

Using SCM and SCOR in Managing GIS Products

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This poster is a case study for a PhD dissertation, looking into the application of supply chain management for Geographic Information System (GIS) units that create a GIS-product, sourcing data from various locations and delivering the product to different locations. The transportation of the data is done either via CD-ROM, DVD, removable hard disks, or via the LAN or Internet, using FTP protocols.

ESI-GIS at Eskom Distribution was used for the case study and the Supply-Chain Operations Reference (SCOR) model was used to model the supply chain.

DEFINITION OF A GIS

A Geographic Information System is a computer-assisted system for the acquisition, storage, analysis and display of geographic data Eastman (2001:5).

DEFINITION OF A SC AND SCM

The supply chain (SC) encompasses all activities associated with the flow and transformation of goods from the raw materials stage (extraction), through to the end user, as well as the associated information flows. Material and information flow both up and down the supply chain (Handfield and Nichols, 1999:2).

Supply chain management (SCM) manages the supply chain.

HYPOTHETICAL GIS SUPPLY CHAIN

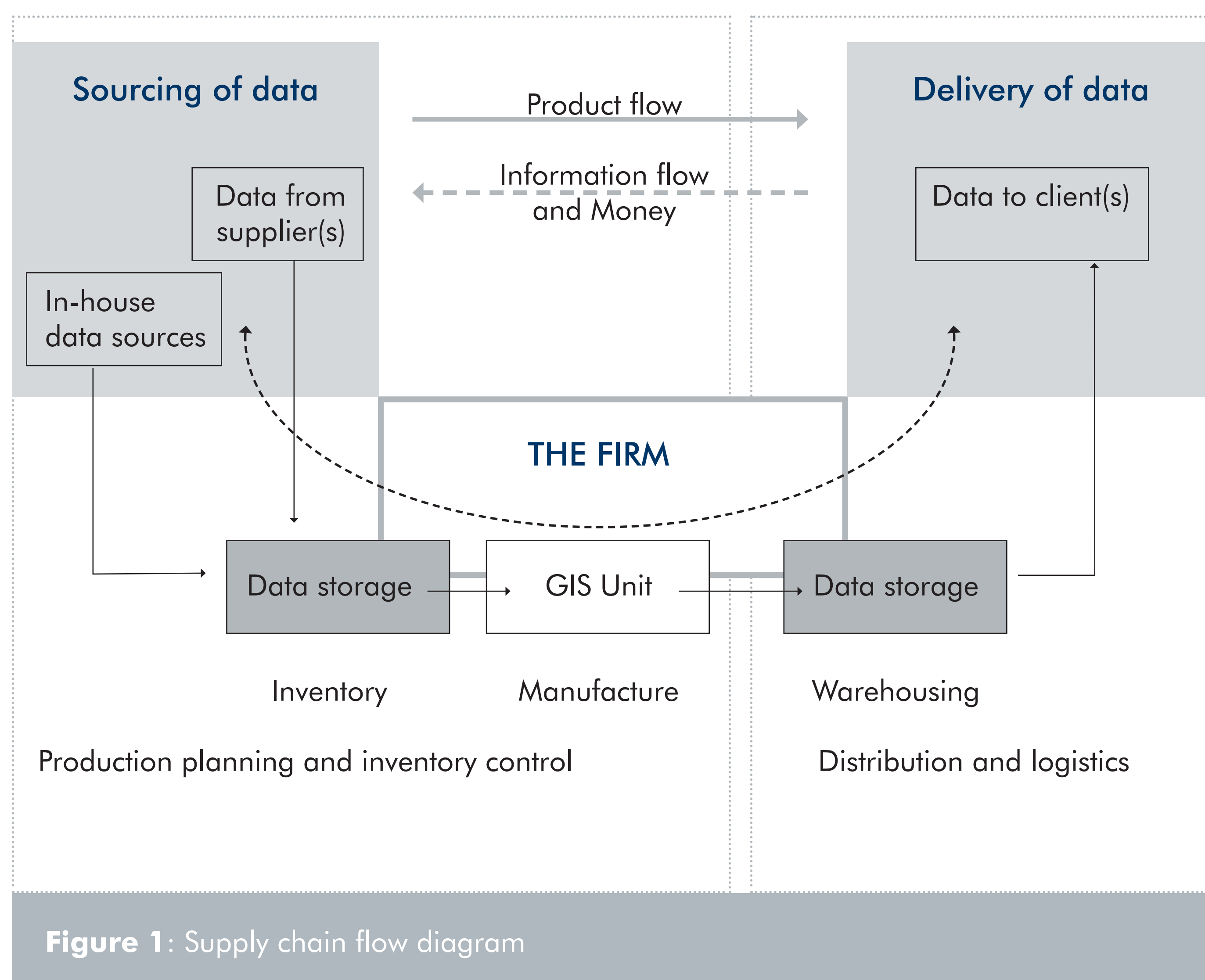


Figure 1: Supply chain flow diagram

ESI-GIS CASE STUDY

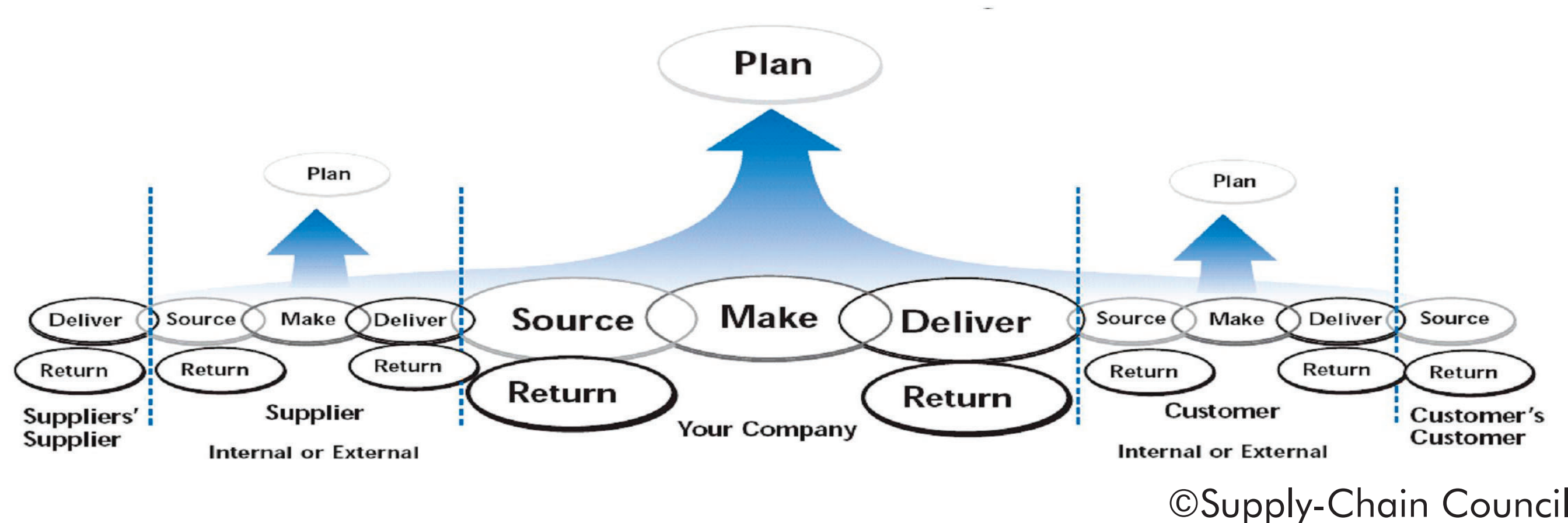


Figure 2: SCOR model

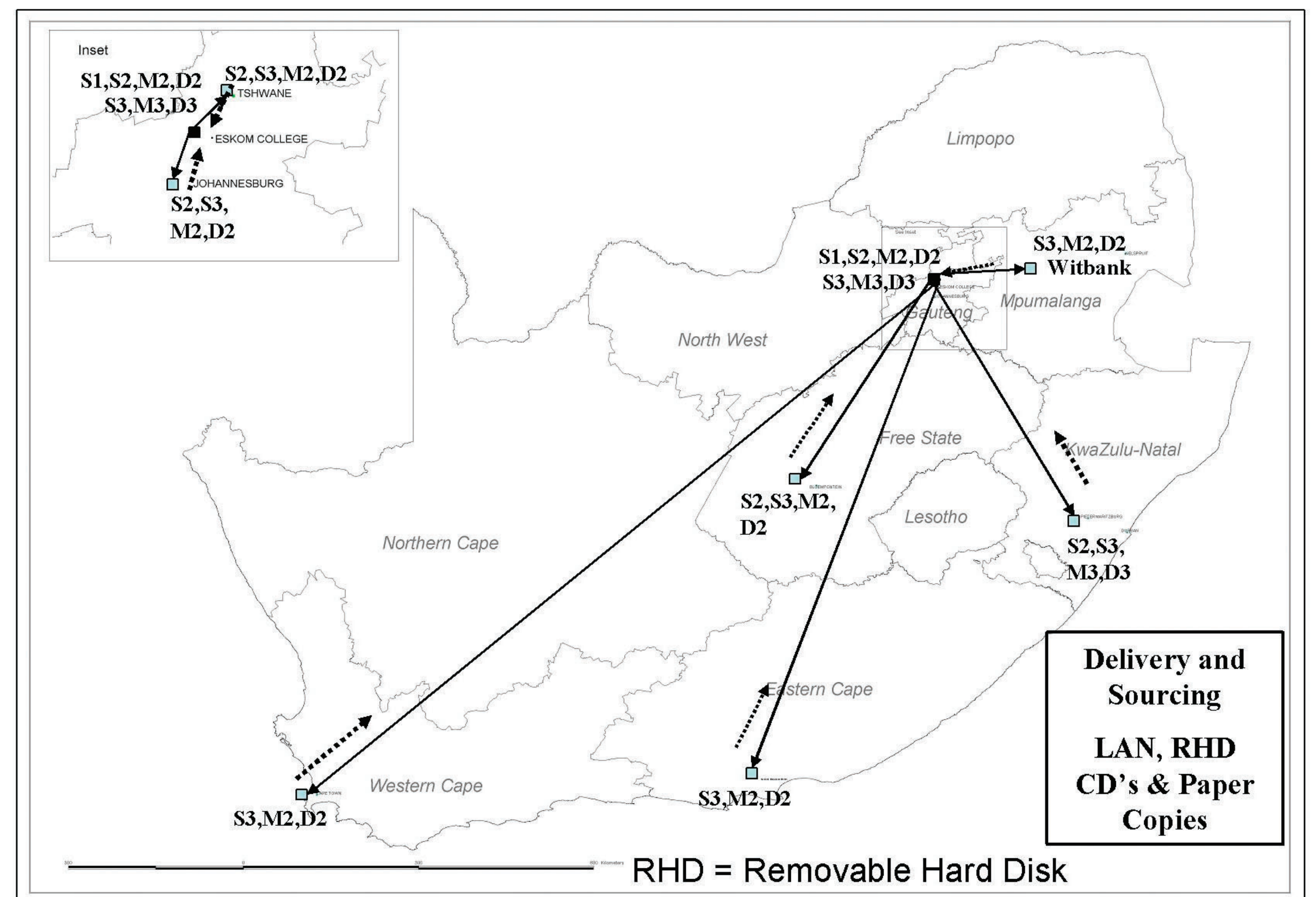


Figure 3: ESI-GIS supply chain between ESI-GIS and Eskom regional offices

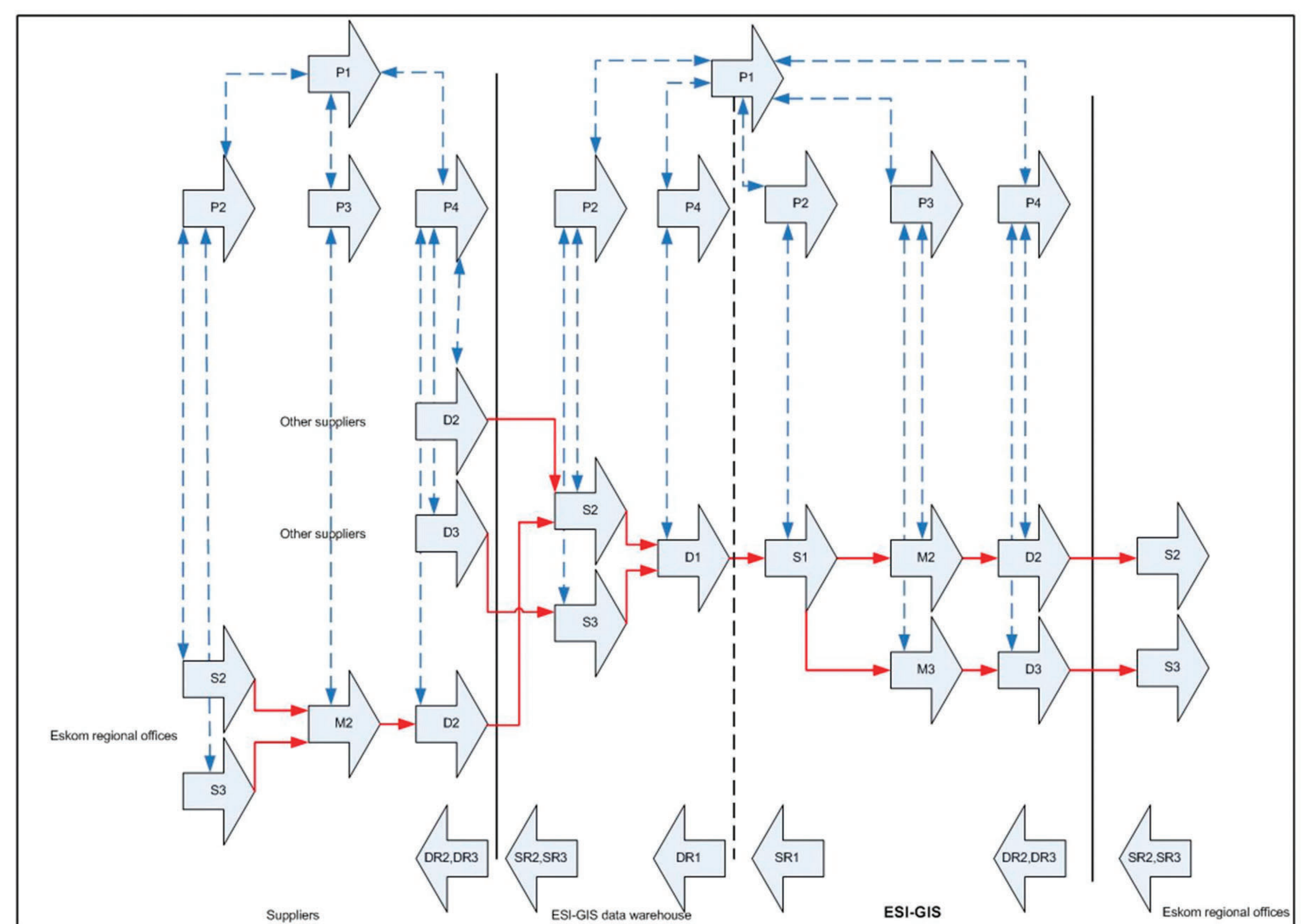


Figure 4: ESI-GIS supply chain mapped at SCOR Level 2 process detail

Total Savings	R242 200.00
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Table 1: ESI-GIS cost savings by using SCM

ESI-GIS turnover is R 4 million per annum

REFERENCES

- Eastman, J. 2001: *Idrisi32 Release 2: Guide to GIS and Image Processing, Volume 1*. Clark Labs, Clark University, Worcester, MA, USA. Idrisi Production, Clark University.
- Handfield, R.B. and Nichols, E.L. 1999: *Introduction to Supply Chain Management*. Prentice Hall, Upper Saddle River, New Jersey, USA pp 183.