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WARWICK BUSINESS SCHOOL
THE UNIVERSITY OF WARWICK

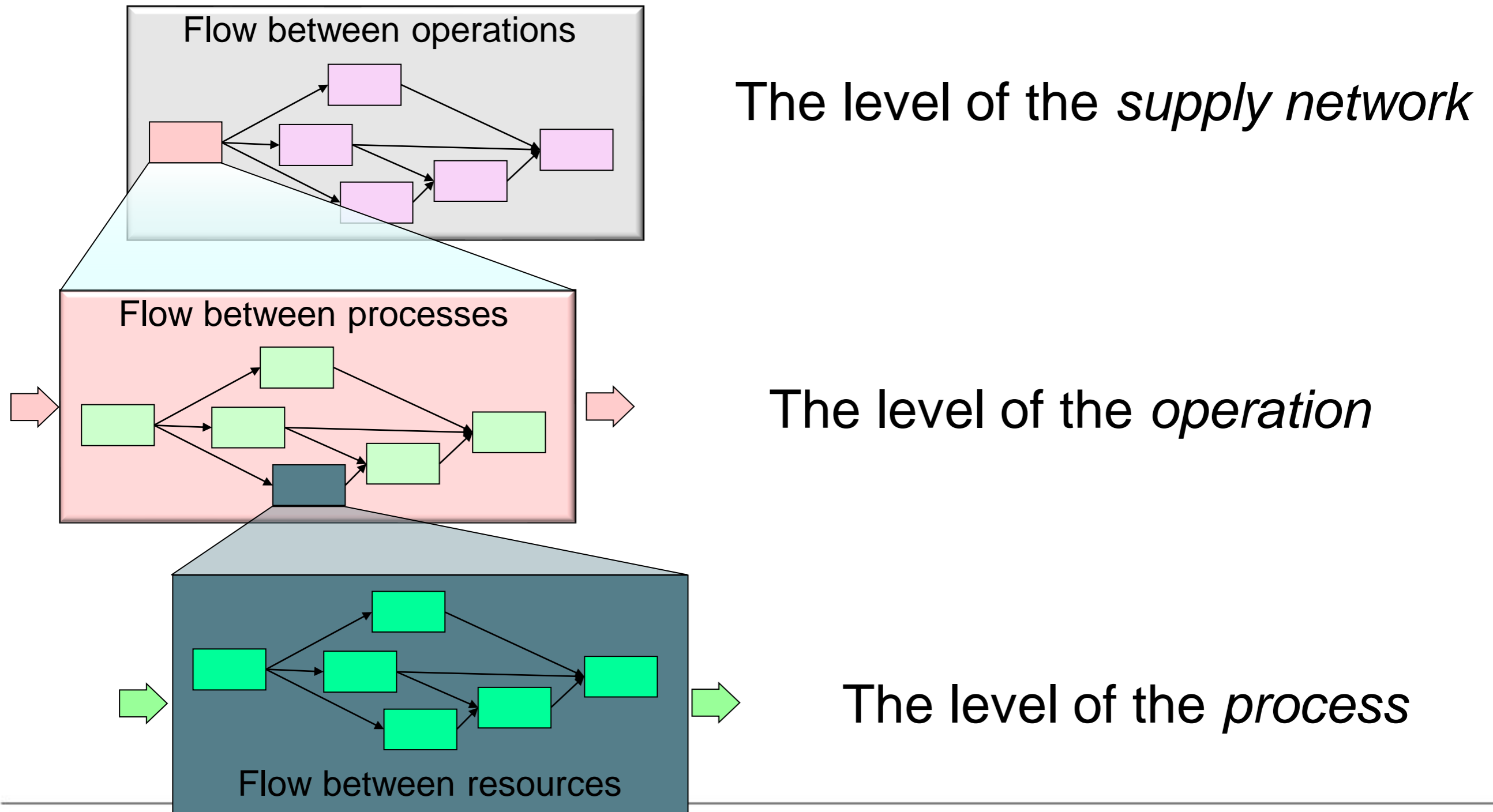
**For the
Open
Minded**

Supply Chain Operations Part 1

Agenda

- ◎ Explore why operations needs to be managed within a supply chain
- ◎ What does SC look like?
- ◎ What is outsourcing? Understand complexities involved in outsourcing & procurement decisions
- ◎ Triple A by Lee
- ◎ 4Rs by Christopher
- ◎ BICYCLE case study

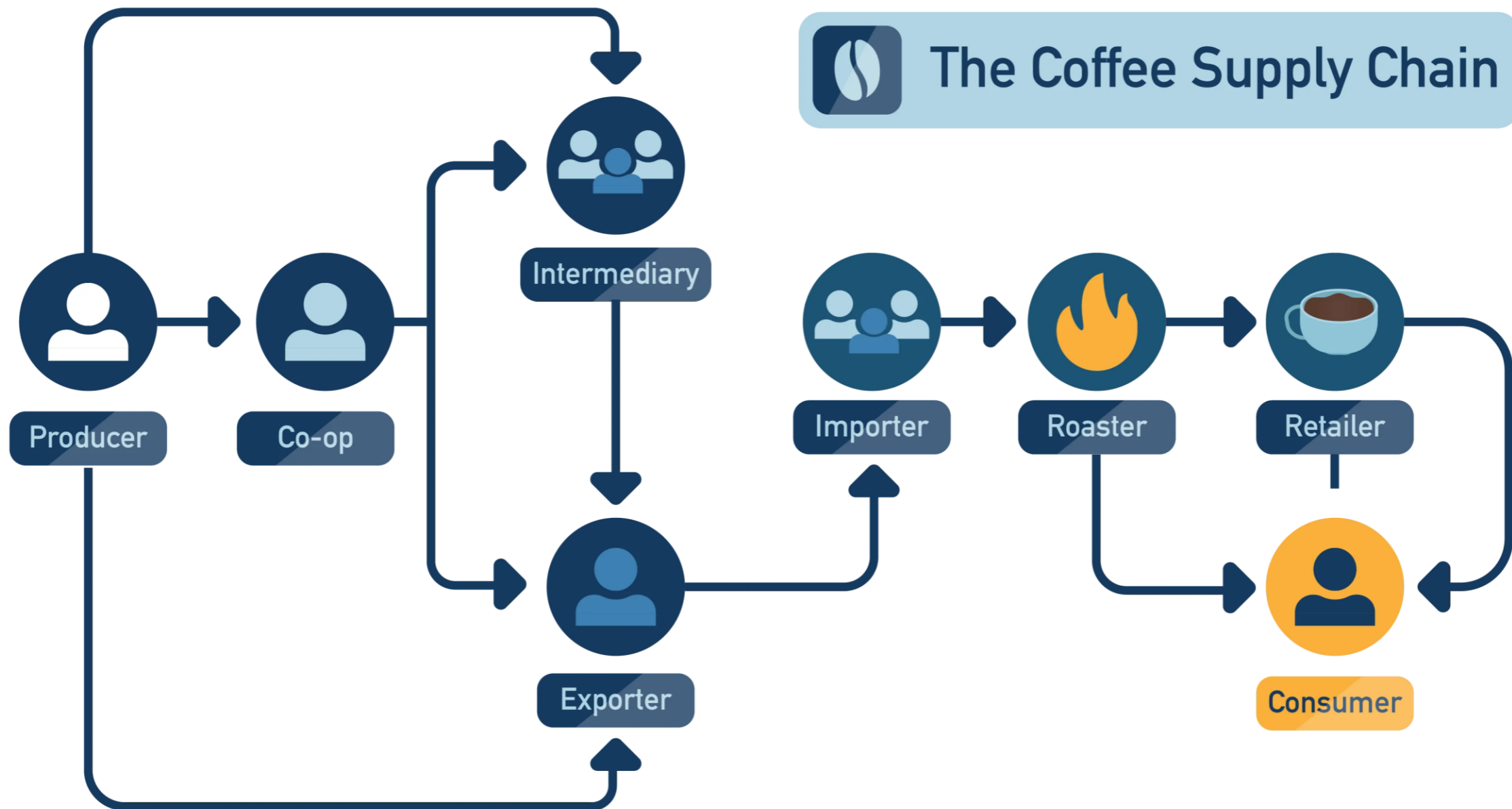
Operations can be analyzed at three levels



Let's look at Coffee Business



Coffee Supply chain



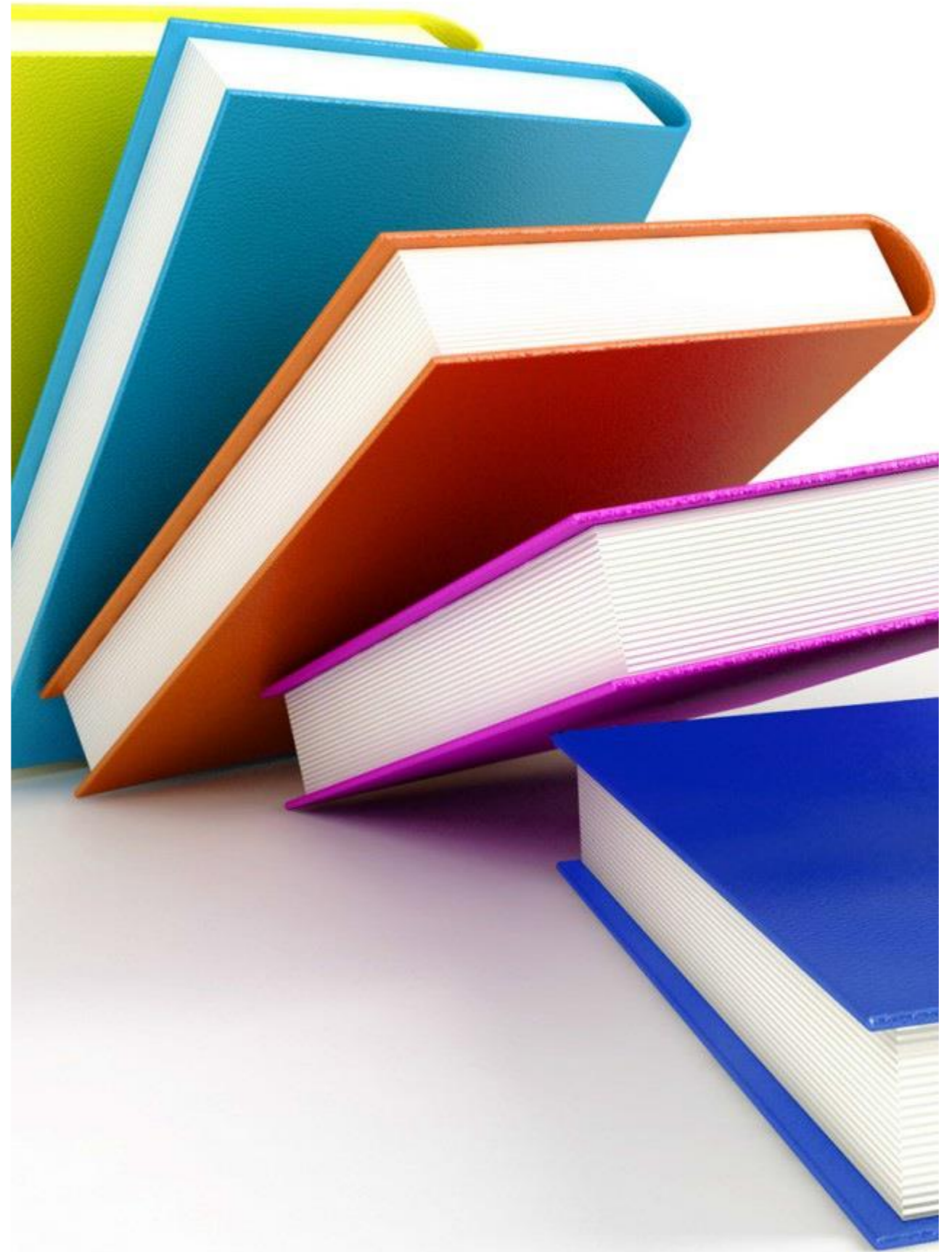
Why is SCM important?

- ◎ Supply chains compete, not companies
- ◎ Up to 75% of expenditure spent on managing supply chain (Trent 2004)
- ◎ “Supply chain is the dominant function within modern organisations” (Miles and Snow, 2006)
- ◎ Supply Chains are as strong as their weakest links
- ◎ Ernst & Young have pointed out that 70 per cent of a manufacturing company’s carbon footprint can come from transport and other costs involved in the supply chain.

Related Terminology

There are several common terms used:

- Supply Chain
- Supply Network
- Demand Chain
- Value Chain
- Pipelines, channels and Demand chains
- Operations network
- Design/Development Chain
- Extended Enterprise
- Eco-system



Supply chain management is a very popular topic

Carrefour rolls out blockchain across supply chains

posted by *Alex Daniel*
in *Supply chain, Technology*

🕒 Yesterday

Carrefour is to roll out blockchain technology across its supply chains over the coming years, in a bid to improve how it traces food such as eggs and tomatoes.

Europe's biggest retailer is planning to apply the *shared ledger* to its premium 'Quality Line' range, which includes French and Norwegian chicken, salmon, eggs, milk, tomatoes and cheese, by the end of the year.

The French company will use IBM's blockchain platform, Food Trust, to track the products, following the lead of Walmart, *Unilever and Nestlé* who are also trialling the technology.

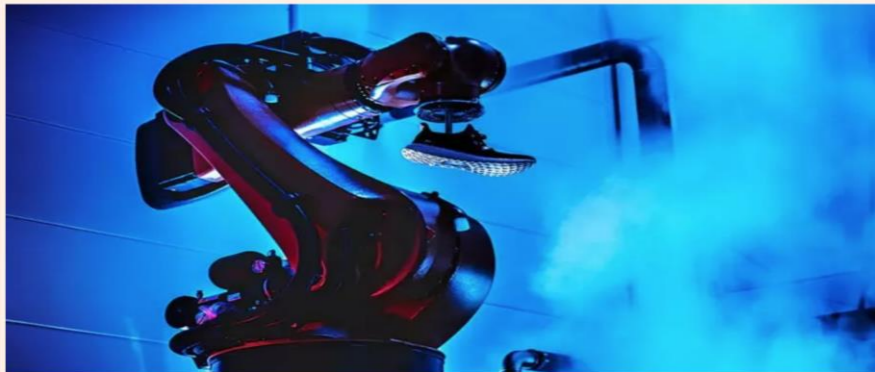
The Big Read **Artificial Intelligence and Robotics** + Add to myFT

Nike's focus on robotics threatens Asia's low-cost workforce

Developing countries at risk of losing cheap manufacturing if leisurewear companies accelerate automation

Robot revolution helps Adidas bring shoemaking back to Germany

Company plans to produce 1m shoes in developed markets thanks to automation



© FT

JUNE 8, 2016 James Shotter in Ansbach and Lindsay Whipp in Chicago

34 comments

In a small factory in Bavaria, [Adidas](#) is about to do something that it has not tried for three decades: bring shoe production back to Germany.

The forklift truck drivers who never leave their desks

By Chris Baraniuk
Technology of Business reporter

🕒 19 October



PHANTOM AUTO

Some warehouses are opting for remote-operated forklift trucks

During the pandemic, many of us have relied on having goods delivered to our homes more frequently than before.

Supply chain management (or lack of it) is a very popular topic

£45m deal for NHS masks collapses amid fraud claims

Exclusive: millions of respirators missing as medical company sues its supplier in US

[Business](#) | [Your Money](#) | [Market Data](#) | [Companies](#) | [Economy](#)

Honda: No-deal Brexit 'would cost tens of millions'

🕒 18 September 2018 | 📄 197

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Brexit

Forced labour in Paraguay: the darkness at the bottom of the global supply chain

Experts believe that action is urgently needed to expose horrifying labour conditions across Paraguay's Chaco region

M&S, Aldi and Lidl suspend buying from chicken plant that fiddles kill dates

Food Standards Agency, Tesco and Sainsbury's investigate 2 Sisters Food Group plant after Guardian/ITV News story

We had slavery in our supply chains, says Andrew Forrest

The Fortescue Metals chairman says he was appalled by the conditions of some workers connected to his business

VW supplier dispute stalls car production

posted by *Francis Churchill* in *Supplier relations, Supply chain*

🕒 24 August 2016

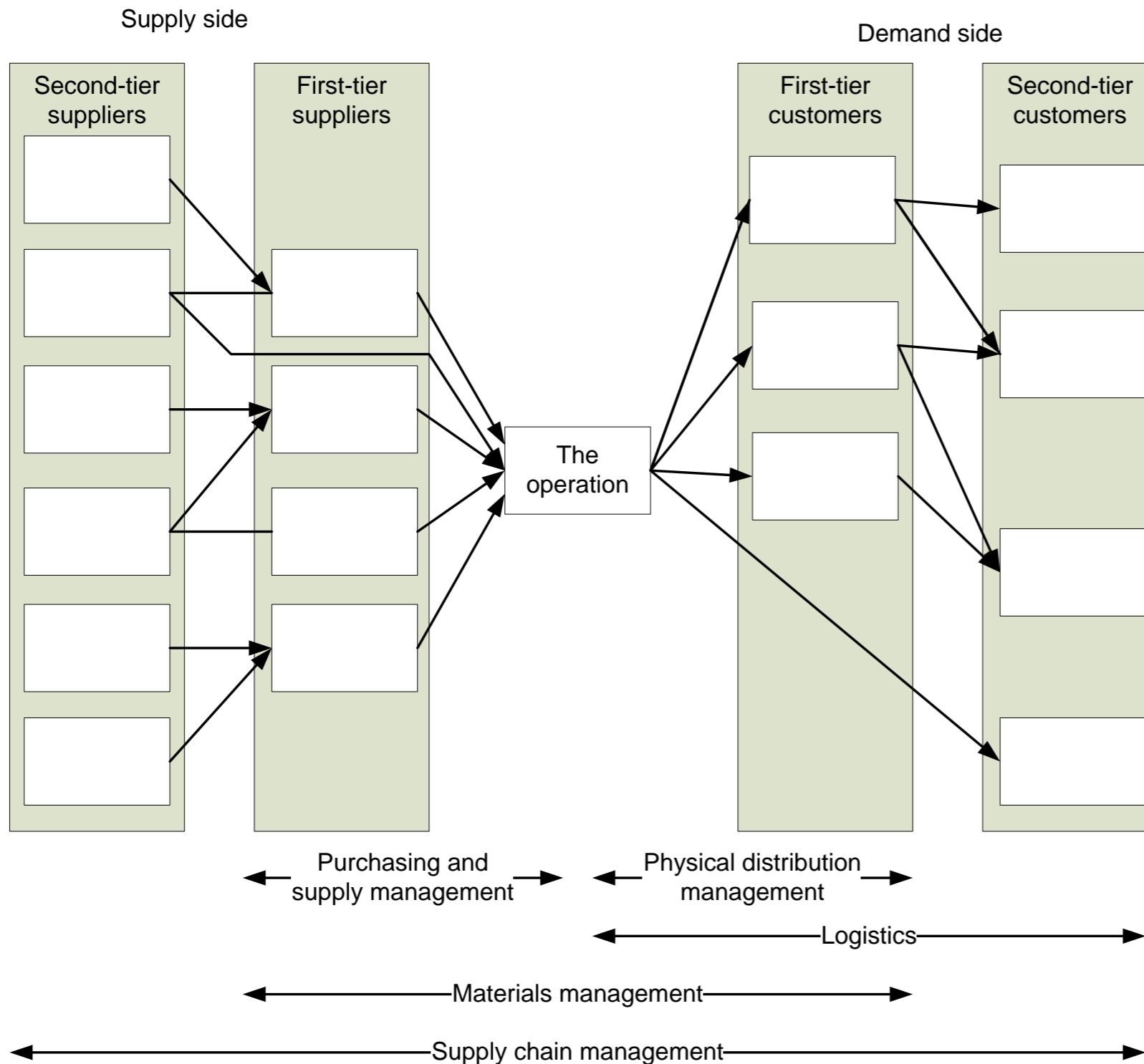
A long running supplier dispute hit production of *Volkswagen's* popular Golf and Passat models this week.

VW's 'dieseldate' scandal to cost the company \$14.7bn

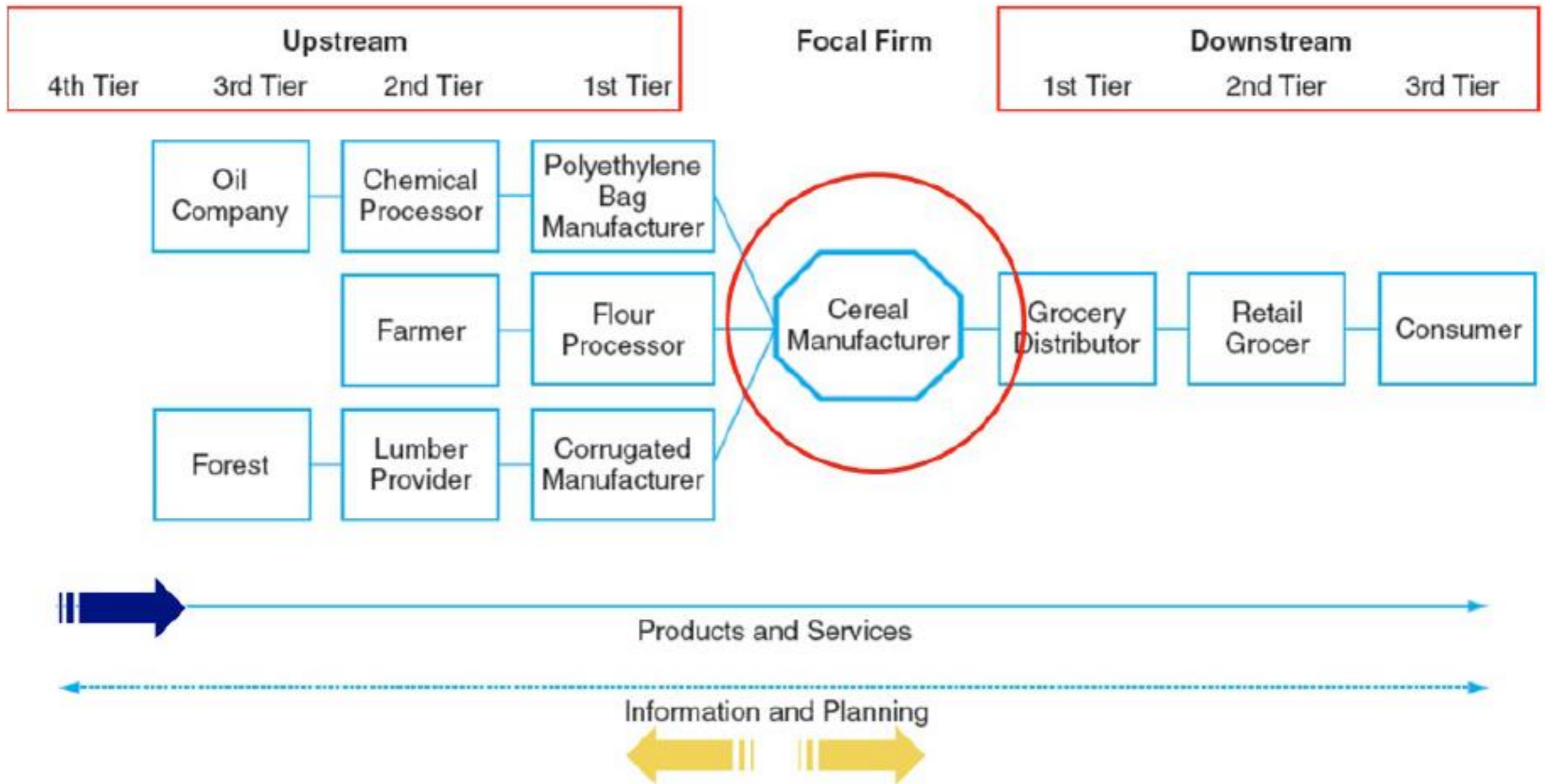
Full details of VW's punishment and compensation for diesel cheat revealed. And it's huge

[Paul Horrell](#) | 29 Jul 2016 | [f](#) [🐦](#) [⋮](#) | 38

What does a supply chain look like?

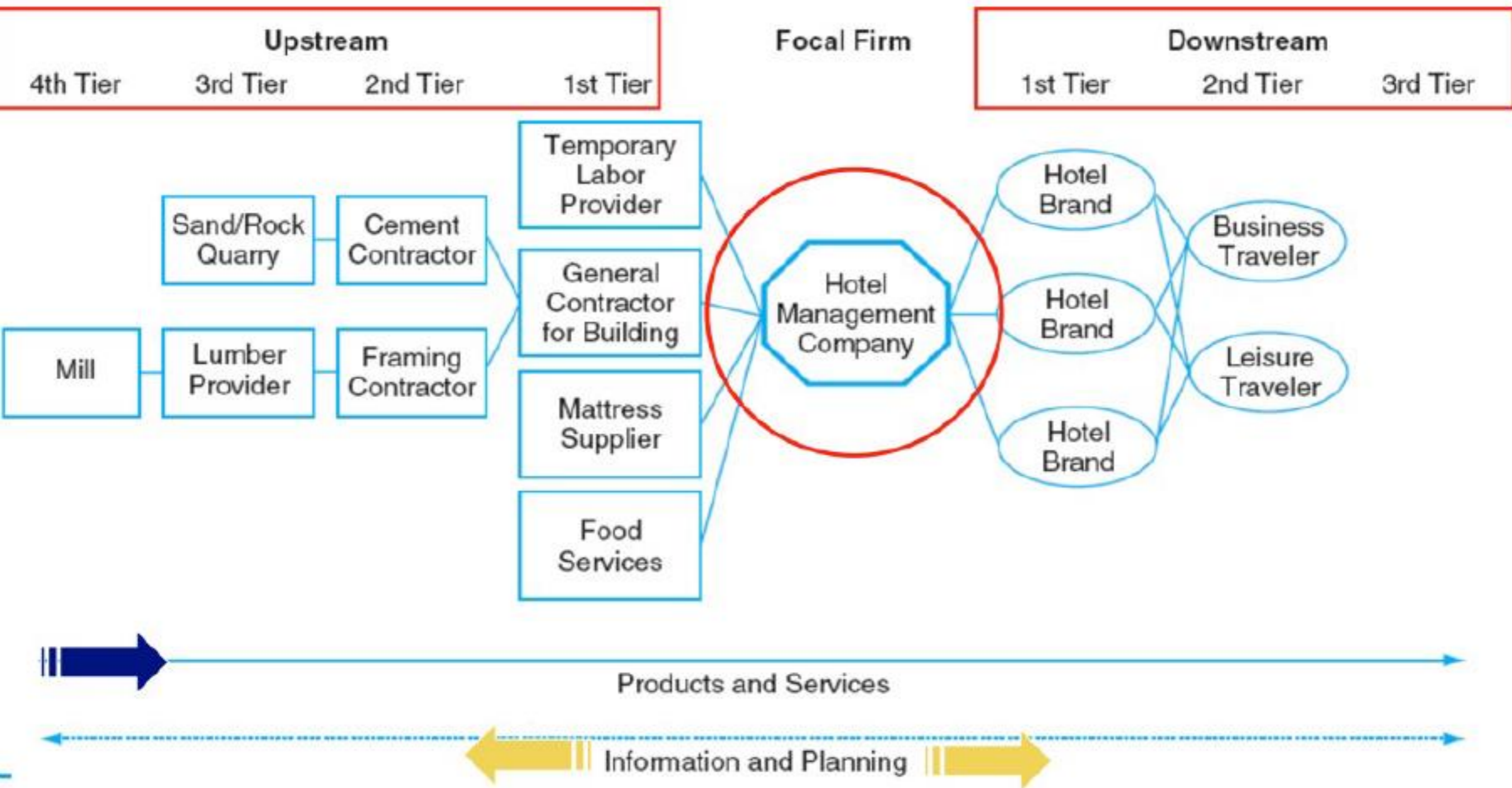


From: Johnston *et al.* (2003)
Cases in Operations
Management. Harlow: FT
Prentice Hall.



Manufacturing supply chain

Cereal manufacturer

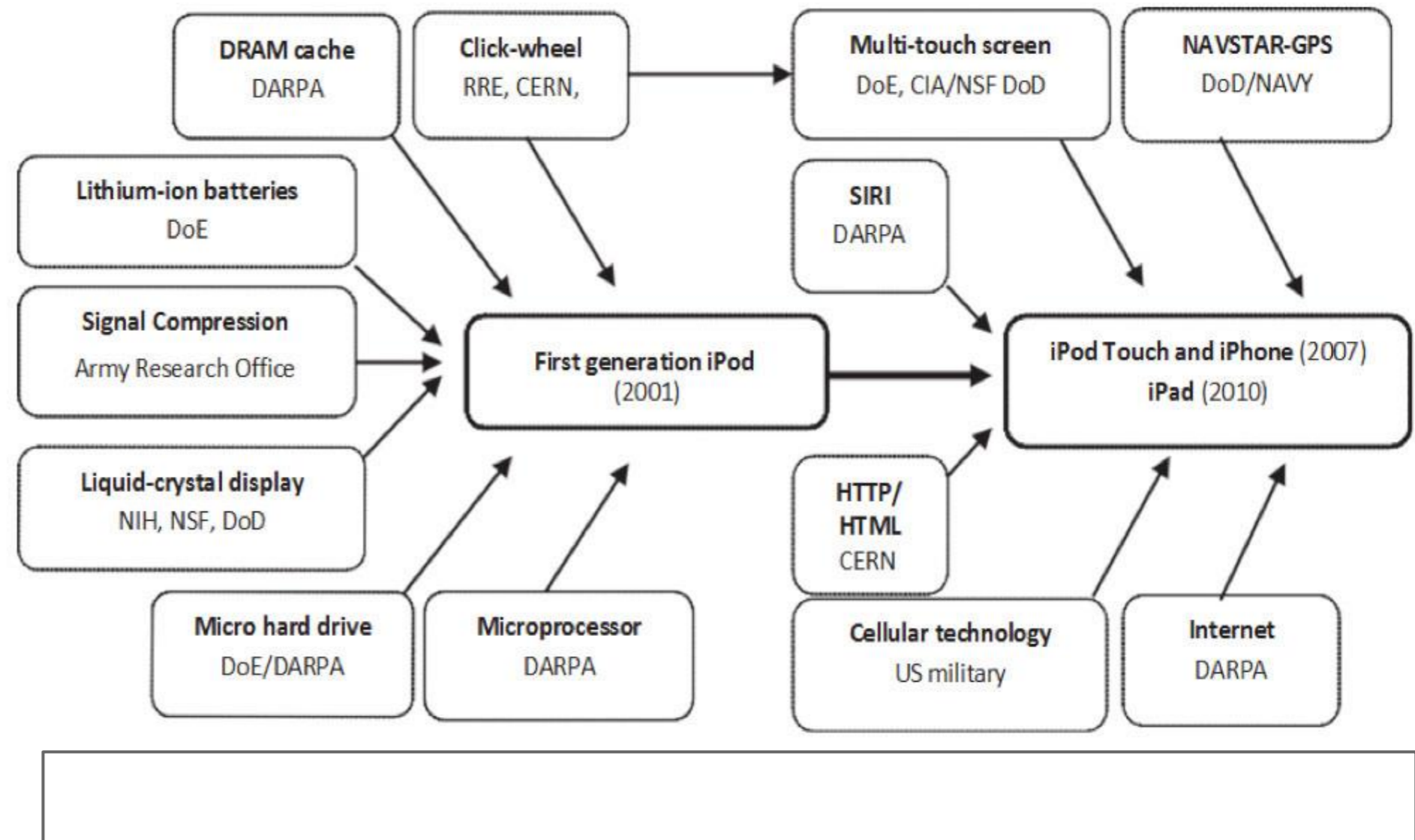


Services supply chain

Hotel management company

Innovation Supply Chain of an iPhone

What Makes the iPhone so Smart?



Darpa: Defense Advanced Research Project Agency
 DoE = Department of Energy, US
 CERN = A pan-European research agency

DoD = Department of Defence, US
 NSF = National Science Foundation

What is a Supply Chain?

A network of connected and interdependent organizations mutually and co-operatively **working together** to control, manage and improve the flow of **materials and information** from **suppliers to end users**.

Christopher, M. (2011)



What is Supply Chain Management?

“The management of upstream and downstream **relationships** with suppliers and customers to deliver **superior customer value** at less cost to **the supply chain as a whole.**”

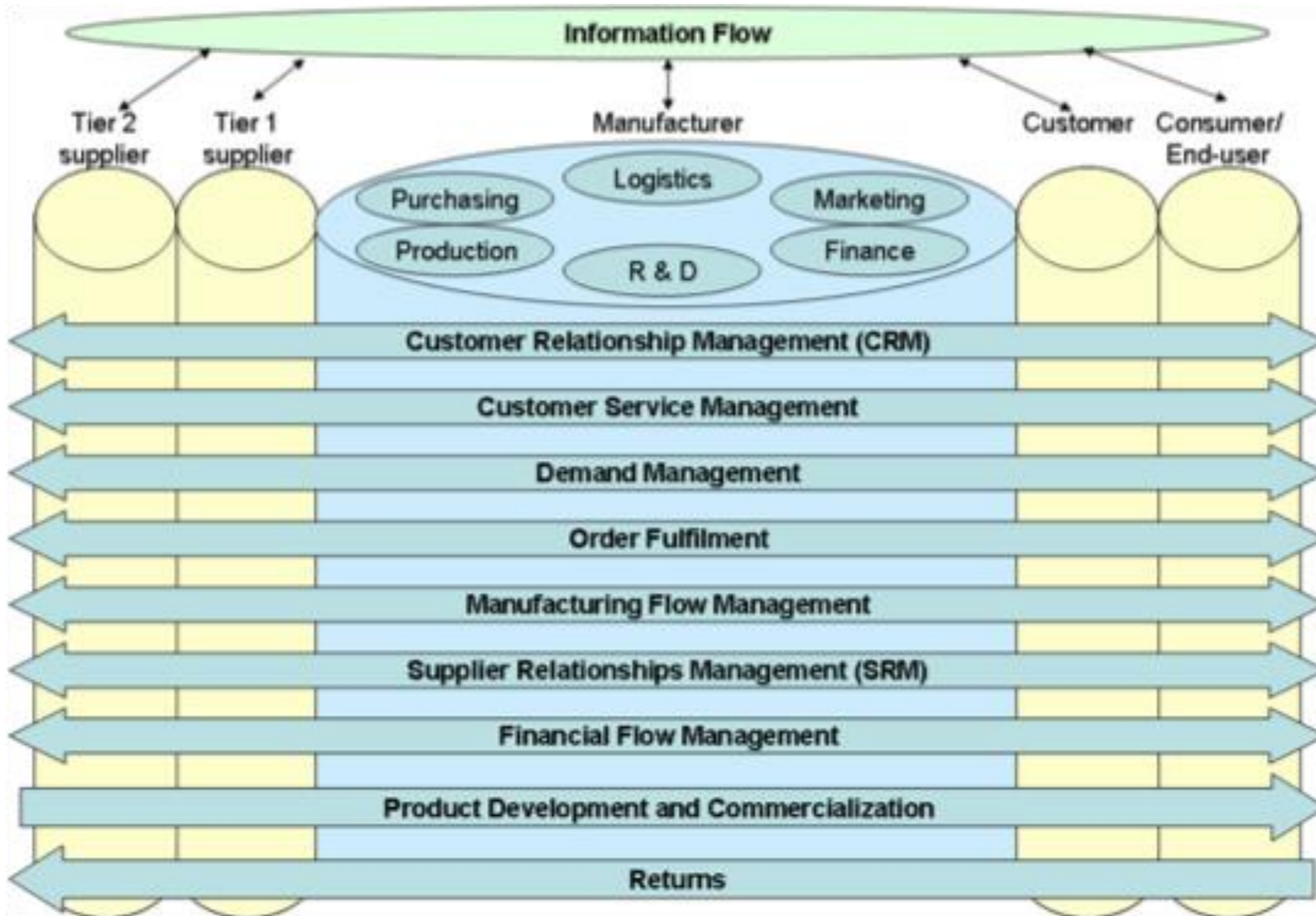
Christopher, M. (2011)





What does supply chain managers do in practice?

What does supply chain management look like?



Global supply chain forum model