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# *Sustainable Supply Chain*

## *Perspective and trends*



# ***Sustainability in supply chain - Setting the context***

## ***Range of issues***

- Child labour
- Forced and bonded labour
- Gender inclusion
- Fair wages
- Decent work
- Carbon savings
- Traceability

## ***Spread across sectors***

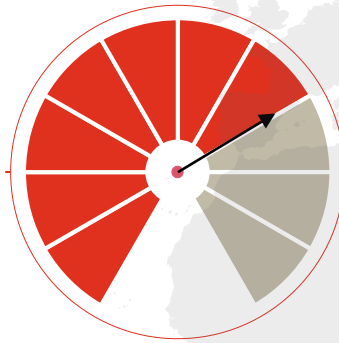
- Fast Fashion and Ready Made Garments
- Electronics industry
- Auto
- Food and Beverage
- Logistics
- IT and other service sectors

## ***Regulations and Standards***

- GRI G4
- Modern Slavery Act, UK
- California Transparency Act
- France duty of care vigilance plan
- MSA, Australia
- Child Labour due diligence bill, Netherlands
- E-waste rules, Plastic rules - India

## ***Others***

- Export Competitiveness
- Increasing role of MSME
- Disruption – Business models, technology, new set of challenges





# Agenda

- 1 *Understanding Sustainability in today's Supply Chains*
- 2 *External factors impacting the supply chain*
- 3 *Linking Export competitiveness to sustainability in supply chain*
- 4 *Popular supply chain sustainability framework and standards*



# *Understanding Sustainability in today's Supply Chains*

# *1*

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## ***The current state of supply chain***

- Over the last decade, supply chains have become global, highly complex and of significant scale.
- Simultaneously, building and maintaining resiliency has become a key success factor for business

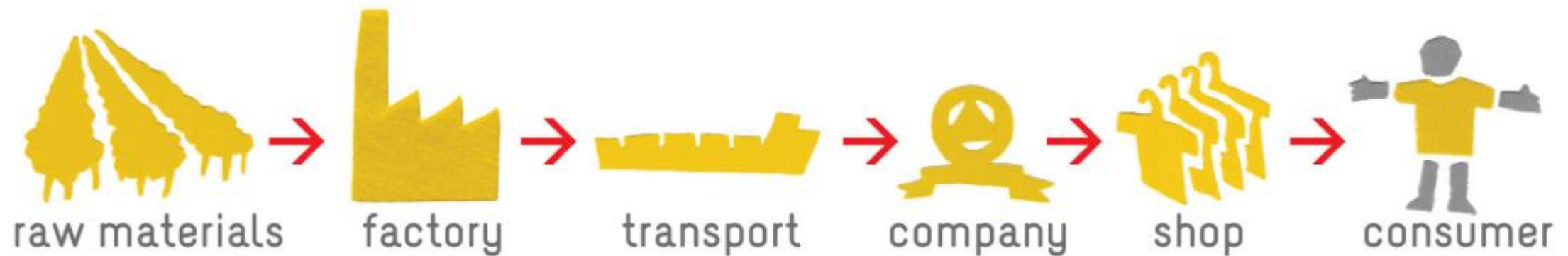
### ***Key characteristics that define today's supply chains:***

- 01** Extremely complex network of material, processes and services spread across different territories
- 02** Are dynamic and technologically evolving
- 03** Open to stakeholder scrutiny due to the widespread social media revolution

## *The current state of supply chain*

- In a traditional sense, a simple solution to tackle **business impact on sustainability** could have been

*“just pursue the company/ brand to tell its factory to shape up”*



A decade ago, that company / brand might own the factory, or be a handful of its customers, and the terms of business relationship would be clear and direct.

Source: <https://www.fairwear.org/about/>



# The current state of supply chain

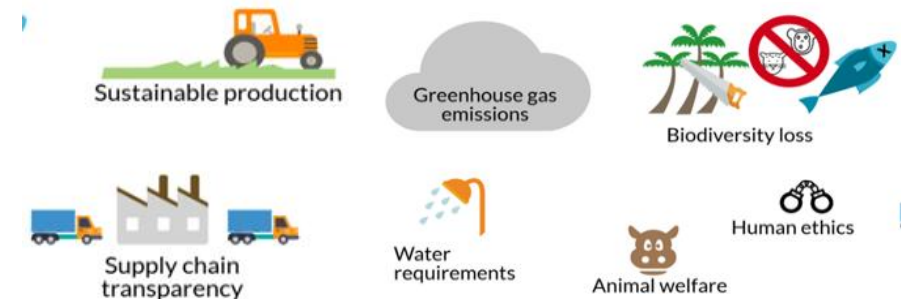
- But the context in which today's supply chains operate, is drastically different



Source: <https://www.fairwear.org/about/>

# Challenge of embedding sustainability in complex global supply chain

- Over the past few years, sustainability has taken a central role in the procurement and sourcing criteria for many companies.
- Workforce health and safety incidents, labor disputes, geopolitical conflicts, raw materials shortages, environmental disasters and new legislation in areas such as conflict minerals and modern slavery has been added to the list.
- Growing awareness of supply chain risks among customers, consumers, investors, employees and local communities





# Supply chains are still plagued with core social issues: Child Labor

## Major Car firms linked to child labour over glittery mica paint



## Major smartphone suppliers accused of using child labour

An investigation by Amnesty International has found that cobalt in smartphone batteries is being mined by children as young as 7

## How high street clothes were made by children in Myanmar for 13p an hour

Children of 14 were working a six-day week



**152 million children** are still in **child labour**, of which **73 million** are in **hazardous work** - ILO Report 2017

## OF THE 152 MILLION CHILDREN IN CHILD LABOUR

### AGE PROFILE

**48%**  
5-11 years-olds

**28%**  
12-14 years-olds

**24%**  
15-17 years-olds

### GENDER

**58%**  
88 million

**42%**  
64 million

### ECONOMIC ACTIVITY

**70.9%**  
Agriculture

**11.9%**  
Industry

**17.2%**  
Services

## ***Environmental concerns and scrutiny is on the rise..***

### **Consumer Goods Company accused for mercury poisoning**



Source: Google News

### **Major brands admitting that recycling is not enough to tackle plastic pollution crisis**

*by Greenpeace International • 15 January 2019*

"While today's announcement is a step in the right direction, the company needs to scale up its efforts toward reusable systems rather than grasping at a quick fix that could..."

***Oceans will have more plastic than fish by 2050 - CMFRI, India***

***80% of World's wastewater discharged untreated, due to lack of infrastructure and technical expertise - UN Report, 2017***

**Water scarcity could result in some regions losing 6% of their GDP: World Bank report**

*Water is at the focal point of socio-economic development and its scarcity is one of the most difficult of the UN sustainable development goals to achieve.*

***Tuticorin plant shutdown to affect over 800 SMEs***  
*- The Economic Times*

## *Unsafe work environment is taking its toll..*



The Rana Plaza collapse was the deadliest garment industry disaster ever CREDIT: REUTERS

### ***Rana Plaza building collapse in 2013***

ILO Estimates Over **2.3 Million workers** succumb to work-related accidents or diseases every year.. this corresponds to over **6000 deaths every single day**

Rana Plaza building collapse in Bangladesh **killed at least 1,132 people** and injured more than 2,500 - ILO

*Several Major brands were impacted by Rana Plaza collapse*

Economic burden of poor occupational safety and health practices is estimated at **3.94 per cent of global Gross Domestic Product** each year - ILO

British Safety Council report says **48,000 die yearly** due to occupational accidents in India

Source: <https://www.ilo.org/global/topics/safety-and-health-at-work/lang--en/index.htm>



# Major brands are still found guilty of exploitation of human rights..

Workers at factories of smartphone are being paid less wage



## Workers held captive in Indian mills supplying

Guardian inquiry into concerns raised by reveals Tamil Nadu firm, which also supplies major UK brands, stops women leaving factory

**41% Indian employees feel they are poorly paid, says ILO study**

Workers abused at factories of major brands



**47% of spinning mills in Tamil Nadu use bonded labour schemes (2016 report ICN – fabric of Slavery)**

### LABOUR

## Women Workers Report Abuse, Violence Across Fashion Giant Supply Chain

A new report presented at the International Labour Conference questions sourcing standards being followed by global clothing brands, and calls for greater accountability for widespread gender-based violence and harassment.



## Recent trend of demanding stricter product safety and traceability

Welspun takes Rs 501 crore hit over Egyptian cotton issue.

**Target dumped one of its biggest Indian suppliers for fake Egyptian cotton bedsheets**

August 2016 – Welspun Global Brands, one of Target Corp's biggest suppliers was removed from the supply chain because of the fake Egyptian cotton bedsheets supplied by them. This has wiped \$740 million off Welspun's market value, halving the share price within one week of the announcement. Target US is expected to spend \$90 million in refunds.

### Sheet storm over Egyptian cotton

EGYPTIAN cotton is at the centre of a global sheet storm, with speculation as much as 98 per cent of all products sold with that label

**91% CEO**

agree that it's important to them to **ensure the integrity of their supply Chain.**

PwC Global CEO Survey

**Better bananas:** settles lawsuit over green marketing, but the legal battle isn't over

A Seattle nonprofit alleges that banana suppliers – certified sustainable by the Rainforest Alliance – pollute water supplies in Guatemala, but the banana giant stands by its record



The lawsuit filed against NGO for **Deceptive Sustainability Claims** by US NGO. US NGO "advertises that its bananas are farmed in an ecologically friendly and sustainable manner."

### Brands Using Certification Schemes Fail to Stop Labor Abuse

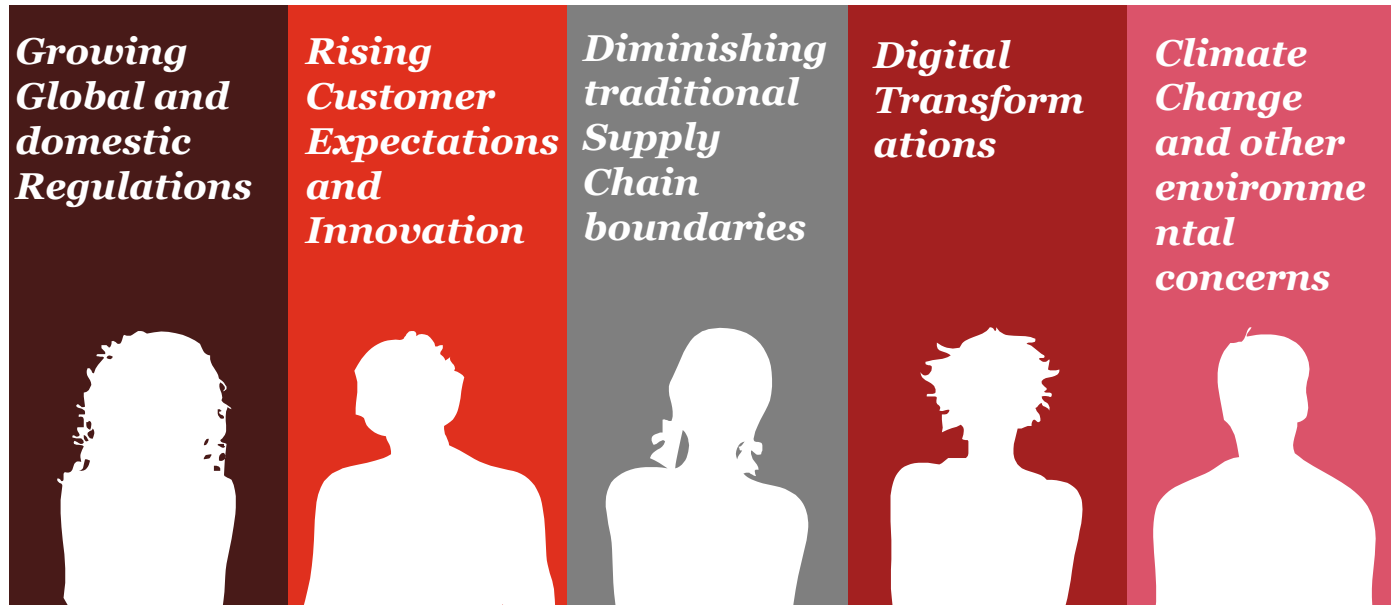
1 Debt Bondage, Forced Labor, Human Trafficking, Slavery-Free Goods, Supply Chain



# *External factors driving the supply chain sustainability*

# 2

# External factors driving the supply chain



## How external factors affect supply chain?



Financial Performance



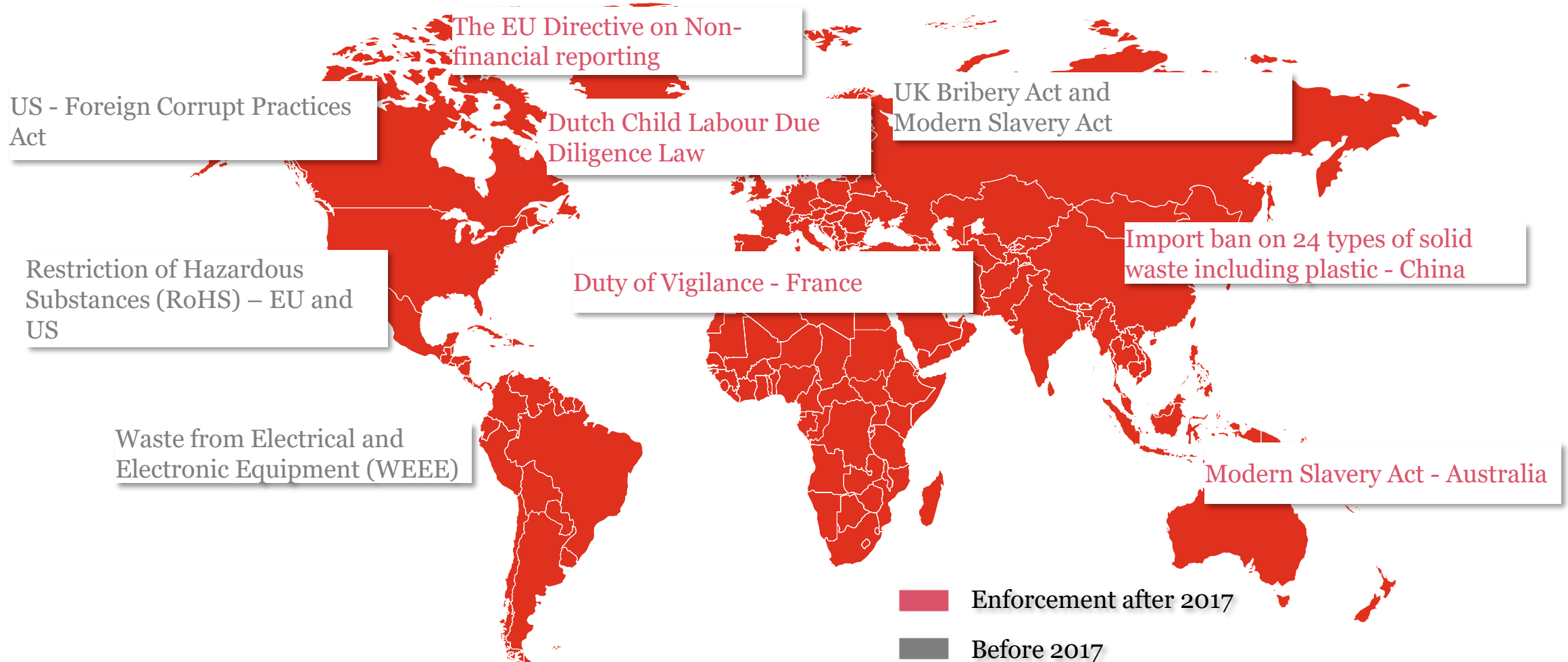
Disruption of supply chain due to lack of availability of raw material



Customer Satisfaction



# *International Regulations are becoming more stringent and also expanding their boundaries*





# Indian Regulations are getting more stringent



BRIEF

## Plastic Ban could bring headache for consumer goods companies



### It's time to tax groundwater use

The Hindu BusinessLine - 14-Jan-2019

... the industrial units, all business establishments and infrastructure projects, ... India is the world's largest user of groundwater, withdrawing about 250 ... the Central Groundwater Board (CGWB), Andhra Pradesh, Tamil Nadu, ...



### Online shopping may get costlier, thanks to Maharashtra plastic ban

Economic Times - 19-Jun-2018

Maharashtra government has banned the use of plastic in the state and this may make your online shopping expensive. Due to plastic ban, the ...

### E-waste provisioning may put pressure on electronic goods companies

Economic Times - 22-Dec-2017

MUMBAI: Electronic goods companies, including multinationals that have been operating in India for at least a decade, could see pressure on profit ... The regulations also indicate the life span of a product— such as five ... and such a provisioning could potentially impact the bottom line heavily," he said.



### FSSAI gazette notifies new pkg stds, replacing pkg requirements in ...

fnbnews.com - 07-Jan-2019

FSSAI, India's apex food regulator, has gazette notified the new ... plastics, glass, paper, metal, printing inks, etc. across the packaging supply chain. ... sector and its impact on food safety, the packaging regulations have been ...

Daily News & An...

- Packaging charges comprise about 2 - 3 % of fulfilment costs. Use of biodegradable plastic or other alternatives could push these costs even higher. Cardboard boxes, for example, could cost nearly a third more than plastic packing
- Due to the new e-waste requirements, many consumer goods companies will have to make a provision for the cost of meeting the e-waste collection targets, which in turn is linked to the past sales of the product and its expected life

# Growing customers' expectations

## Sustainability Performance

Only **16%** of consumers consider that companies provide enough information on product manufacturing processes – GreenFlex Ethnicity Survey

## Increased interest in sustainably sourced products

**53%** of shoppers in the UK and **78%** in the US, **88%** in India and **85%** in both Brazil and Turkey buy products that are sustainably produced - Unilever Study 2017

## Willingness to pay more

**66%** percent of global consumers are willing to pay more for sustainable goods, which consists of **73%** Millennials - The Sustainability imperative, New insights on consumer expectations, Nielson 2015

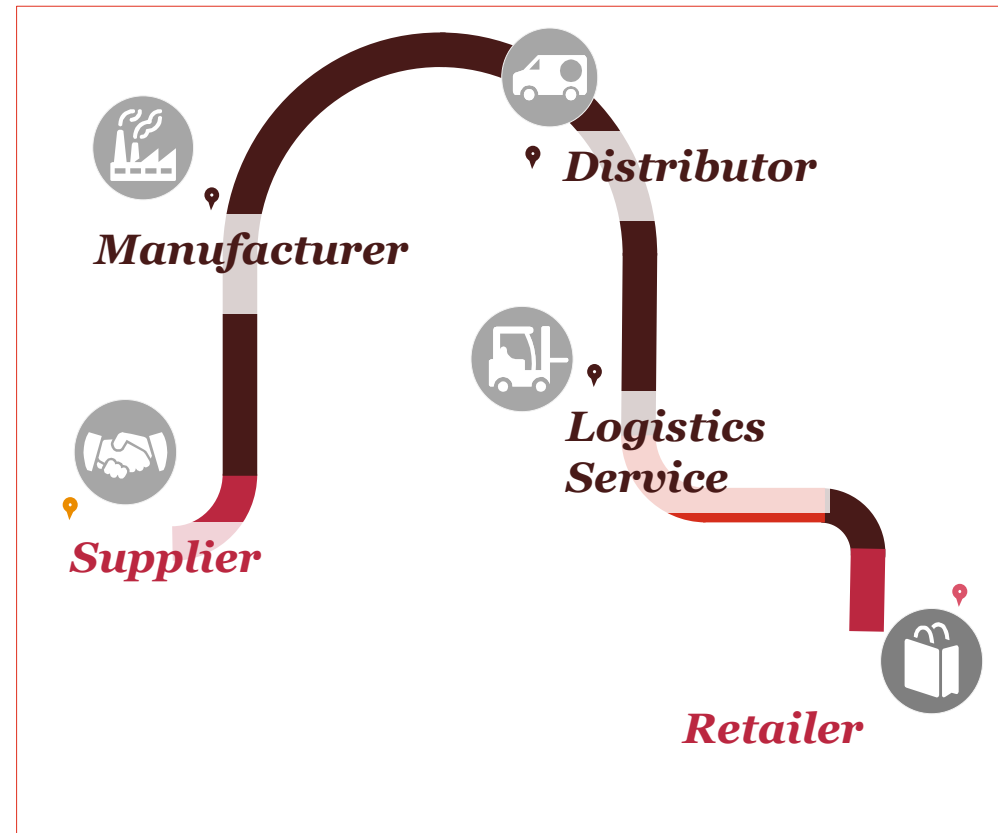
## Certification of commodities

**33 %** of consumers look for sustainability information while making purchases in Asia and South America – UN Global Compact Report and Accenture Study 2014



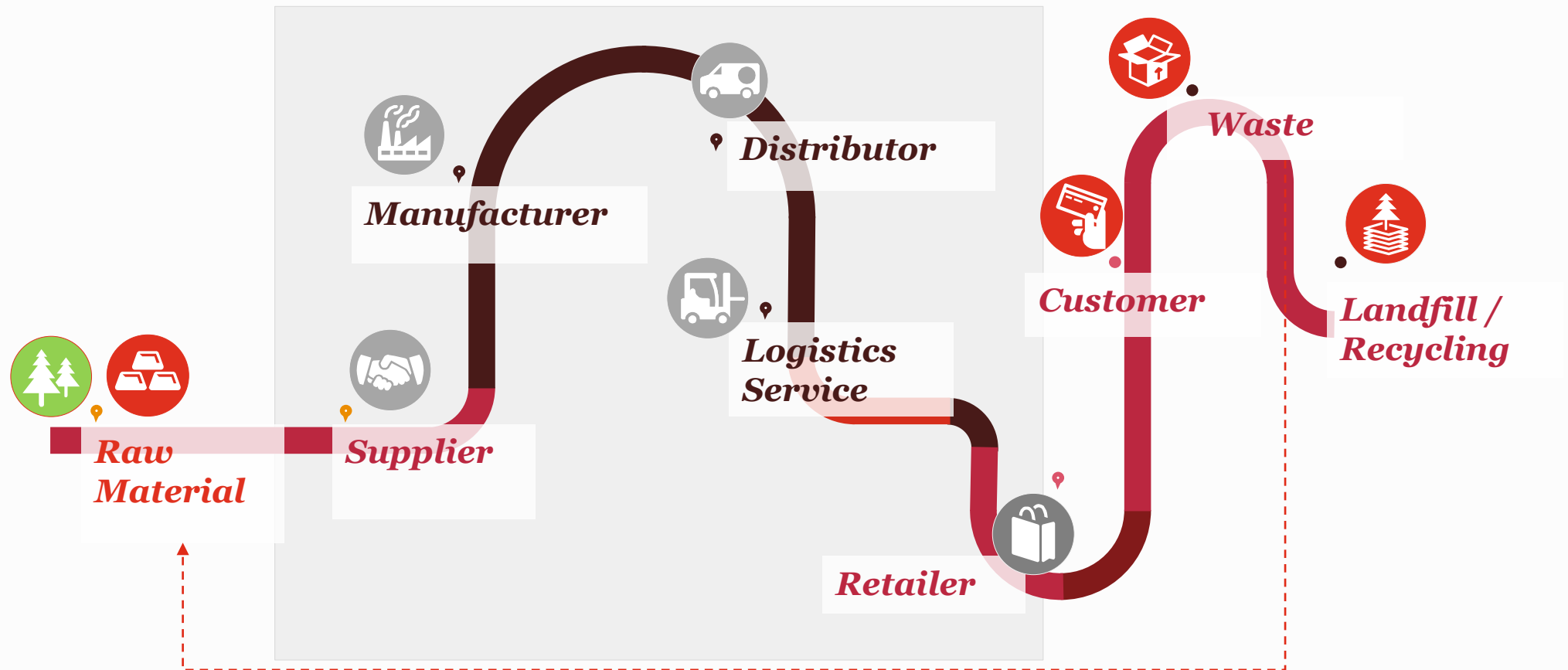
# *Diminishing Supply Chain boundaries*

## **Traditional view**



# Diminishing Supply Chain boundaries

## All encompassing modern view



The boundaries of supply chain management has shifted from manufacturing and are disappearing



# Digital Transformation raising supply-chain performance

Internet Of Things Market revenue to reach **3 trillion USD By 2020** – PwC FinTech Insights

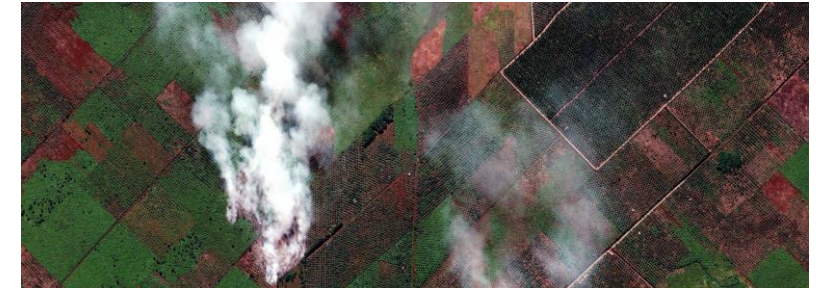


IBM developed a **block chain solution** to improve supply chain management in the mining and metals industry—which is estimated at **\$1.8 trillion**

By 2023, Alibaba and Amazon will have captured **40 %** market share of global online retail



Prime Air from Amazon can deliver packages to customers in 30 minutes or less using drones.



NASA Satellite Data Used to Study the Impact of Oil Palm Expansion Across Indonesian Borneo

U.S. Department of Labor using IoT and AI to track immigrant workers



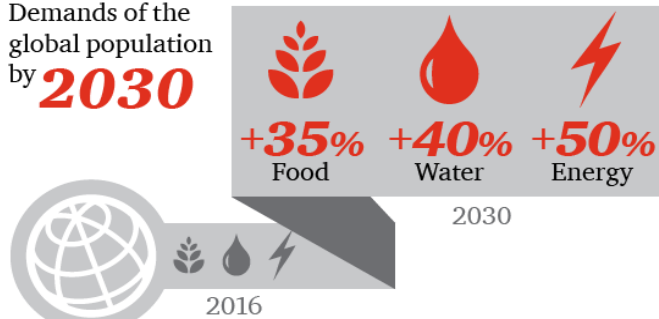
Honeywell and Intel unveil a wearable, connected safety solution for industrial workers and first responders.

# Environmental factors affecting supply chain....

## Resource Scarcity

*With a population of 8.3 billion people by 2030, we'll need...*

Demands of the global population by **2030**



Source: National Intelligence Council

### Present scenario

- Water scarcity in the textile processing regions in Tamil Nadu
- 54% Indian cities faces acute water crises
- Increase in conflict with local stakeholders over access to resources

## Environmental Pollution

*By 2050, there will be more plastic than fish in the world's oceans - CMFRI, India*

*Air pollution- linked deaths in India could increase to 3.6 million by 2050 if no further actions are taken - Health Effects Institute and IIT*

*Water shortages could affect 5bn people by 2050 - UN report*

- Indian is facing severe issues with dropping ambient air quality
- Presently, 80 Percent Of World's Wastewater Discharged Untreated – UN

## Climate Change

**150-200 million** people will be on the move...



Source: Climatecentral.org

To stay within **2°C**, the world needs to cut its carbon intensity by **6.5%** every year to **2100**



Source: PwC Low Carbon Economy Index (2016)

- Severe impact on agricultural based supply chain
- Increase in the intensity of the extreme weather events like droughts, cyclone, temperature rise impacting supply chain

# *Linking export competitiveness to sustainability in supply chain*

3



## ***Export competitiveness***

Global value chains (GVCs) are becoming the new paradigm of domestic manufacturing and international trade.

***More than 60% of global trade consists of trade in intermediate goods and services.***

***Further, GVC trade accounts for 30% of the GDP of developing countries***

- United Nations Conference on Trade and Development

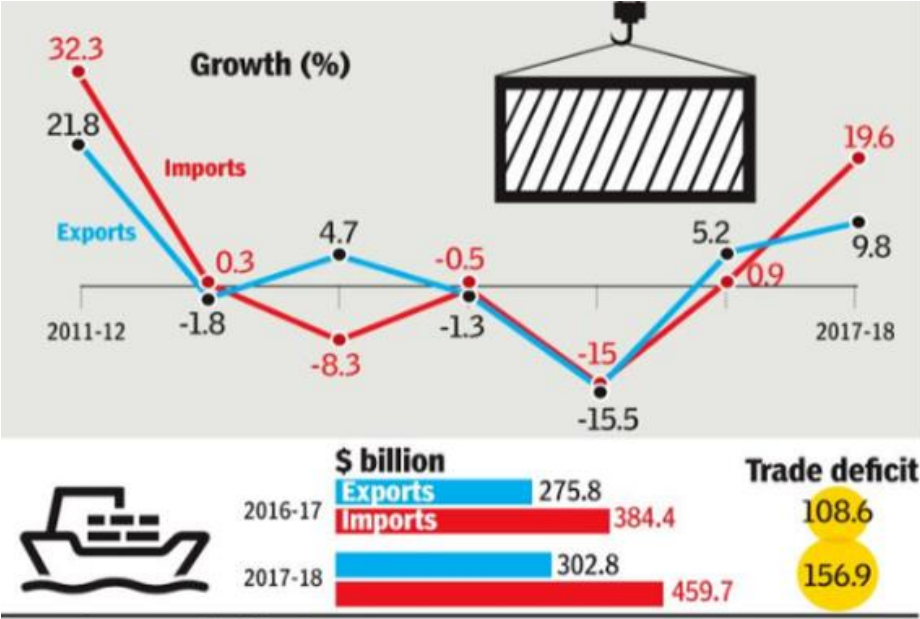




# The current Export Scenario

In 2017 India exported 4,418 products to 219 countries having a value of US\$ 294,364 million

Precious Metals	15%
Textiles	13%
Chemical Products	15%
Mineral Products	10%
Machines	9.50%
Metals	7.30%
Transportation	7.20%
Agricultural Products	5.60%
Diary Products	3.80%
Plastics and Rubber	2.90%
Stone and Glass	1.20%
Footwear and Head Wear	1.40%



India's exports rose 9.8% during 2017-18, the highest growth compared to pervious 6 years.

Major importers of Indian Products

Source: Atlas, MIT Media Lab



# Investment Decisions and Sustainability

The size of the ESG-linked investment market in India is pegged to be \$30 billion and estimated to touch \$240 billion in the next decade – Morningstar, 2017

**32%** (up from 23 per cent in the previous year) of the companies give specific targets to their suppliers to reduce their carbon footprint and conduct environmental audits of new suppliers



A survey of 221 venture capital fund managers show that sustainability and impact on environment and society are becoming key factors for investment decisions – Preqin

## Top Investors In Indian Equities

ASSET MANAGER, INVESTMENT (₹ crore), TOP STOCKS

**Norges Bank**

**6,230**

Infosys, Axis Bank, Tata Motors, Bajaj Auto, RIL, HDFC

**T Rowe Price Group Inc**

**3,450**

Infosys, HDFC Bank, NTPC, Power Grid Corp, TCS, Axis

**Government Pension Fund - Global**

**2,700**

Tata Motors, UPL Ltd, GAIL, Petronet, Hero Moto, Havells

**Northern Trust Corp**

**698**

RIL, Infosys, TCS, Dr Reddy's, ICICI Bank, HDFC Bank, Axis Bank

**Nordea Bank Ab**

**84**

Infosys, RIL, Tata Motors, Phoenix Mills, Zee Entertainment, HCL

**Ontario Teachers' Pension Pl**

**47**

Mindtree, Reliance Communications, TD Power Systems.

**California State Teachers' Retirement System**

**2,350**

RIL, Axis, Infosys, Bajaj Auto, HCL Tech, ICICI Bank, TCS

SOURCE - Bloomberg



# *Sustainability – a success lever for Make in India*





# Sustainability Links to Make in India

- Communicate sustainability needs to a larger supplier community
- Customise vendor engagement and monitoring tools based on supplier concerns
- Leverage on existing policies on sustainability and engage in a dialogue with GOI on future policies

## Buyers

- Understand sustainability needs of brands
- Make sustainability a competitive advantage
- Adopt govt. policies that facilitate green growth
- Demonstrate innovative practices on sustainability in brand meets

## Suppliers



## Linkage to “Make in India” Objectives:

- **Facilitate investment**  
*By using sustainability as a competitive advantage to attract brands*
- **Foster innovation**  
*By rewarding innovation in processes and products to foster sustainable growth*
- **Best-in-class manufacturing infra**  
*By facilitating adoption of cleaner technologies*





# *Popular supply chain sustainability framework and standards*

# 4

# Popular sustainability framework and standards



# Growth in Sustainability Disclosures



115 of the largest purchasing organizations engage suppliers through CDP's supply chain program.

11,000+ suppliers requested to provide information to their customers through CDP in 2018



2094 companies participated in the DJSI assessment in 2018.

Launched in 1999, the DJSI is the first global indices tracking the financial performance of leading sustainability-driven companies worldwide.



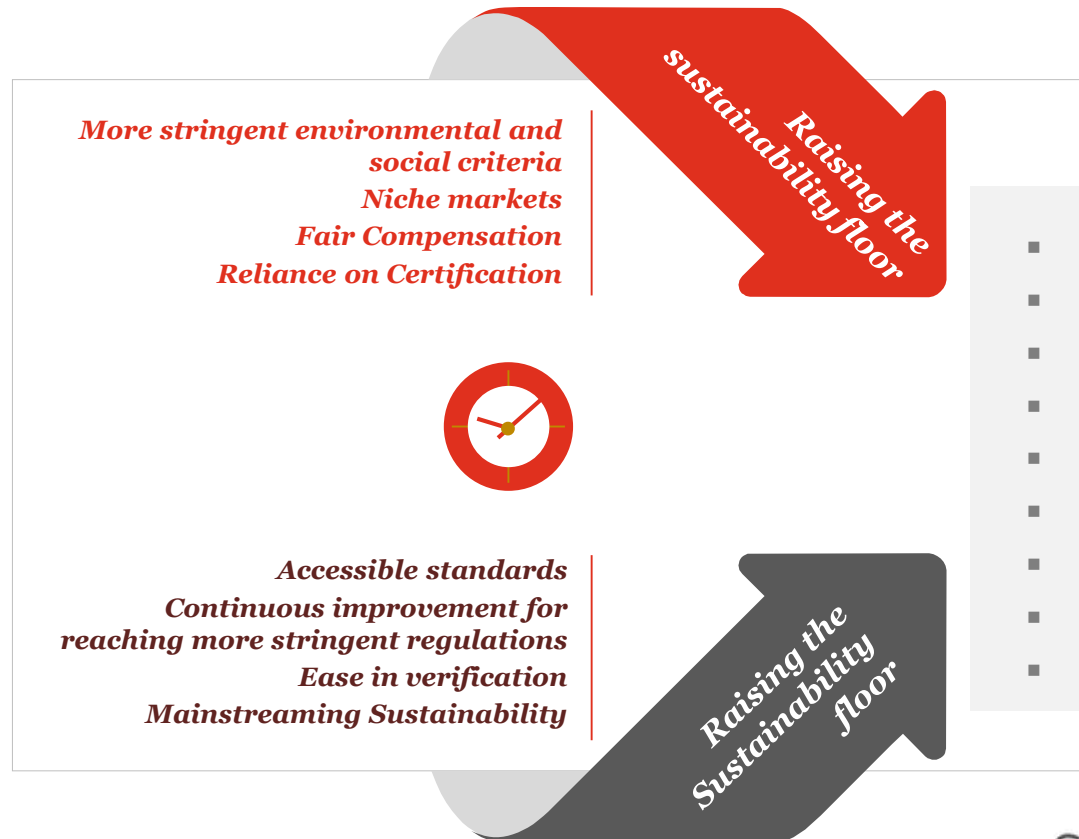
82 new companies to be added to the FTSE4Good Developed Index

34 new companies to be added to the FTSE4Good Emerging Index. 8 new Japanese firms enter FTSE4Good and FTSE Blossom Japan Index



The MSCI ESG Indexes also provide institutional investors with transparency into ESG sustainability and values alignment, together with the ability to compare holdings

# Voluntary Certifications and Standards



- Forest Stewardship Council
- Better Cotton Initiative
- Roundtable on Sustainable Palm Oil
- Sustainable Natural Rubber Initiative (SNR-i)
- Sustainable Apparel Coalition
- Ethical Trading Initiative (ETI)
- Fair Trade
- Rainforest Alliance
- 4C Coffee



**Ethical  
Trading  
Initiative**

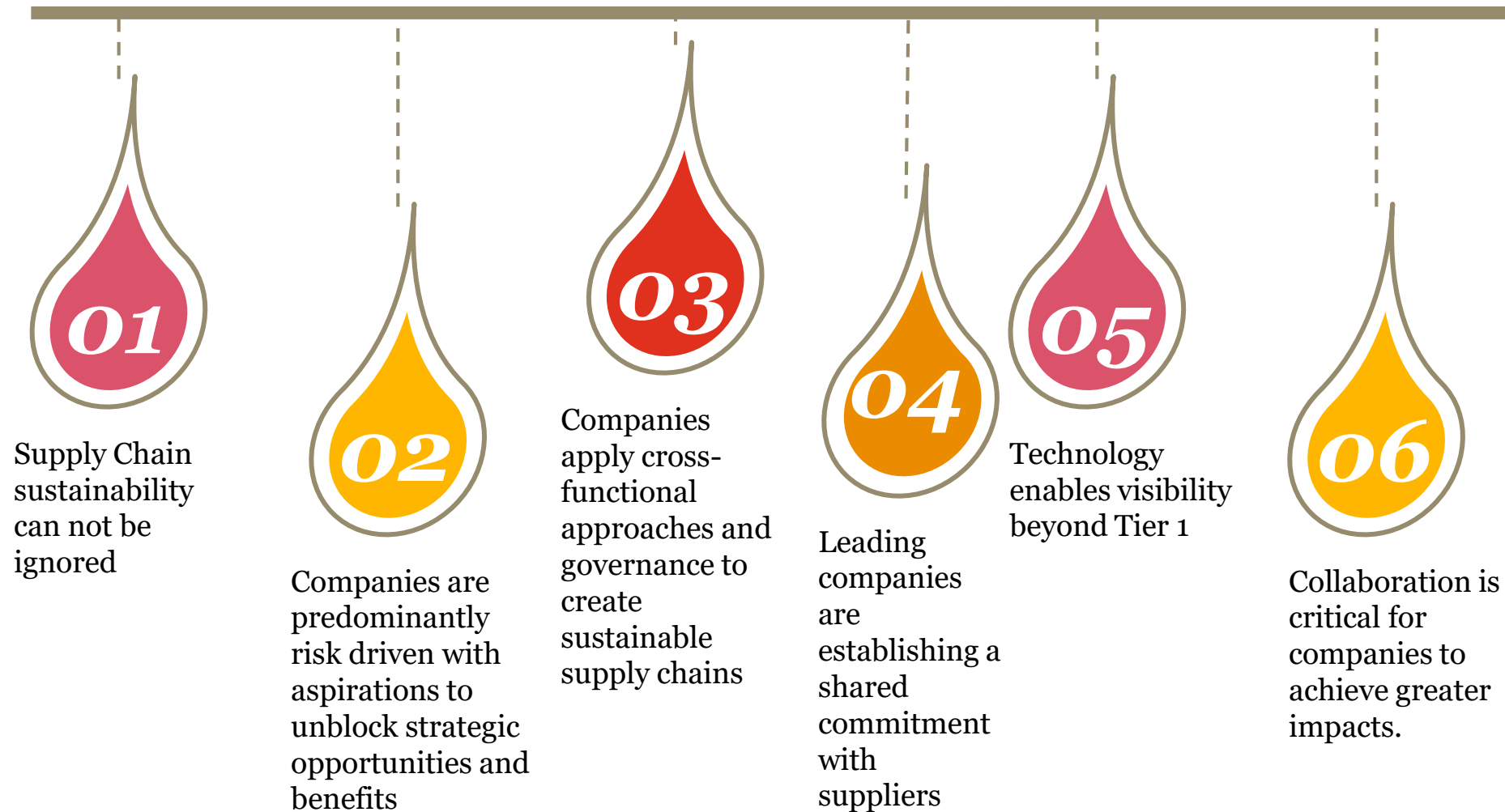


## *In a nutshell*

# *Sustainability in supply chains can no longer be ignored*

- Sustainability across industries has evolved and grown in importance.
- Most organizations that once felt it was something they needed to do to meet their social, legal and regulatory responsibilities, today, consider improving sustainability of their supply chain as a strategic area of focus

## *In a nutshell*





A wide, empty stone staircase made of grey rectangular blocks, receding into the distance. Two people are walking down the steps in the lower-middle section. The person in front is wearing a brown coat, blue jeans, and a blue patterned scarf. The person behind is wearing a dark coat and a patterned scarf. The scene is brightly lit, casting long shadows. In the top left corner, the words "Thank You" are written in a white, elegant script font.

*Thank You*