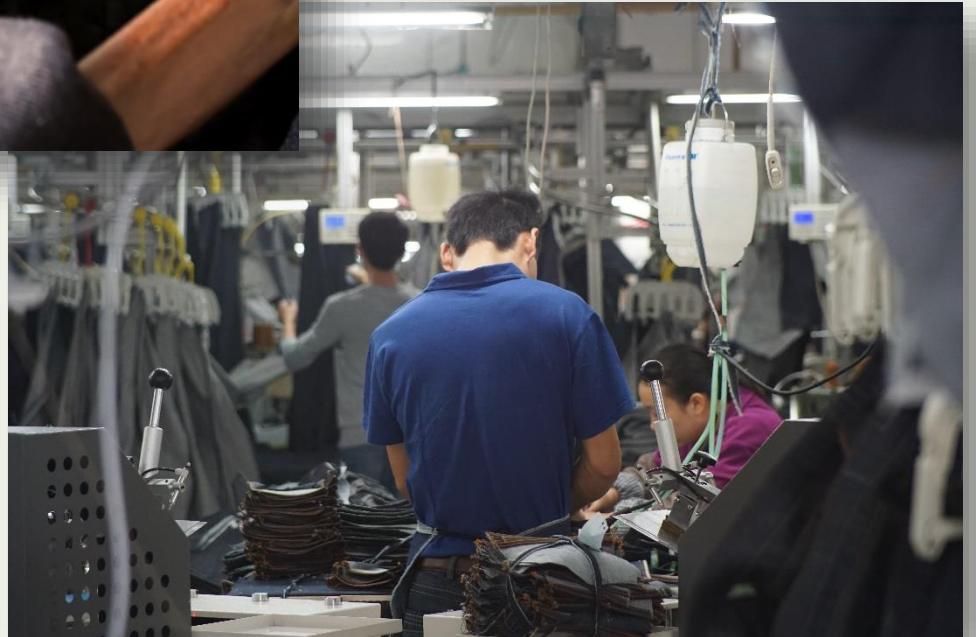


Higg Index

A Self-assessment Tool towards Sustainable Fashion

Mr Patrick Ho
Hong Kong Productivity Council

8th Apr 2016

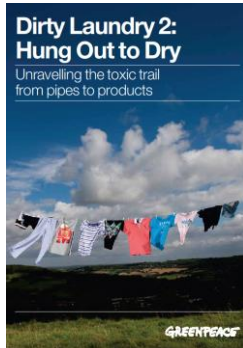


Importance for sustainability development



Importance for sustainability development

Greenpeace's Dirty Laundry Campaign



Greenpeace's Detox Campaign and Impact Report



20 Global brands have committed to eliminating all hazardous substance chemicals by 2020



112 killed in fire at garment factory on 25th Nov 2012

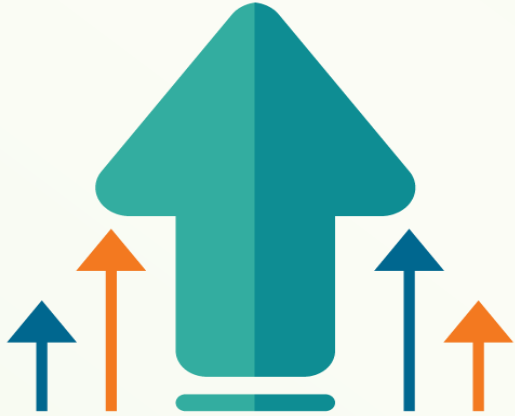
1,129 died in eight-story garment factory collapse on 24th Apr 2013



All Global brands/retailers have started to assess suppliers' social & labor performances by itself or a third party audit

SUSTAINABILITY being in the forefront of our industries' awareness

Huge Challenges to the Industry



- Stringent Legal Requirements on Environmental, Social and Labor Aspects
- Growing Demand from Brands / Buyers on Sustainability Performance
- Growing Expectation from Consumers, Community or Concern Groups
- Increase Operational Costs
- Manpower and Resources for Meeting Audit or Assessment Requirement



The Green evolution



Industry Trends

1. Focused on higher value-added activities such as sales and marketing, quality control, designs and development
2. Invested heavily to keep up with the latest technological trends
3. Green manufacturing and product

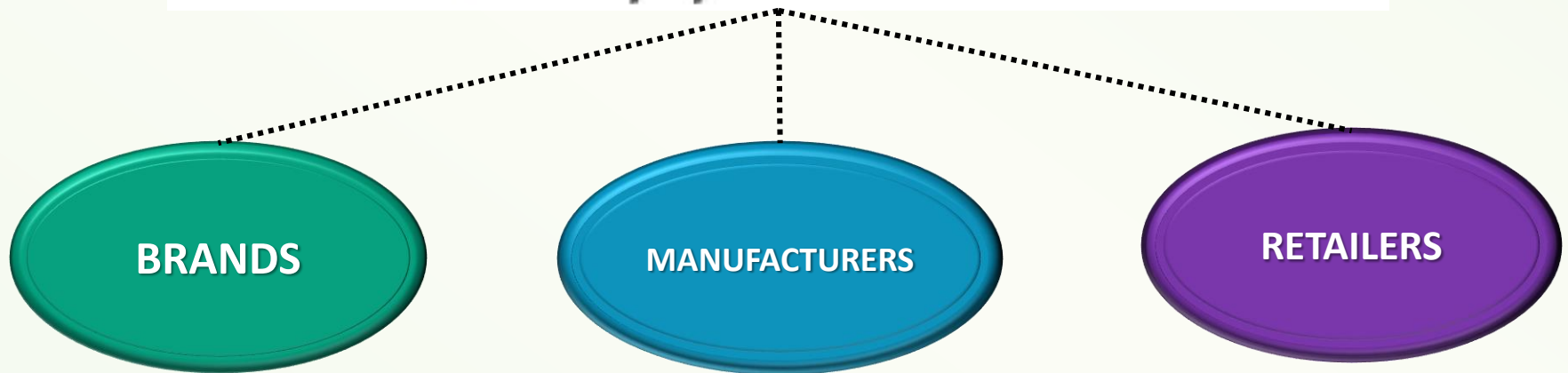
"Outline for Science and Technology Progress of Textile Industry in the 12th Five-Year Period"

《紡織工業「十二五」科技進步綱要》

aiming to promote comprehensive upgrade of China's textiles industry management and boost the development of high-end textiles products. Other areas covered include promoting technology innovation, energy conservation and emission reduction, setting up industry-related standards and developing domestic brands

目標是全面提升中國紡織業的管理水平，以及加快發展高檔次紡織產品。其他範疇包括促進技術創新、節能減排、建立產業相關標準及開發本土品牌。

Sustainable Apparel Coalition (SAC)



Its members cover over 40% of global leading apparel and footwear brands, retailers, manufacturers, non-governmental organizations, academic experts, and U.S. Environmental Protection Agency

Sustainable Apparel Coalition (SAC)

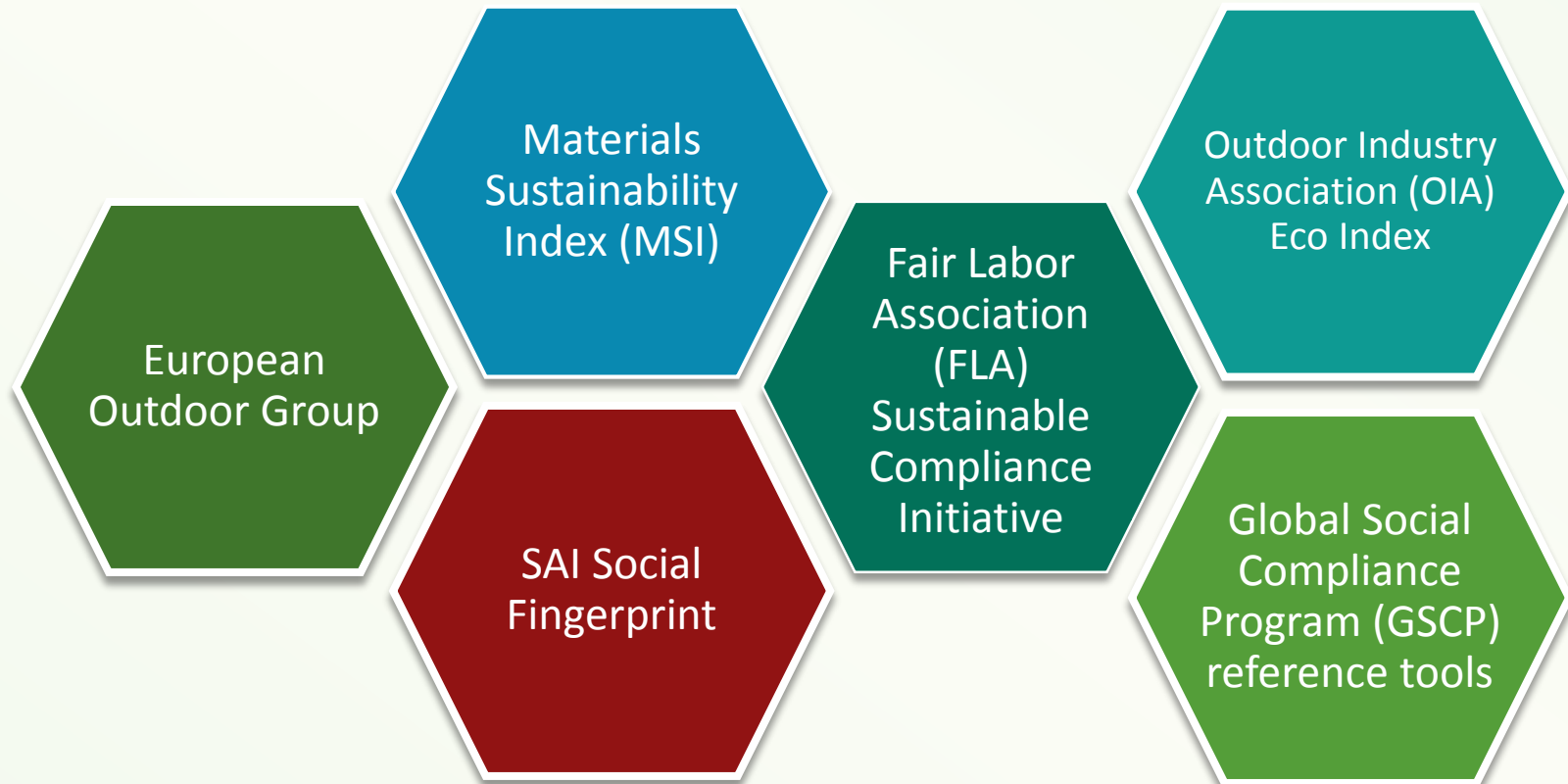
Vision

Facilitate apparel, footwear, and home textiles industry to produce no unnecessary environmental harm and has a positive impact on the people and communities associated with its activities

Focus

The focus of the Sustainable Apparel Coalition is the development and use of the **Higg Index**: a *suite of self-assessment tools* designed to measure the sustainability impacts of apparel and footwear products.

Building Blocks of the Higg Index 2.0



Higg Index – A Unified Assessment Tool

**Higg
Index
2.0**

Reduce

Sustainability Measurement Redundancy



Higg Index – A Unified Assessment Tool

**Higg
Index
2.0**

Benchmark

the Sustainability Performance



Higg Index – A Unified Assessment Tool

**Higg
Index
2.0**

Create

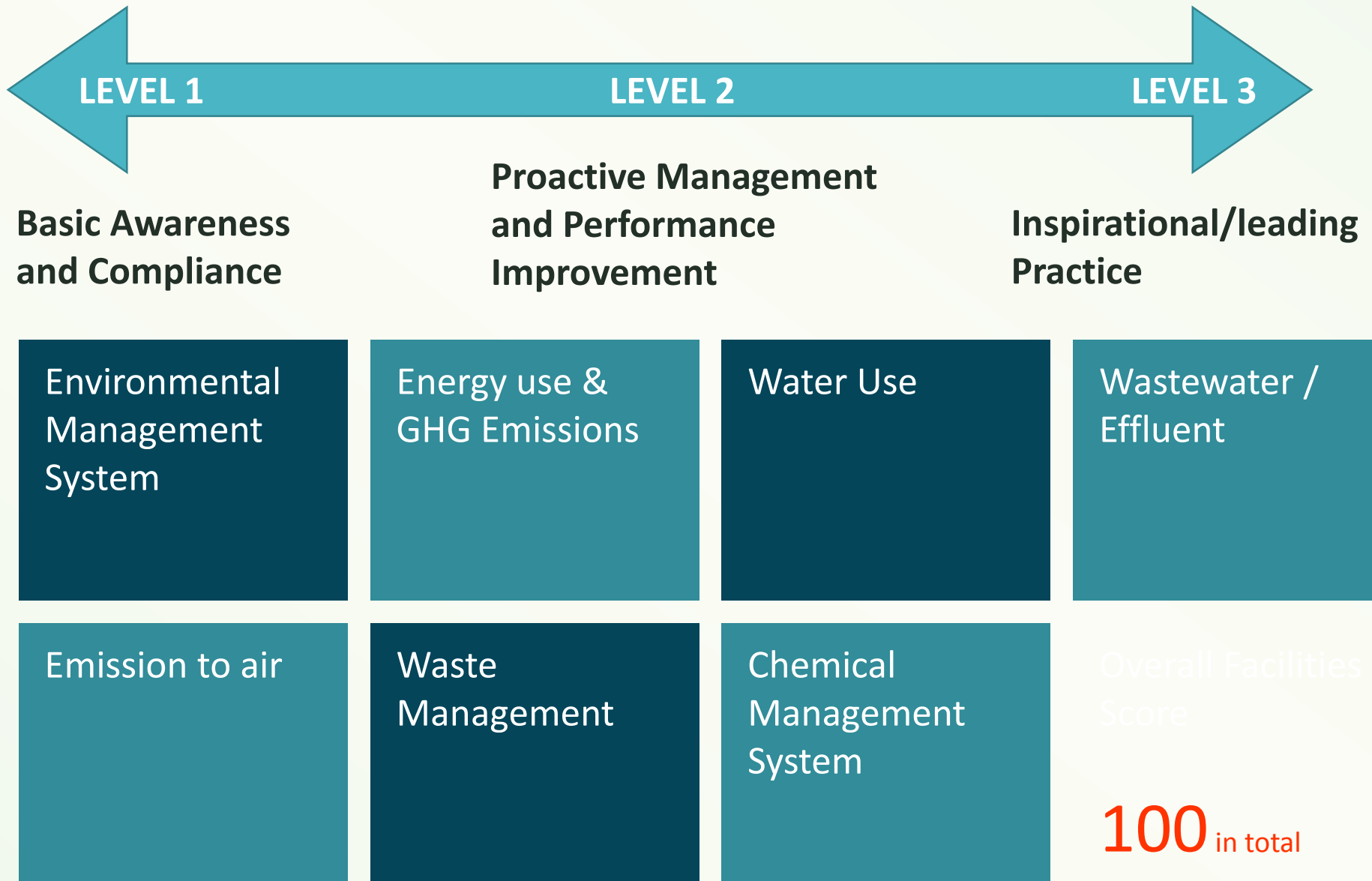
Incentives to strive greater improvements



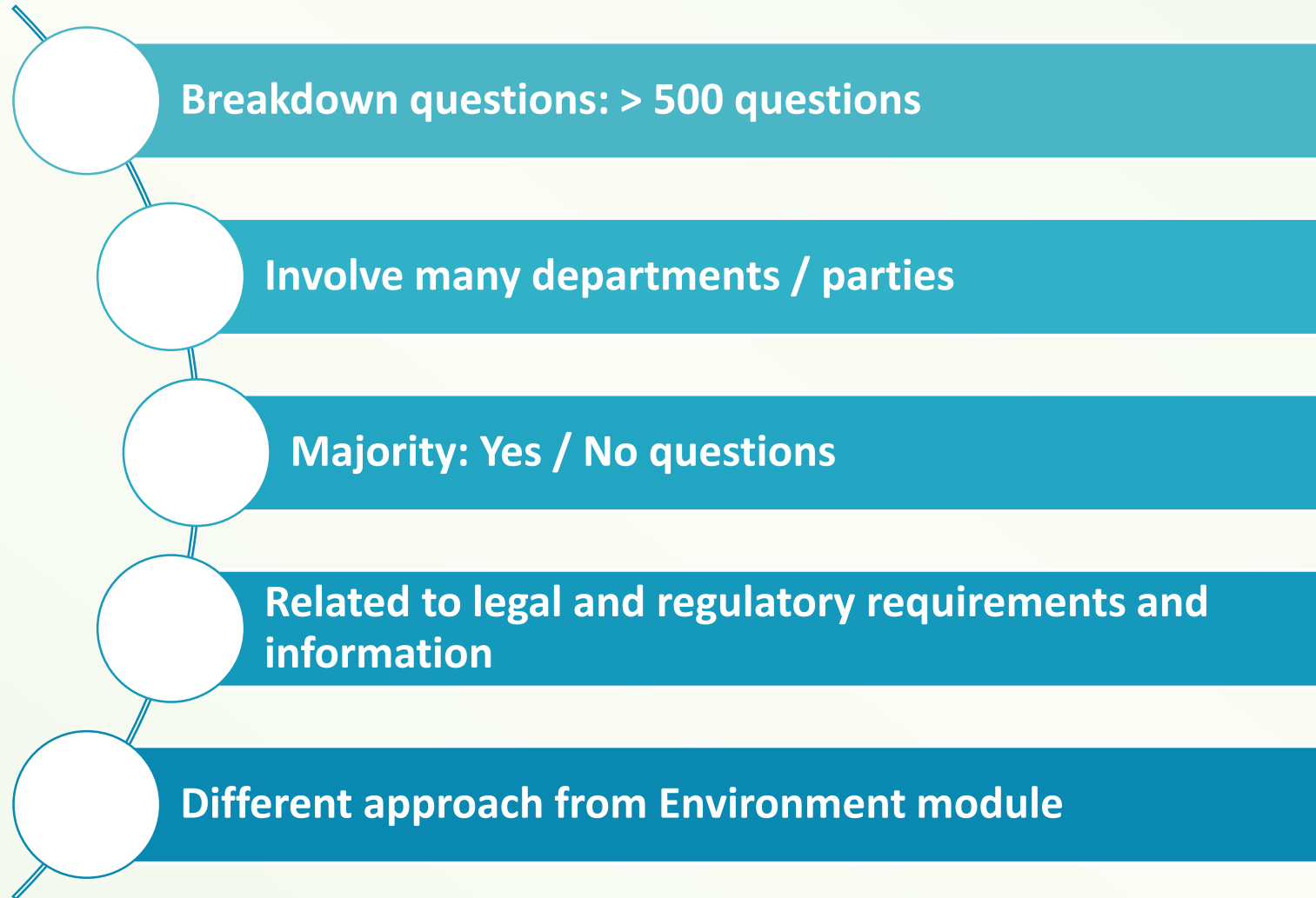
Higg Index – Suite of Tools



Environment Module



Social/Labor Module



Higg Index – Importance



Become

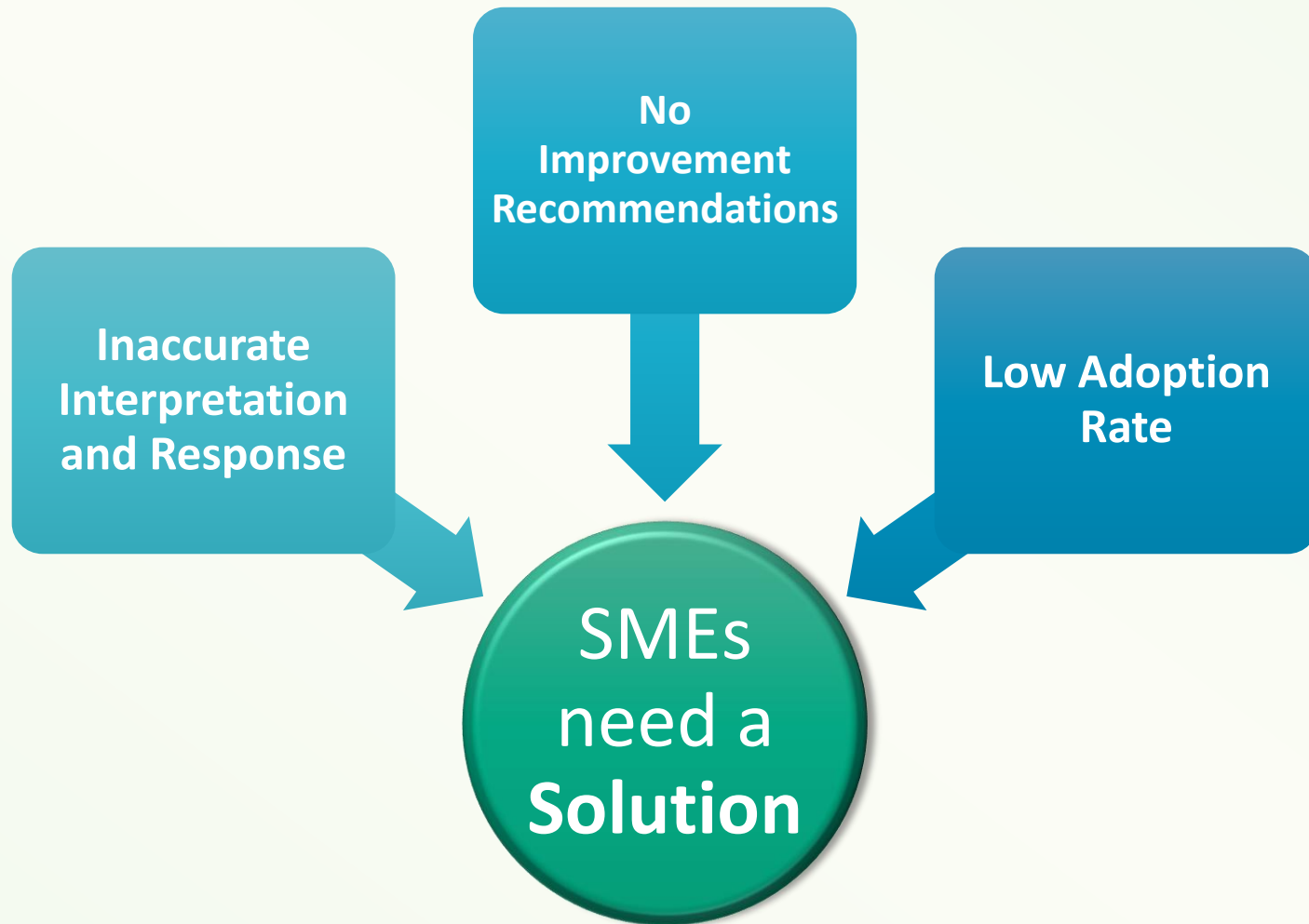
Important Requirements
for International buyers

**Market
Competitiveness**

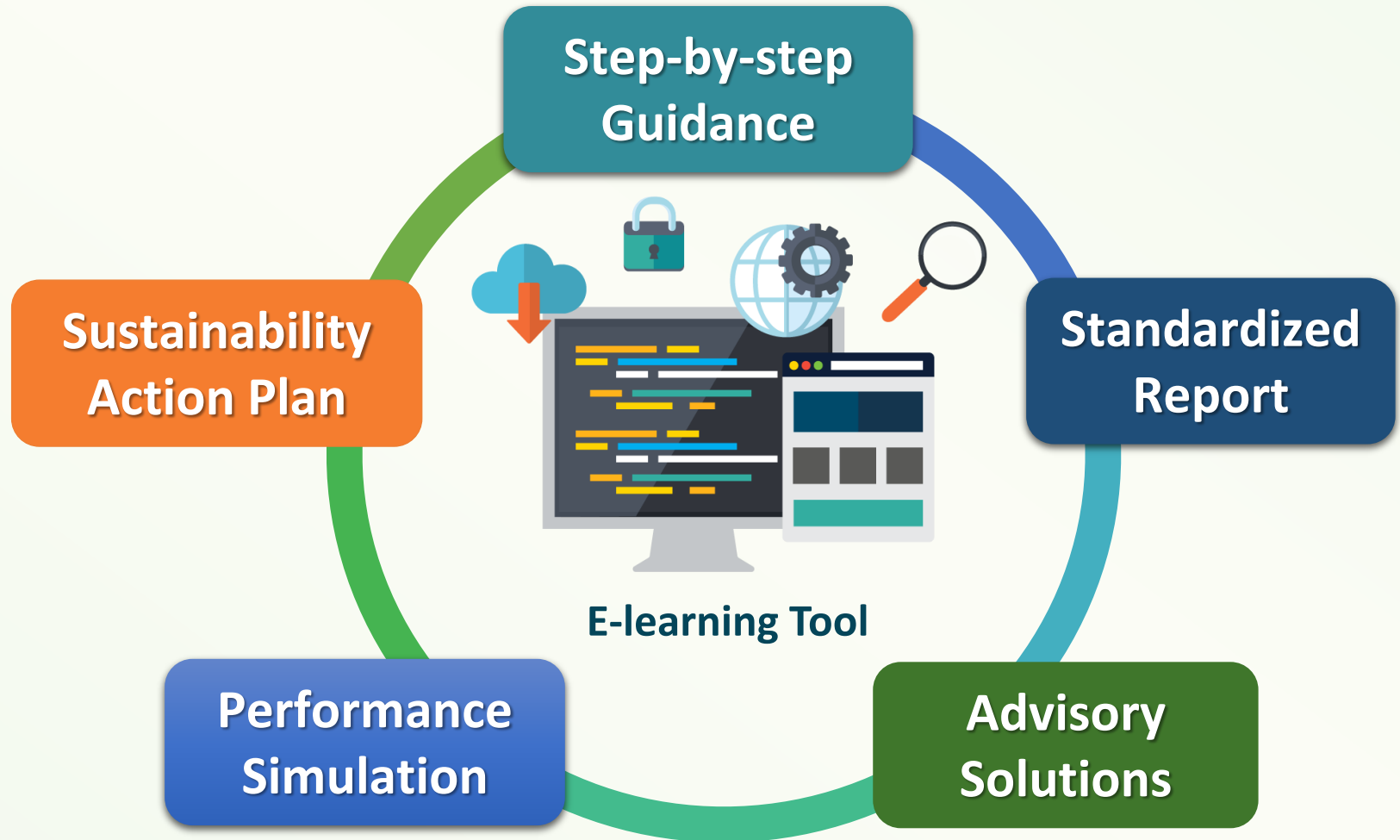
Company Image

Reputation

Challenges Encountered by Hong Kong SMEs



New Online Toolkit - Features



Introduction of Higg Index Online Toolkit

主办机构
Organiser:



执行机构
Implementation Agents:



「中小企业发展支援基金」拨款资助
Funded by SME Development Fund:



运用 HIGG 指数网上协作工具 推动制衣业迈向可持续发展

Higg Index Online Toolkit Driving a Sustainable Apparel Industry

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Any opinions, findings, conclusions or recommendations expressed in this material/event (or by members of the Project team) do not reflect the views of the Government of the Hong Kong Special Administrative Region, Trade and Industry Department or the Vetting Committee of the SME Development Fund and the Dedicated Fund on Branding, Upgrading and Domestic Sales (Organisation Support Programme).

Entering the tool

Assess from the website
<http://higgweb.sfbc.org.hk>



Website

<http://higgweb.sfbc.org.hk>

Let's Try! - Case background



Reporting entity:

ABC Company Limited – Tuen Mun Garment Factory



Reporting period:

01/01/2014 to 31/12/2014



Materials provided:

- Published report

FAC-4 Waste Water



Dyeing

Finishing
treatment

Laundry

FAC-4 Waste Water

Lvl 1

- Basic understanding on the amount of waste water generated and its treatment

Lvl 2

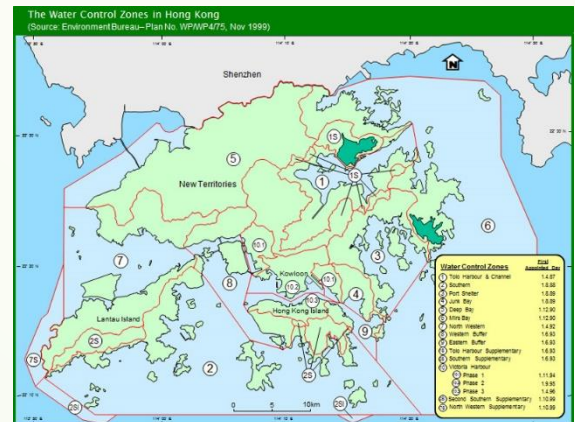
- Target(s) and plan(s) for waste water quality improvement / volume reduction

Lvl 3

- Result(s) of waste water improvement plan(s)

FAC-4 Waste Water

- Primary treatment methods include pH and temperature control, sedimentation (separation of sludge, and oil and grease from wastewater)
- Secondary treatment method includes degradation of organic content with aerobic and/or anaerobic biological treatment
- Tertiary treatment is additional method to further improve water quality (e.g. disinfection or nutrient removal)
- In HK, type of treatment depends on the Water Control Zone



FAC-4 Waste Water

Testing parameters	Testing methods
pH	pH paper/ pH meter
COD	potassium dichromate
BOD	5-day BOD test
SS	Weighing
DO	Meter sensor

Potential supporting documents:

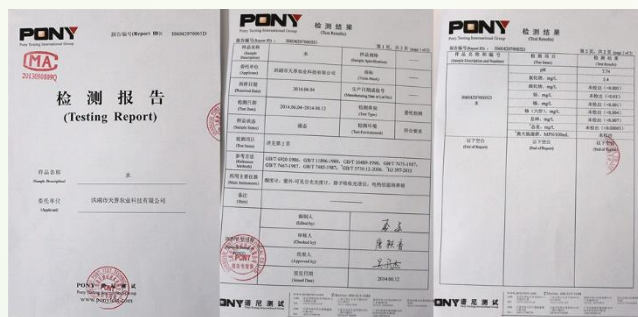


表1 现有企业水污染物排放浓度限值及单位产品基准排水量

单位: mg/L. (pH 值, 色度除外)

序号	污染物项目	限值		污染物排放监控位置
		直接排放	间接排放	
1	pH 值	6~9	6~9	企业废水总排放口
2	化学需氧量(COD _{Cr})	100	200	
3	五日生化需氧量	25	50	
4	悬浮物	60	100	
5	色度	70	80	
6	氨氮	12 20 ⁽¹⁾	20 30 ⁽¹⁾	
7	总氮	20 35 ⁽¹⁾	30 50 ⁽¹⁾	
8	总磷	1.0	1.5	
9	二氧化氯	0.5	0.5	
10	可吸附有机卤素 (AOX)	15	15	
11	硫化物	1.0	1.0	
12	苯胺类	1.0	1.0	
13	六价铬	0.5		车间或生产设施废水排放口
单位产品	棉、麻、化纤及混纺织物	175		排水量计量位置与污染物排放监控位置相同
基准排水	真丝绸机织物 (含练白)	350		
量 (m ³ /t	纱线、针织物	110		
标准品)	精梳毛织物	560		
2)	粗梳毛织物	640		
注: (1) 蜡染行业执行该限值。				
(2) 当产品不同时, 可按 FZ/T 01002-2010 进行换算。				

注: (1) 蜡染行业执行该限值。

(2) 当产品不同时, 可按 FZ/T 01002-2010 进行换算。

4.2 自 2015 年 1 月 1 日起, 现有企业执行表 2 规定的水污染物排放限值。

4.3 自 2013 年 1 月 1 日起, 新建企业执行表 2 规定的水污染物排放限值。

Discharge standards of water pollutants for dyeing and finishing of textile industry

Waste Water Recycling Innovation

中央棉織有限公司

超濾震動膜過濾及反滲透系統



Materials provided

- Extract of published *Sustainability Report 2014 (Section on Wastewater Treatment)*

Wastewater Treatment

Background

Wastewater quality has been a major area of concern for the Tuen Mun Garment Factory (the Factory) due to the heavy use of chemicals and solvents used in finishing treatments of the garment. The amount of effluent is measured bi-weekly.



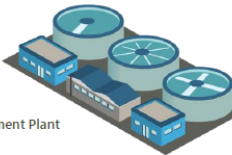
of effluent is produced from finishing treatments annually

Effluent is transferred to sewage treatment plant based on the location of the factory:

Site: Pillar Point Sewage Treatment Works

Type: Chemically Enhanced Primary Treatment Plant

Operator: Drainage Services Department



Wastewater Quality Monitoring

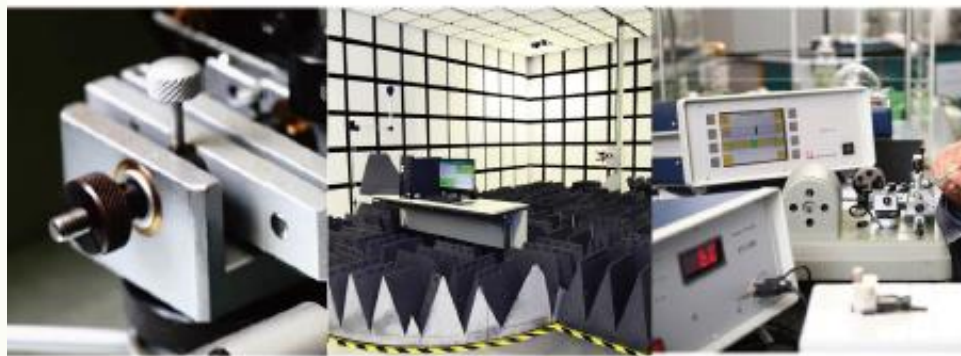
To closely monitor the wastewater quality, the Factory conducts the following tests internally:

Testing method	Parameter	Frequency
Potassium dichromate	Chemical Oxygen Demand (COD)	bi-weekly
Portable pH meters	pH	bi-weekly



Thanks!

Any questions?



Insights

*Study Report on Opportunities for
Hong Kong's Testing and Certification
Industry*

Three Mainstream Trends Bring New T&C Opportunities

Three Mainstream Trends



Smart Technologies

- Wide adoption for smart homes, connected cars and wearable devices
- “Smart” devices to reach 50 billion by 2020 (Gartner)



Product Sustainability

- Stringent regulations and industry standards
- Sustainable products to create market advantage



Green Transport

- Mainland China and HK policies to support green transport
- Increasing global EV production: >400,000 vehicles in 2014

Why T&C Matters?

1. Underpin technological development
2. Ensure compliance with regulations and industry standards
3. Guarantee product quality, safety, compatibility and credibility
4. Offer differentiating advantage

New T&C Opportunities (2) – Product Sustainability



Examples

Product Carbon Footprint (PCF)



T&C Study Recommendations

1. Enhance **awareness-raising** and promotion of PCF accounting to key stakeholders
2. Explore incorporation of carbon footprint requirement in **procurement policies** of business and public sectors

Degradable Materials T&C



1. Establish a third party **testing platform** for degradability testing
2. Investigate the feasibility of introducing a **certification scheme**

Recommendations for Overall Development

1. Strengthen **capacity building** efforts of industry practitioners through offering more practical training
2. Promote **business advantages** of using product sustainability standards, testing or certification in order to drive wider application of T&C services

New T&C Opportunities (3) – Green Transport



Examples

Electric Vehicle (EV) Batteries and Charging Equipment Testing



EV Fuel Economy and Energy Performance Labelling



T&C Study Recommendations

1. Conduct a **study on existing international T&C requirements** related to green transport, in order to identify focus areas for local business development and potential for localization of certain requirements
2. Enhance **knowledge exchanges with international T&C service providers** to develop local T&C capacity