

Logistics Outsourcing Strategies: Transportation sourcing drives the value

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2007 Northeast Supply Chain Conference &
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Content

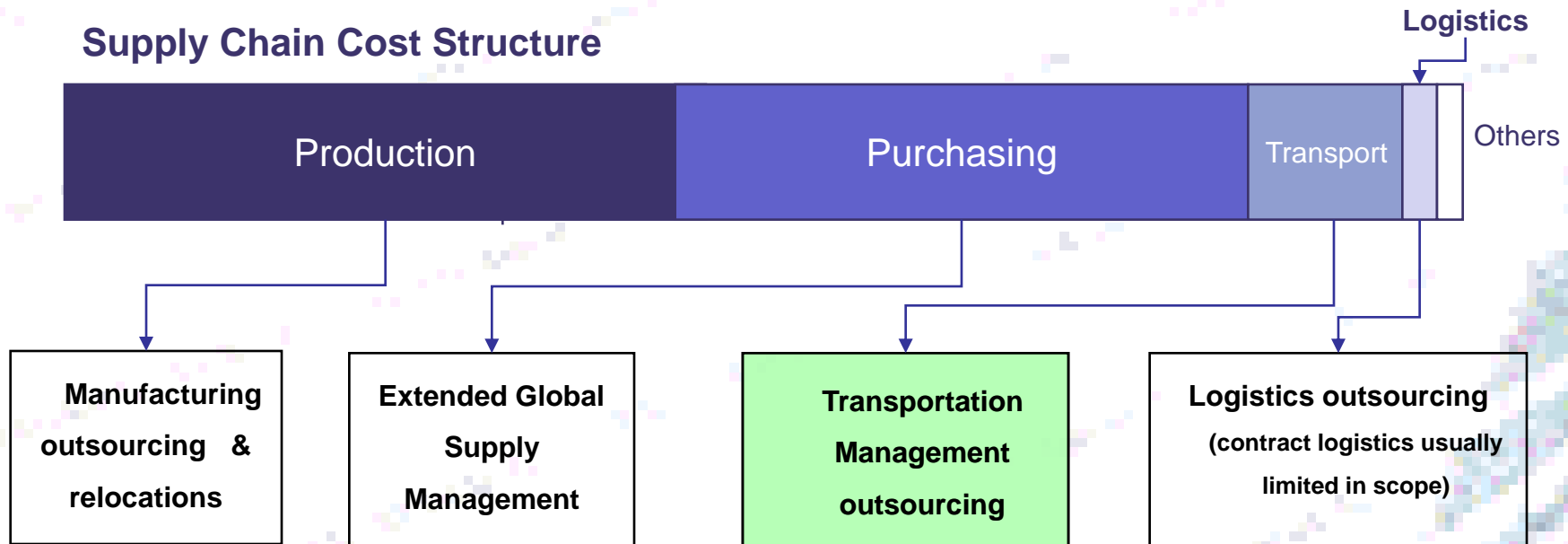
- Supply Chain Transformation and the outsourcing imperative
 - Context
 - In search of value creation
 - Analytical approach
- Outsourcing Strategies – practices and limitations
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The context of supply chain transformation through outsourcing

- To get supply chain performance improvement, companies outsource information technology, back-office operations, human resources management, logistics, manufacturing.... just about anything considered “non-core.”
- As supply chains globalize, the stakes involved in moving the goods have increased. Total logistics costs have increased to represent 5% to 15% of sales turnover and even more. Meanwhile, the risks of managing more complex supply chains have increased.
- As a result, firms try to cut down on such costs and risks by outsourcing more of the right supply chain activities to the right partners.
- Case studies: logistics and transportation management outsourcing
- The largest potential source of value identified is transportation sourcing

Supply chain outsourcing is a source of value creation

The Supply Chain Outsourcing Opportunity Landscape



Transportation management outsourcing offers some worthwhile lessons applicable across multiple industries, and is the focus of this presentation

Logistics Outsourcing has recently increased in scope

- Outsourcing logistics: a three step history
 - Physical transport outsourcing:
 - Air & ocean → physical imperative
 - Road freight → network externalities have been built over time
 - Logistics outsourcing:
 - Emergence of Third Party Logistics (3PL) on contract logistics e.g Distribution Center management
 - Transport management outsourcing :
 - Air & Ocean: freight forwarders
 - Road freight: not much outsourced
- Outsourcing in logistics has recently accelerated & broadened:
 - Freight forwarders & 3PLs have expanded → outsource all supply chain activities up to the final distribution to customers and returns
 - The concept of 4PL emerged with a lot publicity, we even saw “7PL” concept
- What is the value of such new outsourcing concepts when applied to road freight, the main transportation mode?

Searching for value, we developed an evaluation framework with 4 core processes, each with sub-processes and associated activities

Logistics Business processes

<i>Core Processes</i>	<i>Main sub-Processes</i>	<i>Process activities</i>				
Plan	• Data management	Collecting data	Cleansing	Mapping	Reporting	Storing
	• Network design	Modeling	Designing	Simulating	Evaluating	Deciding
	• Transport Purchase	Strategy setting	RFP writing	Selecting	Negotiating	Awarding
Manage	• Carrier management	Contracting	Implementing	Monitoring	Improving	Changing
	• Rate & compliance management	Collecting data	Comparing	Signaling	Correcting	Improving
	• Freight accounting	Receiving	Auditing	Claiming	Paying	Recording
Operate	• Order management	Receiving	Checking	Processing	Releasing	Recording
	• Load management	Planning	Tendering	Booking	Preparing	Picking
	• Customs & Claims	Receiving	Documenting	Processing	Clearing	Reporting
	• Event management	Receiving	Checking	Processing	Clearing	Reporting
Support	• Data warehousing	Specifying	Designing	Completing	Maintaining	Reporting
	• Routing guide	Specifying	Designing	Completing	Maintaining	Distributing
	• Order support tool	Specifying	Designing	Completing	Maintaining	Implementing
	• HR management	Planning	Recruiting	Training	Evaluating	Developing

We mapped the sub-processes to assign clear activities, tasks and cost

Logistics Business processes - definitions

Core processes	Sub-processes	#	Description
Plan	Transportation data management	1	Collecting the transportation data to record the physical flows and volumes
	Transportation Network Design	2	Reviewing the lay-out of the transportation flows, considering modal shifts
	Transportation Purchase	3	Researching, evaluating and negotiating with transportation providers
Manage	Carrier contract management	4	Write-up, negotiation and maintenance of carrier contracts
	Carrier Performance Management	5	Monitoring and evaluation of carrier performance according to a structured evaluation grid
	Rate Management	6	Tailoring, Filling, Distributing and maintaining routing guides and tariff grids
	Compliance Management	7	Process of systematically ensuring that the agreed tariffs and agreed carriers are being applied and ensuring compliance with international trade regulations and laws
	Freight Audit	8	Process of verifying the validity if the invoices received from carriers against the actual service rendered and the agreed tariffs
	Freight Payment	9	Process of paying the carriers for the services conducted
Operate	Goods receiving	10	Process of arranging for the reception of goods as inbounds into the factory (as short or long-term storage)
	Load Planning	11	Planning of the upcoming shipments, including efforts to consolidate loads for increased load factors
	Load tendering	12	Process of submitting price requests to a pool of carriers on a spot market basis in anticipation of upcoming shipments without having recourse to pre-established pricing guides
	Load booking	13	Process of booking upcoming shipments to selected carriers with all the relevant information
	Order management	14	Process of communicating the shipment order to relevant actors
	Customs Clearance	15	Process of arranging the clearance of goods through customs in export situations. This includes the provision of documentation in compliance with international trade laws
	Pick-up (yard) management	16	Process of coordinating the pick-up of the goods and making them available to carriers in an efficient manner
	Goods preparation	17	Process of preparing of the goods for a shipment including packing
	Transportation	18	Process of moving the goods from the shipping dock of the shipper to the receiving dock of the recipient
	Event Management	19	Process of managing un-wanted events in the shipment of the goods
	Claim Handling	20	Process of managing transportation incidents which lead to claims and litigation
Support	Traffic data warehouse maintenance	21	Process of maintaining the database of traffic information, extracting the raw data from the company ERP systems
	Routing Guide support tool	22	IT environment to host the routing guide(s)
	Order management support tool	23	IT platform support the order management activities
	Human Resources Management	24	Allocate, Manage, Train, Evaluate and Develop the human resources assigned to logistics

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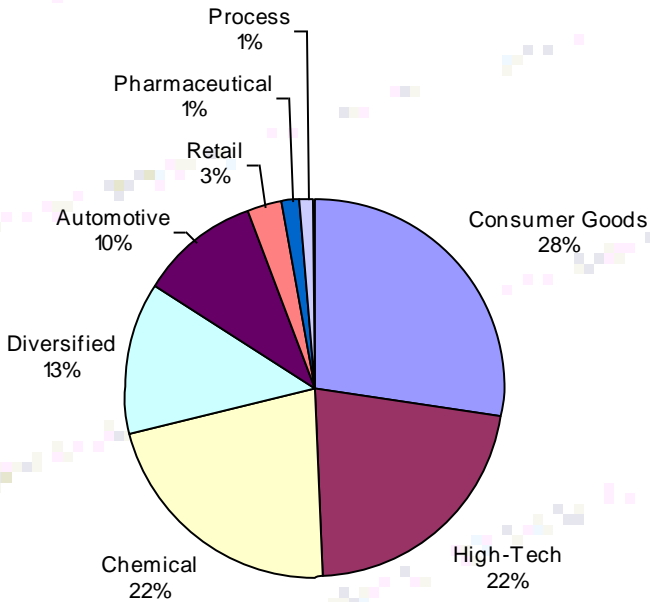
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Atlas conducted an industry-wide benchmarking aimed at gathering the factual base for the analysis

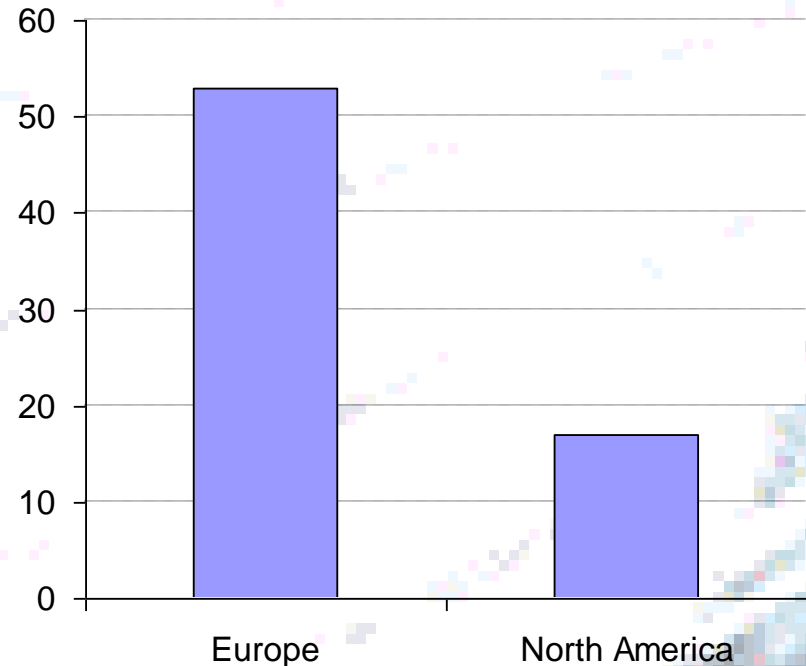
- Objectives:
 - Find the main value-adding activities in outsourced transportation management
 - Obtain objective and quantitative feedback on how the value is implemented
- Target Benchmarkees:
 - Providers: 4PLs, 4PLs/3PLs, Freight Payment specialists, Transportation Management System providers, Order Management Systems providers
 - Users: Shippers (Industrial firms across all sectors, with some emphasis on Chemicals). Over 70 cases were registered, among which 20 interviews were conducted
- Format:
 - Interviews with a calibrated interview guide. Public and Private Studies including academic and business reports on 4PLs
 - Company detailed announcements on deals and recorded case studies

The benchmarking contains 70 cases of outsourcing in Europe and the US across nine industry sectors making it a representative sample

Industry spread of benchmarkees



Geographic spread of benchmarked cases



Total number of outsourcing cases: 70

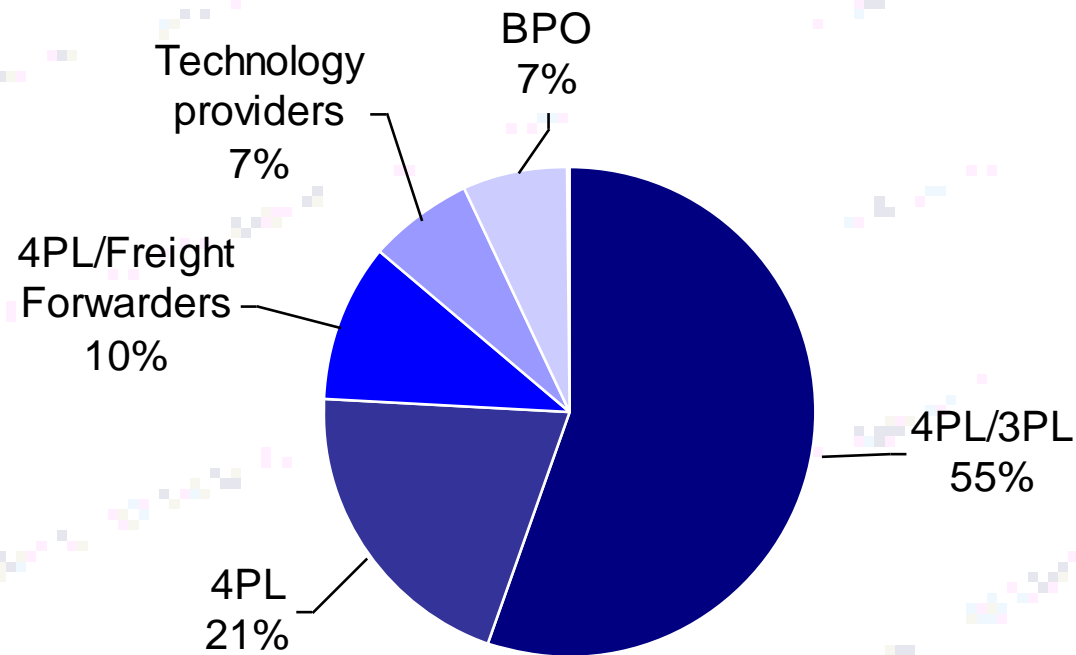
Supply chain outsourcing strategies are typically initiated out of logistics, manufacturing, purchasing or based on a standardized BPO (Business Process Outsourcing) model

Examples of supply chain outsourcing grouped into four generic outsourcing types based on the original strategy

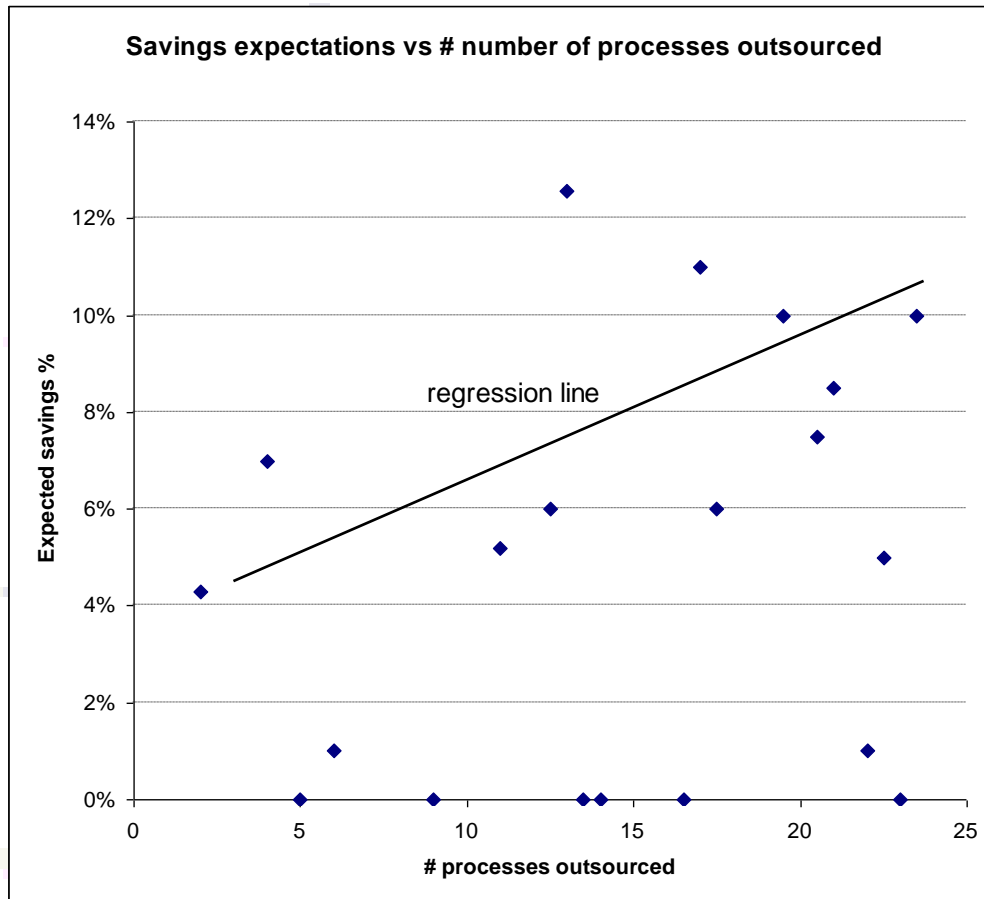
<u>Outsourcing types</u>	<u>Scope of Outsourcing</u>	<u>Buyers cases</u>	<u>Providers cases</u>
Extended <u>logistics</u> outsourcing	Extension of the 3PL model into a 4PL model covering most of the transportation management activities	GM, Rhodia, Laura Ashley, Sears, Goodyear US	DHL/Exel, Geodis, Vos Logistics, Fedex, Menlo, Vector
Extended <u>production</u> outsourcing	Extension of the manufacturing outsourcing to also cover the inbound and outbound logistics operations, management and support activities	Nortel, Nike	UPS, Ryder, Kühne Nagel, Menlo, Solectron
Extended <u>purchasing</u> outsourcing	Extension of the purchasing outsourcing model to include transportation sourcing and from there some of the transaction support	Marconi, BP, Altran	Ariba, Fairmont, Avnet
<u>Finance-driven, extended Business Process Outsourcing (BPO)</u>	Extension of the BPO model beyond IT and HR to also cover indirect goods and services, from a purchasing and transactional perspective	Goodyear Europe, ETS	IBM, Accenture

We have identified over 25 outsourcing firms which we grouped into four families reflecting their origin and focus

Typology of the Outsourcing Providers



The outsourcing savings expectations ranged from 4% to 13%



Key questions going forward:

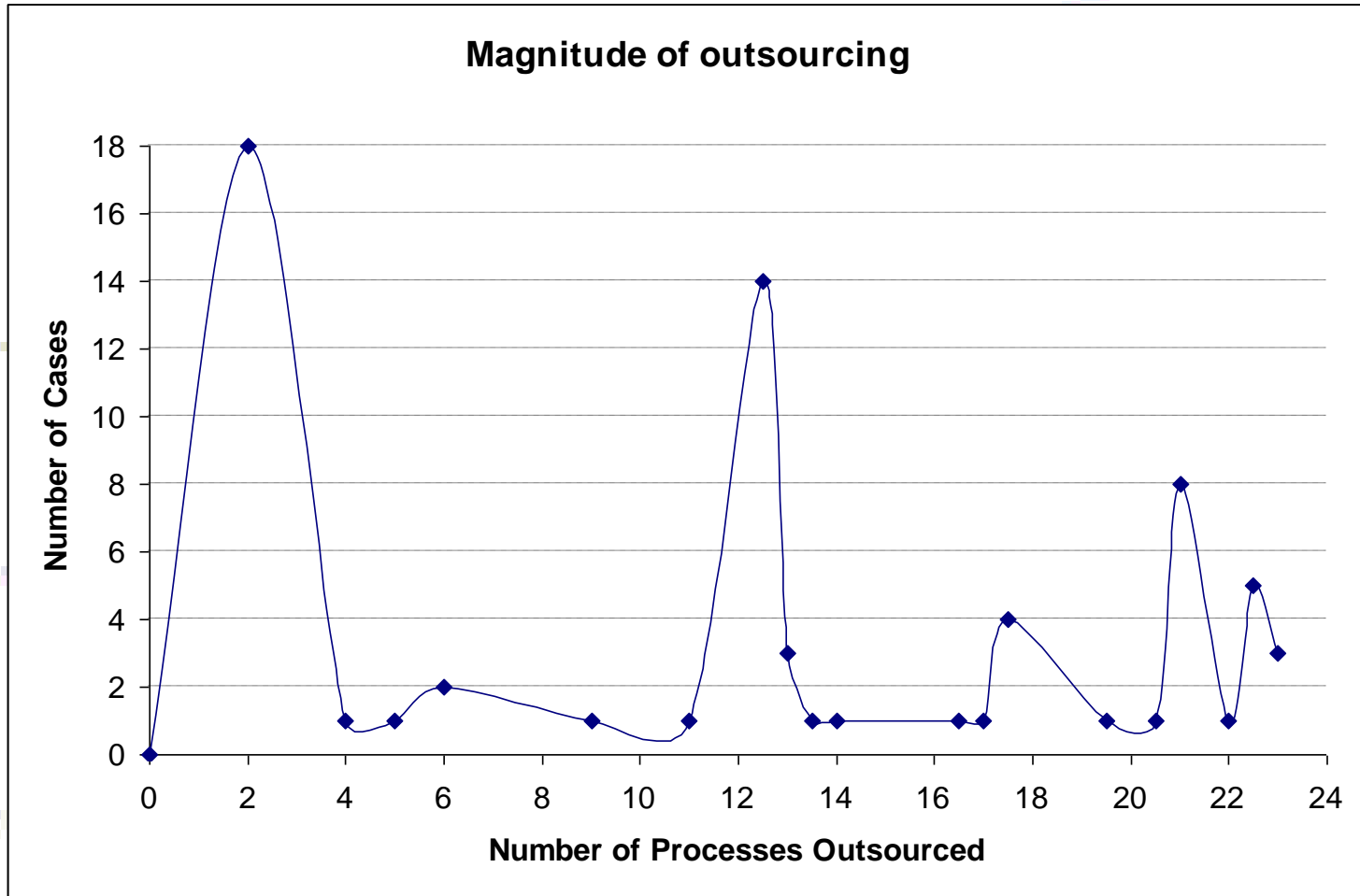
1. Do the results live up to the savings expectations?
2. What value does each process outsourcing create?
3. How do processes compare?

The recorded cases were then mapped against the 24 sub-processes

Outsourcing benchmarking cases	Core process Sub-processes names	Plan			Manage						Operate										Support				
		Data MGMT	Network	Sourcing	Contracts	Performance	Rates	Compliance	Freight Audit	Freight Payment	Goods receiving	Load Planning	Load tendering	Load booking	Order MGMT	Customs Clearance	Pick-up MGMT (yard)	Goods preparation	Transportation	Event MGMT	Claim Handling	Traffic data warehouse	Routing Guide support	Order MGMT support	Human Resources
Industry	Case # / Sub-process #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Chemical	1																								
Chemical	2																								
Process	3																								
Consumer Goods	4																								
Consumer Goods	5																								
High-Tech	6																								
Chemical	7																								
Chemical	8																								
Automotive	9																								
Chemical	10																								
High-Tech	11																								
Chemical	12																								
Consumer Goods	29																								
Consumer Goods	30																								
Retail	31																								
Pharmaceutical	32																								
Consumer Goods	33																								
Consumer Goods	34																								
Consumer Goods	35																								
Consumer Goods	36																								
Consumer Goods	37																								
Consumer Goods	38																								
Consumer Goods	39																								
Diversified	40																								
High-Tech	41																								
Consumer Goods	42																								
Chemical	43																								
Chemical	44																								
Consumer Goods	45																								
Chemical	46																								
Automotive	47																								
High-Tech	48																								
Automotive	49																								
Diversified	50																								

not outsourced to a 3PL/4PL
 wholly outsourced
 partly outsourced

Most firms only outsource a few processes at a time, usually in clusters



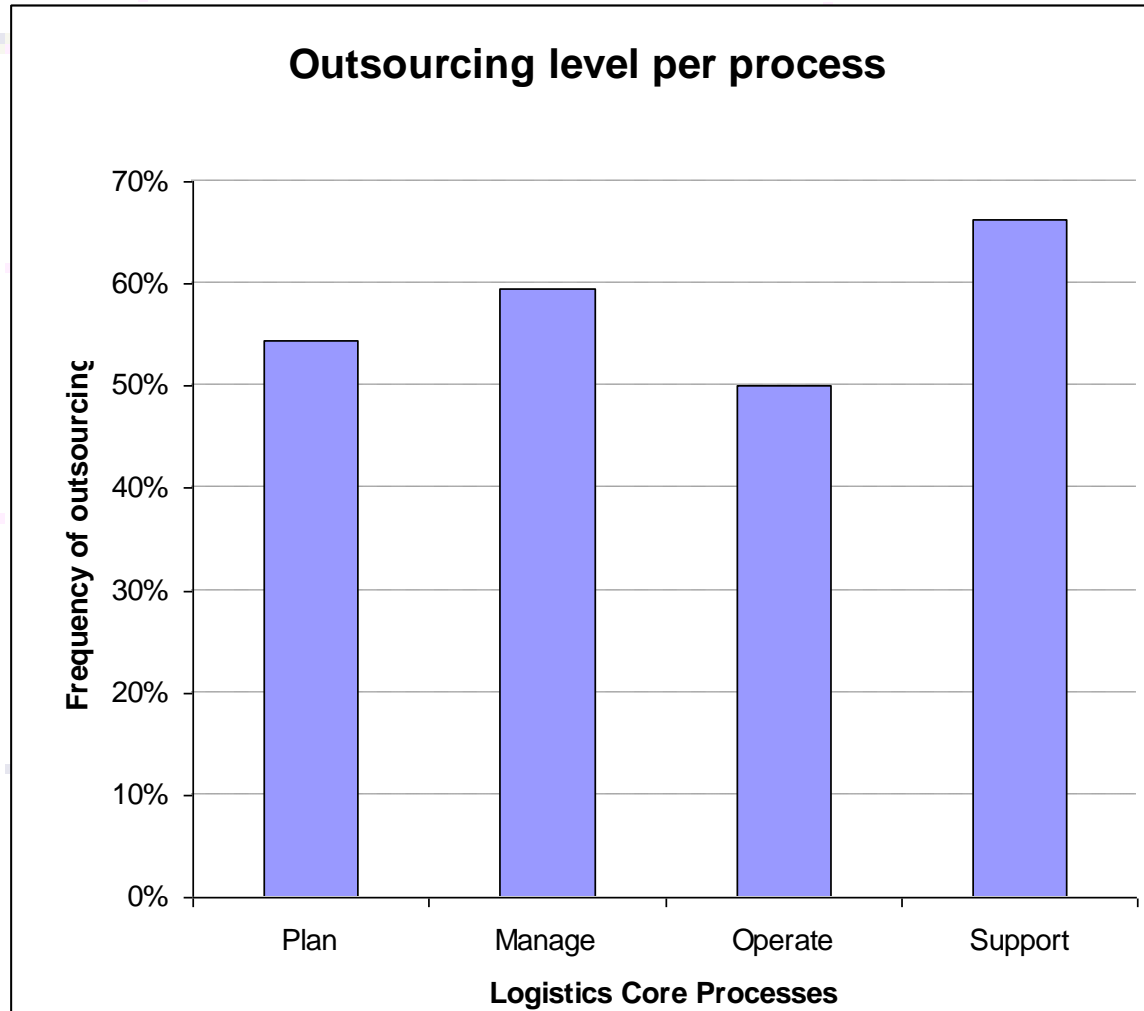
Many firms in limited outsourcing

Many firms in mixed outsourcing

Few firms in total outsourcing

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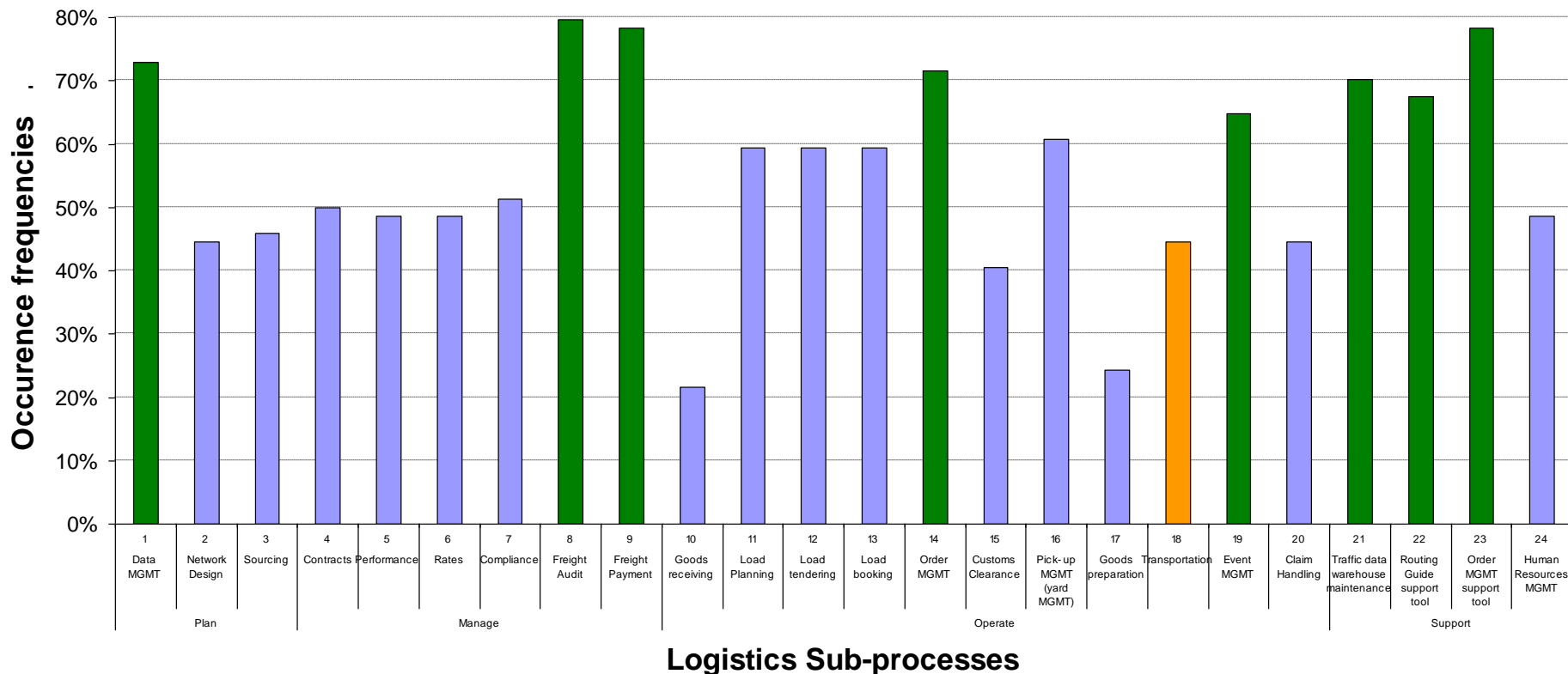
Firms outsource the “Manage” and “Support” processes more often



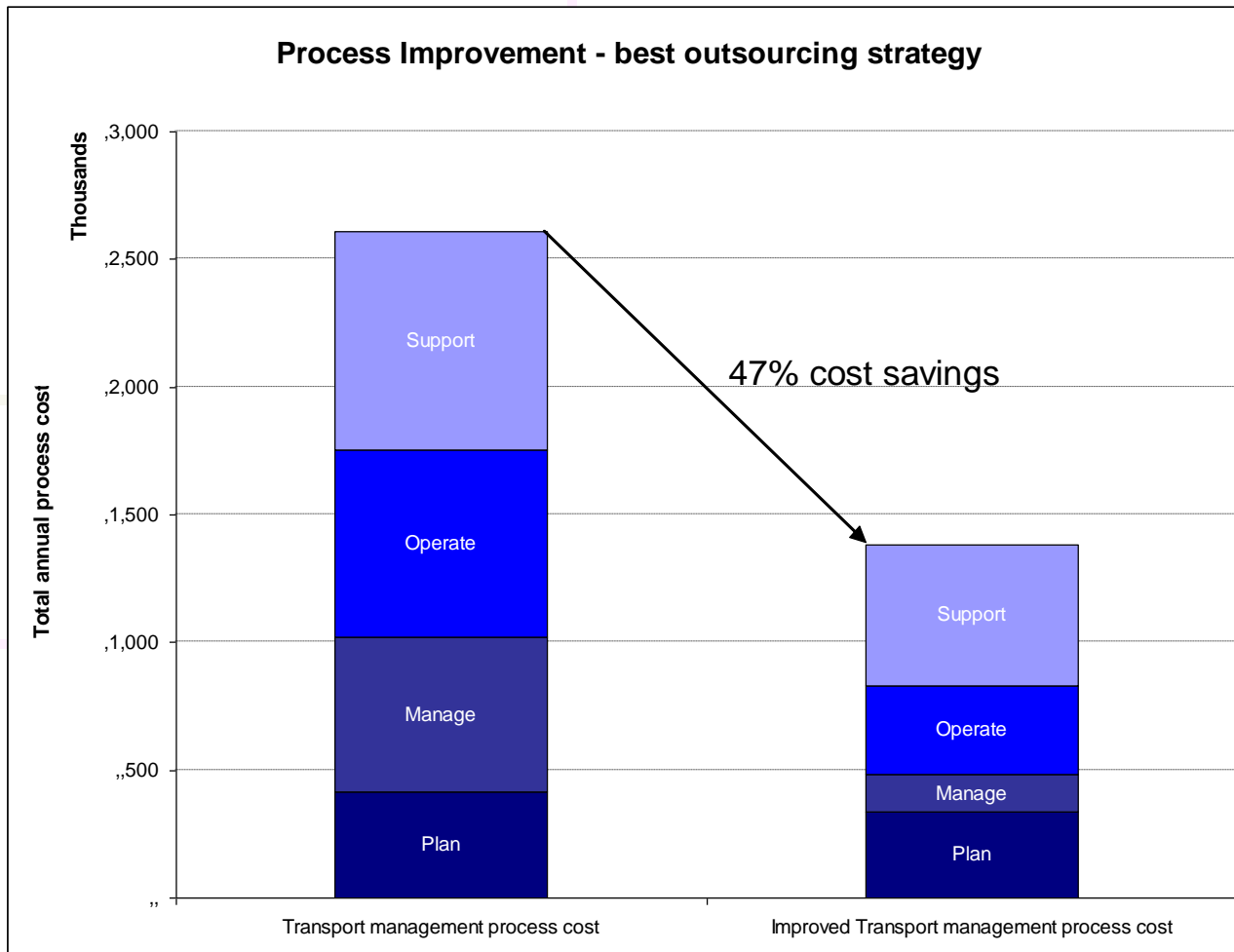
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The top outsourced processes are data, freight audit & payment, order & support

Outsourcing level per sub-process



The application of best practices brings 47% process cost savings on average



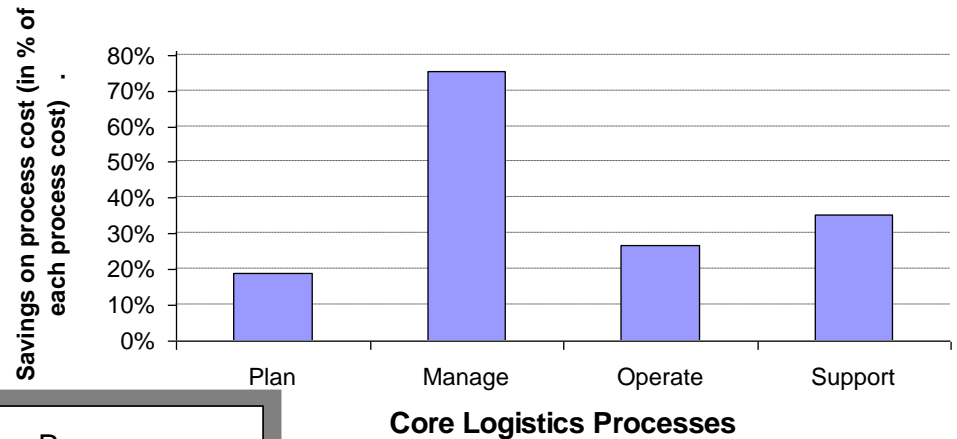
The current practices in transportation management present some significant process savings opportunities

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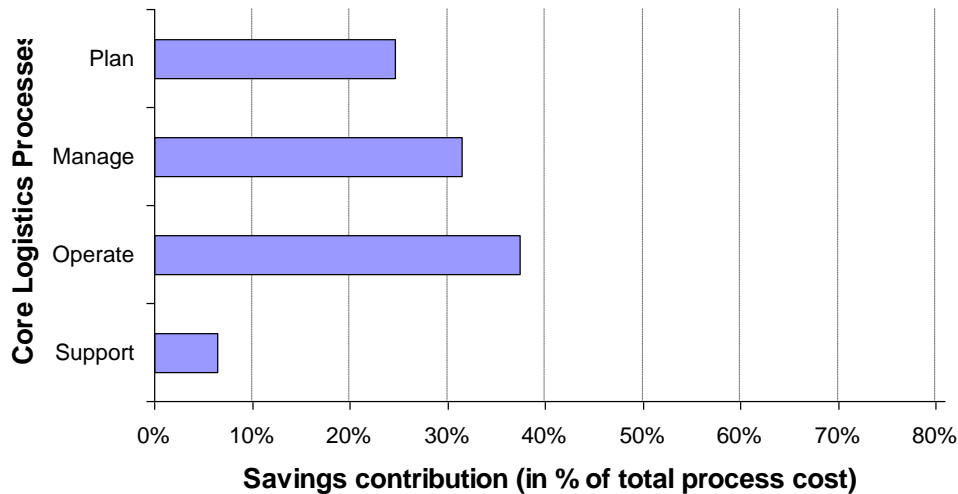
Benefits are created across processes

The outsourcing of Manage and Support processes contributes to the highest individual process savings

Process Savings of Improving the Core Logistics Process

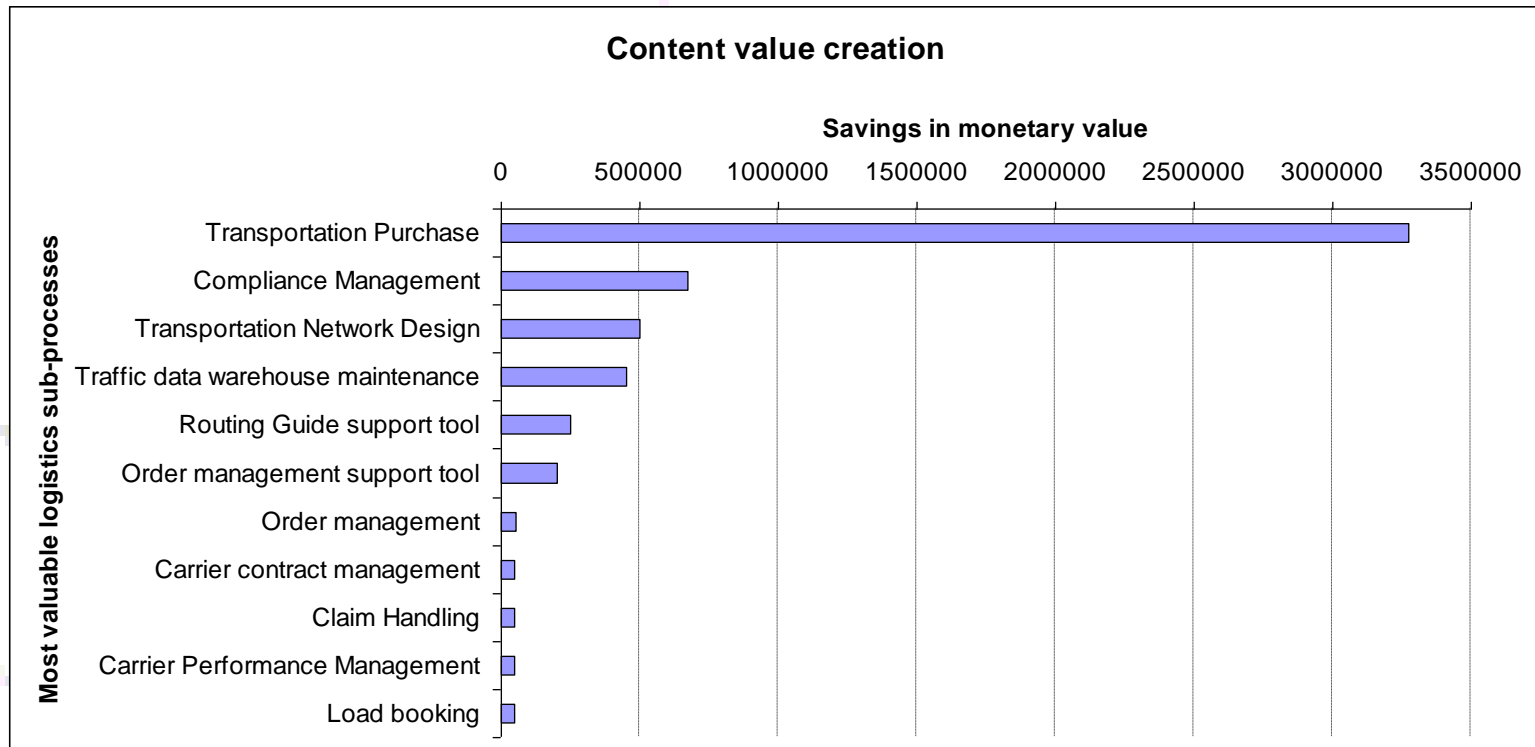


Process Savings of Improving the Core Logistics Process



The outsourcing of the Plan, Manage and Operate processes contributes to most of the process savings

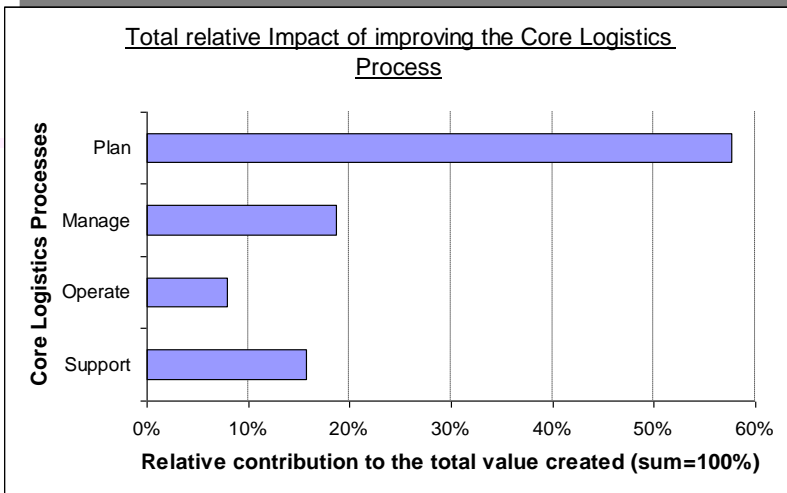
There are some valuable indirect benefits



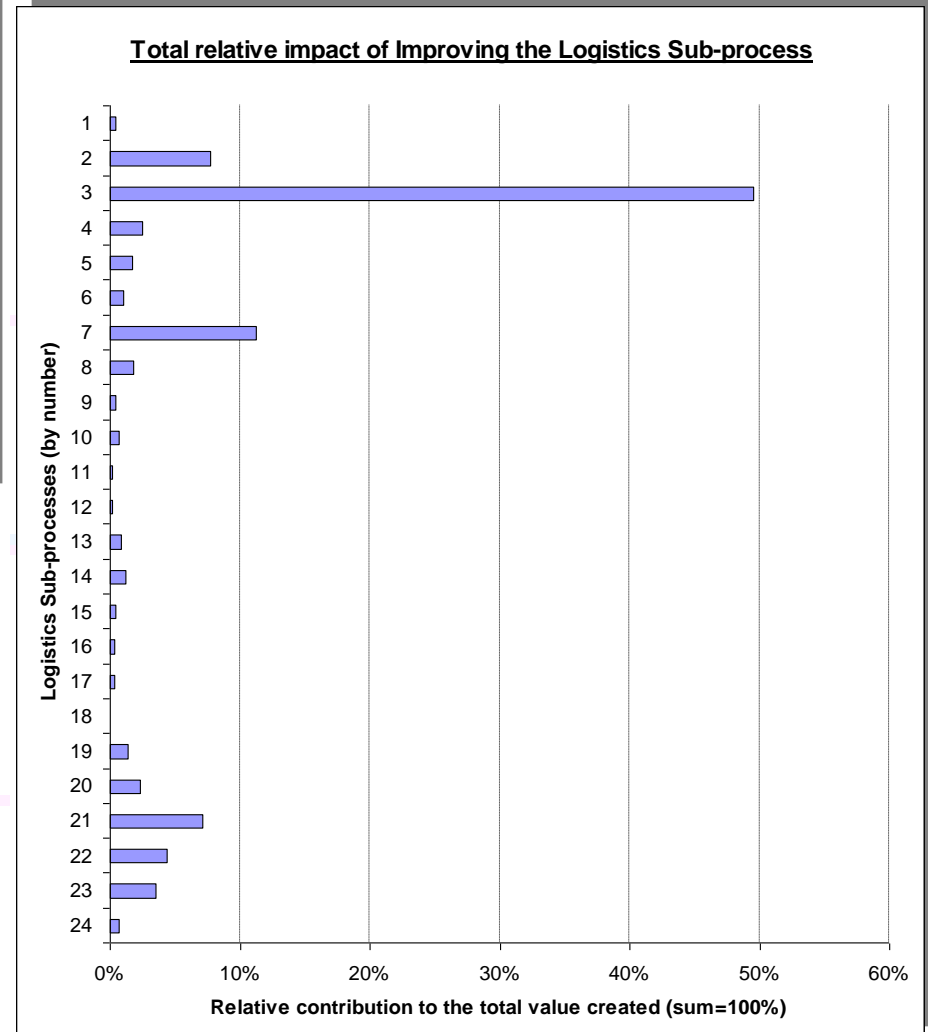
Further insights:

- No savings in **inventory levels** from outsourcing because such reduction requires a combined effort from sales & marketing, production, purchasing, and logistics. Leaving this optimization to a third party would be unrealistic.
- The concept of **load factor improvement** through the implementation of control towers did not resist the operational test: in LTL, the network externalities of groupage firms far exceed those of one single outsourcer, however large they may be.

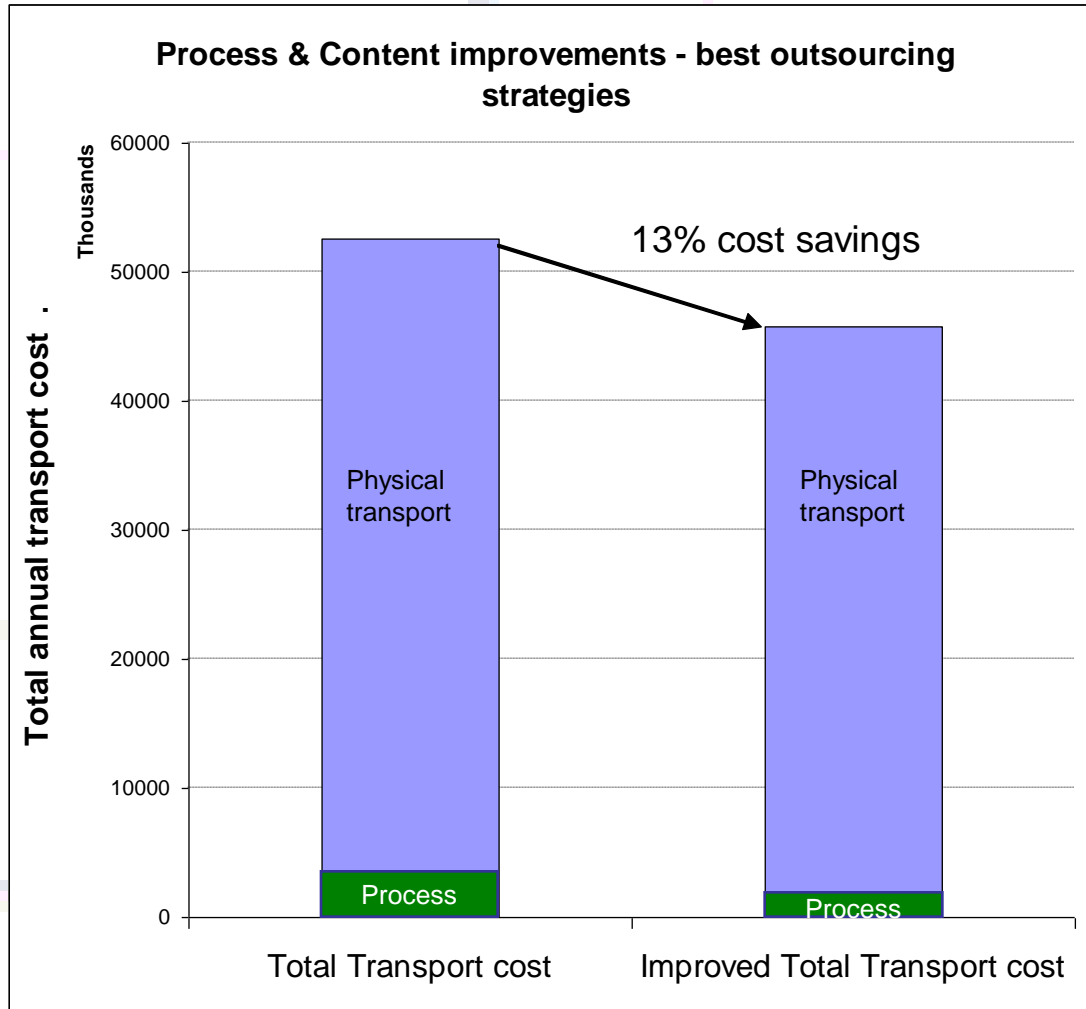
The indirect benefits change the process savings contributions



If firms source their air and ocean carriers less than once a year and their road freight less than every other year, then improvement must be made and outsourcers can help accelerate such improvement path, provided they can demonstrate the appropriate skills and objectivity



The total potential amounts to 13% savings on all the transportation cost



The ideal business case for outsourcing is strong. How often does it get implemented?

The cases revealed a number of limitations to the outsourcing models

- Mid-sized US chemical : 18 months into a 4PL deal, still stuck in the IT implementation with no concrete value
- Major European chemical company: one-year into a 4PL deal, wished to have selected an independent firm as the conflict of interest between managing and operating the transport became too impairing.
- Large US industrial multinational got stuck into a rut of yearly cost increases considerable above market averages
- Major European chemical reversed back in-house away from its 4PL
- Mid-sized European chemical: no clear cut business case but still outsourced to a 4PL/3PL.
- General Motors bought back Vector, its 4PL JV with Menlo.
- Eastman Chemical brought its 4PL venture (Cendian) back in house in 2005.

Rationale for current outsourcing limitations

- Not all outsourcers can deliver best practices across all 24 processes
- Generating optimal collaborations can be difficult (contracts, incentives), making the return on investment unrealized (tactical vs. strategic)
- Developing suitable performance measurement is delicate and not always sustainable (are there indefinite savings?)
- Balancing 4PL neutrality with superior supply chain competencies is a challenge
- Forming suitable teaming & change management structures are often overlooked

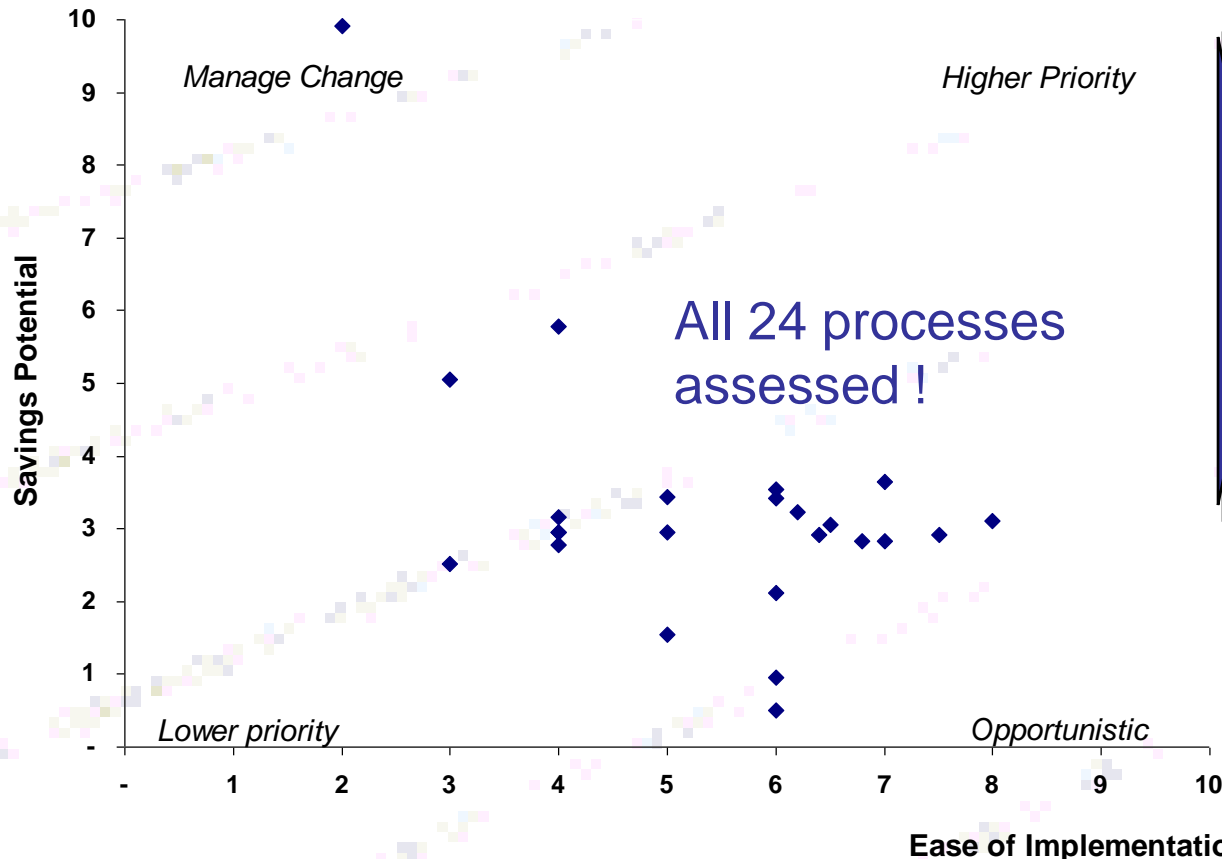
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An outsourcing business case should be based on a solid opportunity assessment, quantifying the benefits, cost and difficulties to implement

Opportunity Map

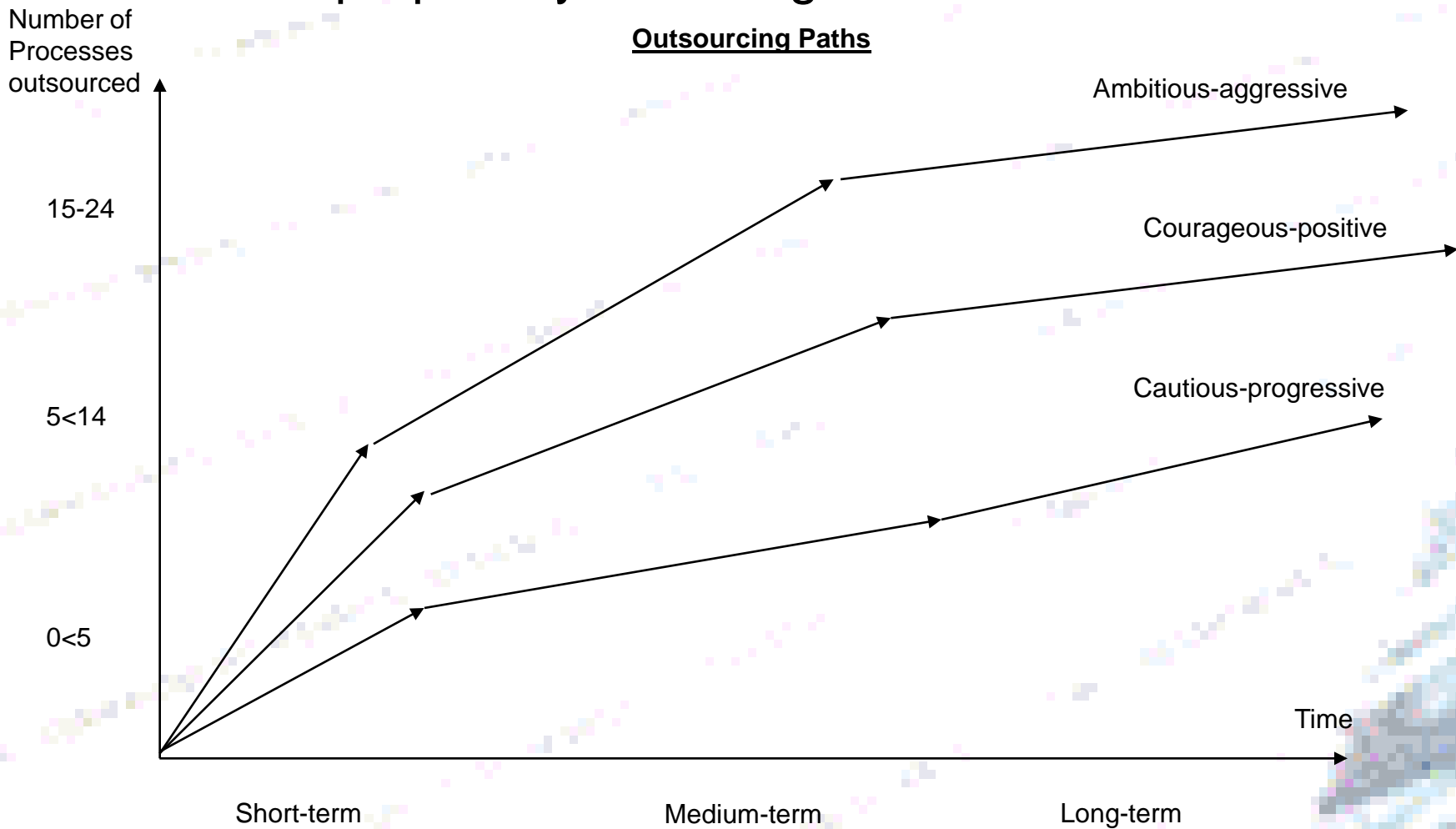
Business Case



- Set-up cost
- Operating cost
- Process Savings
- Content Savings
- Cash flows over time
- Return On Investment
- Change challenges

Company specifics

From the business case, it matters to develop alternative outsourcing strategies which can best fit a company propensity for change & risk-reward



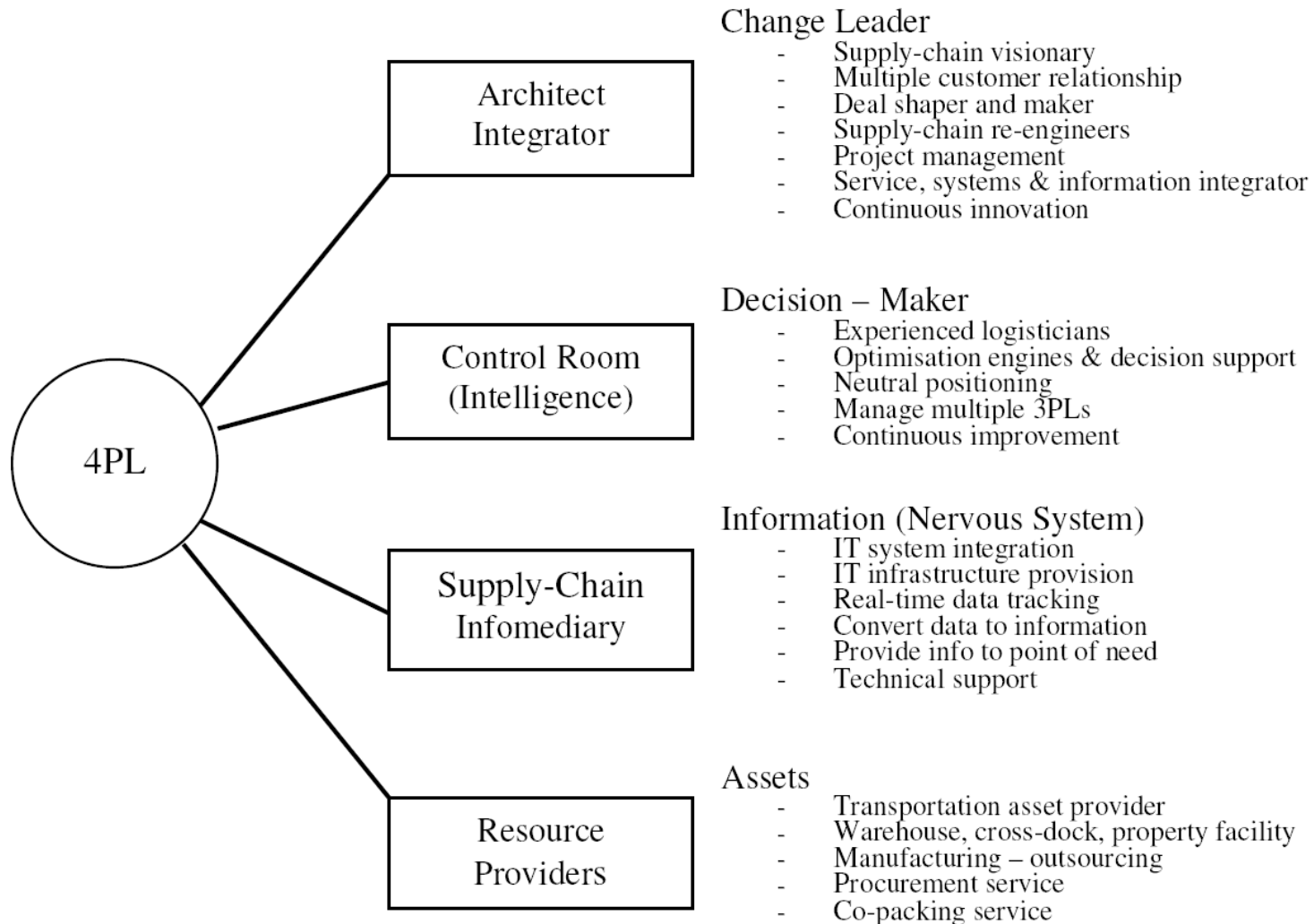
Conclusion

- Each process can be improved with best practices and collectively optimized.
- Process savings can amount to 47%; indirect savings can be four times larger ! Best-in-class transportation sourcing brings most of the value !
- Supply Chain Best Practices bring value: 13% on total transportation cost. Outsourcing can reach such savings levels with 5:1 ROI or better.
- However no single company can operate at best practice levels across all 24 processes; firms would be better off ending up with a network of outsourcers to actively manage.
- No generic miracle recipe, too risky to do a blanket outsourcing.
- Firms should embrace the complexity and decide based on facts and their own specificities what process to outsource, where and to what extent. The expected value should be quantified, measured and monitored, whether the effort is done internally or with external partners.

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The much publicized 4PL business model is an extreme case of logistics outsourcing

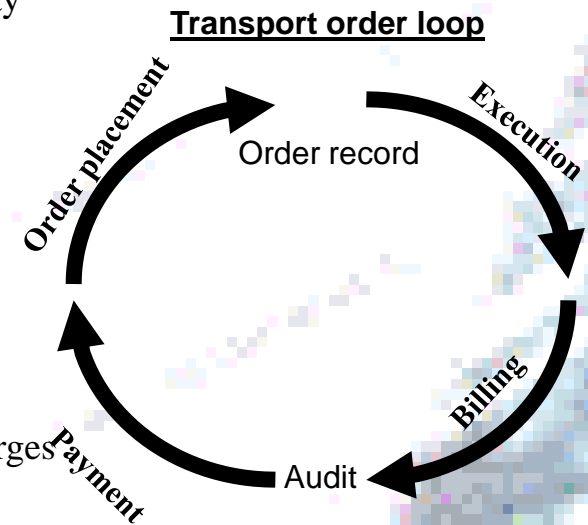


SOURCE: Bumstead & Cannons, 2002, p.20

A “freight control system” aims at managing an streamlined payment process regarding transportation expenditures

A freight control and information management system is typically made of three components:

1. Rating—assigning freight charges to the contract and/or source information
 - Freight cost accounting
 - Freight Accrual
 - Performance monitoring
 - General ledger
 - Pre-pay and Add
2. Auditing---examination of the freight bill prior to payment:
 - Auditing the freight bill for rate, nomenclature, extension, service verification
 - Validating the account-establishing payment responsibility
 - Freight Terms
 - Service verification
 - Service level
 - Comparing the freight bill with the Bill of Lading
 - Duplicate payment prevention
 - Compliance
 - Routing
 - Quantities
3. Payment Processing---preparing the freight bill for payment:
 - Reducing the payment to the lowest legal and lawful charges
 - Supporting the reduction with the governing authority
 - VAT recovery
 - Transferring appropriate material to the payables responsibility
 - Transmitting appropriate payment information to the payables responsibility

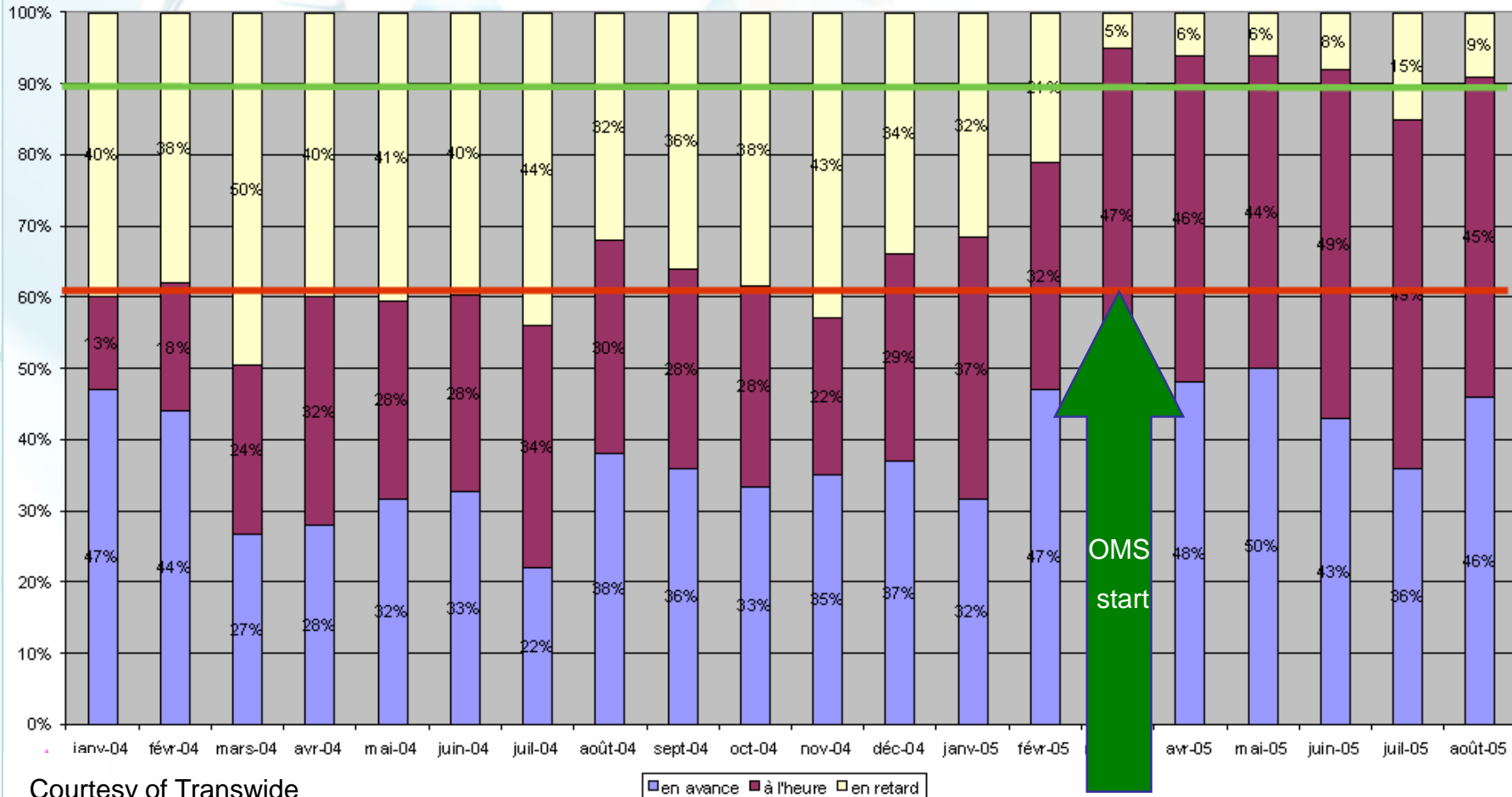


Example of impact of an Order Management System (OMS) on the fill rate

The fill rate improved from 60% to 90% after the implementation of an OMS

★ Punctuality of trucks improved on loading

Ponctualité Transporteur au Port de Lille

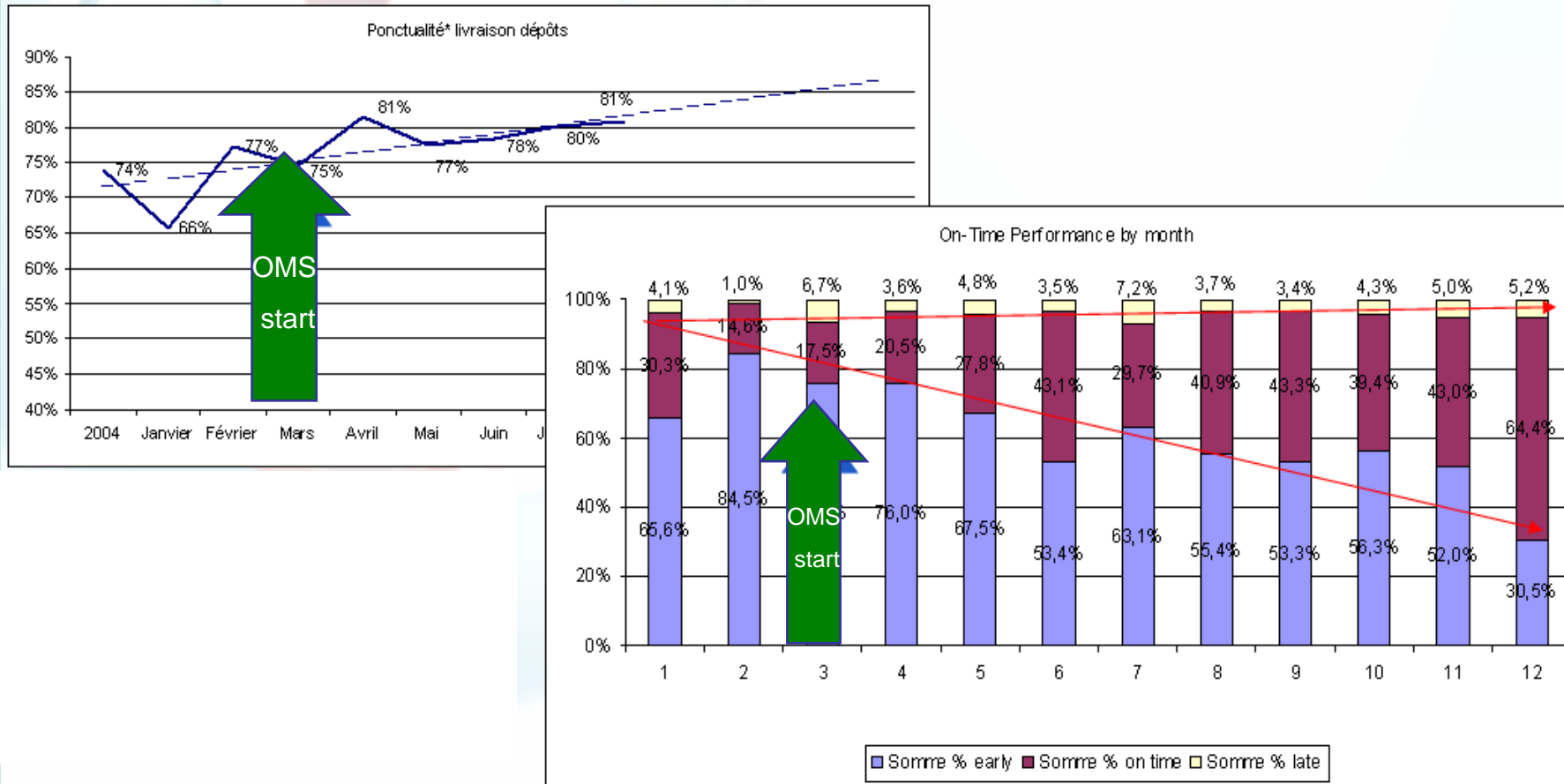


Courtesy of Transwide

Example of impact of an Order Management System (OMS) on the fill rate

The OTIF rate improved from 74% to 81% after the implementation of an OMS

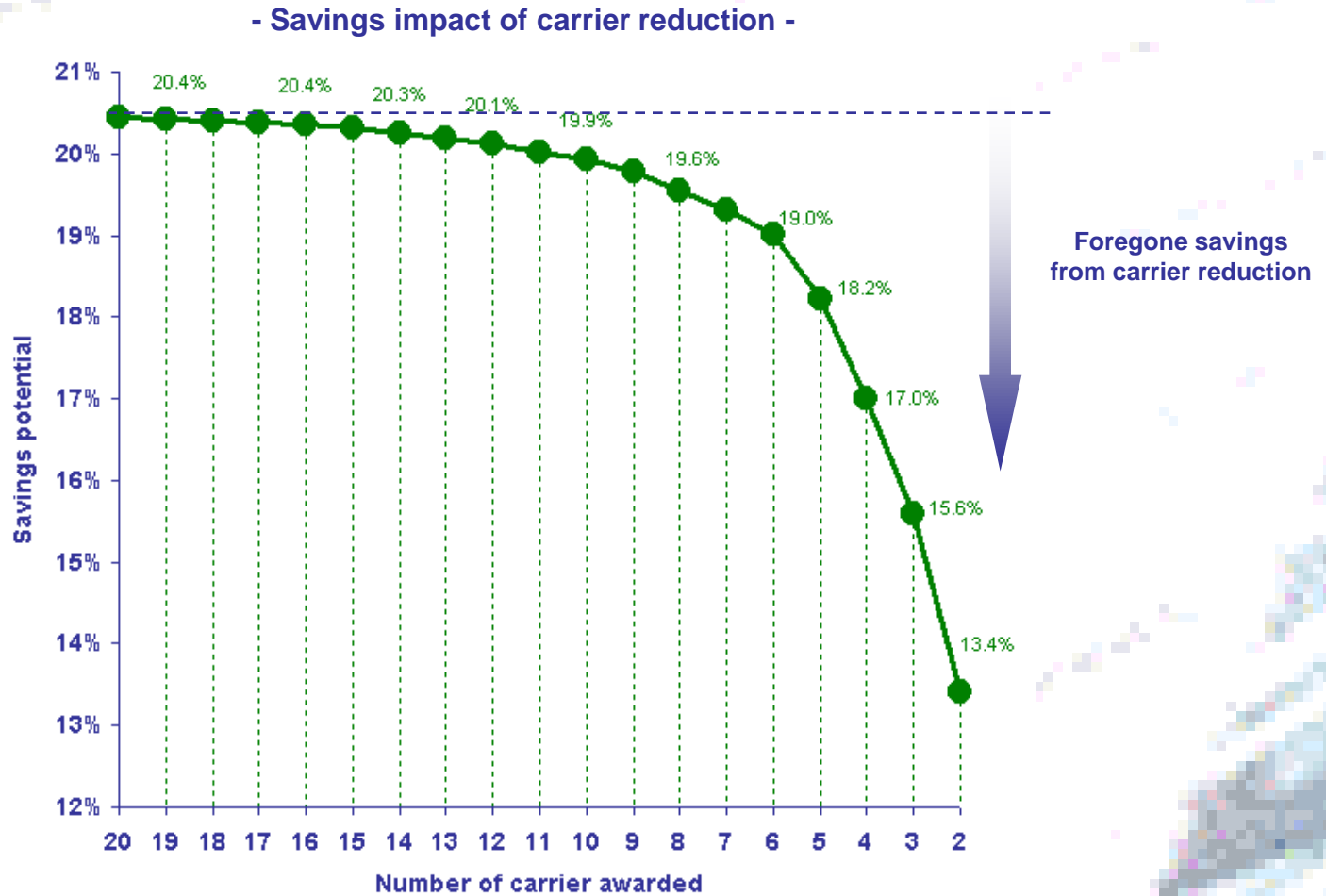
★ Loading Improvements impact deliveries quality to depots and customers



Courtesy of Transwide

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Restricting the number of carriers leads to foregone savings – where do you stop?



Additions

For more information on the logistics outsourcing benchmarking report, please contact
ATLAS at: Benchmarking@atlas-supply-chain.com