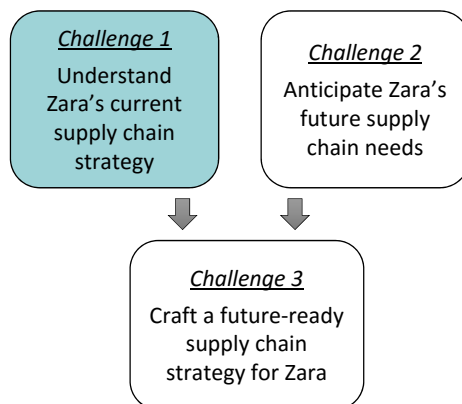Rethinking their supply chain strategy,
Zara will face **three challenges**

*Challenge 1*
Understand Zara's current supply chain strategy

*Challenge 2*
Anticipate Zara's future supply chain needs

*Challenge 3*
Craft a future-ready supply chain strategy for Zara

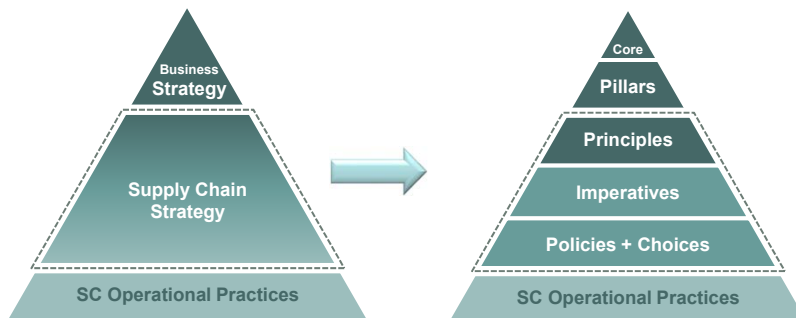MIT Center for Transportation & Logistics

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# How can we understand Zara's current SCS?

*Challenge 1*
Understand Zara's current supply chain strategy

*Challenge 2*
Anticipate Zara's future supply chain needs

*Challenge 3*
Craft a future-ready supply chain strategy for Zara

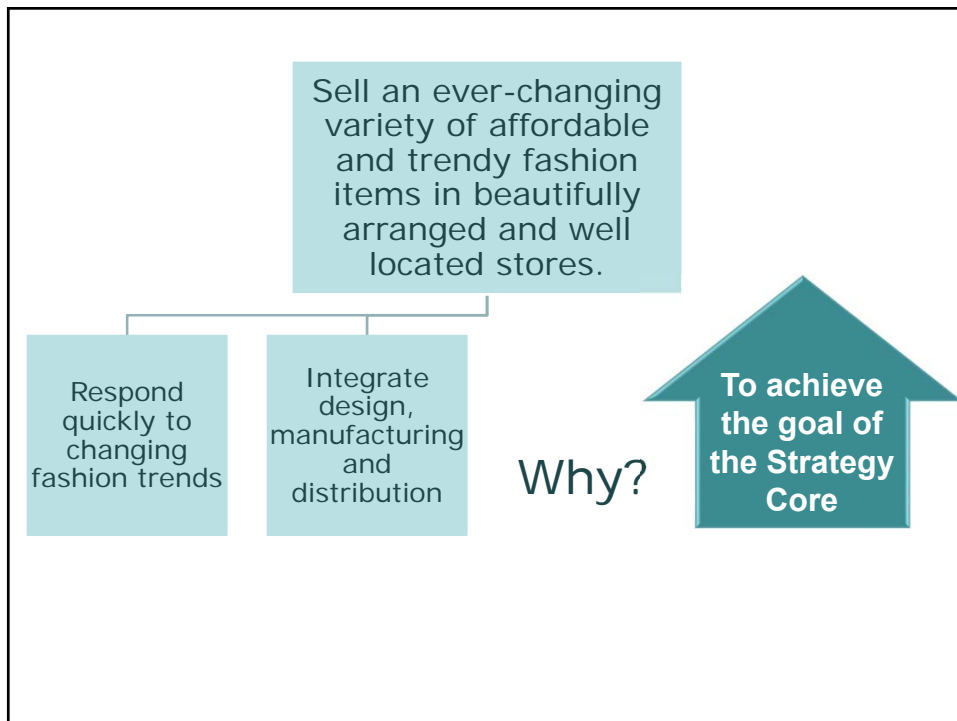MIT Center for Transportation & Logistics

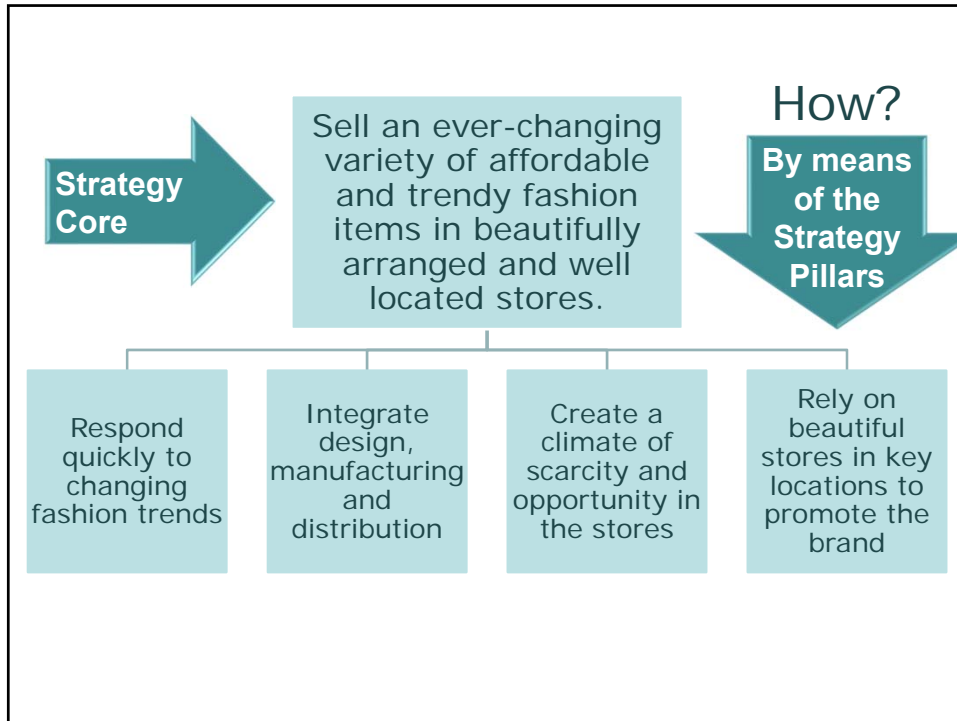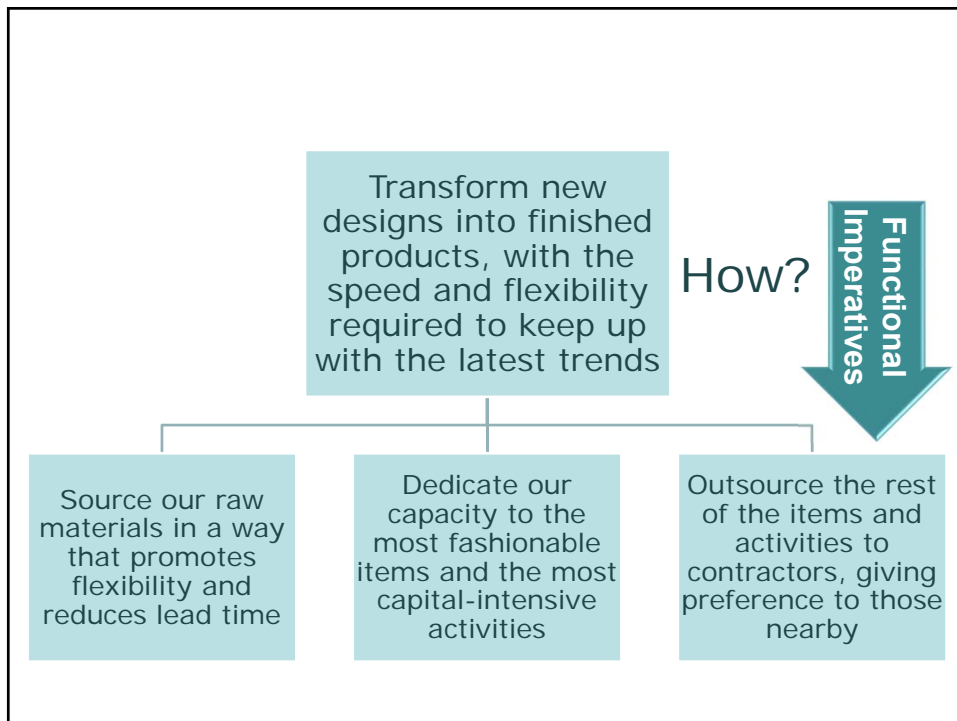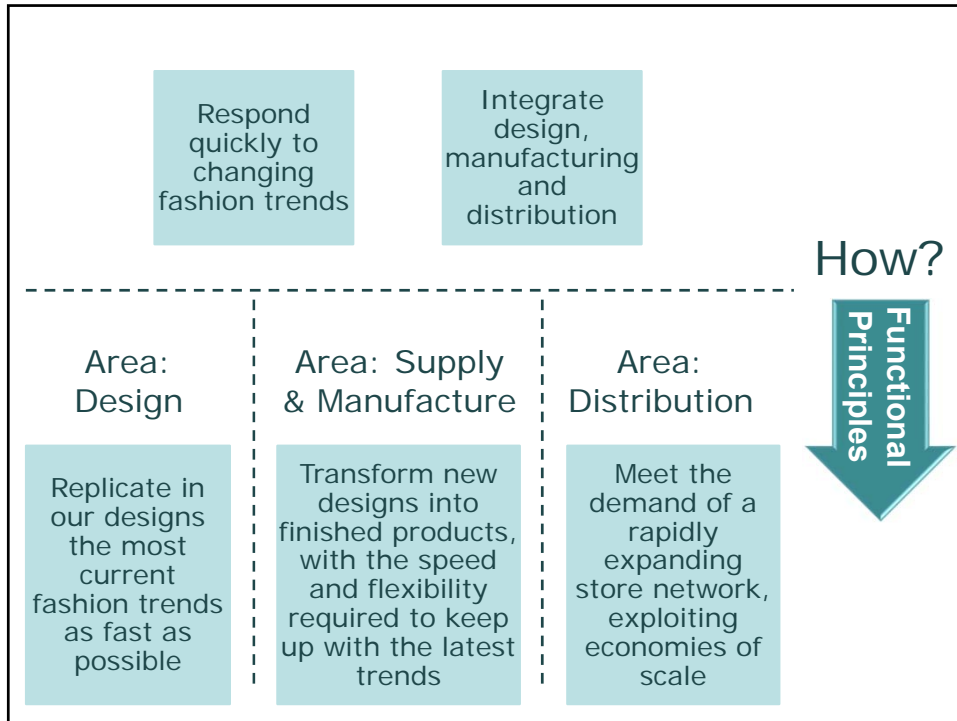MASSACHUSETTS INSTITUTE OF TECHNOLOGY

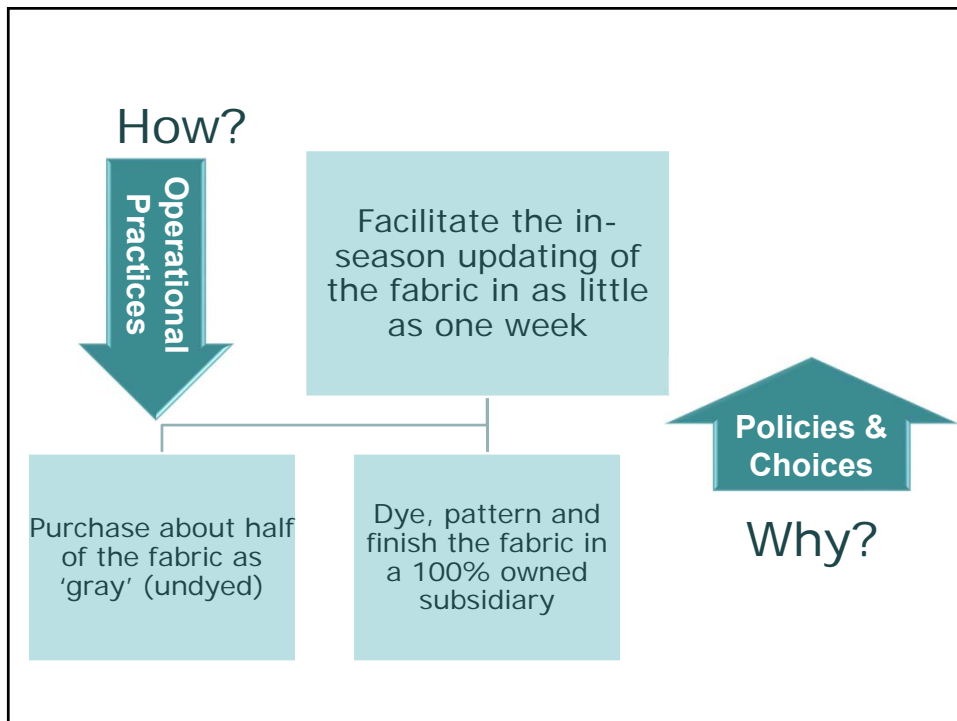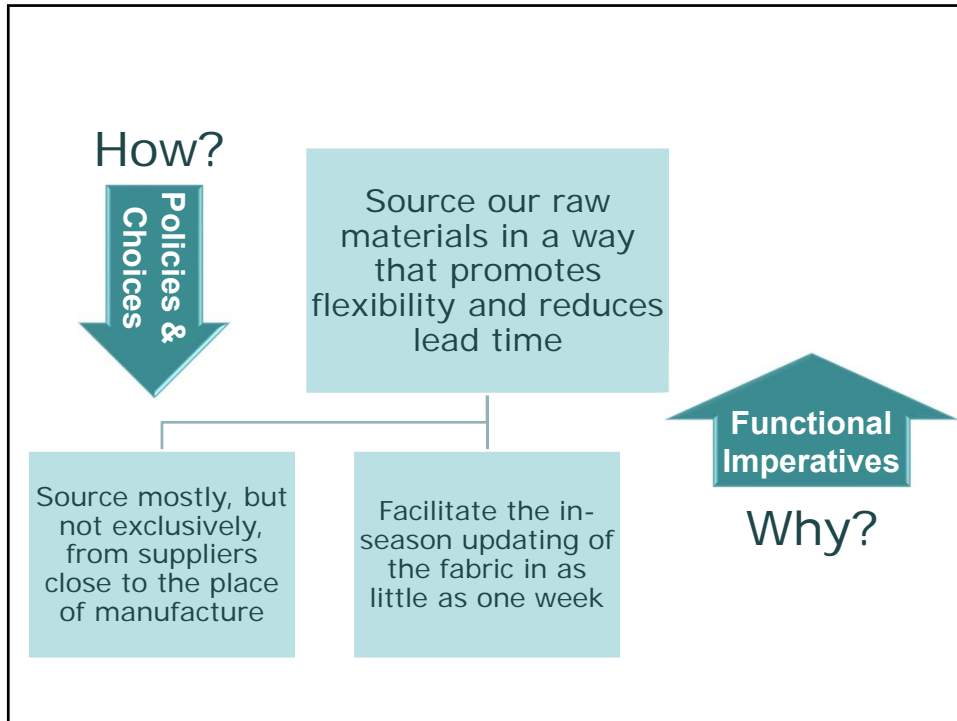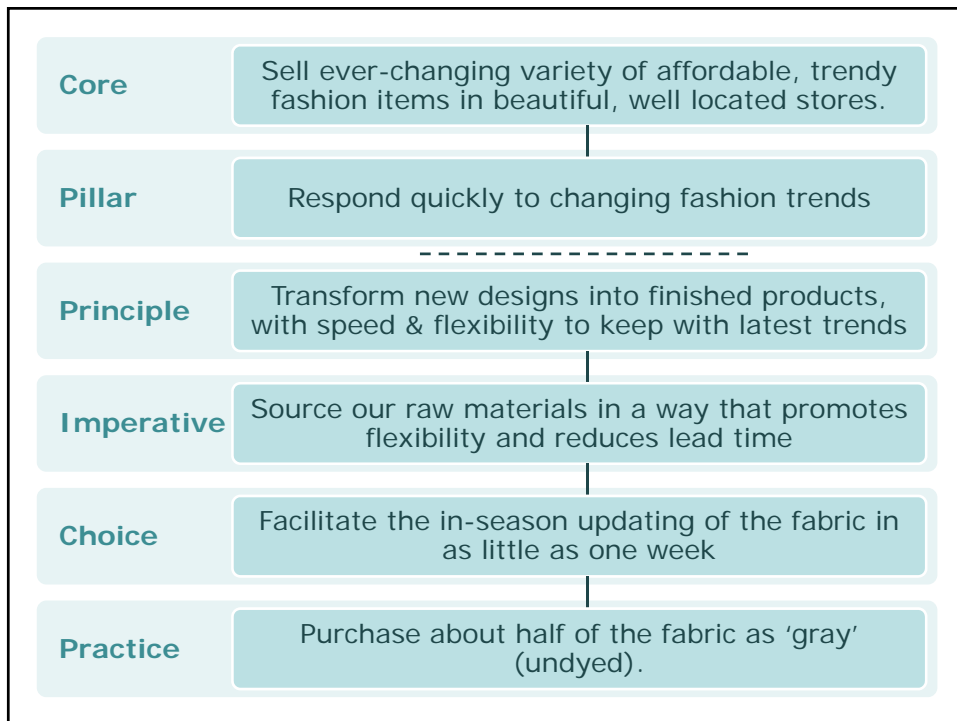## Think of the supply chain strategy as a bridge between business strategy and SC operations.



Source: Perez-Franco / SC2020 Project

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How?

Strategy Core → Sell an ever-changing variety of affordable and trendy fashion items in beautifully arranged and well located stores.

By means of the Strategy Pillars

| Respond quickly to changing fashion trends | Integrate design, manufacturing and distribution | Create a climate of scarcity and opportunity in the stores | Rely on beautiful stores in key locations to promote the brand |



Sell an ever-changing variety of affordable and trendy fashion items in beautifully arranged and well located stores.

| Respond quickly to changing fashion trends | Integrate design, manufacturing and distribution |

Why?

To achieve the goal of the Strategy Core

Respond quickly to changing fashion trends

Integrate design, manufacturing and distribution

How?

**Functional Principles**

Area: Design

Area: Supply & Manufacture

Area: Distribution

Replicate in our designs the most current fashion trends as fast as possible

Transform new designs into finished products, with the speed and flexibility required to keep up with the latest trends

Meet the demand of a rapidly expanding store network, exploiting economies of scale

---

Transform new designs into finished products, with the speed and flexibility required to keep up with the latest trends

How?

**Functional Imperatives**

Source our raw materials in a way that promotes flexibility and reduces lead time

Dedicate our capacity to the most fashionable items and the most capital-intensive activities

Outsource the rest of the items and activities to contractors, giving preference to those nearby

How?

Policies & Choices

Source our raw materials in a way that promotes flexibility and reduces lead time

Functional Imperatives

Why?

Source mostly, but not exclusively, from suppliers close to the place of manufacture

Facilitate the in-season updating of the fabric in as little as one week



How?

Operational Practices

Facilitate the in-season updating of the fabric in as little as one week

Policies & Choices

Why?

Purchase about half of the fabric as 'gray' (undyed)

Dye, pattern and finish the fabric in a 100% owned subsidiary

## Business Strategy

Distribution | Supply & Manufacturing | Design

| | |
|---|---|
| Core | Sell ever-changing variety of affordable, trendy fashion items in beautiful, well located stores. |
| Pillar | Respond quickly to changing fashion trends |
| Principle | Transform new designs into finished products, with speed & flexibility to keep with latest trends |
| Imperative | Source our raw materials in a way that promotes flexibility and reduces lead time |
| Choice | Facilitate the in-season updating of the fabric in as little as one week |
| Practice | Purchase about half of the fabric as 'gray' (undyed). |

Sell ever-changing variety of affordable, trendy fashion items in beautiful, well located stores.

**How?**

Respond quickly to changing fashion trends

**How?**

Transform new designs into finished products, with speed & flexibility to keep with latest trends

**How?**

Source our raw materials in a way that promotes flexibility and reduces lead time

**How?**

Facilitate the in-season updating of the fabric in as little as one week

**How?**

Purchase about half of the fabric as 'gray' (undyed).



Sell ever-changing variety of affordable, trendy fashion items in beautiful, well located stores.

**Why?**

Respond quickly to changing fashion trends

**Why?**

Transform new designs into finished products, with speed & flexibility to keep with latest trends

**Why?**

Source our raw materials in a way that promotes flexibility and reduces lead time

**Why?**

Facilitate the in-season updating of the fabric in as little as one week

**Why?**

Purchase about half of the fabric as 'gray' (undyed).

## Multiple dimensions in a SCS

Strategy-Operations
Continuum

Supply-Demand
Axis

Thematic
Range

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## Basic Evaluation Criteria

| Support | Consistency | Coverage |
|---|---|---|
| Every concept is **expected** to provide support to at least one concept from the layer above its own. | Every concept is **expected** to be consistent with every other concept within the same layer. | Taken together, the collection of concepts within a layer **should** address all the areas of interest for that level of abstraction. |



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# Anticipating future supply chain needs: the case of **Zara**

Executive Education
June 10, 2016
MIT Campus

Dr. Roberto Perez-Franco
Director
MIT Supply Chain Strategy Lab

## How can we anticipate Zara's future SC needs?

*Challenge 1*
Understand Zara's current supply chain strategy

*Challenge 2*
Anticipate Zara's future supply chain needs

*Challenge 3*
Craft a future-ready supply chain strategy for Zara

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Can you summarize your future growth plans and the challenges that they entail?

Pankaj Ghemawat
Professor, HBS

**MIT** Center for Transportation & Logistics

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**Q.** **Can Zara keep its supply chain ahead of the curve?**

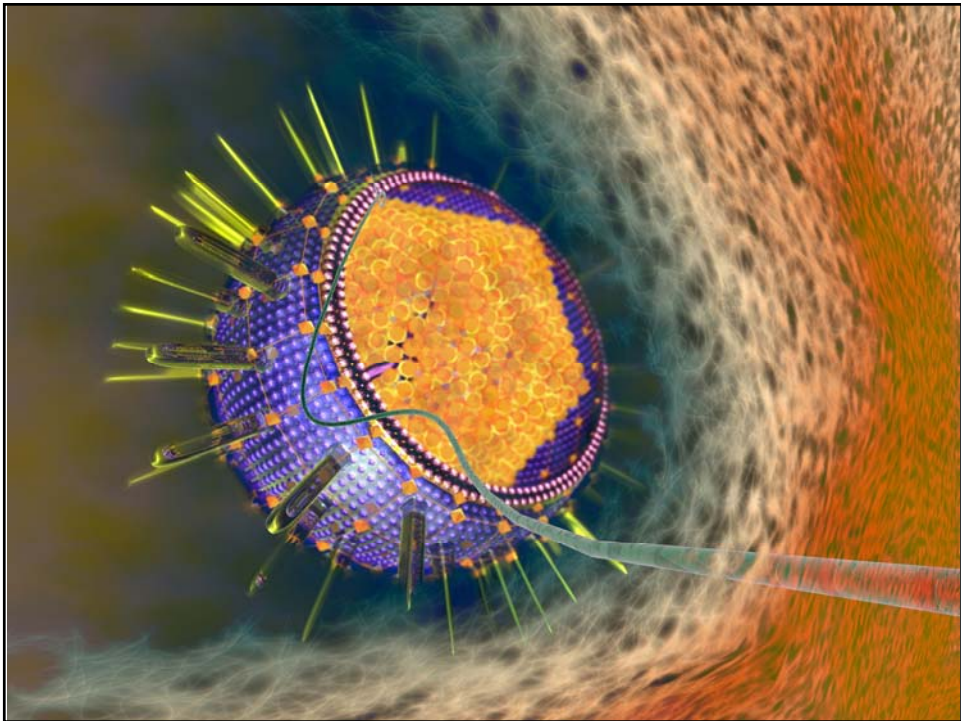**A.** **Yes, by crafting a future-ready supply chain strategy.**

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Visioning through scenario planning
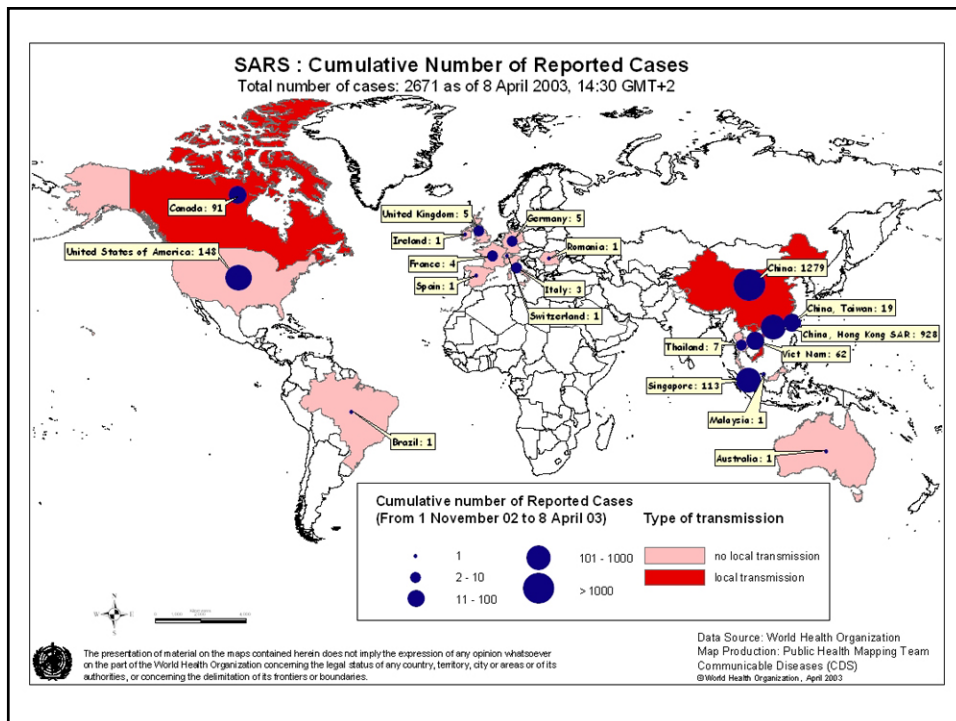
*The Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) causes a respiratory disease in humans.*
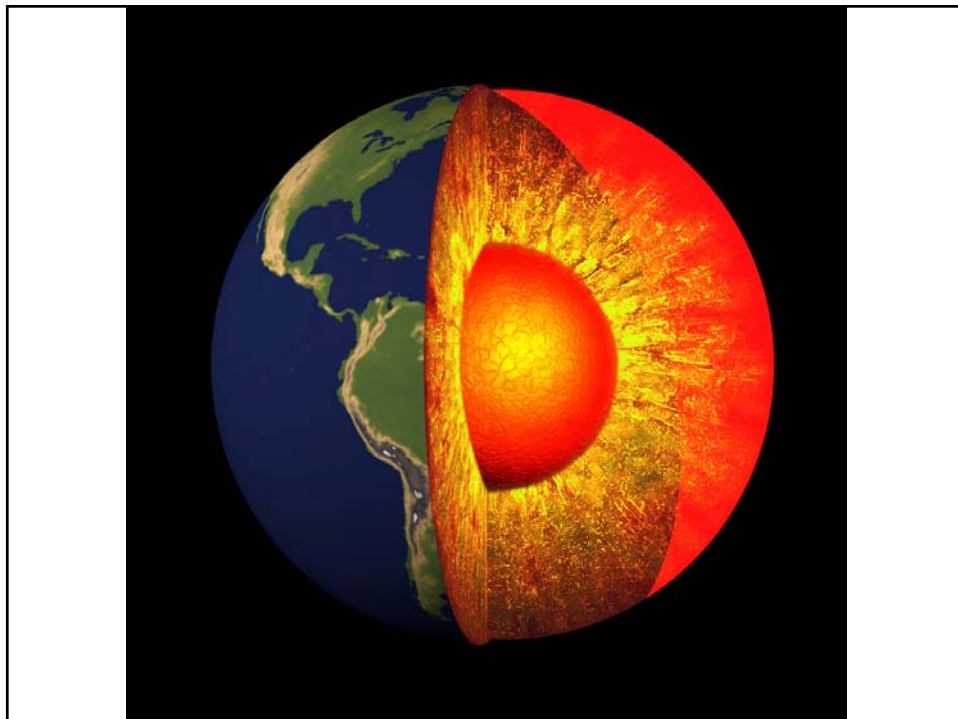
*Between November 2002 and July 2003 an outbreak of SARS in Hong Kong **nearly became a pandemic**, with 8,422 cases and 916 deaths worldwide.*

*Within weeks it spread from Hong Kong to infect individuals in 37 countries.*

As plants shut down, SARS
caused significant disruptions
to supply chains around the world.

Can the exact timing and location
of a health crisis be forecasted?

*Based on a century of observations, USGS estimates ~150 ≥6.0 earthquake occurs every year, including ~16 ≥7.0.*

*90% of earthquakes occur in the Ring of Fire, which touches most Asia Pacific countries.*



Crustal Plate Boundaries
Coastlines, Political Boundaries
Earthquake Epicenters, M>5, 1980-1990
Image courtesy of NOAA

*Earthquakes and tsunamis may also cause disruptions to supply chains.*

*Can the exact timing and location of earthquakes be forecasted?*

Composite map of the volcanic ash cloud from the eruptions of Eyjafjallajökull (spanning 14–25 April 2010).

Source: Wikipedia.



This event caused enormous disruption to air travel across western and northern Europe over an initial period of six days in April 2010.

Text: Wikipedia. Image: Reuters.

~20 countries closed their air space, resulting in
**the largest air-traffic shut-down since World War II**.
Flights to and from Europe were cancelled.
Millions of passengers were stranded across the world.
Text and image: Wikipedia.

*Volcano eruptions may also
cause disruptions to supply chains.*

*Can the exact timing and location
of volcano eruptions be forecasted?*

*Would perfect knowledge of the timing of an event help us prepare our supply chain for possible disruptions?*

*What if I had told you in May of 2010 that, with absolute certainty, exactly one year later a volcano would have the largest volcanic eruption in Iceland in the past half century?*

## May 2011 eruption of Grímsvötn



The Grímsvötn eruption in May 2011 is the largest eruption in Iceland for 50 years. Yet only 1 in 10 flights in Europe (900 out of 90,000) were cancelled as a result of the eruption, in the period 23–25 May.

Text: Wikipedia. Image: Jon Gustafsson

*Could it be possible that a
perfect forecast of disruptive **events**
is not as useful for preparing as a
good knowledge of their **effects**?*

*Milwaukee-area health care systems are increasing inventories of vinyl and nitrile exam gloves to prepare for a shortage expected to last through 2008.*

*Hong Ray Enterprises, based in Shijiazhuang, China, the world's largest manufacturer of vinyl exam gloves and a major manufacturer of nitrile gloves, has notified American distributors that it will be unable to meet its normal agreements to customers, partly because of the August Olympics to be held in Beijing.*

*Plants within 200 kilometers of the Olympics site have temporarily shut down to reduce pollution during the games…*

*Milwaukee-area hospital systems were told about the possible shortage in early July. "This just hit us out of the blue," said Terri Kendrick, director of purchasing for Wheaton Franciscan Healthcare, Glendale. "It was only over the last three weeks that we really became aware of it. We heard about the Olympics, **but we just didn't understand the economic impact**."*

*Dave Piotter, director of purchasing for Milwaukee-based Aurora Health Care, said the system likely will purchase $180,000 worth of surplus gloves, which will last about a month and a half.*

*"This did catch us off guard; we weren't expecting the Olympics to cause all of this," Piotter said. "It doesn't happen often, but **there have been other threats to the glove supply — for instance, when a tsunami hits or plants are shut down**. This is probably the third time I've seen this (happen) in my 20-year career."*

*The exact timing and location of the Olympic games is easier to forecast than volcano eruptions, health crises, earthquakes and tsunamis.*

*Yet it was the **effect**, not the **event**, which caught supply chains by surprise.*

When it comes to disruptions, different **events**…

Health Crises    Policy Changes    Natural disasters of a wide variety

…may have similar **effects** on the supply chain.

---

*There is huge number of events*
*that may disrupt a supply chain,*
*yet only a small number of effects*
*that these events can have on it.*

***When it comes to long term planning,***
***instead of forecasting specific events,***
***it is better to prepare for their effects.***

# SCENARIO PLANNING IN A NUTSHELL

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The Future Freight Flows initiative is primarily concerned with improving the way in which freight infrastructure investments are made and enabling informed discussions of national, multistate, state, and regional freight policy and system investment priorities.

## Food Price Index (1990 to 2037)

*"Fearing growing tensions among its member nations, the UN Security Council has launched an emergency session. A proposal to create a global regulatory entity has been circulated..." (BBC News)*

*"Behind the recent popular uprisings in Asia, Africa and Latin America, there is the specter of famine caused by global food shortages." 2019 State of the Union Address*

*"rise in global food prices has sunk 35 million more people into poverty during last 2 years ... major driver of unrest in Asia" (CIA 2014 Report)*

*"persistent, grinding pressure on the world's poor ... With food prices, we are at a real tipping point" – R Zoellick, President, World Bank*

*"surge in global food prices [drives] 44 million people below the 'extreme poverty line'" - CNN Money*

*"Egypt and Tunisia usher in the new era of global food revolutions" - The Telegraph*

UN Security Council orders 5-yr food price freeze subsequent regulation of global food trade
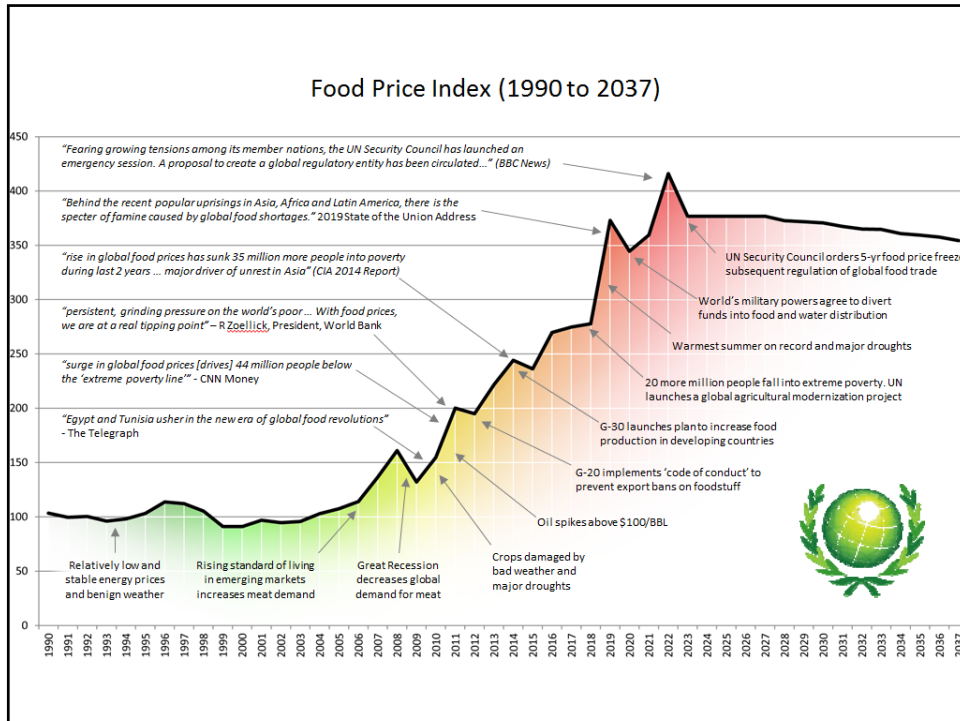
World's military powers agree to divert funds into food and water distribution

Warmest summer on record and major droughts

20 more million people fall into extreme poverty. UN launches a global agricultural modernization project

G-30 launches plan to increase food production in developing countries

G-20 implements 'code of conduct' to prevent export bans on foodstuff

Oil spikes above $100/BBL

Relatively low and stable energy prices and benign weather

Rising standard of living in emerging markets increases meat demand

Great Recession decreases global demand for meat

Crops damaged by bad weather and major droughts

Y-axis: 0, 50, 100, 150, 200, 250, 300, 350, 400, 450

X-axis: 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037

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**WSTO** | *Welcome to the World Sustainable Trade Organization*

Search WSTO Website [Go]

English | 日本語 | Deutsch | Español | Français | Русский

## World Sustainable Trade Organization
The peoples of the world working together… for a sustainable tomorrow!

| Sustainability | Environment | Commerce | Regulations | Compliance |

**Featured Video**
*Review of the WSTO's first 15 years*

A summary of the WSTO's achievements in maintaining world trade fair and clean.

**News from the WSTO**

*WSTO decides claim regarding Chinese tires export in favor of Brazil*
**[Read]**

**From our most recent report**

*The work of the WSTO has made possible to translate prosperity into better quality of life. The figure below illustrates the sustained improvement, both in developed and developing nations, in terms of the human development index, a composite statistics that considers life expectancy, education and per-capita GDP. Citizens of all nations live longer, are more educated and have better income than their predecessors, thanks to the sustainability policies put in place by the WSTO.*

Chart legend: USA, Japan, Germany, Brazil, China, India
Y-axis: 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00

**Your WSTO**

WSTO at a Glance
WSTO Charter
Structure / Organization
Member Nations
WSTO Information Center
Calendar of Meetings
Frequent Questions

**WSTO Structure**

**General Assembly**
- *Secretary General*
- *Presidency*

# Scenarios for creative
# **strategic thinking**

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**Divergence:** Let's divide into groups to
consider the effect of each scenario on Zara

Naftástique!

MILLIONS
OF MARKETS

ONE WORLD ORDER

Global Marketplace

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## Your task as a group

Meet with other participants with the same scenario. Discuss for 15 minutes the following:

- **What are the top three implications that your scenario would have on Zara's business model, and based on this**
- **What modifications to Zara's supply chain would you propose, to perform better in this scenario.**

Make a note of these so that you can report back to the group in a debriefing.

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## Differences Between Scenarios



| | Naftástique! | ONE WORLD ORDER | |
|---|---|---|---|
| Global Trade | Low | High | Low (physical) |
| Resource Availability | Low | Low | High |
| Energy Cost Level | High | High | Low |
| Energy Cost Variability | Low | High | Low |
| Level of Environmental Awareness | Same as Today | High | High |
| Population Dispersion | Growth in SW | Growth in Biggest Cities | Rise in Mid Tiered Cities |
| Energy Sources | Majority NA | Mix Foreign & Domestic | Majority Domestic |
| Level of Migration | High w/in Bloc, Low between | High | Low |
| Migration Policy | High | High | Low |
| Currency Fluctuations | Low w/in Bloc | High | Low |

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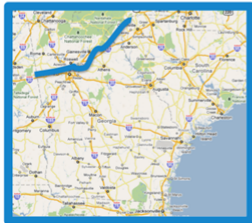
## Freight Segments (2/4)
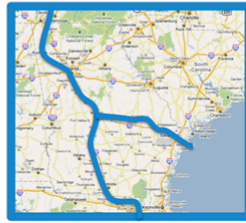
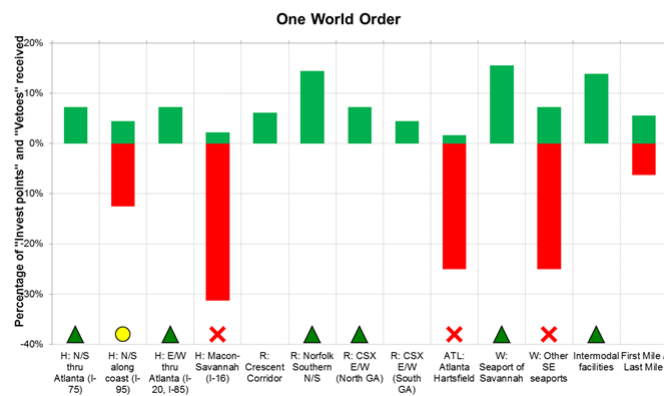*East-West CSX rail lines in Northern Georgia*

*East-West CSX rail lines in Southern Georgia*

*Norfolk Southern Crescent Rail Corridor*

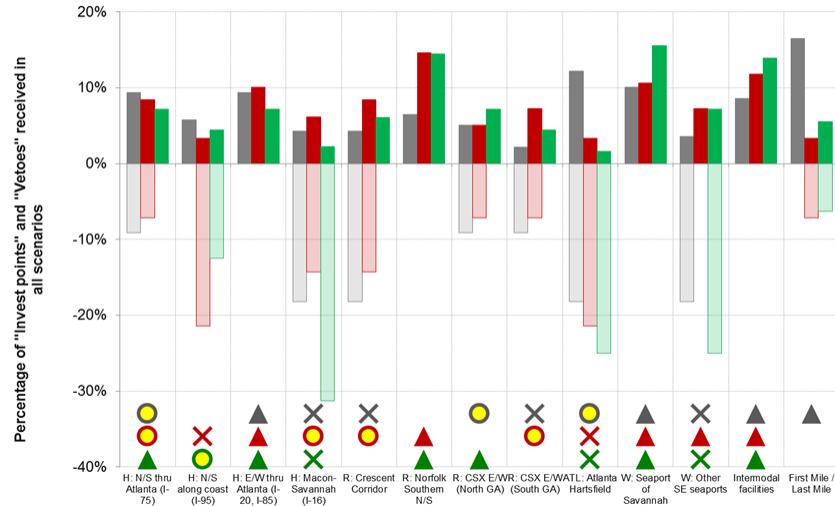*Norfolk Southern North-South rail lines (e.g. Valdosta-Atlanta line, Savannah-Macon line)*



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## One World Order: Voting results



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**All scenarios: Voting results**



**Convergence:**
Crafting an improved SCS for Zara

| Challenge 1 | Challenge 2 |
|---|---|
| *Understand your current supply chain strategy* | *Anticipate future supply chain needs* |

*Challenge 3*
*Craft a future-ready supply chain strategy*

*Challenge 4*
Implement this new supply chain strategy

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