

OVERVIEW OF SUSTAINABLE DEVELOPMENT IN TEXTILE/CLOTHING EDUCATION PROGRAM AT VIETNAMESE UNIVERSITIES

Promotion of Sustainability in the Textile and Garment Industry in Asia -FABRIC

Day 1:

Monday, 13/6/2022

Overview of Related Topics and Demand in Sustainable Development at Vietnamese Universities

09:30 – 10:00



Dr. LE SONG THANH QUYNH,

Lecturer, Department of Textile and Garment Engineering,
Ho Chi Minh City University of Technology – Vietnam National University Ho Chi Minh
City, Vietnam

on behalf of giz FABRICS and adelphi consult GmbH Berlin

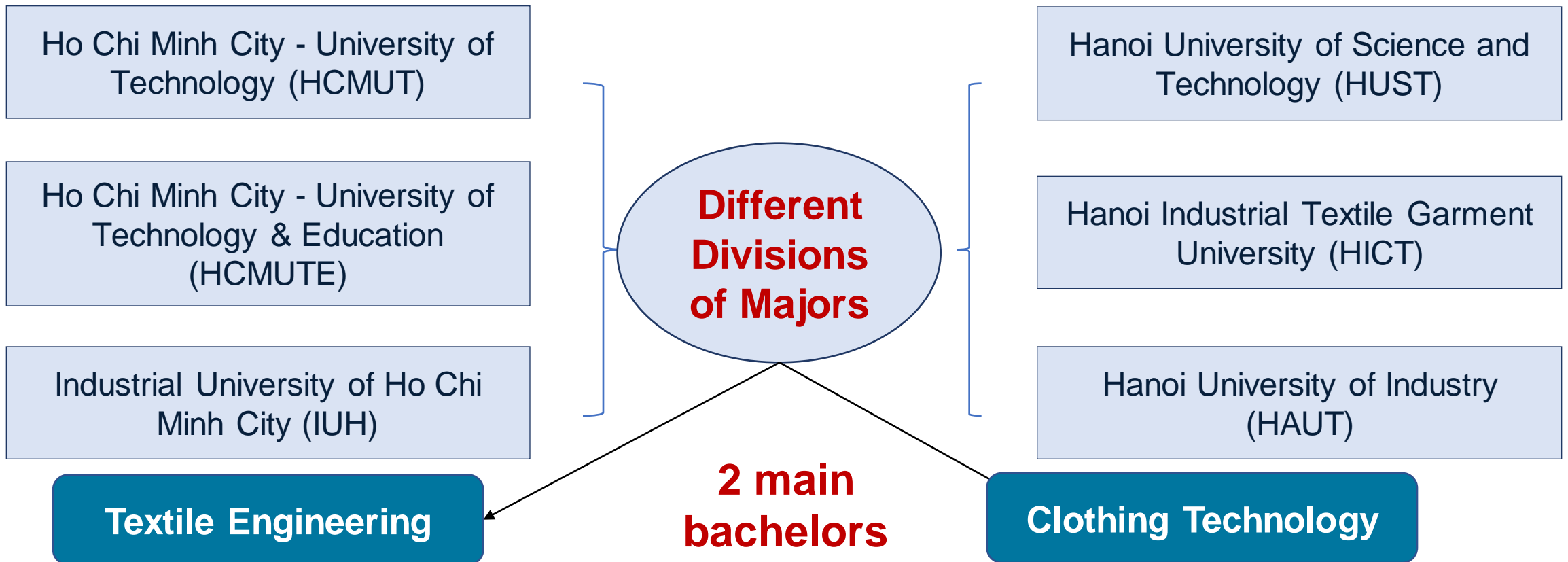
Overview of Related Topics and Demand in Sustainable Development at Vietnamese Universities

- Introduction about the universities teaching in Textile-Clothing engineering program.
- Perceptions and standpoints on sustainable development in Textile-Clothing in Vietnam.
- Urgency of developing a sustainable development syllabus in Textiles/Clothing Industry at Vietnamese universities.

1. Introduction of the universities teaching textile-clothing engineering program

1 Introduction of the universities teaching textile-clothing engineering program

Six salient universities teaching Textile & Clothing



1 Introduction of the universities teaching textile-clothing engineering program



Source: Fair Trade Advocacy Office, 2016

Textile and Clothing Industry Value Chain

Textile

Fiber Production

Yarn Production

Fabric Production

Dyeing & Finishing

Clothing

Fashion design

Apparel Manufacturing

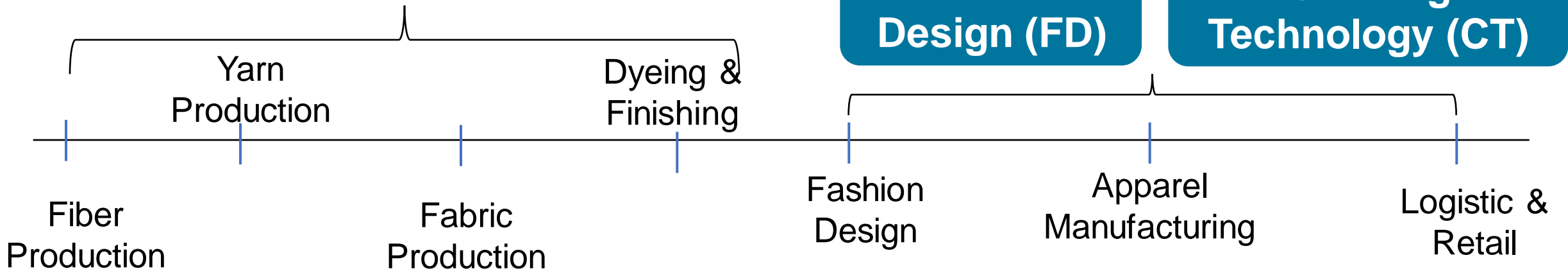
Logistic and Retail

1 Introduction of the universities teaching textile-clothing engineering program

Textile Engineering (TE)

Fashion Design (FD)

Clothing Technology (CT)



	HCMUT	HCMUTE	IUH	HUST	HICT	HAUT
TE	x			x		
CT	x	x	x	x	x	x
FD	x	x	x	x	x	x

HCMUT

HUST

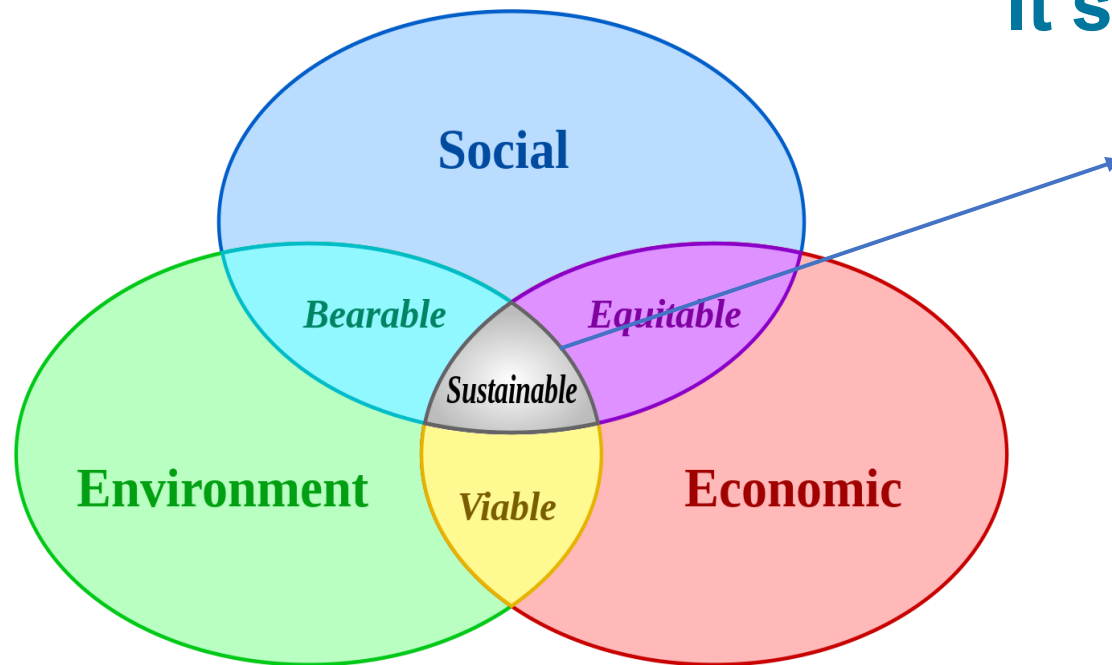
2. Perceptions and standpoints on sustainable development in textile-clothing in Vietnam

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

- Perspective of Sustainable Development in Textile & Clothing in Vietnam
- Application levels of the related topics in subjects/courses of education program
- Evidences of the application of Sustainable Development in the students' theses

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Perspective of Sustainable Development in Textile – Clothing in Vietnam



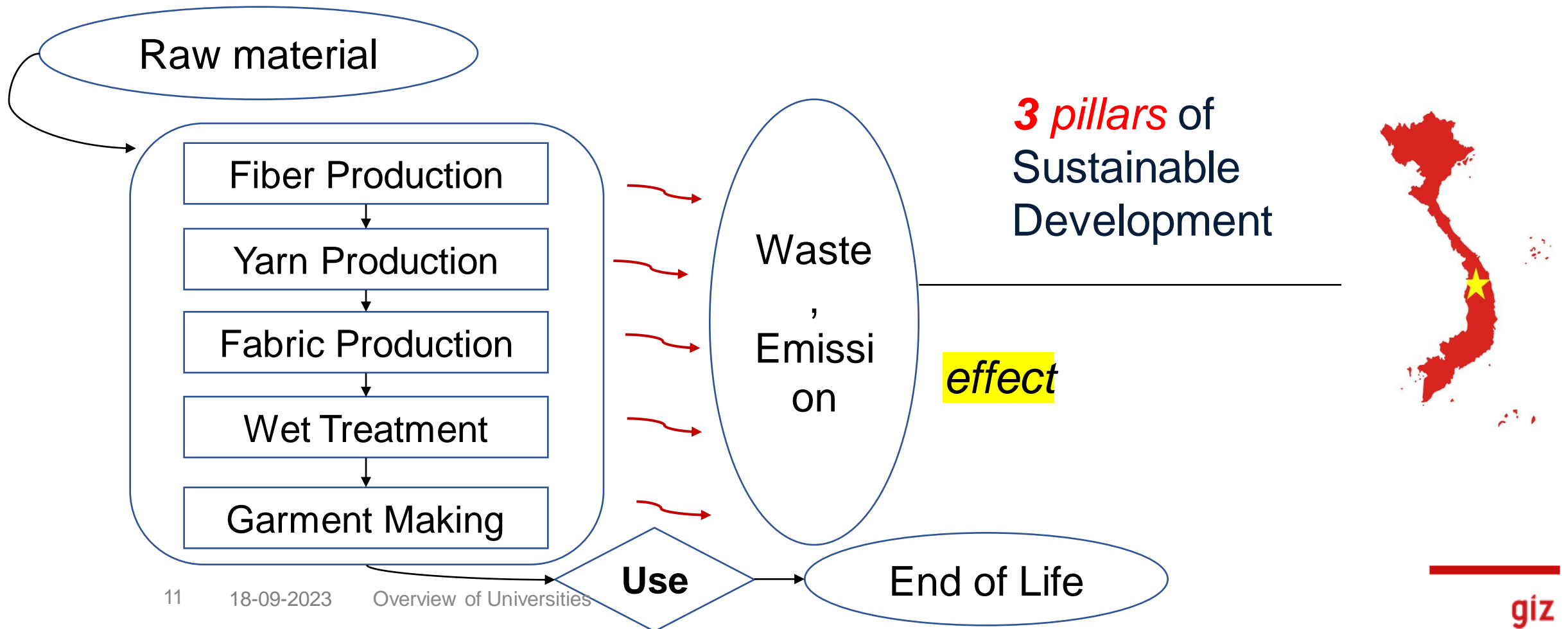
It's a TREND



- Demands
- Awareness of risks, causes..
- Policies
- Save our life?

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

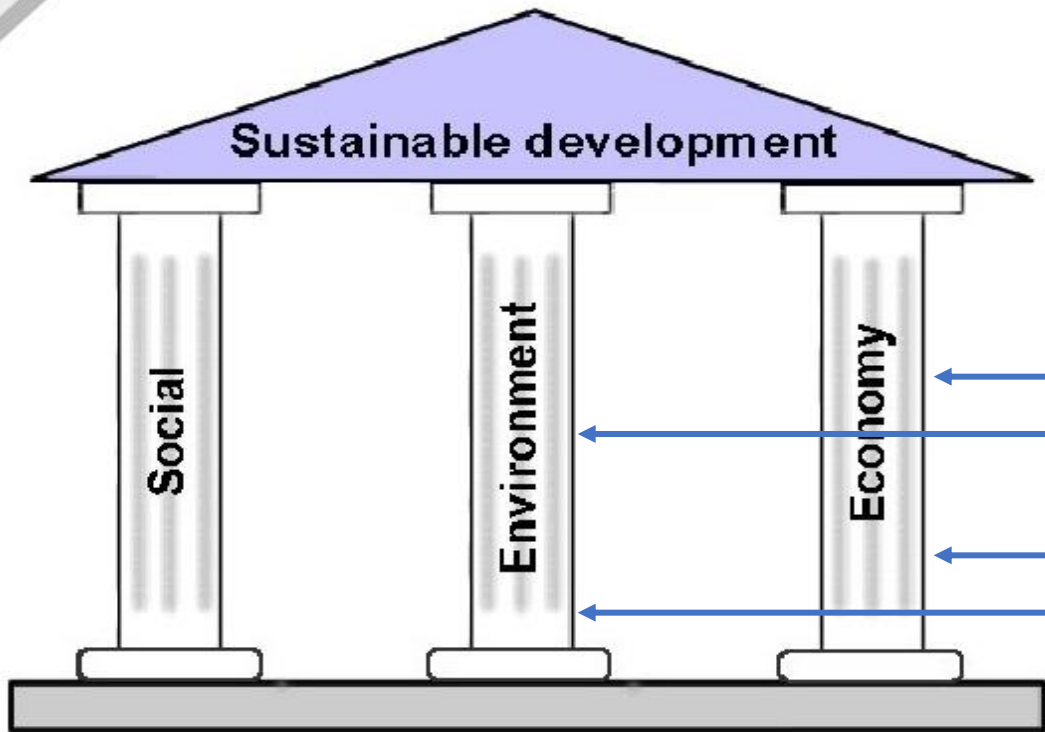
Perspective of Sustainable Development in Textile - Garment in Vietnam



2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Perspective of Sustainable Development in Textile - Garment in Vietnam

Sustainability - 3 pillars



◆ From Textile Engineering, Clothing Technology or Fashion Design, there are various viewpoints on Sustainable Development...

Clothing

Textile

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Perspective of Sustainable Development in Textile - Garment in Vietnam

Textile

Use and Manage
Chemicals and Waste-
Water



Environment and
Economy



2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Perspective of Sustainable Development in Textile - Garment in Vietnam



Clothing

Use Waste-Fabric
to make new recycle cloths

↓
Economy and
Environment

Speciality Limit

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Perspective of Sustainable Development in Textile - Clothing in Vietnam

◆ From Textile Engineering, Clothing Technology or Fashion Design, there are various viewpoints on Sustainable Development...



Different priorities for each pillar

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Perspective of Sustainable Development in Textile - Clothing in Vietnam

- Therefore, division of majors and education programs at universities are developed by the standpoints on Sustainable Development of textile/clothing industry.
- Even, there is a difference of opinion in **Research-Oriented (Re-O)** teaching and **Application-Oriented (Ap-O)** teaching at universities.

	HCMUT	HCMUTE	IUH	HUST	HICT	HAUT
Re-O	X			X		
Ap-O		X	X		X	X

Expressed through
- Lecture modules
- Thesis Topics

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Application levels of the related topics in subjects/courses of education program

List of existing related topics	Subject Areas	HCMUT	HUST	HICT	HCMUTE	HAUI	IUH
Zero discharge of hazardous chemicals (Subject: Audit and Assessment of textiles products)	Textile production	x	x				
Manufacturing excellence and continuous improvement for sustainable textile products: Technologies, Procedure, and Product design aspects. (Subject: Eco-textiles; Recycling textile materials)		x	x				
Comprehensive and intensive training for manufacturing restricted substances list (MRS�): Fundamental, status, content, benefits, and future perspective. (Subject: Audit and Assessment of textiles products, Quality control)		x	x		x		x
Recycling in Textiles: Technologies, Global Policy, Loss and Gain, Role models, and future trends and perspective. (Subject: Recycling textile materials)		x	x				
Eco-labels and Eco-friendly textile products. (Subject: Eco-textiles)		x					

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Application levels of the related topics in subjects/courses of education program

Measure sustainability in textile wet processing. <i>(Subject: Eco-textiles)</i>	Textile production						
Safety and Sustainability in Dyeing Waste-Water Treatment. <i>(Subject: Eco-textiles, Dyeing technologies)</i>		X	X				
Recycling in Textile. <i>(Subject: Eco-textiles, Fashion industry, Fashion marketing)</i>		X	X	X	X	X	X
Management chemical and energy in textile industry. <i>(Subject: Eco-textiles, Dyeing technologies)</i>		X	X				

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Application levels of the related topics in subjects/courses of education program

Understanding the impact of materials when it comes to making more sustainable clothing. <i>(Subject: Production management)</i>	Product /Fashion design	X	X	X	X	X	X	
Requirements for chemicals used during the manufacturing process for choosing suitable materials. <i>(Subject: Production management, Quality control, Audit and Assessment of textiles products)</i>		X		X	X			X
Extent the knowledge of how to ensure fashionable clothes have a second life. <i>(Subject: Fashion design, Pattern Making)</i>		X	X	X	X	X		X
Developing the concept of ethical and sustainable fashion brand. <i>(Subject: Fashion marketing)</i>		X		X			X	X
Zero waste design in fashion. <i>(Subject: Fashion marketing, Fashion design)</i>		X	X			X		

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Application levels of the related topics in subjects/courses of education program

Understanding the whole life of green eco-low-carbon clothing from production to consumption. <i>(Subject: Production management, Quality control, Audit and Assessment of textiles products)</i>	Sewing production	X					
Strategies for sustainable development about materials; colours and form design. <i>(Subject: Fashion marketing, Fashion design)</i>		X					
Effect of the rise of fast fashion and the continuous movement in clothing industry. <i>(Subject: Production management, Quality control, Audit and Assessment of textiles products)</i>			X	X	X	X	X
Link between sociocultural factors, technological factors, economic factors, ecological factors, political and legal factors in textile and clothing industry. <i>(Subject: Production management, Quality control, Audit and Assessment of textiles products, Fashion marketing)</i>		X	X	X	X	X	X

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Summary of the application levels of the related topics in education program at six universities

	1	2	3	4	5	Course
Textile production waste management						Eco- Textiles Dyeing Technologies
Circularity and Recycling in textiles						Eco- Textiles Recycling textile materials Production management
Chemical management and Gaseous Emission in Textile/ Clothing						Production management Dyeing Technologies
Impact of materials when it comes to making more sustainable clothing						Production management Fashion Design
Resource efficiency and Energy saving potentials in Textile/Clothing						Production management Quality Control Environment and Human

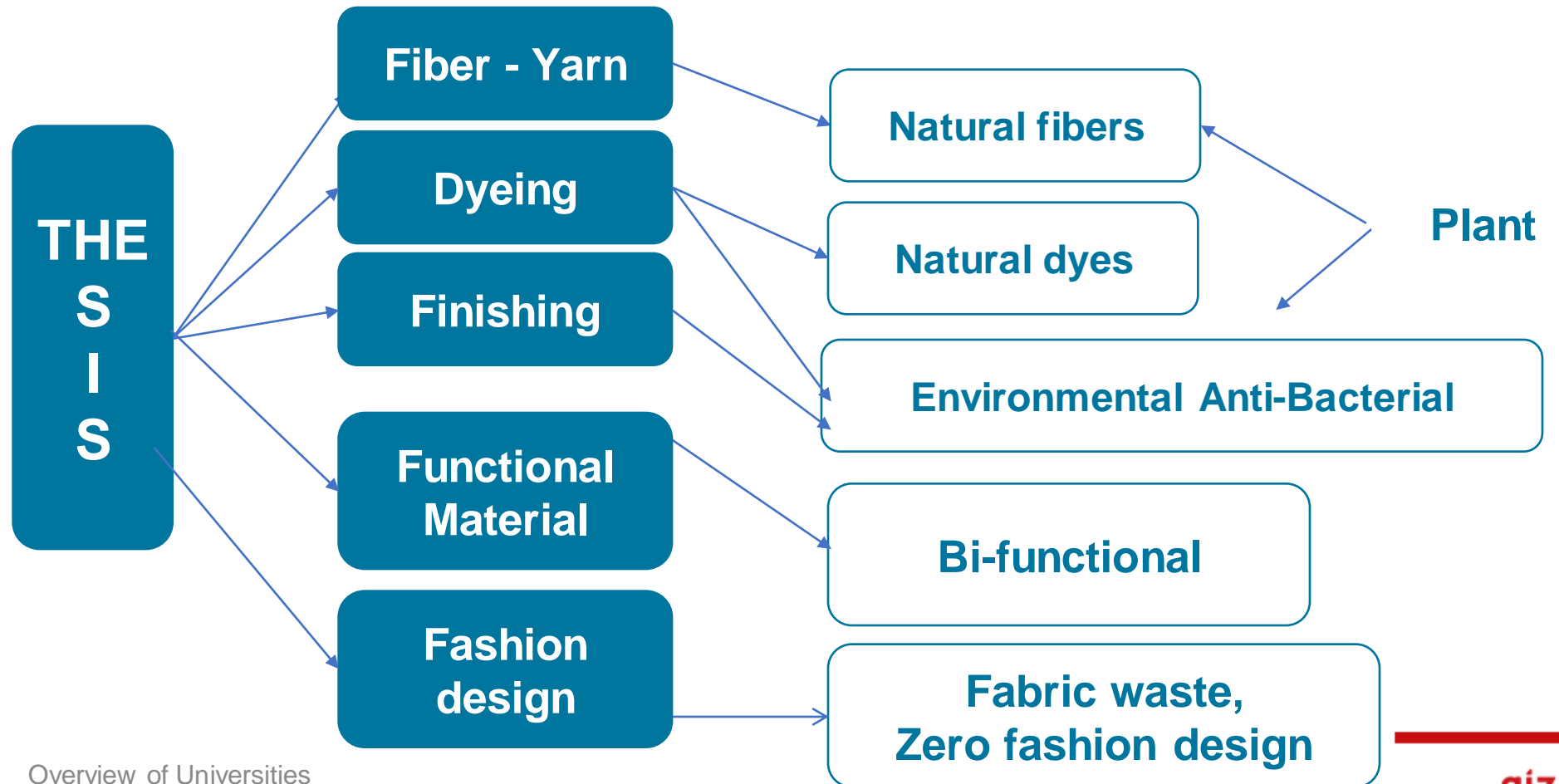
1: Very basic level - 2: Basic level - 3: Medium level - 4: In-depth level - 5: Extremely in-depth level

2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Evidences of the application of Sustainable Development in the students' theses



Under-graduate
Post-graduate



2 Perceptions and standpoints on Sustainable Development in Textile /Clothing in Vietnam

Evidences of the application of Sustainable Development in the students' theses

THESIS

- **Fibres**: ananas, coconut, banana, snake plant (*sansevieria trifasciata*), hisbiscus, kapok,...
- **Functional Materials**: oil-absorbent membrane, BC wound dressing...
- **Dyes**: mangosteen, French marigold (*tagetes patula*), coffee grounds, orange, mango, butterfly pea (*clitoria ternatean*), turmeric,...
- **Finishing**: *chromolaena odorata* (L.), coffee ground, snail slime,...

3. Urgency of building sustainable development syllabus in textile/Clothing program at Vietnamese universities

3 Urgency of building sustainable development syllabus in textiles at Vietnamese universities

Sustainable development is not only a **trend**, but also the **urgency**.

upgrade

update

SYSTEMATIAL TRAINING PLAN

- courses
- theses

- modules
- subjects

3 Urgency of building sustainable development syllabus in textiles at Vietnamese universities

HUST

- Waste in spinning mills and applications
- Quality control in the spinning mills
- Fashion Brand

HAUT

- Ecology and environment of textiles
- Fashion Marketing

3 Urgency of building sustainable development syllabus in textiles at Vietnamese universities



HCMUT

Dyes Chemistry Dyeing and Finishing Technologies

Then

Machines

Chemicals

Technologies

Now

Chemicals Selection and Management

Waste-water Treatment

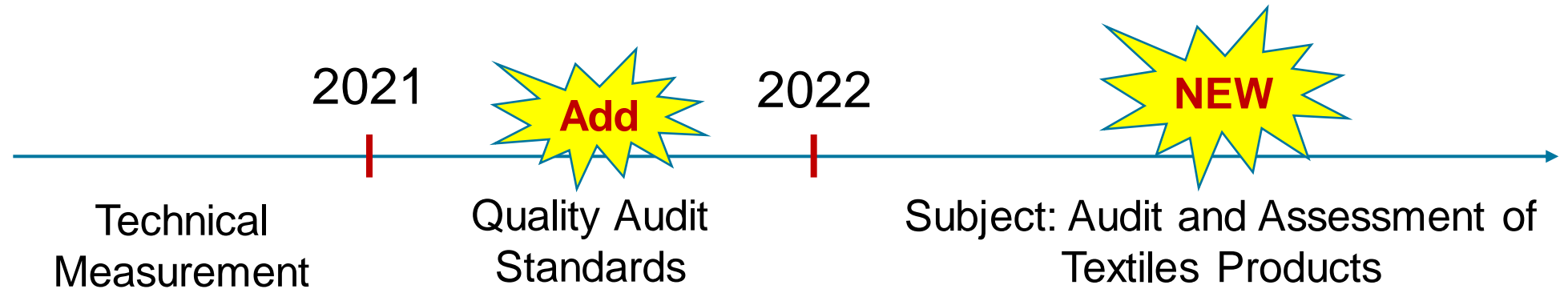
“Green” Chemicals

extend

3 Urgency of building sustainable development syllabus in textiles at Vietnamese universities



Measurement and quality assurance



Subject Contents

- Audit of textiles safety standards.
 - + Safety for children's products.
 - + Safety for harmful chemicals on textile products.
- The set of audit standards in textiles according to global supply chain standards.

References

1. Syllabuses in the websites of six universities
2. Study report training capacity need assessment in Sustainable development for Universities in Vietnam
3. Research about demand/expected curriculum in Sustainable development for Universities in Vietnam

**Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH**

Registered offices
Bonn and Eschborn

Friedrich-Ebert-Allee 32 + 36
53113 Bonn, Germany
T +49 228 44 60 - 0
F +49 228 44 60 - 17 66

Dag-Hammarskjöld-Weg 1 - 5
65760 Eschborn, Germany
T +49 61 96 79 - 0
F +49 61 96 79 - 11 15

E info@giz.de
I www.giz.de