



**The Chartered
Institute of Logistics
and Transport**

INTERNATIONAL DIPLOMA IN SUSTAINABLE SUPPLY CHAIN MANAGEMENT

INTRODUCTION TO SUSTAINABLE SUPPLY CHAIN MANAGEMENT

ISSCM

JUNE 2025 EXAMINATION

Instructions to Candidates

- Duration of examination: **3 hours**.
 - **Answer Section A Question 1 Compulsory and any FOUR questions in Section B**
 - Questions may be answered in any order
 - Allocation of marks is indicated along each question
 - Credit will be given for citing relevant examples
 - Write legibly
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QUESTION 1

(COMPULSORY)

Nokia deals with uncertainty

In March, 2000, a thunderstorm struck the Philips semiconductor plant at Albuquerque in New Mexico, which made silicon chips for products such as mobile phones. Damage at first seemed minor, and firefighters soon left the premises. At first, Philips told major customers such as Nokia and Ericsson that the delay to production would only be one week. But damage to some of the clean areas in the plant – created by smoke and water was actually going to take months to remedy. Clean rooms in semiconductor plants must be spotless, and particles of more than 0.5µm are filtered out. The one-week delay was quickly reported by Tapio Markki, Nokia's chief component purchasing manager, to Pertti Korhonen, Nokia's top troubleshooter. 'We encourage bad news to travel fast', said Mr Korhonen. While Philips initially rejected offers of help from Nokia, it

soon became apparent that production delays would be much more than one week. Korhonen put together a team to find solutions to supplying the five chips that were affected by the Philips fire. Three were quickly re-sourced from Japanese and American suppliers, but the other two were only supplied by Philips. This time Philips cooperated at the highest level. Nokia's chairman and chief executive, Mr Ollila, met with the Philips CEO Mr Boostra and the head of the Philips semiconductor division, Mr van der Poel. Factories at Eindhoven and Shanghai were rescheduled to supply the missing chips, and engineers from both Nokia and Philips worked to accelerate the return of the Albuquerque plant to full production. As a result of these intensive efforts, there were relatively minor delays to Nokia's mobile phone shipments. Executives at Ericsson in Sweden only learned of the problem several weeks after the fire. Company culture was less proactive than at its Finnish rival. The bad news was withheld from senior management long after it became clear that delays were becoming serious. By the time Ericsson realised the magnitude of the problem, it was too late to find alternative sources. Nokia had seized the remaining world capacity, and it took nine months for the situation to be rectified. The disruption led to a 3 per cent loss of market share by Ericsson, and contributed in turn to its exit from the phone handset market (it formed a joint venture with Sony in 2001).

(Sources: Sheffi, 2005; Latour, 2001)

QUESTION 1

Reflect and examine the key lessons from this case for dealing effectively with disruptions to the supply chain.

(20 marks)

SECTION B

Answer any FOUR questions.

QUESTION 2

Discuss the key components of an effective supply chain strategy and how these components align with overall business objectives.

(20 marks)

QUESTION 3

Analyze the major risks in supply chain management and identify strategies which organizations can implement to mitigate these risks.

(20 marks)

QUESTION 4

Evaluate the role of sustainability in supply chain management, and how companies can balance environmental concerns with cost efficiency and customer satisfaction.

(20 marks)

QUESTION 5

How do emerging technologies such as IoT, AI, and blockchain influence supply chain operations. Provide examples of their applications in real-world scenarios.

(20 marks)

QUESTION 6

Examine the complexities of managing a global supply chain, key challenges and how organizations can effectively respond to them.

(20 marks)