IPIC 2021

Resource-efficient Supply Chains

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Next Generation Supply Chains: A Roadmap for Research and Innovation
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Trends towards Resource-Efficient Supply Chains

Resource Scarcity & Waste of Resources

Key Characteristics of the Resource-Efficient Supply Chain

Supply Chain Characteristics	Analyse and Diagnose	Act and Improve
Internal	Resource Aware	Resource Sparing
External	Resource Sensitive	Resource Responsive

Matopoulos, A., Barros, A.C., van der Vorst, J.G.A.J. (2015), "Resource-Efficient Supply Chains: A Research Framework, Literature Review and Research Agenda", *Supply Chain Management. An International Journal*, 20 (2), pp. 218 - 236.

Case studies of Resource Efficient Supply Chain

CASE STUDY *ConsGoodsLead*

One of the world's largest consumer goods companies, with more than 92,000 employees worldwide and reported revenues of more than $ 66.8 million in 2018. The globally distributed supply chain with more than 100 suppliers and a commercial presence in over 180 countries.

- Manufacturing operations closed to raw materials
- Data-driven approach for sourcing strategy
- Centralised data platform for warehouses and transportation management
- Co-loading with competitors and cost-sharing for customer shipments.

CASE STUDY *PetfoodProducer*

*M*ultinational company of the feed animal sector, with a turnover of € 620 million in 2018 and more than 1,800 employees. It has around 20,000 customers in Europe and a total of 7 production plants.

- Introduced IoT technologies to collect data, monitor the processes and stock points, and measure the footprint and wastes, both in transport and storage.
- Re-designs its logistics network in order to optimise routes
- Use of a cloud based platform to ensure a total visibility and traceability along the supply chain
- Works on collaborative projects with several manufacturers to share transportation means and improve efficiency of loadings

Book analyses 18 companies from 8 key industries

Research and Innovation Topics for Resource Efficient Supply Chain

RIT_RESC.1: ***Zero-waste*** production and ***logistics***

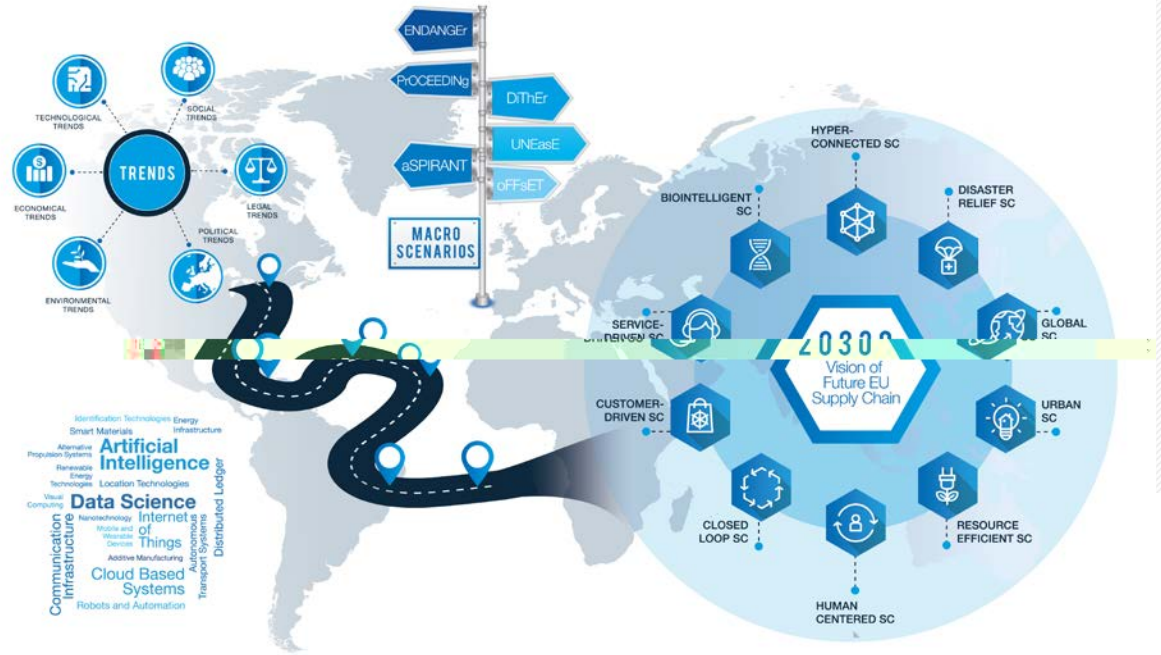
RIT_RESC.2: ***Traceability*** and management of product and processes information ***for resource efficiency***

RIT_RESC.3: New models and technologies for resource efficient transportation

RIT_RESC.4: Monitoring and management of ***energy consumption***

RIT_RESC.5: New approaches to ***energy storage***

RIT_RESC.6: Improving data mining processes



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