have already established multidisciplinary and interdisciplinary structures to develop sustainability practices (Figure 3.17). There is a need to explore ways to

better understand how the more holistic approach of academia, recognised as necessary to address causes as well as symptoms of our current unsustainability, can connect to a more issues-based approach in industry and how the two approaches can co-inform each other to inform practice in both domains.

Most of the industry respondents are from relatively young businesses; in fact, only 7 of 70 companies in the study were established before 2000 and only 25 of 70 before 2010 (Figure 3.12).

These identified businesses are predominantly small to medium-sized businesses (SMEs) which make up the majority of fashion businesses and often have first-hand understanding of local market conditions, opportunities and challenges. There is a specific opportunity therefore, in relation to the project's ambitions to contribute to local and global economies, to amplify the focus of the project on interactions between academia and SMEs. This can be supported by reference to other EU projects and other initiatives (publicly and privately funded) relating to SMEs.

There is an opportunity in the next stages of the project to further explore how and where the pillars are understood by different disciplines, locations and levels of study

Both in HEIs and businesses, the data tells us that the issue of sustainability is a priority factor. Even if, in HEIs, sustainability is not a criterion for hiring and promoting staff members, 50% of institutions are committed to financing and providing staff development opportunities to enhance understanding, teaching and research in sustainability (Source Annex A, Questions 23 and 24). On the other hand, 55% of companies consider staff member contributions to sustainability a criterion for hiring and/or promotion. Furthermore, 60% provide employees with development opportunities to enhance their understanding of sustainability (Figure 3.21). This suggests the need for courses to clearly articulate graduate capabilities in relation to sustainability and for academia to consider ways in which study at undergraduate, post-graduate and PhD levels might be supplemented by lifelong learning opportunities for those working in industry.

The gap between teaching sustainability, where 58% of programmes require students to take courses in sustainability, and structures for research in fashion and sustainability, was identified by 40% of HEIs. This gap indicates a need to identify, signpost and develop locations of research in this field.

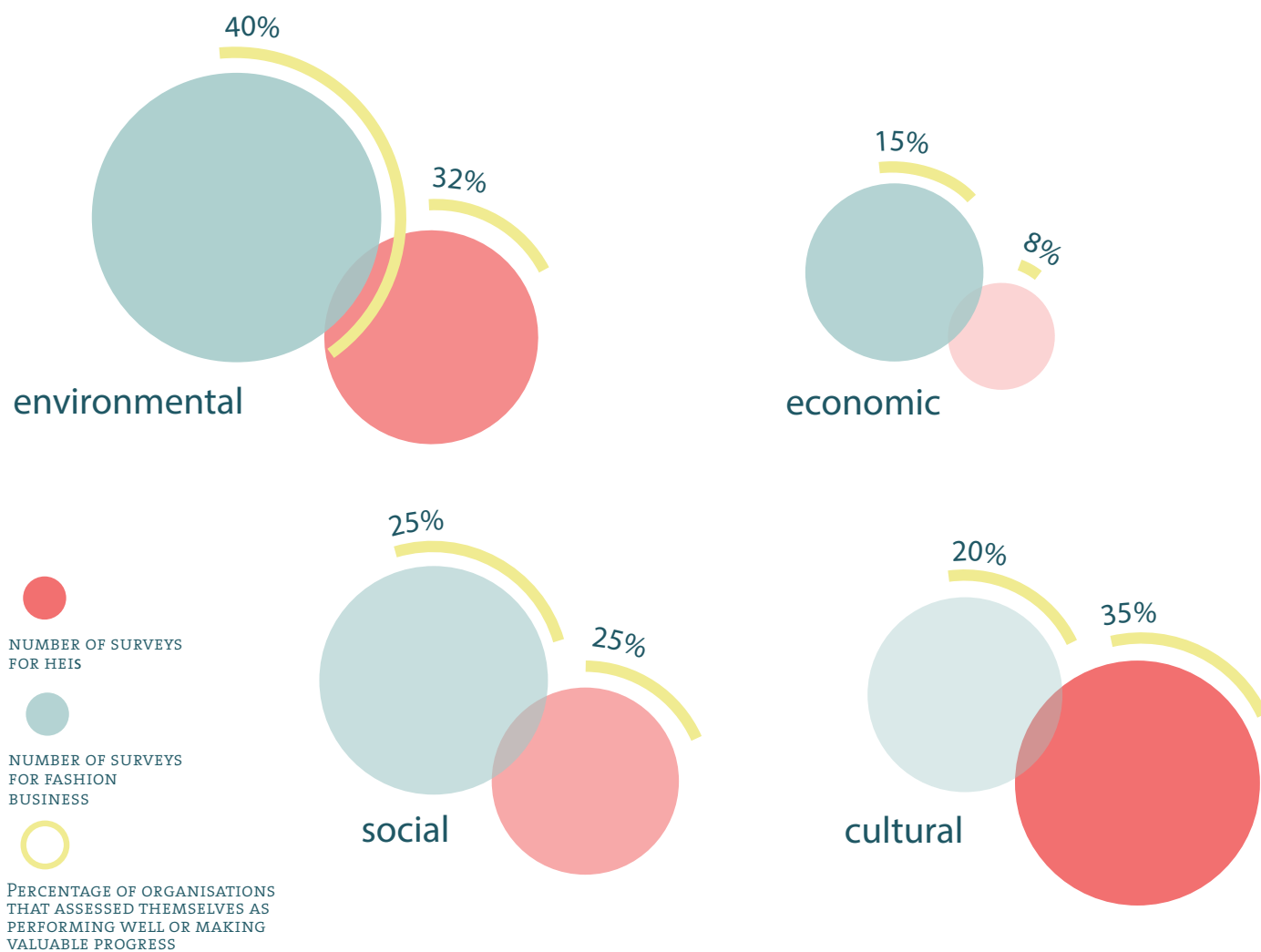


Figure 3.23

In what sustainability pillars the HEIs and fashion business perform well or are making valuable progress

(Source: Annex A, Question 25 and Annex B, Question 7)

From the questions about the four pillars of sustainability that underpin this project, the HEI response indicates that the cultural pillar has a significant influence on them (Figures 3.10, 3.23). HEIs self-assess as doing well or making valuable progress in environmental sustainability and social sustainability while reporting less focus on the economic sustainability pillar. In contrast to this, the long-term ambition of HEIs to question of consumption and growth (Figures 3.15, 3.23) necessitates a connection between the cultural and economic dimensions of sustainability. There is an opportunity in the next stages of the project to further explore how and where the pillars are understood by different disciplines, locations and levels of study. Through discussion among the project teams, it becomes evident that the economic pillar is viewed by some as the economic management of business, while by others as a critique of contemporary capitalism and its relationship to neo-liberal politics.

The industry responses to the pillars questions tell us that they prioritise their goals through the environmental sustainability pillar, followed by social sustainability, cultural sustainability and lastly by economic sustainability. This indicates, in line with the HEI response, that there is a need to explore ways to balance the four pillars. There is a need to better understand perceptions regarding economic sustainability in the context of planetary boundaries and social equity, which can be researched in the next stages of the project.

The questions in the survey were developed in order to create a state-of-the-art study of fashion education and industry practice as articulated first-hand by practitioners involved in each domain. This approach prioritises reflection and self-assessment over assessment relating to mechanisms such as certifications, organisational membership of charters and signatories of collective agreements. This more holistic approach correlates with the project aims to take a systemic, rather than only systematic, approach to creating a holistic framework for Fashion Education for Sustainability. The next stages of the project will seek to identify, develop and describe the levels of change being worked towards and created in the case studies, with reference to the knowledge and experience of the project team members. Thus, the project will map and measure levels of change towards transformation of the fashion system through education and its application into professional practice that honours nature's boundaries and human equity.

Nordic Region Report

The surveys and interviews from the Nordic region (Denmark, Finland, Iceland, Norway, Sweden) indicate a high level of awareness about sustainability issues and a willingness to improve efforts and actions. This might be due to early discourse and a number of initiatives started by the end of the 1980s. In the following section, we introduce some of this background, followed by a short summary and discussion of selected findings based on the surveys and interviews with HEIs and companies.

Background

In 1989, the Nordic Council of Ministers decided to introduce a common, official environmental label to help consumers in choosing environmentally sound products. The result was the Nordic Swan Ecolabel – covering different products and processes including textiles and clothing¹.

At the same time, research projects were funded by the governments resulting in reports, academic articles and knowledge-sharing activities (see e.g. Laursen et al., 1997; Forman & Jørgensen, 2004). Furthermore, the first course modules for Sustainable Design at HEIs were initiated. Particularly in Denmark, these activities had strong connections to O2 International Network for Sustainable Design, an interdisciplinary NGO founded in 1988².

Thus, understanding of methods from Engineering Design like Life Cycle Assessment and Design for Disassembly were introduced to the design discipline that transformed and integrated these approaches with (e.g.) user studies and aesthetics as transforming drivers for change. (Leerberg et al. 2010; Riisberg, 2010).

Today the Nordic region is still a pioneer when it comes to the fashion and sustainability agenda. The following few examples of events are internationally recognised: Global Fashion Agenda, a non-profit organisation founded by the Danish fashion industry, which has been organising and hosting Copenhagen Fashion Summit (CFS) since 2009; Youth Fashion Summit (YFS), established as an international higher education event in 2012 by Copenhagen School of Design and Technology in collaboration with Copenhagen Fashion Summit and Centre for Sustainable Fashion in the UK. Since 2016 DSKD have also arranged an Educators Summit in connection to YFS and CFS.

These events are part of a much wider discourse that is continuously expanding and is supported by other types of initiatives such as the 2019 Sustainable Fashion Research Agenda conference organised by Copenhagen Business School and Design School Kolding, and academic research projects like Mistra Future Fashion and Trash-2-Cash. Together these activities are producing a wealth of knowledge about sustainability within the fashion and textile field.

Summary benchmarking

The summary presents some of the insights and perspectives, first focusing on HEIs and companies respectively followed by an overall comment on the field as a whole. For each of the sections, selected questions from the surveys have been chosen as a framework for discussion.

HEIs

There are relatively few HEIs in the region that educate within the fashion and textiles disciplines (17) and they are predominantly publicly financed. These institutions can be characterised as either coming from an arts and craft, an engineering or a business tradition. Today, many have been transformed into HEIs with academic research focusing on various aspects of design for sustainability.

Today the Nordic region is still a pioneer when it comes to the fashion and sustainability agenda

This development has created a pool of knowledge in the form of teaching materials, books and articles (e.g. Niinimäki 2013, 2018; Fletcher & Klepp, 2017; Ræbild & Hasling, 2018; Skjold, 2014).

The study includes surveys from 15 HEIs out of 17 contacted. From the responding HEIs, six were interviewed, representing all five countries considered in the investigation. The majority of survey responses came from Denmark and Sweden followed by Finland, Norway and Iceland.

Both the surveys and interviews support existing knowledge; that HEIs have been integrating sustainability from an early stage, and it is evident that all have good intentions to take further steps. Nevertheless, the study indicates that sustainability considerations are implemented on different levels, when it comes to curriculum development and specific course content, but also when considering sustainability as a mindset. To some HEIs it is still a challenge to integrate progressive learning of the subject within their full range of BA and MA programmes. From the interviews, this is highlighted by multiple interviewees elaborating on a curriculum in transition; going from individual courses focusing on selected sustainability aspects to a more holistic and institutional perspective, in some cases supported, in others imposed by management.

Companies

Looking at companies, the Nordic region includes surveys from 16 of the 56 companies that were contacted. Two companies were interviewed, and several others expressed interest in taking part in an interview, but could not find time. The criterion for selecting companies was to get responses from small, medium and large scale enterprises. Of the 16 that filled in the survey, can be characte-

rised as large-scale. The remaining companies are predominantly small-scale, which also represents the general landscape of fashion companies in the region. Furthermore, a criterion was to get survey responses from companies that work with alternative business models within a sustainability agenda, to uncover opportunities and challenges for this group. Companies were identified through existing networks and snowball sampling, and the national industry associations also proved helpful in providing contact information on members.

The two interviewed companies represent the majority of companies in the Nordic region with 30 and 70 employees respectively. They are both privately-owned companies and are both very engaged in sustainability, and have been for many years, which is partly driven by their owners. This is supported by them stating that running a sustainable business does not necessarily cut down on costs. However, they represent two different kinds of companies working with sustainability. Whereas one has undergone a transition towards more and more sustainable elements in their business, the other was established based on a strong sustainability agenda and a circular business model.

Overall conclusion

The overall conclusion of data analysis based on HEIs and companies already interested in and integrating sustainability, shows actions and mindsets at various levels in the Nordic region. The study reveals a high degree of awareness about sustainability issues, a strong commitment and willingness to continue improving efforts and actions, and further collaboration between academia and industry is planned by both parties. From a business perspective, it is seen as a challenge to find time to engage in projects like FashionSEEDS. Compared to the initiatives presented at the beginning of this chapter, there seems to be great opportunities for deeper implementation of already accumulated knowledge in HEIs' curricula. It is also likely that companies could benefit from this pool of knowledge, e.g. to create visions for long-term sustainability strategies. However, it seems essential to the success of knowledge transfer to investigate different pedagogic tools and formats suitable for different stakeholders.

The study reveals a high degree of awareness about sustainability issues, a strong commitment and willingness to continue improving efforts and actions, and further collaboration between academia and industry is planned by both parties

1. <https://www.nordic-ecolabel.org/about/history/> (accessed May 2019)

2. https://en.wikipedia.org/wiki/O2_Global_Network (accessed May 2019)

UK region report

In the UK, there were 67 universities identified teaching fashion and textiles at first degree level and beyond. For this report, five surveys and two interviews were carried out with UK HEIs.

The UK fashion and textiles industry spans micro and small businesses through to mass-market fashion companies. For the purposes of this report five UK businesses were interviewed.

The UK region has a long history in fashion and textiles. Arkwright invented the Spinning Jenny in England, which was also home to the first phase of the industrial revolution. The social, economic, cultural and environmental agendas of fashion have been long rehearsed on these lands. By the late twentieth century however, the UK textiles industry had vastly diminished through globalisation, de-regulation and increasingly through technological developments enabling businesses to shift production around the world to find ever lower wages and non-restricted access to resources. Alongside the offshoring of much of fashion's manufacturing over the past few decades, many textile and garment-making skills once taught in schools and colleges have been removed from the curriculum, seen as unnecessary in vocational and social terms. This loss of connection between the origins, creation and buying and wearing of clothes may be a factor in the UK public's response to the fashion business' economic model of over-stimulation of the market, over-production, quick consumption and marketing of the new, leading to an undervaluing of even recently purchased clothes.

The UK fashion system is however, a story of two parts. Whilst this region is the origin of mass production and the current poster child of consumer capitalism, it is also the region where fashion defies convention, challenges the status quo and fashion activism is a political tool used to demonstrate opposition to inequality. The rise of punk in the 1970s, and early upcycled collections from Christopher Nemeth and Judy Blame in the 1980s build on concerns about environmental and social injustice demonstrated through fashion dating back to the late 1800s.

Political climate

The UK was the first country to create a governmental department for Climate Change, although this was later disbanded and environmental and social responsibilities were shared across other departments. The Green Party was founded in 1985, evolved from the People Party formed in 1972. Whilst still a minority party it champions environmental and social policy, based on its ten core values, the first being that, 'The Green Party is a party of social and environmental justice, which supports a radical transformation of society for the benefit of all, and for the planet as a whole.'¹

Governmental support for sustainability in relation to fashion has been demonstrated through the creation of the Department for Environment, Food

and Rural Affairs (Defra) Sustainable Fashion Roadmap, launched in 2007.² This was developed into a Sustainable Fashion Action Plan (SCAP) which was subsequently passed on to the Waste and Resources Action Programme (WRAP) who currently oversee its implementation. Due to the limitations of this programme, other initiatives have championed change in relation to fashion and sustainability, including through an All Party Parliamentary Group (APPG) led by Baroness Lola Young, which has lobbied for the Modern Day Slavery Act (2015) and subsequently for amendments to the act to improve its reach and transparency. In 2018, the Environmental Audit Committee, chaired by Mary Creagh MP, held an inquiry into fashion and sustainability, calling in witnesses from academia, industry and NGOs, collating its findings into the report, *Fixing Fashion*, published in February 2019³ with recommendations to the UK government. They in turn declined to take up any of its recommendations.

HEIs

The UK education system nurtures some of the world's most acclaimed designers: Stella McCartney, Phoebe Philo, Craig Green, Hussein Chalayan, Alexander McQueen, John Galiano, Bethany Williams, and J.W. Anderson, to name but a few. Courses are offered in a range of fashion and textiles disciplinary areas including design, business, and media production. The institutions teaching fashion span vocational training to research-led teaching.

The UK's first dedicated course in fashion and sustainability, MA Fashion and the Environment, was established in 2008; and in 2009, the Sustainable Fashion Handbook for Educators was published, supported by the EU and UK department of International Development. The co-editor of the handbook, Liz Parker, was also co-leader of Fashioning an Ethical Industry, an organisation set up to develop ethical practices, specifically labour-related studies, in fashion curricula, supported by the NGO Labour Behind the Label.

Education for sustainability has been supported by the Higher Education Academy Green Academy programme, and although it is no longer running, the EAUC's Green Gown Awards annual event identifies and showcases projects, courses, campus initiatives and community collaborations that exemplify education for sustainability in the UK.

From a research perspective, some of the most cited scholars in fashion and sustainability are UK based, with Professor Kate Fletcher and Professor Sandy Black each authoring landmark publications. Both of these researchers, along with artist and designer Professor Helen Storey, Professor Lucy Orta and designer Professor Dilys Williams, are members of the Centre for Sustainable Fashion, currently the only research centre in the world dedicated specifically to the exploration of fashion design for sustainability.

Companies

The UK fashion industry is made up of a high proportion of micro, small and medium-sized businesses, (MSMEs) along with larger fashion retailers and some

mass-market clothing producers and retailers. The distinction of UK fashion industry is in its marrying of design and retail, from market stalls to made to order digital platforms. Since the 1980s, pioneers such as Katharine Hamnett and Safia Minney have championed fashion and sustainability through their businesses. In the past decade or so, the engagement in sustainability by UK companies has included some interest at MSME level, notably Christopher Raeburn and Michelle Lowe-Holder, very little at medium level and some interest at mass level, with Marks and Spencer launching its Plan A in 2007. The current position is that of practically every fashion company having some engagement in the fashion and sustainability discourse, whilst the UK industry overall continues to have an increasing contribution to climate change and social injustice. The British Fashion Council has launched a Positive Fashion initiative and Drapers Record, the industry's specialist publication held its first fashion and sustainability conference in 2019. The UK is beyond the awareness raising phase in sustainability but has yet to demonstrate that it has the skills, capabilities and mindsets to transform its sector to become a major contributor to the economy, nature, society and culture in the UK and beyond.

Primary data: company interviews

Through interviews with a range of UK companies, both micro, small and large, the themes affecting their progress in sustainability cover social, economic, cultural and environmental pillars.

The ongoing Brexit negotiations are a source of unknown risk for fashion companies in the UK – relationships and agreements with suppliers are vulnerable; changes to tariffs and prices are unknown; there is a strong chance of customs delays – all of these factors will impact fashion companies' cash flow, stability and relationships.

An area of great discussion for UK companies interviewed is that of materials – the desire to source more sustainable alternatives to currently used materials; another is the decision of some companies to ban certain products based on animal welfare principles; concerns also relate to limitations when sourcing materials due to high minimum quantities; limitations in quality and/or

The UK is beyond the awareness raising phase in sustainability but has yet to demonstrate that it has the skills, capabilities and mindsets to transform its sector to become a major contributor to the economy, nature, society and culture in the UK and beyond

finish; access to information to ensure transparency; and how to connect supply chain practices with materials innovation.

Discussion and frustrations exist around attempts to break the buying cycle and whether it is possible to achieve a different pace as a fashion business. Specifically in relation to micro business, a challenge is seen in relation to changing existing infrastructures of buying seasons. However, some businesses that have specialised, for example in childrenswear, have been able to develop product lines that transcend buying seasons, thus progressing their sustainability journeys.

Some UK businesses, both large and small, have collaborated with non-fashion disciplines to create innovative products, e.g. with science or engineering, following a product design business model rather than fashion design model. Collaborations also include those with HEIs to develop critical thinking practice and to explore new models for prosperity in fashion.

Primary data: HEI interviews

Some smaller institutions would like to see evidence of a strategic institutionally led approach, with specified sustainability learning outcomes for all courses. Larger institutions are using a systems-based approach, with selected courses teaching fashion design holistically across curricula with a starting point of ethics and sustainability. In one institution, fashion is discussed as part of the wider discourse of design, not as a separate discipline. None of the UK institutions interviewed are actively using the SDGs in their curricula.

1. <https://policy.greenparty.org.uk/core-values.html> (accessed July 2019)
2. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69299/pb13461-clothing-actionplan-110518.pdf (accessed July 2019)
3. <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1952/1952.pdf> (accessed July 2019)

North America report

The following text is based on desk research, a visit to one of the companies and personal conversations over the years with HEI staff at California College of Art (CCA) and Parsons New School of Design, New York (NYC). It should be noted that due to the size of the country, its history and tradition in textile and fibre production, especially cotton, this report only offers a very limited picture of the fashion and textile field in the region. Also, the education system is different from some of the other regions presented in this Benchmarking Report. For example, education is free to access in Scandinavia and some other EU countries, whereas an education in the United States is expensive due to high tuition costs. It also seems like there are few MA fashion design for sustainability programmes compared to the size of the country. Due to time limits, the focus of this short report is on the USA; more information on sustainability initiatives within North American companies can be found in the book *Global Perspectives on Sustainable Fashion* (Gwilt et al., 2019).

Companies and organisations

Environmental issues and social sustainability in the fashion and sportswear industry were pioneered by California-based companies such as ESPRIT and Patagonia in the early 1990s. Today Patagonia is still regarded as a global leader, when it comes to CSR policy, and innovative efforts to reduce the environmental footprint in the sector. For example, the company encourages its customers to keep garments in active use for as long as possible. As part of this strategy, Patagonia gives a warranty on the product and for a small fee offers to repair damaged items at its facility in California. The customer may also bring garments to the cross-country mobile repair van when it stops in their neighbourhood. This vehicle is equipped with a sewing machine and other tools to enable skilled staff to repair on the spot.¹

In 2009 Patagonia and Walmart “...invited CEOs of leading global companies to come together to develop an index that would measure the environmental impact of their products”². This initiative led to the formation of the international organisation, Sustainable Apparel Coalition (SAC) and the development of the so-called Higg Index, a tool to measure the environmental impact of materials and processes. The Higg Index was built on the Nike Considered Index, donated to SAC in 2012. Today SAC and the Danish organisation Global Fashion Agenda (GFA) are working closely together. According to Nike, they were inspired by GFA to create a new online platform launched in 2019, with the aim of supporting circular design in the industry.³

In recent years, Eileen Fisher Renew, a womenswear brand, has developed a circular business model based on taking back its own garments, reselling and repurposing by turning used garments into new styles and interior textile products. On the website, the company states that it is committed “...to building a circular design system and creating a future without waste.” The Eileen Fisher main line, created in long-lasting, high-quality textile materials, is sold in the same stores as second-hand garments and new styles in recycled materials. This sustainability strategy saves resources by prolonging the lifespan of garments and materials in a way that is easy for customers to access, understand and be part of.⁴

The service Rent the Runway was founded in 2009 by Jenn Hyman and Jenny Fleiss. This company sells its service via an online platform that offers customers the opportunity to rent garments from more than 550 designers⁵. This business model demonstrates how needs for specific occasional clothing may be satisfied and redirected towards more sustainable consumption.

Another organisation promoting sustainability in the fashion industry is the not-for-profit trade association Council of Fashion Designers of America (CFDA). Its initiatives include education and professional development, offered through seminars and a hub designed to provide resources and information to CFDA members.

This includes a resource directory connecting fashion designers, companies and students with leading organisations, tools, and relevant resources such as the CFDA Guide to Sustainable Strategies, The Sustainable Strategies Toolkit and CFDA A-Z Materials Index⁶.

HEIs

One of the first HEI to take on teaching sustainability to fashion students was California College of the Arts, where the subject was introduced as a studio elective class at undergraduate level in 1999. The class was guided by the instructor's practical experience as director of ESPRIT's e-collection and consultant in the

private and public sectors. “The curriculum focused on raising awareness of fibre lifecycles and using identified impacts as starting points for design innovation. Cotton’s cultivation and the global nature of commodity systems were also used as a means to understand systems thinking in a fashion industry context” (Grose, 2013). Today, the Sustainable Fashion Design curriculum initiative at CCA is required of all undergraduate fashion design students. This is supplemented by individual seminars and studio classes, which are linked to a broader interdisciplinary programme⁷.

In New York City, Parsons School of Design has developed BFA and MFA fashion design programmes focusing on sustainability in a systems context. The first initiative was launched as a social compliance class in the Fashion Marketing programme in 2005. During 2010-2017, Associate Professor Timo Rissanen developed the unique Zero Waste Garment studio class in the BFA programme.

In recent years, a new BFA Fashion Design programme named Systems & Society has been implemented, and it is now mandatory for all 300 first-year fashion students to attend the Sustainable Systems Class. According to their website: “The Systems & Society pathway challenges you to critically engage how fashion relates to contemporary issues facing society. In this pathway, you will explore how to use human-centred, systems design approaches in order to develop and actually construct new types of fashion systems and models that can make a positive impact on our world”⁸. In 2010, the MFA Fashion Design & Society programme was launched. This two-year programme, “...combines intensive studio-based projects with research and exploration. In the tradition of critical social research at The New School, the programme helps students develop an understanding of the global, ecological and business contexts of their work”.⁹

Also situated in NYC, the Fashion Institute of Technology (FIT) offers, “...greening across the curriculum reflected in a series of initiatives.” One of these is an undergraduate minor in Ethics and Sustainability, described as drawing on, “...the expertise and critical thinking of faculty across the campus in all three schools. Minor in Ethics and Sustainability provides students with knowledge and tools to understand and critically assess environments, materials, economics, aesthetics, philosophical concepts, social responsibility, and the impact of

actions. The minor is designed to facilitate understanding of the interrelatedness of topics, information, and applications related to ethics and sustainability”.¹⁰

Out of the few companies presented here, the most interesting and radical business model seems to be Eileen Fisher Renew. This case could be studied more closely in order to gather insights and inspiration for the future development of teaching material and tools in the FashionSEEDS project. The tools and guidelines promoted by industry and organisations are commendable, but the Higg Index might be difficult to integrate into design education. On the contrary, Nike’s new online platform is visually compelling and a good example of ways to structure information and present teaching material to designers.

In regard to the HEIs mentioned; it is difficult to understand the full extent of course activities in their curricula from their websites. However, for the FashionSEEDS project, it seems particularly worth exploring the new BFA Systems & Society programme at Parsons New School of Design in more detail, as well as CCA’s experience of connecting its BFA programme with the interdisciplinary courses.

1. <https://www.patagonia.com/home/> (accessed May 2019)
2. <https://apparelcoalition.org/origins/> (accessed May 2019)
3. <https://www.nikecirculardesign.com> (accessed May 2019)
4. <https://www.eileenfisherrenew.com> (accessed May 2019)
5. <https://www.renttherunway.com> (accessed May 2019)
6. <https://cfda.com/resources/sustainability-resources> (accessed May 2019)
7. <https://www.cca.edu/sustainability/> (accessed May 2019)
8. <https://parsons.edu/bfafashion/student-work/systems-society/> (accessed May 2019)
9. <http://www.fashiondesignandsociety.com/about> (accessed May 2019)
10. <http://www.fitnyc.edu/sustainability/curricular-initiatives/degrees-certificates/index.php> (accessed May 2019)

South America report

This report is based on 19 case studies, of which nine addressed companies and ten HEIs, all working within the Fashion Design for Sustainability field. Most of the cases were identified in Brazil consisting of six HEIs and nine companies; followed by Colombia (one HEI), Argentina (two HEIs) and Mexico (one HEI)¹.

Background

The early centuries of South America were marked by a depletion of many of the continent's resources during colonial times, thus, postponing by centuries its infra-structural development and creating a land of extremes - accentuated by the accumulation of land for farming and mining in the hands of the few. The South America of today reflects this historical background as a continent of differences and disparities. These attributes are reflected in myriad realms within each country, such as vast social gaps and extremely diverse cultural backgrounds.

Brazil, the largest country in size and population in the continent, operates as fifth largest textile producer and fourth largest garment manufacturer in the world² with over 100 fashion design schools. Changes in the economy, which recently saw the bankruptcy of many linen, silk and cotton textile companies, reduced the range of textiles offered to focus on cotton and denim. Brazil is recognised today as the only complete textile chain in the West³, which makes the country, and South America as a whole, a particularly interesting case.

Companies and HEIs

Generally, it is quite clear that a series of social, economic, and governmental issues affect the ways in which countries such as Brazil, Argentina and Colombia have been developing in the field of sustainability. Additionally, it is clear that the efforts are concentrated in the major cities. In an interview with ID_H04, the interviewee stated that there are so many issues at hand that sustainability has for a long time been labelled as low priority. She stresses that the present economic crisis (which affects many South American nations) works as a barrier to fashion companies improving in sustainability issues: surviving (financially) becomes the number one priority. But, despite that difficulty, many companies have found their niche in sustainability (e.g. ID_C03) and clear progress is being made in social sustainability. The plurality of issues faced by South American countries (e.g. poverty, illiteracy, famine, pollution, violence) is the catalyst behind projects between companies, institutions and the affected communities. Brazil excels in pairing with NGOs to foster growth (be it societal, economic or environmental) in specific areas. This has led to outstanding results, such as the pioneering

developments in scaling the production of fish leather to industrial dimensions. As a result, the progress among the four sustainability pillars (social, economic, cultural and environmental) is mainly led by socio-centred projects. As society at large is intrinsically entangled with cultural, economic and environmental ecologies, by focusing on the societal issue, other pillars are reached.

Younger entrepreneurs look at sustainability not only as a lifestyle, and a foundation to reflect on, but also as an opportunity to grow economically. The main discourses in which they are engaged include upcycling, organic materials, vegan materials, social development and sustainable growth. The companies surveyed in South America have held

The plurality of issues faced by South American countries is the catalyst behind projects between companies, institutions and the affected communities

sustainability at the core of their business from the outset and even though they struggle with governmental policies towards clothing production (in Brazil), the scenario seems to be becoming more positive with time. Relevant barriers are: difficulty in accessing information (especially in rural areas); and the lack of tax incentives or other means of support for sustainable production. On the other hand, other companies have been active not only in new trends in sustainability for fashion but also in developing new materials via industry-research institute collaborations. One of the companies interviewed, for example, targets two new 'developments' in sustainability per year, be it in regard to social, economic, environmental or cultural aspects, often pairing with other companies and research institutes.

When it comes to educational institutions, many still struggle with implementing sustainability more broadly, as the policies regarding covering such topics are often a result of individual programmes and not at the institution level. As a result, while some individuals show resistance to adopting a sustainability viewpoint, others take on the role of voicing the issue within an institution. The lack of material in Portuguese and Spanish languages was referred to as an obstacle in implementing more sustainability-led activities and courses. This applies to both literature and tools and especially affects public institutions, where lecturers cannot require that students read in languages other than their native one.

To our participants within HEIs, the social dimension of sustainability is clearly the most fully developed pillar, followed by cultural sustainability. Again, this reflects the fact that such nations prioritise the basic needs of the society before addressing the other pillars. In regard to the links between HEIs and companies, 83% of the surveyed institutions stated that such collaborations exist, which was confirmed by 90% of the companies assessed.

One interesting point to be noted, not often referred to by institutions, regards students' practices (such as upcycling and/or use of industrial waste) to produce clothing. In South America, such practices are quite common and are related to economic reasons rather than those related to sustainability.

1. Despite being geographically located in North America, the social, economic and political characteristics of Mexico locates it closer to other South American countries than to the USA and Canada. Due to that reason, the country is being included in this report.
2. <http://gotexshow.com.br/mercado/> (accessed 19th March 2019)
3. <http://www.abit.org.br/cont/perfil-do-setor> (accessed 19th March 2019)

India region report

Among the players who carry influential weight in achieving global sustainable development, India has a prominent role thanks to its size, demographics and stage of development. India is home to one-sixth of the world's people, and it has the densest population. It also has the second-largest population after China, which it will surpass in less than a decade if current trends continue¹.

The country is filled with diversity and contradictions. While per-capita emissions are amongst the lowest in the world, it is also the third biggest generator of emissions. Despite being the seventh-largest economy in the world, (IMF, 2018) India also has the largest number of people living below the international poverty line. Because of this sheer size and rapid growth, sustainability is a challenge².

Among the players who carry influential weight in achieving global sustainable development, India has a prominent role thanks to its size, demographics and stage of development

In recent years, India has also faced the new model of labour division between industries and countries, which emerged as a result of the globalisation and the delocalisation of production taking advantage of different local conditions. These include: a fragmented political situation, which impacts on the updating of regulation and monitoring activities; the costs of production, particularly the labour force costs, which are a quarter of Western salaries; and the almost total absence of labour union.

This report is based on four case studies (three companies and one HEI), with all working within the Fashion Design for Sustainability field in India.

The analysis of the responses of the only HEI who answered our study underlines how the institution is applying a moderate approach in embedding sustainability in its curriculum. According to the HEI, this is happening very naturally and vocationally, applying an interdisciplinary approach between fashion design and new materials. This is aligned with the organisation's attitude to sustainability, which does not cover all the sustainable aspects but is focused mainly on environmental and economic issues. Moreover, their collaboration between

academia and industries supports this line of action, focusing on design practice and materials research. This partial implementation of sustainability is influencing the curriculum; student experiences; institutional strategy and values; and teaching approaches, such as futures thinking, creative and critical thinking, and participation and participatory learning.

It is only fair to take account of the initial efforts to integrate the missing aspect of socio-cultural sustainability into the institution's curriculum within the next five years.

From the companies' points of view, the data shows how different organisations are dedicated to integrating sustainable principles and practices in every stage of the supply chain - with particular attention to the resources, production, and marketing - applying a holistic approach which involves design, business and management. Companies refer to local identities and traditional

know-how as assets that enable cultural empowerment through processes of social innovation. This is happening according to India's current socio-cultural and political order, which necessitates a radical change to give new values to products, thus changing the present approach to production and consumption.

In this scenario, it is important to report the launch of numerous initiatives that are supporting the active integration of socially excluded groups into public economic life, and the introduction of new product values and ways to understand consumption. The companies in the study are social enterprises and were established specifically to tackle socio-ethical issues, such as gender inequality, and workers' and community' needs.

The information resulting from this report is a small snapshot of the present sustainable framework in India. An important observation is the increase in socio-cultural awareness and the consequent transition through considering Indian heritage to be an asset. Our analysis underlines this socio-cultural shift in the country's sustainable development practices among companies, which has a

It is important to report the launch of numerous initiatives that are supporting the active integration of socially excluded groups into public economic life, and the introduction of new product values and ways to understand consumption

direct influence on markets and consumers, and is a powerful driver for change. Moreover, costumers' perception of sustainability is on the rise all around the world (Unilever, 2017), and this data presents a trend that could support further development in the area.

1. <https://www.unilever.com/news/press-releases/2017/report-shows-a-third-of-consumers-prefer-sustainable-brands.html> (accessed March 2019)
2. <https://www.weforum.org/agenda/2018/04/the-worlds-biggest-economies-in-2018/>

Australia & New Zealand

Australia and New Zealand have been selected as a focus of this report as the data gathered through the FashionSEEDS surveys and interviews has shown bold developments and commitment in Fashion Design for Sustainability. This report is based on interviews and surveys with four HEIs, (two in Australia, two in New Zealand) all delivering fashion design education at the BA and/or MA level, and with an interest in and experience of Fashion Design for Sustainability.

In Australia, the domestic market value of the fashion industry in 2016 was 28.5 billion Australian dollars, with annual retail fashion sales recorded at 21 billion Australian dollars. Employment in textile, clothing, leather and footwear manufacturing in 2016 was recorded at 37,000 (FashionUnited 2016)¹. Many European high street brands have become a feature of the Australian fashion retail market in the past decade, such as H&M and Zara, plus Japanese retailer Uniqlo. Of all the clothing sold in Australia, 92% is imported, making manufacturing overseas by far the norm.²

The Australian and New Zealand economies are closely aligned with the Asia-Pacific region due to its geographic proximity, and with Europe through its colonial history and ties with the British Commonwealth

The Australian and New Zealand economies are closely aligned with the Asia-Pacific region due to its geographic proximity, and with Europe through its colonial history and ties with the British Commonwealth. Culturally, both countries have modern historical narratives of British colonialism, large-scale migration from Europe and Asia, and subjugation of indigenous communities.

Desk-based research has identified that there are eight HEIs teaching fashion in Australia, and three in New Zealand (11 in total). Through the review of three surveys and two interviews, gathering data on the practices of four institutions, we are making a comment on the Fashion Design for Sustainability education approaches and practices of this territory.

Through the survey we can establish that all three of the HEIs' fashion courses are very or completely aligned to the FashionSEEDS proposition that Fashion Design for Sustainability "challenges the status quo of the current fashion system.

It seeks to change fashion from its root, to shift its focus from contribution to the economy, to a wider focus on a contribution to society, nature, culture and economy". All of the HEIs are working with the Sustainable Development Goals, and in each of them, all undergraduate students are required to take courses in sustainability. The survey has also discovered that they are all collaborating with industry through sustainability and that all students are encouraged to consider sustainability practices when choosing a career path.

From the two interviews, it is clear that bold leadership is emerging, and commitments are being made to embed holistic sustainability approaches into fashion teaching, learning and research. The two HEIs interviewed are vastly different in terms of size and influence, however, they have both made the decision to place sustainability at the core of their fashion teaching and practice through revalidation and renaming of courses, and whole institution approaches to understanding fashion's relationship with nature and society, visualising this through the design and delivery of fashion education. Both discussed that working with sustainability at the core of the education experience is mandatory at BA level, and that students want to be working in this way.

The academic leaders interviewed both commented on the global location of their institutions. In the case of the New Zealand HEI, being close to nature and connected to indigenous culture informs students' fashion practice through arts-based exploration of craft, ecological thinking and slow fashion.

On completion of their studies, many graduates from their fashion programmes do not have aspirations to work in large global fashion companies. In the case of the Australian HEI, the interviewee talked of the opportunities Australian fashion companies have been able to respond to. For example, it was stated that nearly a third of the jobs in fashion in Australia now have the word sustainability in them, and that the industry is looking to their institution to fill these roles. Both HEIs are collaborating with industry partners locally and internationally, in Asia, Europe and North America, and these opportunities enhance the learning experience by contributing to the creation of global mindsets and perspectives. Proximity to Asia was highlighted as an advantage for students and researchers in collaborating with and gaining work experience in manufacturing hubs. Both institutions have participated in the Copenhagen Youth and Educators' Fashion Summits, connecting with other students and educators from a global pool.

Risks and challenges outlined by the HEIs in this territory include potential financial restrictions (one of the HEIs is privately funded), and the recognition of the time and resources required to work in a collaborative and transformational way. It

is much harder to challenge the systems of fashion and education than to work with accepted models, but there is deep commitment from the institutions, the staff and the students to do so.

In summary, the HEIs engaged in Australia and New Zealand are demonstrating high engagement in Fashion Design for Sustainability. They demonstrate engagement with each of the seven pedagogic principles that underpin the study: futures thinking, creative and critical thinking, participation and participatory learning, systemic thinking, interdisciplinarity, informed decision making and place-based learning. The commitment to the repositioning of fashion education programmes and infrastructure to explore planetary boundaries and human equity offers examples of good practices to be shared across the fashion education sector.

1. <https://au.fashionunited.com/fashion-industry-statistics-australia> (Accessed April 2019)
2. <https://sewport.com/top-clothing-manufacturers/australia> (Accessed April 2019)

CHAPTER 4.

Approaching sustainability practices

Sustainability practices in higher education institutions
Sustainability practices in companies
Discussion of findings and limitations
FashionSEEDS' vision: a reasoned analysis
Concluding reflections

Through an analysis of the desk-based and survey-based research, as described in Chapter 3, case studies were identified, relating to HEIs and companies with identified practices. This research phase was conducted by each partner involved in the project, to identify practices connected with the four pillars of sustainability through a short description of their activities. The objective is to give examples of the processes, resources, tools and contents characterising current Fashion Design for Sustainability education and industry practice in order to inform the development of FashionSEEDS.

This chapter explains the findings of this second phase of the qualitative research study, based on the semi-structured case study interviews performed with selected HEIs and companies which work in the field of Fashion Design for Sustainability, in Europe and worldwide.¹ Its purpose is to contribute to a deeper understanding of teaching practices and analysis of the pedagogical models that are now used in HEIs' programmes or courses within programmes. It employs a deeper investigation to explore first-hand application of companies' strategies, practices and collaborations with academia that enable the integration of sustainability in the current fashion system. The analysis of the interviews provides a representation of academia and industry, which contributes to the report's overall presentation of the state of the progress in this field.

The selection of the interviewees was carried out in two ways: from the analysis of the results of the surveys (Chapter 3) that indicate points of interest for further exploration through an oral interview; and from the initial phase of desk research that allowed project partners to identify sustainability-related practices. Accordingly, the semi-structured case study interviews were performed with HEIs (19) and companies (17).

The objective is to give examples of processes, resources, tools and content characterising current Fashion Design for Sustainability education and industry practice in order to inform the development of FashionSEEDS

1. In this report, the interviewees' identity does not appear, for privacy reasons. They are identified by specific codes: ID_Hnr, for HEIs, and ID_Cnr, for companies.

Case study interview phase

The structure of open-ended questions allows respondents to give deeper and new insights (Lavrakas, 2008) in order to discover interviewees' perceptions on the topic of interest (Given, 2008). The structure of closed-ended questions provides a framework for answers to be comparatively analysed (Given, 2008). The choice in applying a mixed methods analysis – using quantitative and qualitative methods – allows project partners to collect multiple forms of data, connecting insights, integrating findings, drawing inferences and embedding sources in order to provide additional information to the study (Given, 2008).

The interviews of HEIs and companies are set in three sections. The first is based on closed-ended questions and aims to describe different settings and to compare different cases (Annex C – Curriculum Section; Annex D – ID Section). The second is a mix of open-ended and closed-ended questions in order to illustrate HEI strategies to embed sustainability in the curriculum (Annex C), or to present the sustainability lens that is being used to inform sustainability strategy in companies (Annex D). The third section explores collaboration between HEIs and companies with perspectives on the subject from both parties, including projects, activities and outcomes from the HEIs interviewed, and details on the role, contribution to research and feedback loops from the companies interviewed.

Findings are divided into five sections. The first illustrates the results of the analysis of the HEI interviews; the second details the analysis of the company interviews; the third presents the findings of the qualitative research; the fourth offers a reasoned analysis of the study outcomes according to the four pillars of sustainability (see Chapter 1). The final section outlines the limitations of the research.

Sustainability practices in higher education institutions

From the analysis of the semi-structured interviews performed with the HEIs, a picture emerges that is characterised by various approaches, competencies, methodologies and applications in the Fashion Design for Sustainability field. The scenario is deeply influenced by the differences among the selected cases in terms of territorial context, level of experience in the field, pedagogic approach, and engagement in collaboration between academia and industry.

According to the territorial context, data reflects the level to which economic and governmental issues affect the ways in which countries, and thereby HEIs, are developing in the field of Fashion Design for Sustainability (ID_H04, ID_H08, ID_H16). Moreover, the study shows the strong relationship of influence between territories and local knowledge which is often translated by HEIs into specific didactic practices (ID_H01, ID_H15) or collaboration activities (ID_H02). Some of the interviewees implement social and cultural sustainability through slow design approaches in the didactic offer, rediscovering and implementing traditional techniques such as embroidery, lace, local tailoring practices and material culture. The study also emphasises a further trend towards a return to the rediscovery of local territories and their resources (ID_H10) through the exploration of fruitful locally based collaborations to develop new business models geared to bringing production back to the local context.

The HEIs' level of experience in the Fashion Design for Sustainability field is mainly expressed by different structural characteristics (such as thematic area, dimension, seniority, number of students or faculty involved in programmes, etc.) that in different ways affect the curriculum of the HEIs as well as the integration of sustainability practices. Many of the HEIs in the study are in the process of implementing sustainability across all courses (ID_H09, ID_H11), while others underline how their practices are still only slightly influenced by sustainability and are catching up (ID_H04, ID_H13). Some recently founded (ID_H05, ID_H08) or revalidated (ID_H15) HEIs have expertise in sustainability and have embedded such practices in their own curriculum. Other HEIs explain how they benefit from being small and are able to deepen their practice in specific topics, thus elevating their expertise (ID_H11). In opposition, some HEIs stress how institutional plans to expand the didactic offer will provide opportunities to expand curricula and enrich more courses with sustainability content across programmes (ID_H12).

The study shows how sustainability has been translated into different pedagogic approaches among the HEIs which are embedding sustainability in their curriculum. In 74% of interviewees, sustainability is integrated into courses or modules within programmes, or interpreted as a transversal topic through projects at BA and MA levels. Of particular note, only one institution offers a specific PhD course on sustainability (ID_H03). The other HEIs and their doctoral

schools do not offer specificity on the topic but allow candidates to define it according to their own research. The remaining 16% of HEIs offer programmes directly addressing Fashion Design for Sustainability. Of these three cases, two are proposing fashion courses in their curriculum and have followed a process of transformation to embed sustainability as an integral part of their curriculum (ID_H07, ID_H15). The third case, founded on sustainability values (ID_H08), does not offer fashion courses but was purposely selected for its multidisciplinary and innovative approach towards sustainability. It offers a systematic approach that guides students in developing their own design specialism, helping them in setting a personal methodology rooted in sustainability values which are intrinsic in the design activity.

The study highlights the value of collaboration between academia and industry in enabling a direct interaction with the industrial world through live projects in order to explore new possible scenarios, to experiment in new practices, and to develop innovative manufacturing approaches (ID_H03, ID_H04, ID_H09, ID_H10, ID_H13, ID_H14). Some of these projects are enabled by the EU or local government through grants and are mainly focused on specific sustainability research activities (ID_H05, ID_H07, ID_H09). Others are multidisciplinary experiences carried out between different HEIs and research centres in order to contribute to educational sustainability programmes that gather students from around the world (ID_H05, ID_H06, ID_H17). Most of them underline the need for academia to strengthen collaboration with industry in order to enable co-learning opportunities (ID_H07, ID_H08, ID_H14, ID_H18). Collaboration between industry and academia can enrich knowledge, curricula and business practice, however it is the role of HEIs to be able to develop new ideas beyond those that current industry practice recognises, thus creating new knowledge and practice.

All of the HEIs in the study demonstrate awareness of their situation in terms of gaps, barriers and future goals. In fact, some of the HEIs report the necessity to integrate sustainability in their curriculum in a more systematic way in order to expand their own knowledge on the topic (ID_H01, ID_H05, ID_H09, ID_H11). Others discuss how technical areas of fashion education are more inclined to integrate sustainability in their curriculum than theoretical areas (such as Fashion History, Sociology, etc.), which are more resistant to including discussion of the topic in their courses (ID_H04, ID_H08).

In developing strategies to embed sustainability in the curriculum, HEIs report how both long and short-term goals are set. The majority of the interviewees underline the necessity of integrating specific topics related to sustainability, alongside developing new academic models, and implementing collaborations. In addition, one HEI is developing an online platform to promote sustainability

and its practices. The project aims to create a virtual network that will enable initiatives and projects defined by participants to move towards sustainability, to share knowledge, and to ignite sustainable development and innovation across disciplines and working environments. These sharing experiences are planned to enable good practice in teaching and learning related to fashion and sustainability (ID_H05).

Relating to the description of the curriculum at HEIs, an innovative aspect emerges which is the personalisation by students of the academic path at MA level. This model offers an opportunity for HEIs to insert sustainability in their curriculum without redesigning academic structure, and to offer an adaptable curriculum. As reported by the interviewees, this study plan lets students have some autonomy in designing their own personal academic path. For those who are especially interested in working across disciplines, they can select courses outside their programme, with provision of cross-cutting courses related to sustainability topics that are open for all MA students. This model requires investment in tutoring, but it has been noted as interesting from the students' point of view. The scope of courses at MA level can be wider and more holistic (ID_H09). This enables a more adaptable pathway in fashion education, and could provide the opportunity to challenge the model of education where courses are delivering teaching to service existing dominant narratives of fashion (ID_H14).

Sustainability practices in industry

The study presents businesses' concerns as well as the criteria that guides them in the implementation of sustainable practices, taken from interviews with 17 companies. The majority of the companies (14 out of 17) have been established since 2000, with 11 established after 2010 and two start-ups established after 2016. The sample group is composed mainly of micro businesses, 13 out of 17 companies have fewer than 10 employees, while two out of 17 are medium-sized companies with more than 50 but fewer than 250 employees; only two out of 17 are large companies with more than 250 employees. No small companies (11-49 employees) were identified for interview in this phase.

According to the research objective, the interviewed companies were from both fashion and textile sectors. According to the interviews, all the companies perceive sustainability both as a risk and as an opportunity (ANNEX D, Questions 10, 11, 12). An opportunity because it allows companies to creatively rethink their own strategy and business with a more conscious and respectful attitude towards people, society and environment (ID_C08). The main risks are reputational and are connected to the current market in terms of: transparency and traceability (ID_C03, ID_C05, ID_C11); the difficulties encountered in sourcing sustainable high-quality materials (ID_C02, ID_C10, ID_C17); limitations connected to business size (ID_C07, ID_C08, ID_C13); financial issues (ID_C04, ID_C14); lack of proper regulations (ID_C11); and perceived imbalance between the social and economic aspects in applying ethics to a market that is so competitive (ID_C09). It is notable how awareness of these risks has not acted as a deterrent to the companies' commitment to sustainability, as their engagement is considered extremely important by them all, and they are interested in escalating their sustainability activities and exploring all possibilities (ID_C08).

The study investigated the different aspects of sustainability which influence or are embedded in business structures. The interviewees were asked through which sustainability lens their future work and strategy is viewed – environmental, cultural, societal or economic (ANNEX D, Question 10). More than half of the identified businesses are adopting a holistic approach to sustainability (58%) while others (42%) have adopted a specific focus on a single topic of sustainability. The companies in the second category are approaching sustainability through a specific lens. Focusing on a specific theme is seen to be an investment and a strategic priority for the company. However, these businesses often struggle to make this work economically (ID_C12). According to the research scope, the sustainability lens was defined by the four sustainability pillars. The majority of companies prioritise an environmental pillar (65%). These companies aim to prove that it is possible to reduce environmental impact and enable positive change across a range of scales (ID_C01). The societal lens is very important for more than half of the companies (59%), committing to fair and healthy working

conditions for employees and suppliers (ID_C02). The economic considerations (24%) are mostly connected to ideas around new circular business models. According to the interviewees, rethinking the old paradigm and moving towards circularity can enable new positive and virtuous chains (ID_C01, ID_C11). The companies focusing on the cultural pillar (24%) are exploring themes of local craftsmanship and traditional skills to enable exchange between different parties in the supply chain (ID_C07).

The interviews with companies explore their collaborations with HEIs. Almost all the selected businesses (94%) were currently or had previously engaged in partnerships with academia. According to the interviewees, there are several roles companies perform through this collaboration (ANNEX D, Question 18). This can be through didactic activities, such as case studies or collaborating in material innovation; by offering student internships; or through funded collaboration. Businesses report gaining different benefits through their collaboration with HEIs (ANNEX D, Questions 19, 21). The results are inconsistent here, with some companies citing the mutual exchange of knowledge, the possibility of learning new skills, and updates on research activities, while others report that this two-way flow is lacking and that there are missed opportunities to learn from each other. Companies emphasise how each collaboration is different and strongly individualised to fit the needs of all involved parties. One of the common denominators is the desire to expand the results beyond the realm of theory and the world of academia, taking them into the applied production sector where “real” problems are confronted and resolved (ID_C07). The data describes how the selected businesses supported these kinds of collaborations (ANNEX D, Question 20) through bringing their industry-applied knowledge into the projects, offering practical and logistical support to the teams, or by supporting the promotion and communication of the projects. In accordance with this, companies report benefitting from academic insights into practical business interventions and knowledge about supply chains. Through collaboration and knowledge exchange, industry and academia can create enhanced understanding of agency and power to apply change in the sector and share these insights with students (ID_C16). It is notable that all the interviewees agreed on the fact that their expectations regarding collaboration have been positively met, and that they would repeat the experience (ANNEX D, Questions 22, 23).

The analysis allowed a further understanding of the companies’ relationship with HEIs and the identification of the necessary skills that, according to the interviewees, future designers need to learn to be competitive and make a difference in the market (ANNEX D, Questions 15, 16). The data acknowledged three main areas of interest. The first is related to knowledge about sustainability,

which is indicated as one of the main gaps in students' understanding. According to this, young designers need to improve their sustainability skills and to be flexible and adaptable for change. To reach these objectives the educational system needs to be ready to train them (ID_C10). The second area relates to knowledge of materials, research and innovation and technological advancements. According to the interviewees, this knowledge is fundamental to the development of designers for the future, and more education on this topic is required to be ready to face the issues, challenges and changes related to the context. The final area is the capacity of new designers in dealing with the working world (ID_C07). Companies have referred to a gap between theoretical knowledge and practical application as an area of concern (ID_C02).

The last aspect investigated in the study refers to corporate social responsibility (CSR) policy and whether CSR policies have influenced the selected businesses behaviour (ANNEX D, Question 24). Interviewees self-assess the significance of CSR policies as extremely influential (50%), very important (25%), a moderate interest in adopting one (6%), or that CSR policies have no influence (19%). Overall, companies note the proliferation of different policies and areas of focus, including human rights, animal rights, ethical sourcing, use of materials, chemicals, emissions etc. In addition, internal policies and handbooks offer guidance in ethics, employment and living wages (ID_C16). Most of the selected businesses affirmed that CSR policies have a relevant influence on their work; however, only 48% of the interviewees represent businesses that have one.

Analysis of the collaboration between companies and HEIs presented some critical observations. Some company interviewees report a lack of longer-term strategic involvement from HEIs. One interviewee observed how universities often took companies as case studies but had limited involvement beyond this, resulting in missed opportunities, from the company's side, for mutual knowledge exchange. (ID_C01). The data also shows that there are regional differences within Europe in HEIs' academic activities. For example, in some parts of Eastern Europe businesses have shown limited interest in collaborating with academia. This has been noted as being due to a lack of design practice taking place locally in the region (ID_H01).

FashionSEEDS vision: a reasoned analysis

This section presents a reasoned analysis of the outcomes and research findings which emerged from the case study interviews in line with the objectives of FashionSEEDS. These outcomes are clustered in four macro areas which reflect the four pillars of sustainability: environment, economy, society and culture. Also, the analysis outlines a framework for developing guidelines to inform FashionSEEDS' next steps

o Environment

Environmental sustainability refers to our ability to live within biosphere limits, recognising planetary boundaries (Rockström et al., 2009). It draws on ecological principles and various practices that recognise people as part of nature, and looks for ways to preserve the quality of the natural world on a long-term basis.

Under this pillar, themes observed include technology innovation, zero-waste design, sourcing of raw materials, and product life cycle analysis.

Research is taking place to both advance existing manufacturing processes and to directly design new processes, supported by new technical and digital knowledge that generates value at all stages of the supply chain, facilitating multi-dimensional interactions and experiences. These implementations extend from academia to the company, designing new paradigms of production and future approaches of hybridisation between different design cultures and advancing innovative consumer scenarios. In some cases, designers within HEIs are working across faculties and disciplines, for example with technologists to recognise and sort recycling of textiles with IR-separation methods based on material composition (ID_H06).

Textile waste, upcycling techniques, and product life cycle issues all emerge as trends from the analysis of the HEI interviews. This aligns with the HEIs' actions that aim to rethink the role of waste, post-consumer waste, and recycling, regenerating or repurposing any kind of materials other than textiles. Some HEIs are focusing on post-consumer waste through deconstructing second-hand

Environmental sustainability draws on ecological principles and various practices that recognise people as part of nature, and looks for ways to preserve the quality of the natural world on a long-term basis

garments (ID_H02) or proposing a zero-waste pattern cutting studio, which aims to limit waste right from the design phase (ID_H03). Others are adopting new models of design combined with material testing and innovation (ID_H16).

Companies working through the environmental pillar are in line with HEIs in focusing their efforts on materials manufacturing and research. Most of the companies aim to reach a high level of efficiency in their materials, preserving resources and innovating around product life cycle, plus exploring practices for zero waste, reusing and recycling materials (ANNEX D, Question 6). One of the selected cases is actively looking for options to recycle scraps into new material (ID_C01). Others have addressed the recycling issue through their business strategy by adopting mono-fibres, thoughtful sustainable packaging, reusable care booklets and communication plans (ID_C14). As indicated by the interviewees, the aim of these efforts in material efficiency is to reduce environmental impact (ID_C03).

Certification is identified as important for companies' sustainability practices (ANNEX D, Question 5). These accreditations legitimise the companies' actions and assign value to their efforts (ID_C10, ID_C15). Accreditations also influence customer behaviour and awareness regarding a garment's environmental impact (ID_C14).

◦ **Economy**

Economic sustainability refers to the ability of citizens to enjoy living conditions that are within agreed boundaries in terms of wage levels relative to costs of living and the gap between the lowest and highest wages. It refers to regional and inter-regional access to investment and to a healthy relationship between productivity, employment and economic status.

HEIs are designing and testing these practices through their work and pedagogy. From the HEI case study interviews, themes have emerged relating to new business models, circular economy, and a rethinking of the current economic model. As stated by some of the interviewed HEIs, this strategic outlook enables the enhancement of curricula, referencing internationalisation and economic impact. Examples through this pillar include new design philosophies that help to promote the circular economy and well-being (ID_H06), and the transformation of business models to integrate sustainability at every stage of the supply chain (ID_H09). This is happening through collaboration among HEIs, associations, companies and governments. Collaboration is crucial in dealing with the complexity of sustainability, and must take a multi-stakeholder approach (ID_H11) (ANNEX C, Question 15).

The data has identified that environmental concerns are often positioned alongside economic concerns. Material and resource efficiencies can have both environmental and economic impacts (ID_H06). According to the HEI interviewees, business students are developing skills and knowledge to work on preventing overproduction, sustainable sourcing, and thinking about new business models. HEIs aim to nurture students with the skills to be able to measure and score a company's or product's sustainability performance and environmental impact, whilst developing awareness of the importance of sustainability not as an ideal, but as an imperative in business, as a new synonym for quality. In this way, they will have to include sustainability at the beginning of every process (ID_H12) (ANNEX C, Question 3).

Economic sustainability refers to the ability of citizens to enjoy living conditions that are within agreed boundaries in terms of wage levels relative to costs of living and the gap between the lowest and highest wages

Approaches companies are taking under the economic pillar include embedding new business models characterised by a transformative supply chain, recognising that the economy is a driver for good, and the adoption of circular practices (ID_C17). It has been suggested that a more circular model can deliver opportunities including increased competitiveness, innovation, growth and jobs (ID_C09).

Some specificity emerged from the data, such as one company that has developed a business model on how to be an entrepreneur in the sustainable fashion field, allowing companies to measure their sustainability actions and evaluate their practices (ID_C10).

◉ Society

Social sustainability refers to the ability of a community to interact and collaborate in ways that create and exemplify social cohesion. It considers places, communities and organisations, formal and informal, and their resources, opportunities and challenges. It involves the agency of diverse participants in voicing and acting with autonomy and in harmony with others.

From the data collected through the HEI interviews, we have learned that through this agenda, HEIs are promoting well-being, regional growth, socio-

ethical themes, collaboration with others, and the design of new social models.

One HEI is exploring, through its curriculum, the ethics of fashion and production as a whole, which is very centred on the idea of sustainability (ID_H04). Relating

to this topic, another institution has proposed a course with a specific focus on textiles and their ethical implications (ID_H06). Another is exploring gender and feminism in relation to fashion and sustainability (ID_H08). The theoretical responses are accompanied by practical responses including collaboration with associations or NGOs, often leading to long-term partnerships and curriculum projects (ID_H07) (ANNEX C, Question 2).

Companies are approaching the theme of CSR through specific policies to offer guidelines for employees and suppliers regarding working conditions, living wage, and health and safety (ID_C04). A further theme from a number of companies is a focus on the empowerment of women and other marginalised groups through design and business practice (ID_C11) (ID_C09) (ID_C10).

◉ Culture

Cultural sustainability refers to tolerant systems that recognise and cultivate diversity. This includes diversity in the fashion and sustainability discourse to reflect a range of communities, locations and belief systems. It includes the use of various strategies to preserve First Nations cultural heritage, beliefs, practices and histories. It seeks to safeguard the existence of these communities in ways that honour their integrity.

HEIs interviewed are exploring cultural sustainability through critical analysis of themes such as globalisation and depersonalisation of production, and the valuing of craft skills, knowledge and authenticity. They contribute to strategic actions to stimulate and develop the production and cultural competencies of local systems, encouraging local artisanal practice. The analysed HEIs are approaching this topic through handcraft recovery, engaging with local artisans and producers, and implementing traditional techniques into modern designs. As raised by some of the company interviewees, there is a theme around resurgence of interest in local production (ID_H10) (ANNEX C, Question 2). Motivations for local production include the reshaping of traditional knowledge without

Social sustainability refers to the ability of a community to interact and collaborate in ways that create and exemplify social cohesion

losing authenticity, and increased transparency around working conditions. Regarding the preservation of craftsmanship, it is interesting to observe how HEIs are working on this topic. Many interviewees are working directly with local artisans, associations and public institutions in their regions through both research and curriculum. One is innovating ancient techniques through technology; another is collaborating with a local community of lacemakers (ID_H01, ID_H02). In one particular case, the HEI is working on a long-term collaboration with artisans in India to create an awareness and appreciation of skills and crafts in the students' learning (ID_H15).

Cultural sustainability refers to tolerant systems that recognise and cultivate diversity

Through the company interviews, we can see that businesses are also interested in themes of local production and craftsmanship (ID_H10) (ANNEX C, Question 2), with data showing how companies are highlighting the intrinsic values of their territories and local artisans through unique projects (ID_C01) (ID_C07). Another company has adopted a philosophy of minimalism and working resourcefully, learning from other design cultures such as those of Scandinavia and Japan. This influence has resulted in a modern reworking of traditional practices and created new value in their product (ID_C14).

Research limitations

The following research limitations have been identified and relate to both the surveys and the case study interviews of both HEIs and companies.

- ◉ As shown in Figure 3.1, the Benchmarking Report identified 160 international cases of which 85 are HEIs and 75 are companies, all working within the Fashion Design for Sustainability field. The desk-based elements of the research are limited by the extended, fragmented and complex landscape in the field of Fashion Design for Sustainability. Gaps in data gathering are inevitable due to limited accessibility of data.
- ◉ The timeframe dedicated to the investigation also results in incomplete data gathering, especially in relation to the qualitative research, with incomplete responses to repeated requests. The research is therefore limited by a lack of inclusion of potentially interesting and significant data from places in geographical areas outside the scope of this study.
- ◉ The Western-centric approach and use of English language is recognised as a limitation in relation to connecting and conversing with vital perspectives that are part of other ways of communicating, using different languages and forms of expression.
- ◉ The project team are all located in Europe and have built on existing networks to gather the survey and interview responses. It is recognised that this has the potential to offer a Eurocentric perspective on the subject matter and does not offer a globalised, unbiased view. The partners however are all drawn from locations with long-standing research in the area and are recognised internationally for their work within and beyond Western perspectives.
- ◉ The study is also limited by an inconsistent number of case studies at each of the identified country levels. One example is that of Germany and France, where the study has reached only a few HEIs and companies, despite identifying sustainability-related practices in the preliminary research phase. In addition, in gathering data outside Europe, it was not possible within the time frame to represent every region. For example, there is no data for Africa, and very little for Asia and North America.
- ◉ Some areas have a rich quantity and quality of data and response rates, and others have a paucity of data and response rates. The Nordic area in Europe is a case in point and hence a Nordic region report has been created.
- ◉ The majority of interviews were carried out over Skype or telephone, and in many cases there was a long distance between the interviewer and the interviewee, which could have an influence on the discussion. For this reason, an additional phase of desk research was carried out to further clarify aspects which emerged from the interviews and to overcome any bias.

The companies interviewed are mostly micro and medium-size. Given a longer time frame, further data would have been gathered from large companies to offer a more representative sample of fashion companies. It is recognised however, that information about the activities of large companies is not easy to obtain first-hand, due to protocols within many large businesses. The public facing discourse around sustainability in these businesses is, however, widely reported and accessible.

The project partners are committed to participatory practices, co-creation processes and mutual learning through the project, based on the honouring of different perspectives. The different geographic locations of the team members necessitate that most of the co-creation takes place through digital networks. This has its limitations, including the fact that contributions are often made to a live 'document' that tends to be seen in parts, where a microscopic view can outweigh the bird's eye, big picture view of the work. The study should not be considered an exhaustive picture of the field of interest, but a collection of cases and practices that outline a preliminary perspective on the topic.

Concluding reflections

This report connects the knowledge and experience of a group of researchers, located in four different universities, with wide-ranging backgrounds and disciplinary contexts. It extends this collective knowledge, drawing on findings from a much wider range of researchers, tutors, industry practitioners and others, located across the world, with very many more histories and practices. It is informed by research undertaken across the partner teams, compiled through a co-creation process of discussion, reflection and synthesis of findings. This process is seldom, if ever, easy and requires patience, care, empathy and commitment. Conviviality is an essential ingredient in this work, an element that we seek to expand on through this project and beyond it.

This Benchmarking Report informs the next phases of the project, where the team will be developing a framework for Fashion Design Education for Sustainability, a learning resources repository, teaching tools and a future skills foresight analysis. The findings from this state-of-the-art Benchmarking Report will inform the team in:

Connecting and co-learning: this starts with the project team, who act as a microcosm of the larger network of HEIs involved in teaching and learning Fashion Design for Sustainability across multiple disciplines, domains, levels and locations. This report evidences a high interest and engagement in teaching in fashion design and sustainability, including tutors seeking to include sustainability discourse within student experience (90%) and curriculum topics (80%), interdisciplinary partnerships (62%), and institutional strategy/values (55%). The study covers a range of courses collectively representing a holistic view of the fashion system, with design, economics, humanities, fine arts, technology and engineering being represented. There is a need to explore how and where these disciplinary approaches intersect, cross-reference or co-inform each other, either directly or indirectly. The next phases of the project will extend and embed this engagement to create mutual learning feedback loops for participants and beneficiaries.

Deepening knowledge: the project engages in a critical discourse regarding fashion, based on an understanding of sustainability as a nature-based, social-equity centred, culturally engaged and economically enabled set of processes,

practices and relationships. This report evidences a holistic engagement in sustainability by a range of HEIs who cite all seven of the study's pedagogic principles, with creative and critical thinking at 88% through to place-based learning at 42%. The findings identify a gap between interest, engagement and activity in teaching and learning and research. About 40% of institutions estimate that more than 10 faculty members would be interested in teaching and/or research in fashion sustainability practices, highlighting the relevance of the sustainability educational paradigm as an emerging phenomenon. The next phases of the project will explore ways in which to enhance research-led teaching, referencing the 40% of HEIs that have already established multidisciplinary and interdisciplinary structures, such as an institute or centre for research, education and policy development on sustainability practices.

Bridging thinking into doing: the existence of HEI and industry connections, partnerships and networks is clearly evidenced in the report, with 93% of the HEIs stating that they have collaborated with industry to support sustainable practices. However, academia/industry partnerships are predominantly short term, 60% lasting only one semester with only 5% lasting over three years. 77% of companies surveyed state that successful collaboration is related to a process of knowledge-sharing and new ideas development, suggesting that there is an opportunity to develop the aims, delivery and impact of such collaborations. The next phases of the project will develop ways in which HEIs can enable the development and application of new ideas that positively change industry practice. It will explore ways in which HEIs can co-create change with industry whilst maintaining their distinctive position outside of commercial practice.

Creating a shared and empathic understanding: recognising the constraints and opportunities in different communities of practice across academia and between academia and industry at a range of scales involves a range of skills and competencies, not least in listening with open ears, clear communication and non-judgemental reflection. There is a need to recognise that there will be a range of different understandings regarding fashion and sustainability, so to create clarity and promote open discussion, a glossary and lexicon of terms will be created that relates to the project in philosophical, practical, technical and disciplinary terms. As creative practitioners and researchers, there is an opportunity for the next phases of the project to develop a visual as well as text-

based narrative that can aid a shared understanding of the subject matter.

Expanding horizons of time: lifelong learning, with education as an ongoing process of skills and competencies development, is a core element in this project. The report evidences a gap in education within industry and a lack of workplace research-based activity. These findings, along with the identification of differing priorities across the four pillars of the project between HEIs and businesses, suggests a need to expand education beyond study within existing courses and to consider learning at different life stages. A cross-cutting theme across education and industry discourse in the research, evidenced more profoundly in the interviews than in the survey, is the importance of the materiality of fashion. This is unsurprising, as the tangible elements of the making process demonstrate how material acts as a conduit of personal and cultural values and social and economic value. The practices of making and related skills will be considered within the next phases of the project.

Transformation: the project seeks to use radical, design-led approaches to develop a holistic framework to embed sustainability into fashion design in higher education. This ambitious and important task, endorsed by Erasmus+, involves a process of transforming out of an outmoded education system, complicit in the current climate emergency due to its prioritising of economic growth over environmental and social prosperity. The highest-ranking themes relating to aims of HEIs in the study, over the next five years, are a questioning of consumption and growth and a focus on the role of design research.

Businesses highlight re-thinking, sustainability, ethics and re-cycling as their headline emerging topics. They state that they prioritise their goals through an environmental sustainability (46%) lens followed by social sustainability (20%), cultural sustainability (18%) and economic sustainability (16%). These ambitions are in line with the environmental and social crises of our times, but are far from the reality of current commercial practice. The next phases of the project will visualise a framework and navigation system that maps a scale of transformational change and populates this framework with resources, tools and related competencies, skills and success criteria for use by educators in working with students and businesses.

CHAPTER 5.

Bibliography

- AA.VV. (2017). Fashion Perspectives on Educational Programs, Statement presented at REDO Cumulus Conference 2017, May 30 – June 2, 2017. Kolding, Denmark.
- ABIT (2018) Perfil do Setor—Associação Brasileira from: <http://www.abit.org.br/cont/perfil-do-setor>. [19 March 2019]
- Akenji, L. et al. (2019). 1.5-Degree Lifestyles: Targets and options for reducing lifestyle carbon footprints. Retrieved from: <https://pub.iges.or.jp/pub/15-degrees-lifestyles-2019> [19 April 2019]
- Albino, V., Balice, A., Dangelico R.M. (2009). Environmental Strategies and Green Product Development: An Overview on Sustainability-Driven Companies. *Business Strategy and the Environment* 18, 83–96 Published online in Wiley InterScience
- Allen, M. (2017). The sage encyclopedia of communication research methods (Vols. 1–4). Thousand Oaks, CA: SAGE Publications, Inc.
- Aus, R. (2011). From Trash to Trend. Using Upcycling in Fashion Design. Doctoral Thesis. Estonian Academy of Arts.
- Ben McCammon. (2017). Semi structured interviews. <http://designresearchtechniques.com/casestudies/semi-structured-interviews/>. [19 March 2019].
- Bertola, P. (2018) Reshaping Fashion Education for the 21st Century World. Soft Landing, Cumulus Think Tank. Publication No. 3 of Cumulus International Association of Universities and Colleges in Art, Design and Media. Finland: Aalto University School of Arts, Design and Architecture.
- Bertola, P., Vacca, F., Colombi, C., Iannilli, V.M., Augello, M. (2016). The Cultural Dimension of Design Driven Innovation. A Perspective from the Fashion Industry, *The Design Journal*, 19:2, 237–251, DOI: 10.1080/14606925.2016.1129174.
- Bertola, P., Hillen V., & Swearer R. (2016). A New Kind of University. in B. Banerjee & S. Ceri (Eds.), *Creating Innovation leaders: A global perspective*. New York, NY: Springer International Publishing.
- Black, S. (2012). *The Sustainable Fashion Handbook*. London: Thames & Hudson.
- Blackburn R. (2009), *Sustainable Textiles: Life Cycle and Environmental Impact*, Cambridge: Woodhead Publishing in Textiles
- Boyce, C. and Neale, P. (2006) *Conducting In-Depth Interviews: A Guide for Designing and Conducting In-Depth Interviews for Evaluation Input*. Pathfinder International Tool Series, Monitoring and Evaluation-2.
- Brace, I. (2018). *Questionnaire Design. How to plan, structure and write survey material for effective market research*. London: Koganpage.
- Brandli L., Castro P., Leal Filho, W., Newman. Springer J. (2017). *Handbook of Theory and Practice of Sustainable Development in Higher Education – Volume 1*.
- Brown L, Kane H, Roodman D. 1994. *Vital Signs*. New York: Norton.
- Business of Fashion & McKinsey & Company. (2016). *The state of fashion 2017*. Retrieved from: <https://www.mckinsey.com/~media/McKinsey/Industries/Retail/Our%20Insights/The%20state%20of%20fashion/The-state-of-fashion-2017-McK-BoF-report.ashx> [28 November 2017].
- Capra, F., & Luisi, P. (2016). *The systems view of life: A unifying vision*. Cambridge: Cambridge University Press.
- Carey, L., Cervellon, M.C., (2014) “Ethical fashion dimensions: pictorial and auditory depictions through three cultural perspectives”, *Journal of Fashion Marketing and Management*, Vol. 18 Issue: 4, pp.483–506.

- Ceschin, F., Gaziulusoy, I., (2016). Evolution of design for sustainability: From product design to design for system innovations and transitions. Amsterdam: Elsevier Ltd.
- Charter, M. and U. Tischner (2001) Sustainable Solutions: Developing Products and Services for the Future. Sheffield: Greenleaf Publishing.
- Crutzen, P. J., Steffen, W., & McNeill, J.R. (2007). The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?. *Ambio* 36(8), 614–621. Retrieved from: <https://www.pik-potsdam.de> [19th April 2019]
- Delphi Study: A Research Project Exploring Definitions and Capabilities for the Emerging Discipline of Fashion Design for Sustainability, D. Williams, Centre for Sustainable Fashion 2016
- Duriau, V. J., Reger, K. R. & Pfarrer, M. D., 2007. "Research Themes, Data Sources, and Methodological Refinements". *Organization Research Methods*, 10: 5–34 Retrieved online: <https://media.terry.uga.edu/socrates/publications/2011/07>
- Ellen Macarthur Foundation. (2017). A New Textiles Economy. Retrieved from: https://www.ellenmacarthurfoundation.org/assets/downloads/publications/A-New-Textiles-Economy_Full-Report_Updated_1-12-17.pdf [28 November 2017].
- Eurofound (2016), ERM annual report 2016: Globalisation slowdown? Recent evidence of offshoring and reshoring in Europe, Publications Office of the European Union, Luxembourg.
- Fabris, G. P. (2009). Societing. Il marketing nella società postmoderna. Milano: Egea.
- Fiorani, E. (2006). *Moda, Corpo, Immaginario*. Milano: Edizioni POLI. Design.
- Fixing Fashion: Clothing consumption and sustainability, House of Commons Environmental Audit Committee Report, 19 February 2019, retrieved from: <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1952/1952.pdf> [1 July 2019]
- Fletcher K. (2014). Sustainable Fashion and Textiles. London and New York: Routledge.
- Fletcher, K., Williams, D. (2013) Fashion Education In Sustainability In Practice. *Research Journal of Textile and Apparel*, 17 (2). pp. 81-88.
- Fletcher, K. (Ed.), Tham, M. (Ed.). (2015). *Routledge Handbook of Sustainability and Fashion*. London: Routledge.
- Fletcher, K. (Ed.), Klepp, I. (Ed.). (2017). *Opening up the Wardrobe – A Methods Book*. Oslo: Novus Press.
- Forman, M. & Jørgensen. S.M. (2004). Organising Environmental Supply Chain Management: Experience from a Sector with Frequent Product Shifts and Complex Product Chains: The Case of the Danish Textile Sector. *Greener Management International*, No. 45, Emerging Issues in Life-Cycle Management (Spring 2004), pp. 43-62.
- Given, L.M. (2008), *The Sage Encyclopedia of Qualitative Research Methods*, Thousand Oaks, CA: Sage Publications.
- Global Fashion Agenda & The Boston Consulting Group. (2017). Pulse of the fashion industry. Retrieved from: https://globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry_2017.pdf [28 November 2017].
- GOTEX (2017) Gotex . Feira Internacional de Produtos Têxteis. Retrieved from: <http://gotexshow.com.br/mercado/> [19 March 2019].
- Green Cross Switzerland, Pure Earth (2016), *WORLD'S WORST POLLUTION PROBLEMS 2016*.

- The Green Party's Core Values, retrieved from: <https://policy.greenparty.org.uk/core-values.html> [1 July 2019]
- Groves, R.M., Fowler, F. J., Couper, M.P., Lepkowski, J.M., Singer, E., Tourangeau, R.,(2004). *Survey Methodology*. United States: Wiley & Sons.
- Grose, L. (2013). Fashion design education for sustainability practice - reflections on undergraduate level teaching. In Gardetti, M. & Torres, A. ed.: *Sustainability in Fashion and Textiles: Values, Design, Production and Consumption*. Sheffield: Greenleaf.
- Gwilt A., Rissanen T. (2011) Introduction. In: Gwilt A. and Rissanen T. (eds.) *Shaping Sustainable Fashion*. London, Washington DC: Earthscan, pp. 13-14.
- Gwilt, A., Payne, A. and R  thschilling, E. (Eds.) (2019). *Global Perspectives on Sustainable Fashion*. London: Bloomsbury.
- H&M Group. (2018). *Sustainability Report 2018*. Retrieved from: https://about.hm.com/content/dam/hmgroupp/groupsite/documents/masterlanguage/CSR/reports/2018_Sustainability_report/HM_Group_SustainabilityReport_2018_%20FullReport.pdf [02 April 2019].
- Hart SL. 1995. A natural-resource-based view of the firm. *Academy of Management Review* 20(4): 986-1014.
- Henninger, C., Panayioti J. Alevizou, Caroline J. Oates, (2016) "What is sustainable fashion?", *Journal of Fashion Marketing and Management: An International Journal*, Vol. 20.
- Hethorn J. and Ulasewicz C. (eds.) *Sustainable Fashion. Why Now? A Conversation about Issues, Practices, and Possibilities*. New York: Fairchild Books, Inc, pp. 30-52.
- Higher Education Teaching, Learning & Research in Fashion Education for Sustainability - Report, Centre for Sustainable Fashion 2016.
- Hubner, R.,(2012). *Ecodesign: reach, limits and challenges 20 years of ecodesign - time for a critical reflection*. Forum Ware International 1.
- International Council for Science (ICSU) & International Social Science Council (ISSC). (2015). *Review of the sustainable development goals: The science perspective*. Paris: ICSU. Retrieved from: website [30 May 2016].
- IPCC. (2018). *Summary for Policymakers*. In V. Masson-Delmotte et al. (Eds), *Global Warming of 1.5  C. An IPCC Special Report on the impacts of global warming of 1.5  C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. (p.32) Geneva, Switzerland: World Meteorological Organization.
- Jacobo, J.,(2016). *How Sustainable Brands Are Turning Their Backs on Fast Fashion Trend*. Retrieved from: <https://abcnews.go.com/US/sustainable-brands-turning-backs-fast-fashion-trend/story?id=39590457> [18 July 2019]
- Jickling, R., Sterling, S. (2017). *Post-Sustainability & Environmental Education: Remaking Education for the Future*. Basingstoke Palgrave Macmillan.
- Jung, S. and Jin, B. (2014), "A theoretical investigation of slow fashion: sustainable future of the apparel industry", *International Journal of Consumer Studies*, Vol. 38 No. 5, pp.510-519,doi:10.1111/ijcs.12127.[Crossref], [ISI], [Google Scholar] [Infotrieve].
- Karlsson, R. and C. Luttr  p (2006) 'EcoDesign: what is happening? An overview of the subject area of Eco Design', *Journal of Cleaner Production* 14 (15-16).
- Kering. (2017). *Sustainability Strategy 2025*. Retrieved from: <https://www.kering.com/en/sustainability/our-strategy/> [02 June 2018].

- Keyfi tz N. 1989. The growing human population. *Scientific American* September: 119-126.
- Laursen et al. (1997). Environmental assessment of textiles. Life cycle screening of textiles containing cotton, wool, viscose, polyester or acrylic fibres. Environmental project no. 369, published by The Danish Environmental Protection Agency.
- Lavrakas, Paul J. (eds.), (2008), *Encyclopedia of Survey Research Methods*, Thousand Oaks, CA: SAGE Publications, Inc.
- Leerberg et al. (2010). Design Responsibility and Sustainable Design as Reflective Practice: An Educational Challenge. *Sustainable Development*, Vol. 18, no. 5, 12.07.2010, s. 306-317
- Lindhal, M., Ekermann, S., (2013). *Structure for categorization of Ecodesign Methods and Tools. Re-engineering Manufacturing for Sustainability*. Singapore: Springer.
- Lyon F., Jackson T. (2015). "Alternative enterprise and Gross National Happiness: an agenda for sustainable prosperity". *Proceedings of the International Conference on Gross National Happiness on GNH*, Paro, Bhutan, 4-6 November 2015.
- Markkula, A. and Moisander, J. (2012), "Discursive confusion over sustainable consumption: a discursive perspective on the perplexity of marketplace knowledge", *Journal of Consumer Policy*, Vol. 35 No. 1, pp. 105-125.
- McDonough W., Braungart M. (2002), *Cradle to Cradle*, New York: NorthPoint.
- Meadows DH, Meadows DL, Randers J. 1972. *The Limits to Growth: a Report for the Club of Rome's Project on the Predicament of Mankind*. Washington: Potomac Associates Book.
- Meadows D. H. (2012). *Limits to Growth: The 30-Year Update*. Chelsea Green Publishing
- Meadows, D. (2015). *Thinking in Systems: A Primer*. London: EARTHSCAN.
- M.B., Huberman, A.M., (1984). *Qualitative data analysis: a sourcebook of new methods*. Beverly Hills, CA: Sage Publications.
- Muratovski, C. (2016). *Research for Designers: A Guide to Methods and Practice*. Beverly Hills, CA: Sage Publications.
- Niinimäkki, K. (Ed.) (2013). *Sustainable Fashion: New Approaches*. Helsinki: Aalto University Publication Series.
- Niinimäkki, K. (Ed.) (2018). *Sustainable Fashion in a Circular Economy*. Helsinki: Aalto University.
- Nixon, N.W. and Blakley, J. (2012), "Fashion thinking: towards an actionable methodology", *Fashion Orr*, D. W. (2009). *Lecture at the Brower Center*, Berkeley, California, 24 August 2009.
- Orsato RJ. 2006. Competitive environmental strategies: when does it pay to be green? *California Management Review* 48(2): 127-143.
- Pawson, R. (1989), *A Measure for Measures: A Manifesto for Empirical Sociology*, London: Routledge Potomac Associates-Universe Books: New York. Practice, Vol. 4 No. 2, pp. 153-177.
- Proceedings of the 20th CIRP International Conference on Life Cycle Engineering, Singapore 17-19 April, 2013. (117-122). Springer.
- Quantis. (2018). *Measuring Fashion. Insights from the Environmental Impact of the Global Apparel and Footwear Industries study*. Retrieved from: <https://quantis-intl.com/measuring-fashion-report-2018/> [24 April 2019].
- Ræbild, U. & Hasling, K.M. (2018). "Sustainable Design Cards: A Learning Tool for Supporting Sustainable Design Strategies." In *Sustainable Fashion in a*

- Circular Economy, edited by Kirsi Niinimäki, 128-51. Helsinki: Aalto University.
- Ricchetti, M., (2017). *Moda: neomateriali nell'economia circolare*. Milano: Edizioni ambiente.
- Riisberg, V. (2010). Teaching Sustainable Design to Textile and Fashion Students - from a micro and macro perspective. In *Sustainable Fashion: Issues to be addressed*, Design School Kolding pp. 12-23.
- Rocchi S. (2005) *Enhancing Sustainable Innovation by Design: An Approach to the Co-creation of Economic, Social and Environmental Value*, Doctoral Dissertation (Erasmus University, Rotterdam).
- Rockström, J. et al. (2009). A Safe Operating Space for Humanity. *Nature*, 461(7263), 472-75. doi:10.1038/461472a.
- Rockström, J. et al. (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity *Ecology and Society* 14(2): 32. [online] Retrieved from: <http://www.ecologyandsociety.org/vol14/iss2/art32> (May 2019)
- Senge, P. (1990) *The Fifth Discipline, The Art and Practice of the Learning Organisation*. London: Random House Business Books.
- Shaw, D. and Tomolillo, D.A.C. (2004), "Undressing the ethical issues in fashion: a consumer perspective", in Bruce, M., Moore, C. and Birtwistle, G. (Eds), *International Retail Marketing: A Case Study Approach*, Butterworth-Heinemann, Oxford, pp. 141-152.
- Simon, H. A. (1969). *The Sciences of the Artificial*. Cambridge, MA: MIT Press.
- Skjold, E. (2014). Towards Fashion Media for Sustainability. In *Routledge Handbook of Sustainability and Fashion*. Ed. Fletcher, K. & Tham, M. London: Routledge.
- Sterling, S. (2016). A Commentary on Education and Sustainable Development Goals. *Journal of Education for Sustainable Development*. United States: Sage Publications. 10:2 (2016): 208-213.
- Sterling, S (2001). *Sustainable Education: Re-visioning Learning and Change*. Schumacher Briefings
- Subramanian Senthilkannan Muthu (2014), *Roadmap to Sustainable Textiles and Clothing Environmental and Social Aspects of Textiles and Clothings Supply Chain*, Springer: Germany.
- Sustainable Clothing Roadmap Progress Report 2011, Department for Environment Food & Rural Affairs, retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69299/pb13461-clothing-actionplan-110518.pdf (accessed 1 July 2019)
- Thackara, J.,(2005). *In the bubble*. Cambridge, MA: MIT Press.
- Toth-Fejel, K., Williams, D. (2017). The Will and the Skill in Education for Sustainability. In: *Handbook of Theory and Practice of Sustainable Development in Higher Education*. Springer, pp. 79-94. ISBN 978-3-319-47876-0.
- UCLG. (2010). *CULTURE, THE FOURTH PILLAR OF SUSTAINABILITY*. Retrieved from <http://www.agenda21culture.net/documents/culture-the-fourth-pillar-of-sustainability> (March 2019)
- United Nations Sustainable Development Goals. Retrieved from: <https://sustainabledevelopment.un.org/?menu=1300> [18 July 2019]
- UNESCO United Nations Educational, Scientific and Cultural Organisation (2010). *The UNESCO climate change initiative: Climate change education for sustainable development*. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000190101_eng. [14 September 2012].

- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2005) A Decade of Education for Sustainable Development, 2005-2014: The DESD at a glance. Retrieved from: <https://unesdoc.unesco.org/ark:/48223/pf0000141629> [19 November 2012].
- UNESCO United Nations Educational, Scientific and Cultural Organisation (2002) Unesco universal declaration on cultural diversity. Paris: UNESCO.
- UNESCO United Nations Educational, Scientific and Cultural Organisation (2011) Learning for the future: Competences in Education for Sustainable Development. Retrieved from: https://www.unece.org/fileadmin/DAM/env/esd/ESD_Publications/Competences_Publication.pdf [18 July 2019]
- UNESCO United Nations Educational, Scientific and Cultural Organisation (2014) Roadmap for implementing the global action programme on education for sustainable development Paris: UNESCO
- United Nations General Assembly. (2015) 7th Session Transforming our world: the 2030 Agenda for Sustainable Development. [online] Retrieved from: <https://sustainabledevelopment.un.org/> (19 March 2019).
- Vacca, F., (2012). Silent Witnesses Innovation Through Tradition in Italian Fashion Companies. *Research Journal of Textile and Apparel*, Vol. 16 Issue: 4, pp.48-58.
- Vezzoli C. and E. Manzini (2008b) 'Review: design for sustainable consumption and production systems', in Tukker, A., Charter, M., Stø, E., Andersen, M.M. and C. Vezzoli (ed.) *System Innovation for Sustainability 1. Perspectives on Radical Changes to Sustainable Consumption and Production* (Sheffield, UK: Greenleaf Publishing).
- Walker, S. (2013). *The Handbook for Design for Sustainability*. London: Bloomsbury.
- Wheatley, M. (2005). *Finding Our Way, Leadership for an Uncertain Time*. San Francisco, CA: Berrett-Koehler.
- Williams, D. (2016). *Engaging Stakeholders in Education for Sustainable Development at University Level*, World Sustainability Series. Cham: Springer International Publishing.
- Williams, Dilys (2019). *Fashion Design for Sustainability: A framework for participatory practice*. In: Lens Conference, 3 - 5 April 2019, Milan.
- Williams D, Baldwin N, Fletcher K (2009). Volume 3.0: Centre for Sustainable Fashion: tactics for change. Centre for Sustainable Fashion, London.
- Williams, D. & Stevenson, N. (2012). *Fashion Design for Sustainability: Staff Development Module*. London College of Fashion, UAL (unpublished).
- Williams, D., Toth-Fejel, K. (2016) *The Will and the Skill in Education for Sustainability*. Presented at *Designing Tomorrow's Campus: Resiliency, Vulnerability, and Adaptation* Massachusetts Institute of Technology (MIT), Cambridge, MA, USA, 14-16 September 2016.
- World Commission on Environment and Development (WCED). (1987). *Our Common Future*. Oxford: Oxford University Press.
- Yin, R. (2008), *Case Study Research: Design and Methods*, (4th ed.). Beverly Hills, CA: Sage Publications.
- Yin, R. K. (2003). *Case Study Research, Design and Methods*, Third Edition. Beverly Hills, CA: Sage Publications.

CHAPTER 6.

Annex

Annex A - HEIs' questionnaire

Annex B - Companies' questionnaire

Annex C - HEIs' semi-structured interview

Annex D - Companies' semi-structured interview

Annex A: HEIs' questionnaire



FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY

Thank you for your interest.

You are invited to participate in our survey, entitled “Fashion and Textile Design-led Sustainability in Higher Education Institutions”.

The study is coordinated by UAL – London College of Fashion, in collaboration with partner institutions Politecnico di Milano - Italy, Estonian Academy of Arts - Estonia, Designskolen Kolding - Denmark as part of the three-year Erasmus+ - project FashionSEEDS.

The purpose of this study is to support the development of an innovative teaching approach to fashion education. The project aims to develop a holistic framework to integrate design-led sustainability in the fashion design curriculum for higher education institution. The framework will integrate existing research/knowledge and create know-how through the results of the data processed by partners and experts. Partners are innovators in the fields of design for sustainability and their cross-disciplinary collaboration will respond to the current and emerging requests from industry and society. Fashion design for sustainability challenges the status quo of the current fashion system. It seeks to change fashion from its root, to shift its focus from contribution to the economy, to a wider focus on a contribution to society, nature, culture and economy. This involves engaging in the present and the future in consideration of nature, and its living beings, resources and systems as a context for designing, producing and using/ consuming. It involves a systemic approach to fashion design and involves identified values, knowledge and capabilities. As stated by the Brundtland Commission, the goal is to create a system that meets the needs of the present without compromising the ability of the future.

The survey is being conducted to collect data from HEI's around the world about what takes place in relation to sustainability issues in institutions, in curriculum development, in teaching students, staff training, and working experiences. The outcome of the survey plays an important role in developing and delivering a map of good practices in the fashion for sustainability educational field.

We estimate that it will take about 15-25 minutes of your time to complete the 30 questions.

You are free to contact the investigator at the above address and phone number to discuss the survey. Data associated with email addresses will be kept during the data collection phase for tracking purposes only. A limited number of research team members will have access to the data during collection. This information will be stripped from the final data set.

The collected data will be processed to map the current state of progress in the fashion for sustainability educational field. The outcome document will be a report that will show only aggregated data. The report will be publicly available on the Erasmus+ website and on the project channels, according to the European regulation. We have taken all reasonable measures to protect your identity and responses. The questions in this survey do not ask you to reveal any personally identifying information and IP addresses are not collected. However, email and the internet are not 100% secure, so it is also suggested that you clear the computer's cache and browser history to protect your privacy after completing the survey. Your participation in this survey is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time without penalty. If you wish to withdraw from the study or have any questions, contact the investigators listed above.

If you have any questions or would like us to email another person from your institution or update your email address, please send an email to erminia.ditria@polimi.it

We sincerely appreciate your time and investment in this survey.



**fashion
SEEDS**

FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY



ID
NAME:
UNIVERSITY:
AFFILIATION (School, faculty, institute):
LOCATION (City, country):
ESTABLISHED IN THE YEAR:
TITLE: DEAN/ DIRECTOR / CHAIR / PROGRAMME COORDINATOR (Name, academic position and email contact):
NUMBER OF FASHION PROGRAMMES (FASHION DESIGN, TEXTILE, ACCESSORIES, FOOTWEAR etc.) IN YOUR INSTITUTION:
NUMBER OF FASHION COURSES PROVIDED BY THE FASHION PROGRAMME:
NUMBER OF FACULTY MEMBERS INVOLVED IN EACH FASHION PROGRAMME:
NUMBER OF STUDENTS FOR EACH FASHION PROGRAMME (please, list them by BA, MA, PhD)
WEBSITE:

FASHION DESIGN FOR SUSTAINABILITY “CHALLENGES THE STATUS QUO OF THE CURRENT FASHION SYSTEM. IT SEEKS TO CHANGE FASHION FROM ITS ROOT, TO SHIFT ITS FOCUS FROM CONTRIBUTION TO THE ECONOMY, TO A WIDER FOCUS ON A CONTRIBUTION TO SOCIETY, NATURE, CULTURE AND ECONOMY”. ACCORDING WITH THIS, INDICATE THE EXTENT TO WHICH YOUR INSTITUTION OFFERS FASHION COURSES WHICH ADDRESS TOPICS RELATED TO SUSTAINABILITY*. (SCALE 1-5) *

(THE CONCEPT SHOULD BE UNDERSTOOD IN A BROAD SENSE):

- 1 No interest
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

WHICH IS THE FACULTY BACKGROUND IN YOUR INSTITUTION?

Business management
 Marketing and communication
 Logistics and supply chain management
 Sociology
 Chemistry of materials
 Architecture
 Product design
 Fashion design
 Textile design
 Interior design
 Communication design
 Sustainability (in its broadest sense)
 Other

WHICH IS YOUR AREA OF SPECIALISM IN FASHION CURRICULUM OF YOUR INSTITUTION?

Design
 Art direction
 Material
 Marketing
 Management
 Communication

IN YOUR OPINION, TO WHAT EXTENT DOES SUSTAINABILITY INFLUENCE FASHION CURRICULUM IN YOUR INSTITUTION?

- 1 No interest
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

DOES YOUR INSTITUTION WORK WITH SDGS (SUSTAINABLE DEVELOPMENT GOALS)?

- YES
NO

**IN YOUR OPINION, HOW IS SUSTAINABILITY CONSIDERED IN YOUR FASHION CURRICULUM?
(more than one answer can be selected)**

- 1 Pedagogic approaches
- 2 Curriculum topics
- 3 Student experiences
- 4 Interdisciplinary partnerships
- 5 Institutional strategy and/or values

WHICH OF THE FOLLOWING PEDAGOGIC APPROACHES ARE USED TO EMBED SUSTAINABILITY IN YOUR FASHION CURRICULUM?

Futures thinking (a method for informed reflection on the major changes that will occur in the next 10, 20 or more years in all areas of life, it is used to inform decisions made in the present)
Creative and critical thinking (deep analysis and challenging of traditional and accepted modes of practice; creating new alternative practices)
Participation & participatory learning (working collaboratively, breaking through traditional hierarchies in relationships)
Systemic thinking (understanding interconnections and holistic approaches)
Interdisciplinarity (working between fields of study i.e. combining learning across different courses and disciplines)
Informed decision making (basing decisions on verified data, employing analytical skills informed by expert knowledge)
Place based learning (considering how the physical location or experience is of direct influence on learning, including experiential learning)

WOULD YOU SAY THAT YOUR INSTITUTION'S APPROACH TO DATE HAS PRIORITISED THEORETICAL APPROACHES TO EDUCATION FOR SUSTAINABILITY, OR PRACTICAL REALISATION OF SUSTAINABILITY THROUGH HANDS ON ASSIGNMENTS?

Theoretical side of teaching
Practical hands-on assignments

WHICH PEDAGOGIC FORMAT IS USED TO EMBED SUSTAINABILITY IN YOUR FASHION CURRICULUM?

Workshop
Studio
Conference
Meeting
Hackathon
Study groups
Lectures

ARE FASHION DESIGN UNDERGRADUATE STUDENTS REQUIRED TO TAKE COURSES RELATED TO SUSTAINABILITY PRACTICES?

YES
NO

ARE FASHION DESIGN POSTGRADUATE STUDENTS REQUIRED TO TAKE COURSES RELATED TO SUSTAINABILITY PRACTICES?

YES
NO

ARE FASHION DESIGN PHD STUDENTS REQUIRED TO TAKE COURSES RELATED TO SUSTAINABILITY PRACTICES?

YES
NO

AT WHAT EXTENT DOES YOUR COLLEGE OR UNIVERSITY PROVIDE STUDENT DEVELOPMENT OPPORTUNITIES (COURSES, TRAINING, INTERNSHIP, ETC.) TO ENHANCE UNDERSTANDING AND RESEARCH IN SUSTAINABILITY? (scale 1/5):

1 No interest
2 Slightly
3 Moderately
4 Very
5 Extremely

DOES YOUR INSTITUTION ENCOURAGE STUDENTS TO CONSIDER SUSTAINABILITY PRACTICES WHEN CHOOSING A CAREER PATH?

YES
NO

HOW MANY PROJECTS (RESEARCH OR CURRICULUM) HAVE BEEN DELIVERED IN THE FASHION DISCIPLINES IN SUSTAINABILITY DURING THE PAST 5 YEARS?

1-10
+10
+30
+50

HOW MANY FACULTY MEMBERS TEACH OR DO RESEARCH ON FASHION SUSTAINABILITY PRACTICES?

1-10
+10
+30
+50

HOW MANY FACULTY MEMBERS DO YOU ESTIMATE WOULD BE INTERESTED IN TEACHING AND RESEARCH ON FASHION SUSTAINABILITY PRACTICES?

1-10
+10
+30
+50

DOES YOUR INSTITUTION DEVELOP COLLABORATION BETWEEN INDUSTRY AND ACADEMIA?

YES
NO

IF YES, WHAT MAKES THESE COLLABORATIONS BETWEEN INDUSTRY AND ACADEMIA SUCCESSFUL?

Researcher's commitment to contributing to industry needs
Researcher's commitment to questioning the status quo
Short term results and impact on industry
Support from industry collaborators
Knowledge sharing and new ideas
Other

DOES YOUR INSTITUTION HAVE ESTABLISHED MULTIDISCIPLINARY AND INTERDISCIPLINARY STRUCTURES (SUCH AS AN INSTITUTE OR CENTRE) FOR RESEARCH, EDUCATION AND POLICY DEVELOPMENT ON SUSTAINABILITY PRACTICES?

YES
NO

ARE STUDENTS DIRECTLY INVOLVED IN ANY ACADEMIC RESEARCH ON SUSTAINABILITY IN FASHION?

YES
NO
PARTLY

ARE STAFF MEMBER CONTRIBUTIONS TO SUSTAINABILITY A CRITERION FOR HIRING AND PROMOTION?

YES
NO
PARTLY

DOES YOUR INSTITUTION FINANCE AND PROVIDE STAFF DEVELOPMENT OPPORTUNITIES (COURSES, WORKSHOPS, ETC.) TO ENHANCE UNDERSTANDING, TEACHING AND RESEARCH IN SUSTAINABILITY?

YES
NO

IN WHAT SUSTAINABILITY AREAS IS THE FASHION CURRICULUM OF YOUR INSTITUTION PERFORMING WELL OR MAKING VALUABLE PROGRESS? (PLEASE, LIST THEM IN ORDER OF IMPORTANCE. WRITE THE NUMBER IN THE BOX.)

Environment: refers to our ability to live within biosphere limits. We reference Stockholm Resilience Centre's work on planetary boundaries as a means to visualise our position and the trajectory of our current era, commonly termed, the Anthropocene.

Social: refers to the ability of groups of people to interact and collaborate in ways that create and exemplify social cohesion. In common with all aspects of sustainability, it refers to present and long-term futures, social sustainability considers places, communities and organisations, formal and informal.

Economic: the dominant discourse of GDP as a measure of economic health is being increasingly questioned. For the purpose of this study, we describe this term as the ability for citizens to enjoy living conditions that are within agreed boundaries in terms of wage levels relative to costs of living and the gap between lowest and highest wages to be within agreed boundaries. It refers to regional and inter-regional access to investment and to a healthy relationship between productivity, employment and economic status.

Cultural: refers to tolerant systems that recognise and cultivate diversity. This involves open-mindedness and protection of first nations cultural heritage and other ways of living that are based on beliefs, practices and histories honouring nature and human equity.

WITHIN THE NEXT 5 YEARS WHAT GOALS WOULD YOU LIKE TO SEE YOUR INSTITUTION (MANAGEMENT, STAFF AND STUDENTS) ACHIEVE WITH REGARD TO SUSTAINABILITY PRACTICES IN THE FASHION CURRICULUM?

Questioning of consumption and growth
Amplifying public understanding of sustainability
Design for socio-cultural change
Role of design research
Exchange with business and politics

PLEASE ADD ANY ADDITIONAL COMMENTS BELOW:

Annex B: Companies questionnaire



FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY

Thank you for your interest.

You are invited to participate in our survey, entitled “Fashion and Textile Design-led Sustainability in Higher Education Institutions”.

The study is coordinated by UAL – London College of Fashion, in collaboration with partner institutions Politecnico di Milano - Italy, Estonian Academy of Arts - Estonia, Designskolen Kolding - Denmark as part of the three-year Erasmus+ - project FashionSEEDS.

The purpose of this study is to support the development of an innovative teaching approach to fashion education. The project aims to develop a holistic framework to integrate design-led sustainability in the fashion design curriculum for higher education institution. The framework will integrate existing research/knowledge and create know-how through the results of the data processed by partners and experts. Partners are innovators in the fields of design for sustainability and their cross-disciplinary collaboration will respond to the current and emerging requests from industry and society. Fashion design for sustainability challenges the status quo of the current fashion system. It seeks to change fashion from its root, to shift its focus from contribution to the economy, to a wider focus on a contribution to society, nature, culture and economy. This involves engaging in the present and the future in consideration of nature, and its living beings, resources and systems as a context for designing, producing and using/ consuming. It involves a systemic approach to fashion design and involves identified values, knowledge and capabilities. As stated by the Brundtland Commission, the goal is to create a system that meets the needs of the present without compromising the ability of the future.

The survey is being conducted to collect data from HEI's around the world about what takes place in relation to sustainability issues in institutions, in curriculum development, in teaching students, staff training, and working experiences. The outcome of the survey plays an important role in developing and delivering a map of good practices in the fashion for sustainability educational field.

We estimate that it will take about 15-25 minutes of your time to complete the 30 questions.

You are free to contact the investigator at the above address and phone number to discuss the survey. Data associated with email addresses will be kept during the data collection phase for tracking purposes only. A limited number of research team members will have access to the data during collection. This information will be stripped from the final data set.

The collected data will be processed to map the current state of progress in the fashion for sustainability educational field. The outcome document will be a report that will show only aggregated data. The report will be publicly available on the Erasmus+ website and on the project channels, according to the European regulation. We have taken all reasonable measures to protect your identity and responses. The questions in this survey do not ask you to reveal any personally identifying information and IP addresses are not collected. However, email and the internet are not 100% secure, so it is also suggested that you clear the computer's cache and browser history to protect your privacy after completing the survey. Your participation in this survey is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time without penalty. If you wish to withdraw from the study or have any questions, contact the investigators listed above.

If you have any questions or would like us to email another person from your institution or update your email address, please send an email to erminia.ditria@polimi.it

We sincerely appreciate your time and investment in this survey.



**fashion
SEEDS**

FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY



Erasmus+



university
of the arts
london



POLITECNICO
MILANO 1863
DIPARTIMENTO DI DESIGN



Estonian
Academy of Arts



ID

NAME:

COMPANY:

CORE BUSINESS:

LOCATION (City, Country):

ESTABLISHED IN THE YEAR:

POSITION:

WEBSITE:

NUMBER OF EMPLOYEES:

HOW STRONGLY DO YOU FEEL YOUR COMPANY IS COMMITTED TO FASHION DESIGN FOR SUSTAINABILITY?

(scale 1-5: 1 No interest, 2 Slightly, 3 Moderately, 4 Very, 5 Completely)

- 1 No interest
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

HOW IMPORTANT DO YOU THINK SUSTAINABILITY IS TO YOUR COMPANY'S OVERALL BUSINESS?

(scale 1-5: 1 No interest, 2 Slightly, 3 Moderately, 4 Very, 5 Completely)

- 1 No interest
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

HOW WOULD YOU DESCRIBE YOUR COMPANY'S INTEREST IN SUSTAINABILITY?

(scale 1-5: 1 No interest, 2 Slightly, 3 Moderately, 4 Very, 5 Completely)

- 1 No interest
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

HOW IMPORTANT DO YOU FEEL THE FOLLOWING AREAS ARE FOR YOUR COMPANY'S SUSTAINABILITY PROGRAM?

(scale 1-5: 1 No interest, 2 Slightly, 3 Moderately, 4 Very, 5 Completely)

- Sourcing
- Waste & Recycling
- Resource Efficiency
- Community Programmes and Philanthropy
- Cultural Heritage
- Branding/Marketing
- New Business Models
- Ethics
- Design Approaches
- Stakeholder Relations
- Certificates

WHAT AREAS OF YOUR BUSINESS DO YOU THINK WOULD BE MOST POSITIVELY IMPACTED BY SUSTAINABILITY?

(scale 1-5: 1 No interest, 2 Slightly, 3 Moderately, 4 Very, 5 Completely)

- Cost reduction
- Increase sales
- Customer perception
- Consumer marketing
- Brand value
- Future growth
- Employee attraction

IN WHAT SUSTAINABILITY AREAS IS YOUR COMPANY PERFORMING WELL OR MAKING VALUABLE PROGRESS?

Environment: refers to our ability to live within biosphere limits. Refers to the use of various principles and practices to preserve the quality of the environment on a long-term basis. We reference Stockholm Resilience Centre's work on planetary boundaries as a means to visualise our position and the trajectory of our current era, commonly termed, the Anthropocene.

Social: the ability of a community to interact and collaborate in ways that create and exemplify social cohesion. In common with all aspects of sustainability, it refers to present and long-term futures; social sustainability considers places, communities and organisations, formal and informal.

Economic sustainability: the dominant discourse of GDP as a measure of economic health is being increasingly questioned. For the purpose of this study, we describe this term as the ability for citizens to enjoy living conditions that are within agreed boundaries in terms of wage levels relative to costs of living and the gap between lowest and highest wages to be within agreed boundaries. It refers to regional and inter-regional access to investment and to a healthy relationship between productivity, employment and economic status.

Cultural: refers to tolerant systems that recognise and cultivate diversity. It implies the use of various strategies to preserve first nations cultural heritage, beliefs, practices, histories. The goal is to safeguard their existence in the future context.

THROUGH WHAT SUSTAINABILITY LENS DOES YOUR COMPANY PRIORITISE ITS GOALS?

(Please, list them in order of importance. Write the number in the box.)

Environmental: Greenhouse Gas reduction, reduce energy and water, reduce waste.

Social: Support the communities in which we operate, educate and/or empower employees, make the workplace healthier/safer, make a meaningful contribution to empower non-profits, promote more inclusive work chains.

Economic: Payback/ cost savings/ positive margin impact, investment funding available, return on investment.

Cultural: Promote more inclusive production chains, support cultural heritage programs.

WHAT DO YOU CONSIDER TO BE THE MAJOR RISKS IN YOUR COMPANY RELATED TO SUSTAINABILITY?

(Please, list them in order of importance. Write the number in the box.)

Consumer Expectations: continuously evolving and shaping the shopping experience, consumers are increasingly selecting brands that are sustainable.

Sourcing: consumers are starting to demand lower impact products and transparency in the supply chains.

Climate Change: poses real long-term risks to business models tied to agriculture (e.g: disrupting the supply chain, extreme weather events, rising energy costs).

Animal Welfare: charities and non-governmental organisations have succeeded in raising the profile of their concerns and exposing companies who are not addressing the issue.

Financing and Investment: traditional sources of capital have recognised the value of sustainability and are including sustainability in funding and lending calculations.

Cultural and Social: consumers are starting to demand more ethical and transparent supply chains, especially regarding the place of origin of the products and working conditions.

DOES YOUR COMPANY HAVE A CSR POLICY OR PROGRAMME?

YES
NO

DOES YOUR COMPANY COLLABORATE WITH ACADEMIA?

YES
NO

HOW OFTEN DOES YOUR COMPANY COLLABORATE WITH ACADEMIA?

- Every semester
- Every year
- One-off project
- Never

WHAT IS THE AVERAGE PROJECT LENGTH WHEN COLLABORATING WITH ACADEMIA?

- One semester
- One year
- More than two years
- More than five years
- Not applicable

WHAT IS THE PURPOSE OF THIS COLLABORATION?

- To access latest research results and innovative new methodologies
- To demonstrate competitive advantage
- To enhance market success
- To contribute to research, education and student experience
- Others

IF YES, WHAT MAKES THESE COLLABORATIONS BETWEEN INDUSTRY AND ACADEMIA SUCCESSFUL?

- Researcher's commitment to contribute to industry needs
- Short term results and impact on industry
- Long term results and impact on industry
- Support from industry collaborators
- Knowledge sharing and new ideas
- Other

HAS YOUR COMPANY ESTABLISHED MULTIDISCIPLINARY AND INTERDISCIPLINARY STRUCTURES (SUCH AS AN INSTITUTE OR CENTRE) FOR RESEARCH, EDUCATION AND POLICY DEVELOPMENT ON SUSTAINABILITY PRACTICES? I.E. ARE YOU WORKING WITH MULTIPLE ORGANISATIONS OR SECTORS IN A FORMALISED WAY?

- YES
- NO

WHICH OF THE FOLLOWING REASONS HAVE INFORMED YOUR COMPANY'S SUSTAINABILITY EFFORTS?

(you can select more than one)

- Ethics
- Brand reputation
- Pressure/ interest from stakeholders
- Cost reduction and efficiency
- Employee interests
- Community or environmental concern
- Others

ARE STAFF MEMBER CONTRIBUTIONS TO SUSTAINABILITY A CRITERION FOR HIRING AND PROMOTION?

- YES
- NO

DOES YOUR COMPANY PROVIDE STAFF DEVELOPMENT OPPORTUNITIES (COURSES, WORKSHOPS ETC.) TO ENHANCE UNDERSTANDING AND KNOWLEDGE OF SUSTAINABILITY?

- YES
- NO

IF YES, WHAT KIND OF OPPORTUNITIES DOES YOUR COMPANY PROVIDE?

Courses
Refresher courses
Workshops
Meetings
Other

IN THE LAST YEAR, HAVE YOU HAD OPPORTUNITIES TO LEARN AND DEVELOP IN THE SUSTAINABILITY FIELD?

No (never)
Rarely (once a year)
Occasionally (twice a year)
Frequently (at least once per quarter or more)

PLEASE ADD ANY ADDITIONAL COMMENTS BELOW:

Annex C: HEI's semi-structured interview



FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY

Thank you for your interest.

FashionSEEDS is a 3-year Strategic EU-funded Partnership coordinated by UAL – London College of Fashion, in collaboration with partner institutions Politecnico di Milano - Italy, Estonian Academy of Arts - Estonia, Design School Kolding – Denmark.

The project aims to develop a holistic framework for design-led fashion education and practice supporting sustainability across levels and locations. It further aims to develop teaching & learning practices, methodologies, tools & resources for open source learning environments free of charge and accessible to all interested parties.

We sincerely hope that you would like to contribute with your valuable knowledge and experience, by filling out an online survey. The survey targets staff members in charge of the company's CSR policy and any steps taken to establish a more sustainable fashion and textile sector including jewellery, shoes and other accessories.

The outcome will be a report that will show only depersonalised data. The report will be publicly available on the Erasmus+ website and on the project channels, according to the European regulation. Data associated with email addresses will be kept during the data collection phase for tracking purposes only. This information will be stripped from the final data set. We have taken all reasonable measures to protect your identity and responses. The questions in this survey do not ask you to reveal any personally identifying information and IP addresses are not collected. However, email and the internet are not 100% secure, so it is also suggested that you clear the computer's cache and browser history to protect your privacy after completing the survey.

You may decline to answer any question and you have the right to withdraw from participation at any time.

If you wish to withdraw from the study, have any questions, or would like us to email another person in your company, please send an email to erminia.ditria@polimi.it.

Thank you for taking the time to assist us.



**fashion
SEEDS**

FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY

1.ID

NAME:

UNIVERSITY:

AFFILIATION (School, Faculty, Institute):

LOCATION (City, Country):

ESTABLISHED IN THE YEAR:

DEAN/ DIRECTOR / CHAIR / PROGRAMME COORDINATOR (Name, academic position and email contact):

NUMBER OF FASHION PROGRAMMES (FASHION DESIGN, TEXTILE, ACCESSORIES, FOOTWEAR...) IN YOUR INSTITUTION:

NUMBER OF FASHION COURSES PROVIDED BY THE FASHION PROGRAMMES (specify for each programme):

NUMBER OF FACULTY MEMBERS INVOLVED IN (each) FASHION PROGRAMMES (specify for each programme):

NUMBER OF STUDENTS FOR EACH FASHION PROGRAMMES (please, list them by BA, MA, PhD):

WEBSITE:

2.CURRICULUM

INDICATE THE EXTENT TO WHICH YOUR INSTITUTION OFFERS FASHION COURSES WHICH ADDRESS TOPICS RELATED TO SUSTAINABILITY*. (SCALE 1/5) * (THE CONCEPT HAS TO BE UNDERSTOOD IN A BROAD SENSE):

- 1 Not at all
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

FASHION DESIGN FOR SUSTAINABILITY “CHALLENGES THE STATUS QUO OF THE CURRENT FASHION SYSTEM. IT SEEKS TO CHANGE FASHION FROM ITS ROOT, TO SHIFT ITS FOCUS FROM CONTRIBUTION TO THE ECONOMY, TO A WIDER FOCUS ON A CONTRIBUTION TO SOCIETY, NATURE, CULTURE AND ECONOMY”.

IN ACCORDANCE WITH THIS, LIST ANY FASHION COURSES AND ACTIVITIES YOU ARE AWARE OF IN WHICH THIS SUBJECT IS ADDRESSED AND FOR EACH COURSE DESCRIBE:

THE ACADEMIC LEVEL:

- BA
- MA
- PhD

IF SUSTAINABILITY IS EXPLORED AS FORMAL OR NON-FORMAL TEACHING:

THE PEDAGOGIC APPROACH TO EMBEDDING SUSTAINABILITY INTO THE CURRICULUM:

THE STAFF DEVELOPMENT ON FASHION & SUSTAINABILITY:

IF THE COURSE/ INSTITUTION WORKS WITH THE SDGS:

- YES
- NO

Please, pick out around 5 most important ones for the strategy of the institution or programme

- GOAL 1: No Poverty
- GOAL 2: Zero Hunger
- GOAL 3: Good Health and Well-being
- GOAL 4: Quality Education
- GOAL 5: Gender Equality
- GOAL 6: Clean Water and Sanitation
- GOAL 7: Affordable and Clean Energy
- GOAL 8: Decent Work and Economic Growth
- GOAL 9: Industry, Innovation and Infrastructure
- GOAL 10: Reduced Inequality
- GOAL 11: Sustainable Cities and Communities
- GOAL 12: Responsible Consumption and Production
- GOAL 13: Climate Action
- GOAL 14: Life Below Water
- GOAL 15: Life on Land
- GOAL 16: Peace and Justice Strong Institutions
- GOAL 17: Partnerships to achieve the Goal

WHAT IS THE OVERARCHING SUSTAINABILITY-RELATED AIM(S) OF THESE COURSES AND ACTIVITIES?

IN YOUR OPINION, TO WHAT EXTENT DOES SUSTAINABILITY INFLUENCE YOUR FASHION CURRICULUM?

- 1 Not at all
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

PLEASE, EXPLAIN HOW SUSTAINABILITY INFLUENCES YOUR FASHION CURRICULUM:

CAN YOU PICK AND DESCRIBE ANY PEDAGOGIC APPROACHES USED TO EMBED SUSTAINABILITY IN THE FASHION CURRICULUM?

FUTURES THINKING (A METHOD FOR INFORMED REFLECTION ON THE MAJOR CHANGES THAT WILL OCCUR IN THE NEXT 10, 20 OR MORE YEARS IN ALL AREAS OF LIFE, IT IS USED TO INFORM DECISIONS MADE IN THE PRESENT)
CREATIVE AND CRITICAL THINKING (DEEP ANALYSIS AND CHALLENGING OF TRADITIONAL AND ACCEPTED MODES OF PRACTICE; CREATING NEW ALTERNATIVE PRACTICES)
PRACTICE-LED (EXPERIENTIAL LEARNING ABOUT MAKING THE LEARNING ENVIRONMENT AS REALISTIC AS POSSIBLE AND REQUIRES THE STUDENTS TO DEMONSTRATE WHAT THEY KNOW LINKING THEORY AND PRACTICE)
PARTICIPATION & PARTICIPATORY LEARNING (WORKING COLLABORATIVELY, BREAKING THROUGH TRADITIONAL HIERARCHIES IN RELATIONSHIPS)
SYSTEMIC THINKING (UNDERSTANDING INTERCONNECTIONS AND HOLISTIC APPROACHES)
INTERDISCIPLINARITY (WORKING BETWEEN FIELDS OF STUDY I.E. COMBINING LEARNING ACROSS DIFFERENT COURSES AND DISCIPLINES)
INFORMED DECISION MAKING (BASING DECISIONS ON VERIFIED DATA, EMPLOYING ANALYTICAL SKILLS INFORMED BY EXPERT KNOWLEDGE)
PLACE-BASED LEARNING (CONSIDERING HOW THE PHYSICAL LOCATION OR EXPERIENCE IS OF DIRECT INFLUENCE ON LEARNING, INCLUDING EXPERIENTIAL LEARNING)

YES
NO

IF YES, PLEASE DESCRIBE:

WHICH PEDAGOGIC FORMAT IS USED TO EMBED SUSTAINABILITY IN YOUR FASHION CURRICULUM?

Workshop
Studio
Conference
Meeting
Hackathon
Other

WHAT ARE THE MOST IMPORTANT SUSTAINABLE TEACHING MATERIALS AND / OR TOOLS USED IN THE CURRICULUM? E.G. DESIGN CARDS SUCH AS TED TEN, SUSTAINABLE DESIGN CARDS, UN 17 GOALS, OTHER TOOLS?

ARE UNDERGRADUATES REQUIRED TO TAKE COURSES RELATED TO SUSTAINABILITY PRACTICES (COURSES, TRAINING, INTERNSHIP, ETC.)?

YES
NO

IF YES, PLEASE DESCRIBE THE COURSE AIMS/TOPICS:

ARE POSTGRADUATE STUDENTS REQUIRED TO TAKE COURSES RELATED TO THE SUSTAINABILITY PRACTICES (COURSES, TRAINING, INTERNSHIP, ETC.)?

YES
NO

IF YES, PLEASE DESCRIBE THE COURSE AIMS/TOPICS:

ARE PHD STUDENTS REQUIRED TO TAKE COURSES RELATED TO THE SUSTAINABILITY PRACTICES (COURSES, TRAINING, INTERNSHIP, ETC.)?

YES
NO

IF YES, PLEASE DESCRIBE THE COURSE AIMS/TOPICS:

3. STUDENT OPPORTUNITIES

DOES YOUR INSTITUTE ENCOURAGE STUDENTS TO CONSIDER SUSTAINABILITY PRACTICES WHEN CHOOSING A CAREER PATH?

YES
NO

IF YES, PLEASE DESCRIBE THE COURSE AIMS/TOPICS:

4. RESEARCH AND SCHOLARSHIP

HOW MANY PROJECTS (RESEARCH OR SCHOLARSHIP) HAVE BEEN DONE IN THE FASHION DISCIPLINES IN SUSTAINABILITY DURING THE PAST 5 YEARS?

1-10
+10
+30
+50

PLEASE LIST THE MOST IMPORTANT FACULTY RESEARCH OR SCHOLARLY ACTIVITIES YOU ARE AWARE OF RELATED TO SUSTAINABILITY (MAX. 5):

HOW MANY FACULTY MEMBERS TEACH OR DO RESEARCH ON FASHION SUSTAINABILITY PRACTICES?

1-5
5-10
+10
+30
+50

HOW MANY FACULTY MEMBERS DO YOU ESTIMATE WOULD BE INTERESTED IN TEACHING AND RESEARCH ON FASHION SUSTAINABILITY PRACTICES?

1-5
5-10
+10
+30
+50

**PLEASE LIST THE MOST IMPORTANT TYPES OF PROJECTS ON SUSTAINABILITY IN FASHION YOUR INSTITUTION DEVELOPED TO CONSOLIDATE COLLABORATION BETWEEN INDUSTRY AND ACADEMIA? (MAX. 5)
FOR EACH COLLABORATION, WHAT MAKES THESE COLLABORATIONS BETWEEN INDUSTRY AND ACADEMIA SUCCESSFUL OR UNSUCCESSFUL? WHICH FACTORS ARE CONSIDERED MOST IMPORTANT IN SUCCESSFUL COLLABORATION BETWEEN INDUSTRY AND ACADEMIA?**

DOES YOUR INSTITUTION HAVE ESTABLISHED MULTIDISCIPLINARY AND INTERDISCIPLINARY STRUCTURES (SUCH AS AN INSTITUTE OR CENTRE) FOR RESEARCH, EDUCATION AND POLICY DEVELOPMENT ON SUSTAINABILITY PRACTICES?

YES
NO

IF YES, PLEASE NAME AND DESCRIBE:

ARE PHD STUDENTS REQUIRED TO TAKE COURSES RELATED TO THE SUSTAINABILITY PRACTICES (COURSES, TRAINING, INTERNSHIP, ETC.)?

YES
NO

IF YES, PLEASE DESCRIBE THE COURSE AIMS/TOPICS:

3.STUDENT OPPORTUNITIES

DOES YOUR INSTITUTE ENCOURAGE STUDENTS TO CONSIDER SUSTAINABILITY PRACTICES WHEN CHOOSING A CAREER PATH?

YES
NO

IF YES, PLEASE DESCRIBE THE COURSE AIMS/TOPICS:

4.RESEARCH AND SCHOLARSHIP

HOW MANY PROJECTS (RESEARCH OR SCHOLARSHIP) HAVE BEING DONE IN THE FASHION DISCIPLINES IN SUSTAINABILITY DURING THE PAST 5 YEARS?

1-10
+10
+30
+50

PLEASE LIST THE MOST IMPORTANT FACULTY RESEARCH OR SCHOLARLY ACTIVITIES YOU ARE AWARE OF RELATED TO SUSTAINABILITY (MAX. 5):

HOW MANY FACULTY MEMBERS TEACH OR DO RESEARCH ON FASHION SUSTAINABILITY PRACTICES?

1-5
5-10
+10
+30
+50

HOW MANY FACULTY MEMBERS DO YOU ESTIMATE WOULD BE INTERESTED IN TEACHING AND RESEARCH ON FASHION SUSTAINABILITY PRACTICES?

1-5
5-10
+10
+30
+50

**PLEASE LIST THE MOST IMPORTANT TYPES OF PROJECTS ON SUSTAINABILITY IN FASHION YOUR INSTITUTION DEVELOPED TO CONSOLIDATE COLLABORATION BETWEEN INDUSTRY AND ACADEMIA? (MAX. 5)
FOR EACH COLLABORATION, WHAT MAKES THESE COLLABORATIONS BETWEEN INDUSTRY AND ACADEMIA SUCCESSFUL OR UNSUCCESSFUL? WHICH FACTORS ARE CONSIDERED MOST IMPORTANT IN SUCCESSFUL COLLABORATION BETWEEN INDUSTRY AND ACADEMIA?**

DOES YOUR INSTITUTION HAVE ESTABLISHED MULTIDISCIPLINARY AND INTERDISCIPLINARY STRUCTURES (SUCH AS AN INSTITUTE OR CENTRE) FOR RESEARCH, EDUCATION AND POLICY DEVELOPMENT ON SUSTAINABILITY PRACTICES?

YES
NO

IF YES, PLEASE NAME AND DESCRIBE:

ARE STUDENTS DIRECTLY INVOLVED IN ANY ACADEMIC RESEARCH ON SUSTAINABILITY IN FASHION?

YES
NO

DESCRIBE HOW THE STUDENTS ARE INVOLVED:

5.PRACTICES

PUTTING FASHION ON A PATH TO LONG-TERM ECONOMIC, SOCIAL, ENVIRONMENTAL AND CULTURAL PROSPERITY WILL REQUIRE MORE ACTORS (INSTITUTION, COMPANIES, GOVERNMENTS) REALISING INCREMENTAL IMPROVEMENTS. ACCORDING WITH THE RADICAL APPROACHES AND BEST PRACTICES RELATED TO SUSTAINABILITY WHICH ARE MAINLY TRANSFORMING THE FASHION SYSTEM?

DESCRIBE YOUR INSTITUTION STRATEGY APPROACH:

6.FACULTY AND STAFF DEVELOPMENT AND REWARDS

ARE STAFF MEMBER CONTRIBUTIONS TO SUSTAINABILITY A CRITERION FOR HIRING AND PROMOTION?

YES
NO
PARTLY

PLEASE DESCRIBE HOW THESE CRITERIA ARE APPLIED:

DOES YOUR INSTITUTION PROVIDE FACULTY AND STAFF DEVELOPMENT OPPORTUNITIES (COURSES, WORKSHOPS, ETC.) TO ENHANCE UNDERSTANDING, TEACHING AND RESEARCH IN SUSTAINABILITY?

YES
NO

PLEASE NAME ANY RELATED EXAMPLE:

7.PLANNING

PLEASE DESCRIBE THE FACTORS THAT SUPPORT THE ADVANCEMENT OF SUSTAINABILITY PRACTICES IN THE FASHION CURRICULUM OF YOUR INSTITUTION:

PLEASE DESCRIBE THE BARRIERS TO ADVANCEMENT OF SUSTAINABILITY PRACTICES IN THE FASHION CURRICULUM OF YOUR INSTITUTION:

IN WHAT SUSTAINABILITY AREAS IS THE FASHION CURRICULUM OF YOUR INSTITUTION PERFORMING WELL OR MAKING VALUABLE PROGRESS?

WHAT SUSTAINABILITY AREAS ARE MISSING OR CONTAIN GAPS?

WHAT GOALS ARE ALREADY PLANNED BY YOUR INSTITUTION TO IMPROVE SUSTAINABILITY PRACTICES IN THE FASHION CURRICULUM?

WITHIN THE NEXT 5 YEARS WHAT GOALS WOULD YOU LIKE TO SEE YOUR INSTITUTION ACHIEVE WITH REGARD TO SUSTAINABILITY PRACTICES IN THE FASHION CURRICULUM?

PLEASE ADD ANY ADDITIONAL COMMENTS BELOW:

Annex D: Companies semi-structured interview



FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY



**fashion
SEEDS**

FASHION SOCIETAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY



Erasmus+



university
of the arts
london



POLITECNICO
MILANO 1863

DIPARTIMENTO DI DESIGN



Estonian
Academy of Arts



ID

NAME:

COMPANY:

CORE BUSINESS:

LOCATION (City, Country):

ESTABLISHED IN THE YEAR:

POSITION:

WEBSITE:

NUMBER OF EMPLOYEES:

2. DESCRIPTION

HOW STRONGLY DO YOU FEEL YOUR COMPANY IS COMMITTED TO FASHION DESIGN FOR SUSTAINABILITY?

- 1 Not at all
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

HOW IMPORTANT DO YOU THINK SUSTAINABILITY IS TO YOUR COMPANY'S OVERALL BUSINESS?

- 1 Not at all
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Vital

HOW WOULD YOU DESCRIBE YOUR COMPANY INTEREST IN SUSTAINABILITY?

- 1 Not at all
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Vital

SUSTAINABILITY IS NOT A FIXED POINT, SUGGEST WHAT DOES IT MEAN TO YOU FOR A BUSINESS TO PRACTICE SUSTAINABILITY? (MAXIMUM 150 WORDS.)

HOW IMPORTANT DO YOU FEEL THE FOLLOWING AREAS ARE FOR YOUR COMPANY'S SUSTAINABILITY PROGRAMME? (SCALE 1/5)

Sourcing	1	2	3	4	5
Waste & Recycling	1	2	3	4	5
Resource Efficiency	1	2	3	4	5
Community Programs and Philanthropy	1	2	3	4	5
Cultural Heritage	1	2	3	4	5
Branding/Marketing	1	2	3	4	5
New Business Models	1	2	3	4	5
Ethics	1	2	3	4	5
Design Approaches	1	2	3	4	5
Stakeholder Relations	1	2	3	4	5
Certificates	1	2	3	4	5

WHAT AREAS OF YOUR BUSINESS DO YOU THINK WOULD BE MOST POSITIVELY IMPACTED BY SUSTAINABILITY?

Cost reduction	1	2	3	4	5
Increase sales	1	2	3	4	5
Customer perception	1	2	3	4	5
Consumer marketing	1	2	3	4	5
Brand value	1	2	3	4	5
Future growth	1	2	3	4	5
Employee attraction	1	2	3	4	5
Risk reduction	1	2	3	4	5

IN WHAT SUSTAINABILITY AREAS IS YOUR COMPANY PERFORMING WELL OR MAKING VALUABLE PROGRESS? (MAXIMUM 150 WORDS.)**WHAT SUSTAINABILITY AREAS ARE MISSING OR CONTAIN GAPS? (MAXIMUM 150 WORDS.)****WITHIN THE NEXT 5 YEARS WHAT GOALS WOULD YOU LIKE TO SEE YOUR COMPANY ACHIEVE WITH REGARD TO SUSTAINABILITY? (MAXIMUM 150 WORDS.)****THROUGH WHAT SUSTAINABILITY LENS SHOULD YOUR COMPANY PRIORITISE ITS GOALS?**

(PLEASE, LIST THEM IN ORDER OF IMPORTANCE. WRITE THE NUMBER IN THE BOX.)

ECONOMIC: PAYBACK/COST SAVINGS/POSITIVE MARGIN IMPACT, INVESTMENT FUNDING AVAILABLE, RETURN ON INVESTMENT.

ENVIRONMENT: GREENHOUSE GAS REDUCTION, REDUCE ENERGY AND WATER, REDUCE WASTE

SOCIAL: SUPPORTS THE COMMUNITIES IN WHICH WE OPERATE, EDUCATES AND/OR EMPOWERS EMPLOYEES, MAKES THE WORKPLACE HEALTHIER/SAFER, MAKES A MEANINGFUL CONTRIBUTION TO EMPOWER NON-PROFITS, PROMOTE MORE INCLUSIVE WORK CHAINS.

CULTURAL: PROMOTE MORE INCLUSIVE PRODUCTION CHAINS, SUPPORT CULTURAL HERITAGE PROGRAMS.

WHAT DO YOU CONSIDER TO BE THE MAJOR RISKS IN YOUR COMPANY RELATED TO SUSTAINABILITY?

(MAXIMUM 150 WORDS.) E.G PRICE PRESSURES, WEAK SUPPLIERS, MARKETING, TECHNOLOGICAL DEVELOPMENT, QUALITY, ENVIRONMENTAL ASPECTS, SOCIAL COMPLIANCE, HUMAN RESOURCES, ETC)

WHAT DO YOU CONSIDER TO BE THE MAJOR OPPORTUNITIES IN YOUR COMPANY RELATED TO SUSTAINABILITY?

(MAXIMUM 150 WORDS.)

WHAT BARRIERS DO YOU FEEL CONSTRAIN YOUR COMPANY'S COMMITMENT TO SUSTAINABILITY?

(MAXIMUM 150 WORDS.)

THE QUALITY OF SKILLS IN THE SECTOR OR THE DEMAND AND SUPPLY FOR SKILLS. THE INCREASING DEMAND FOR SUSTAINABLE FASHION IS CREATING A NEED FOR IMPROVED KNOWLEDGE, SKILLS AND TECHNIQUES OF DESIGNERS BOTH THE EXISTING WORKFORCE AND FUTURE RECRUITS - PARTICULARLY IN THE TEXTILE INDUSTRY. WHAT ARE THE CURRENT AND FUTURE SKILLS THAT DESIGNERS NEED TO BE ABLE TO PERFORM THEIR ROLES?

(MAXIMUM 150 WORDS.)

ARE YOU SATISFIED WITH THE KNOWLEDGE AND SKILLS OF YOUNG DESIGNERS AND OTHER WORK FORCE?

(MAXIMUM 150 WORDS.)

WHAT ARE THE MAIN SKILL AND KNOWLEDGE SHORTAGES REGARDING THE SUSTAINABILITY ISSUES (OF FRESHLY GRADUATED DESIGNERS)? (MAXIMUM 150 WORDS.)

3. HEI COLLABORATION / FASHION AND TEXTILE DESIGN-LED SUSTAINABILITY COMPANY.

IN RECENT YEARS, THERE HAS BEEN AN INCREASE IN RESEARCH PARTNERSHIPS BETWEEN COMPANIES AND/OR UNIVERSITIES AND/OR RESEARCH CENTRES. THESE THRIVING RELATIONSHIPS HAVE SHAPED A NEW MODEL. THIS NEW MODEL LETS THE COMPANIES PARTNER WITH ACADEMIA IN A WAY THAT CONTINUOUSLY CONNECTS THEM FROM EARLY STAGE RESEARCH TO THE FINAL REALISATION.

PLEASE LIST ANY TYPE OF SUSTAINABILITY-RELATED RESEARCHES IN FASHION PROGRAMS OR PARTNERSHIPS YOUR COMPANY IS INVOLVED WITH:

WHAT IS THE COLLABORATION ALL ABOUT? HOW DOES YOUR COMPANY COLLABORATE WITH THE UNIVERSITY AND/OR RESEARCH CENTRES?

WHAT BENEFITS DOES YOUR COMPANY ENJOY FROM COLLABORATING WITH THE UNIVERSITY AND/OR RESEARCH CENTRES?

WHAT SUPPORT FOR COLLABORATION DO YOU OFFER? HOW DOES IT WORK IN PRACTICE?

WHAT IS THE GOAL OF YOUR COLLABORATION SUPPORT?

HAVE YOUR EXPECTATIONS BEEN MET?

DO YOU WANT TO REPEAT THE EXPERIENCE?

4. COMPANY MANAGEMENT AND HR/ FASHION AND TEXTILE DESIGN-LED SUSTAINABILITY PROGRAM.

WHAT INFLUENCE DOES SOCIAL RESPONSIBILITY HAVE ON YOUR COMPANY BEHAVIOUR? (SCALE 1/5)

- 1 Not at all
- 2 Slightly
- 3 Moderately
- 4 Very
- 5 Completely

DOES THE COMPANY HAVE A CSR POLICY OR PROGRAMME? (THE TERM CSR - CORPORATE SOCIAL RESPONSIBILITY APPLIES TO COMPANIES THAT MAKE EFFORTS THAT GO BEYOND WHAT MAY BE REQUIRED BY REGULATORS OR ENVIRONMENTAL PROTECTION GROUPS TO MINIMISE THEIR EFFECT ON THE ENVIRONMENT AND SOCIETY.)

- YES
- NO

IF YES, PLEASE DESCRIBE KEY ELEMENTS OF THE POLICY/PROGRAMME?

WHICH OF THE FOLLOWING CONCEPTS ARE BEHIND YOUR COMPANY SOCIAL RESPONSABILITY EFFORTS? (YOU CAN SELECT MORE OPTIONS)

- Ethical
- Brand reputation
- Pressure/ interest from stakeholder
- Cost reduction and efficiency
- Employee interests
- Community environmental concern
- Others

ARE STAFF MEMBER CONTRIBUTIONS TO SUSTAINABILITY A CRITERION FOR HIRING AND PROMOTION?

- YES
- NO

PLEASE DESCRIBE HOW THESE CRITERIA ARE APPLIED?

WOULD YOUR COMPANY ENCOURAGE RESEARCH OR COLLABORATION TO ENGAGE MORE IN SUSTAINABILITY?

DOES YOUR COMPANY PROVIDE STAFF DEVELOPMENT OPPORTUNITIES (COURSES, WORKSHOPS, ETC.) TO ENHANCE UNDERSTANDING OF SUSTAINABILITY?

YES

NO

IN THE LAST YEAR, HAS YOUR COMPANY HAD OPPORTUNITIES TO LEARN AND GROW?

No (never)

Rarely (once a year)

Occasionally (twice a year)

Frequently (at least once per quarter or more)

PLEASE ADD ANY ADDITIONAL COMMENTS BELOW:



fashion
SEEDS

FASHION SOCIÉTAL,
ECONOMIC & ENVIRONMENTAL
DESIGN-LED SUSTAINABILITY