


eHUBS From SCM to eMARKETS

From SCM to eMarkets

*Collaborative Planning Trends, Strategy,
Processes and Technology of
Collaborative eMarkets*


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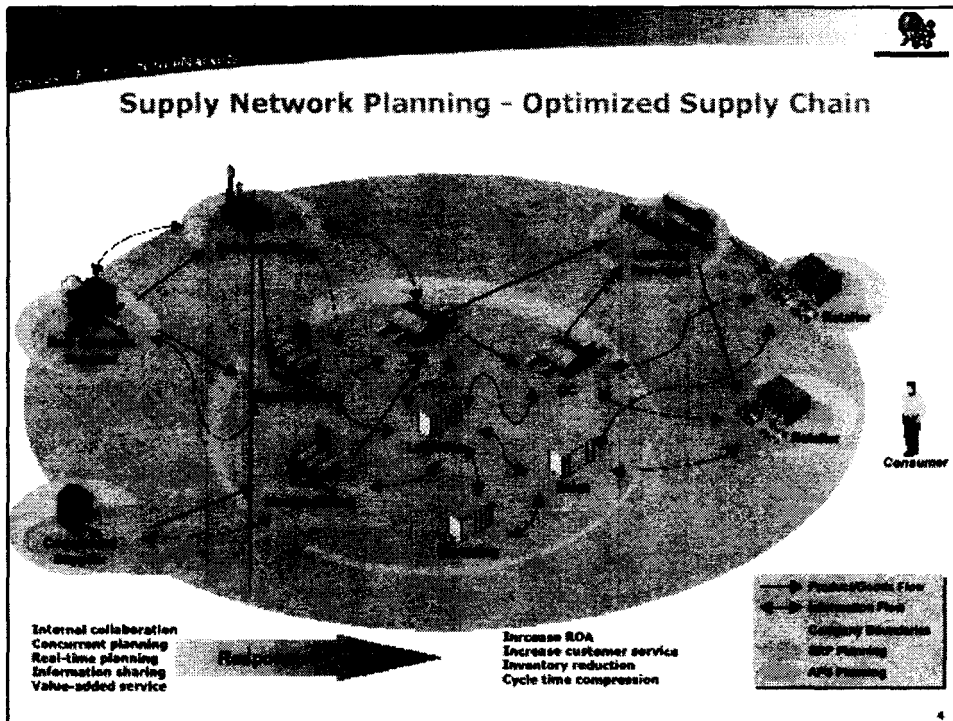
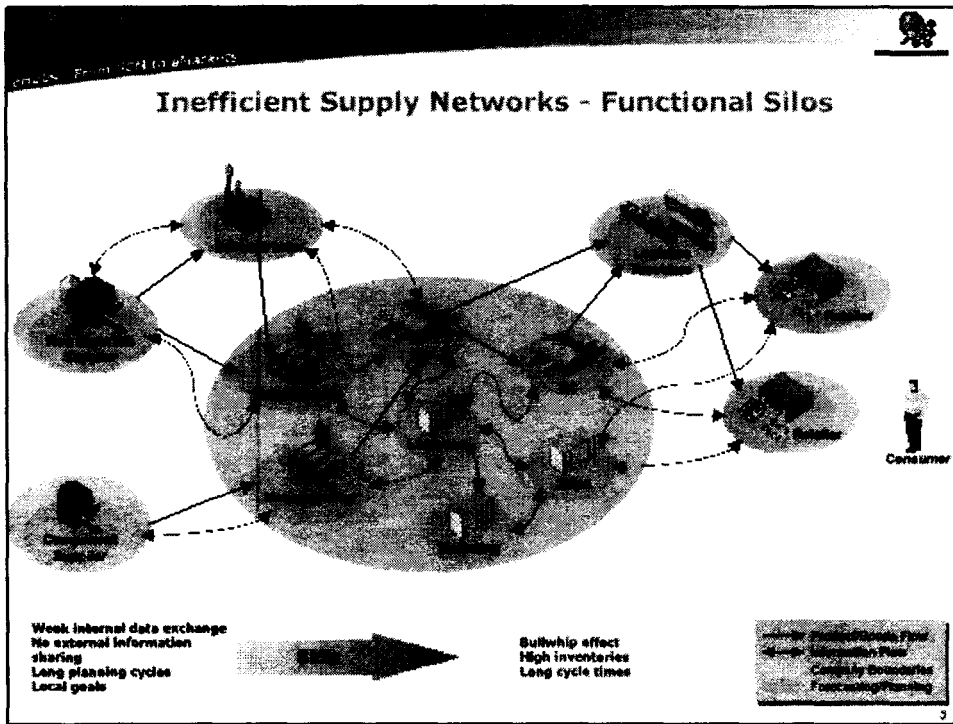


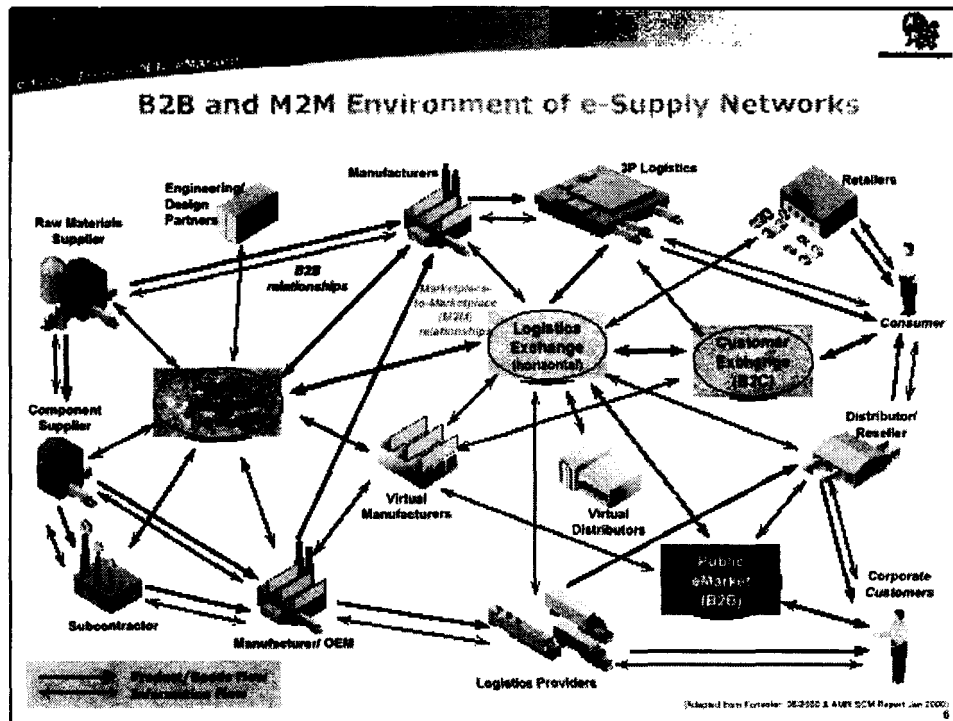
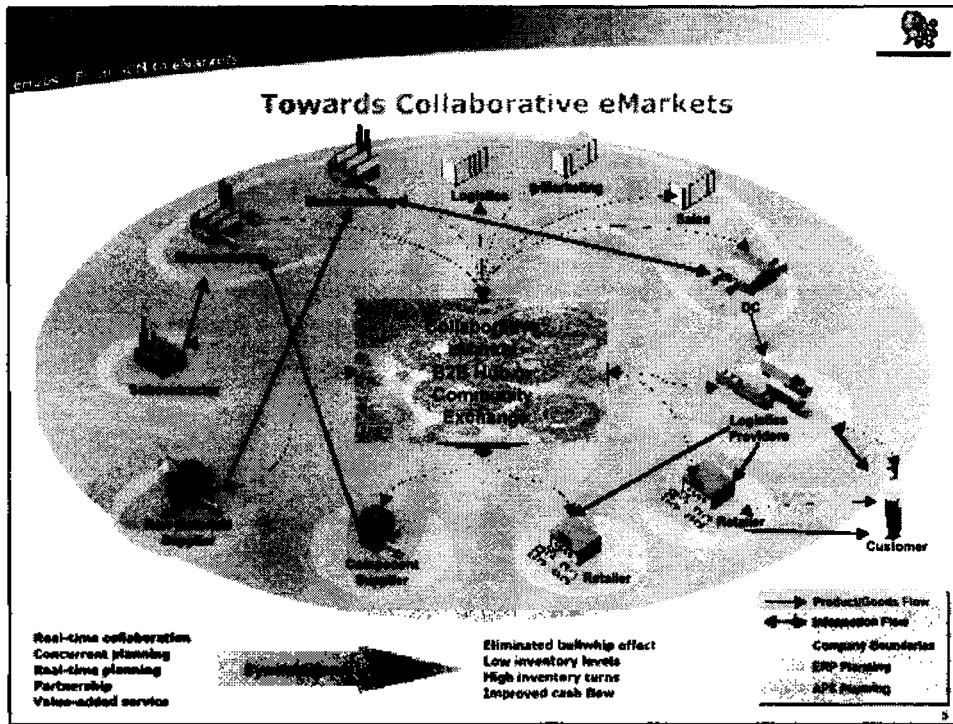
eHUBS From SCM to eMARKETS

Agenda

- From Supply Chains to e-Supply Networks
- Emarkets Overview & Current Developments
- Which eMarket Model Should We Pursue?

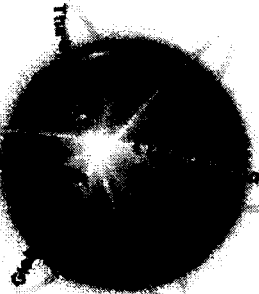






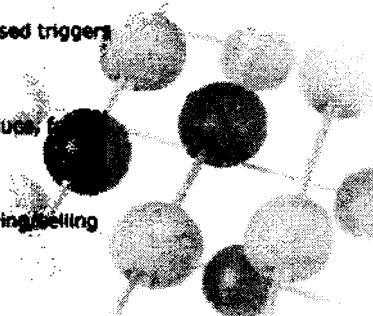
Overall Challenges for Supply Networks

- Take orders over the web, or automatically via B2B eMarkets
- Offer rich product selection and/or the ability to customize
- Source the order and commit to delivery, immediately, online
- Service the order online, including changes and inquiries
- Deliver product quickly, efficiently, profitably
- Be in constant communication with customers and suppliers to:
 - respond quickly to "pull signals" to manage inventories
 - adapt quickly and economically to changes in demand/supply
 - operate with low inventories
- Operate in a world of short product life cycles




Objectives in Collaborative Supply Networks

- Provide Visibility of Information
 - Inventories, Forecasts, Orders, Plans, Engineering Changes, KPIs
 - to provide real time communication, including business logic where each event is monitored by alerting systems for real time transactional data & decision support information about customers & orders
 - to share document generation & profitability monitoring
- Synchronize Activities
 - Optimized feasible sourcing/planning, pull-based triggers
- Promote Responsiveness
 - Reduce time to detect demand, commit, produce, ship
- Leverage Market Mechanisms
 - Aggregated buying power, auction-based buying/selling
- Achieve Process Simplification
 - Automated steps, One-step business



Collaborative Processes
in e-Supply Networks
Research Report

Agenda





From Supply Chains to e-Supply Networks

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eMarket Developments

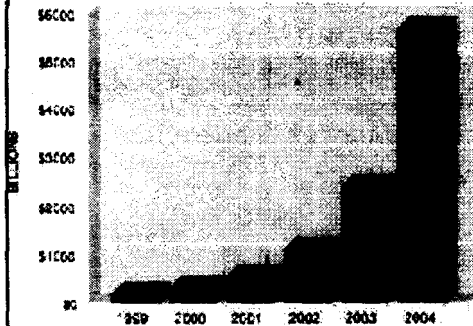
"The period 2000 - 2002 will represent the single greatest worldwide economic and business conditions ever, and most of the impact will occur during the next 18 months."

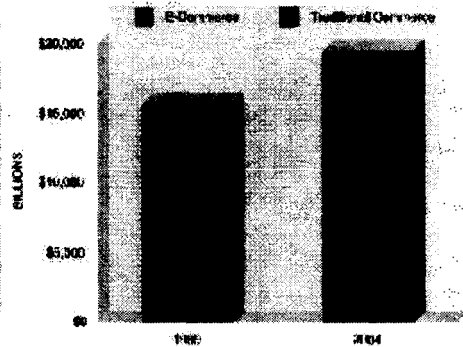
- Growth in Online B2B Spending Will Be Phenomenal
 - Online B2B spend projected at \$15.6 trillion by 2010
 - 75% of all B2B spend will be online
- eMarkets Will Become a Major Portion of Total Online B2B Trading
 - Market spending will represent 54% of total online B2B spend
 - U.S. eMarket spend estimated at \$1.5 trillion by 2004
- The Number of Companies Using eMarkets Will Be Rapidly Increasing
 - Over 70% of the companies in most industries will trade through eMarkets by 2002

B2B E-Commerce Forecast

Growth of B2B Internet Commerce 1999-2004



B2B E-Commerce Growth 1999-2004



There will be no internet company in the future, only those that use the internet and those that have been crushed by competitors who do...

Andy Grove, Intel Corporation, April 2000

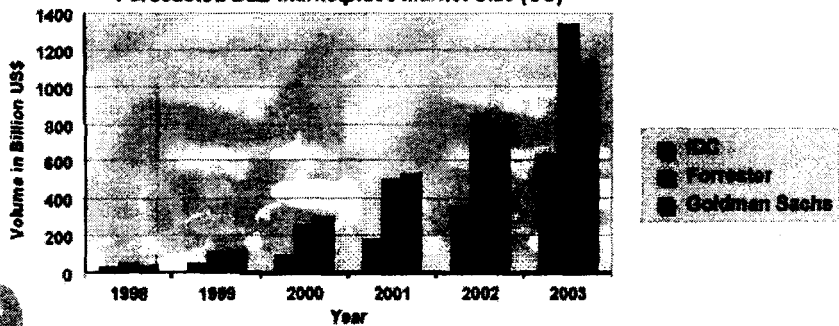
Company	1999	2000	2001	2002	2003	1999-2003
McGraw-Hill	1,000	1,500	2,000	2,500	3,000	200%
Forrester	1,000	1,500	2,000	2,500	3,000	200%
Goldman Sachs	1,000	1,500	2,000	2,500	3,000	200%

Source: AMR Research, 2000

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Analysts See Big Growth for B2B Marketplaces

Forecasted B2B Marketplace Market Size (US)



Marketplaces will ultimately account for between 45% and 74% of eCommerce in a supply chain. The largest impact will be in the computing and electronics, shipping and warehousing, and utilities industries. By 2004 more than 70% of online trade or \$2.7 trillions will go through eMarketplaces.

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From SCM to eMarkets

What is an eMarket?

- B2B exchanges (or eMarkets) are third-party Internet-based intermediaries that match buyers and sellers within a specific industry (vertical) or a specific business function (horizontal) in a public marketplace. The value proposition of eMarkets focuses on:
 - ➔ Reduced process costs
 - ➔ Reduced product costs
 - ➔ Improved discovery
 - ➔ Improved visibility

**Enterprise Optimization
(Single Business)**

eMarkets

**Network Optimization
(Multi-Business)**

KEY BENEFITS of eMarkets

- ➔ Provide a central platform for transaction automation, demand aggregation, improved market liquidity, extended market reach
- ➔ Introduce new market and process efficiencies to an industry supply chain
- ➔ Reduce product, process and sales costs

Latest Statistics:

- ➔ Over 1,000 eMarkets have already been created by Internet-based businesses
- ➔ \$438 billion of the \$1.7 trillion anticipated in B2B online transactions will occur through eMarkets

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From SCM to eMarkets

B2B eMarkets development

- Online trading communities, or Value Added Communities ("VACs"), are rapidly becoming the great enablers of this multi-business network optimization

Value Added Communities ("VACs")

KEY BENEFITS

- ➔ Provide a central platform for transaction automation, demand aggregation, improved market liquidity, extended market reach
- ➔ Introduce new market and process efficiencies to an industry supply chain
- ➔ Reduce product, process and sales costs

Vertical Communities

- ➔ Resolve industry specific supply-chain inefficiencies

Horizontal Communities

- ➔ Cut across industries and automate functional processes such as MRO or Logistics

According to Bear Stearns:

- ➔ Over 300 VACs have already been created by Internet-based businesses
- ➔ \$438 billion of the \$1.7 trillion anticipated in B2B online transactions will occur through VACs

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FROM SCM TO eMARKETS

Supply Chain Hubs Provide Significant Opportunities

- It's all about improving coordination through shared collaborative environments with suppliers and customers in order to:
 - Reduce supplier integration costs
 - Minimize investment expense
 - Optimize industrywide capacity
 - eMarkets may offer a consolidated view of industry capacity and market demand
 - Companies can easier optimize interenterprise production and distribution

▲ = Inventory buffer ↔ = Information flow → = Materials flow

FROM SCM TO eMARKETS

Buyers Expect The Net To Help Their Supply Chain Efforts

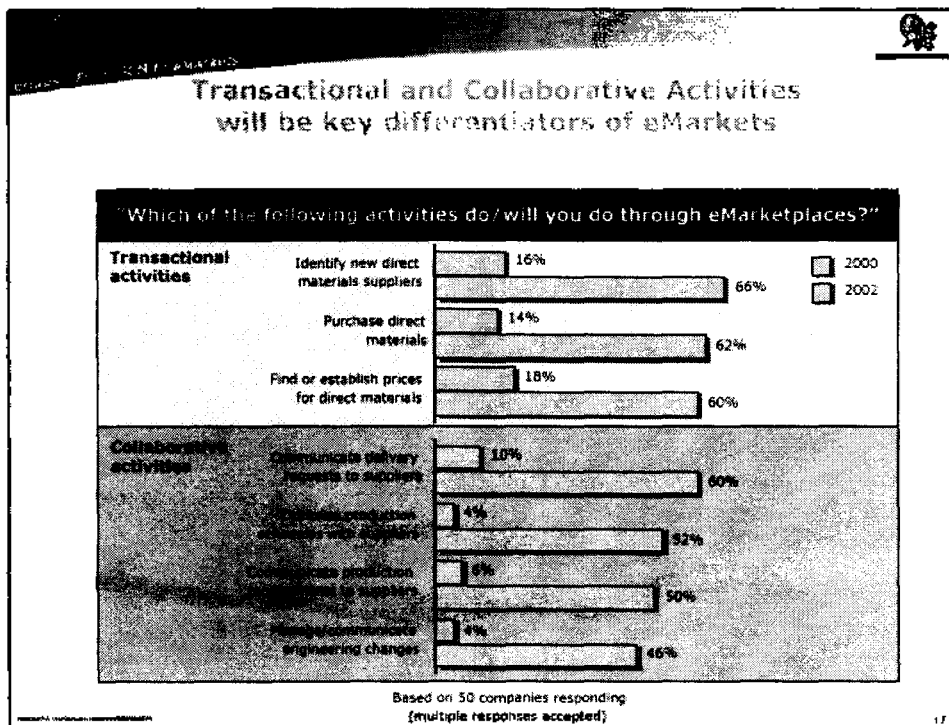
How would you rate your effectiveness at coordinating your supply chain?

Rating	Percentage
Excellent	4%
Good	24%
Average	26%
Terrible	10%

What are your top goals for supply chain coordination through the Net?

Goal	Percentage
Reduced supply chain management costs	78%
Reduced channel inventory	38%
Increased supply chain flexibility	38%
Reduced order-to-delivery time	32%
Reduced purchasing costs	30%
Increased supply chain visibility	18%
Better products	16%

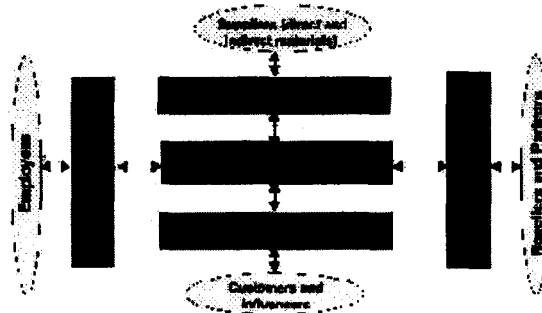
Based on 30 companies' responses



- ### Evolutionary themes in B2B e-commerce
- From Transaction Focus to Workflow Focus.
 - From Procurement Focus to Solutions Focus .
 - From Automation to Optimization
 - From Commodities to Differentiated Products
 - From Physical Product Exchanges to Service Exchanges.
 - From Verticals/ Horizontals to Specialized Designs
 - Emergence of Megahubs and Metahubs
 - Consolidation of Technology Platforms
 - Return of Relationship - Extranets and Private Exchanges

The Architecture of the e-Corporation

- An integrated set of applications that span all functional areas and constitute the information infrastructure (infrastructure) of the extended enterprise.
- These applications enable the management, organization, transformation, and routing of information within the enterprise, and between the organization and its external constituents.
- At the core of the extended enterprise sits the ERP backbone that resides within the enterprise and focus on inward-facing applications.
- The enterprise becomes "extended" when its applications also face outward and connect to customers, suppliers, and resellers. These extended enterprise applications include Customer Relationship Management (CRM), Supply Chain Management (SCM), and Operating Resource Management (ORM).



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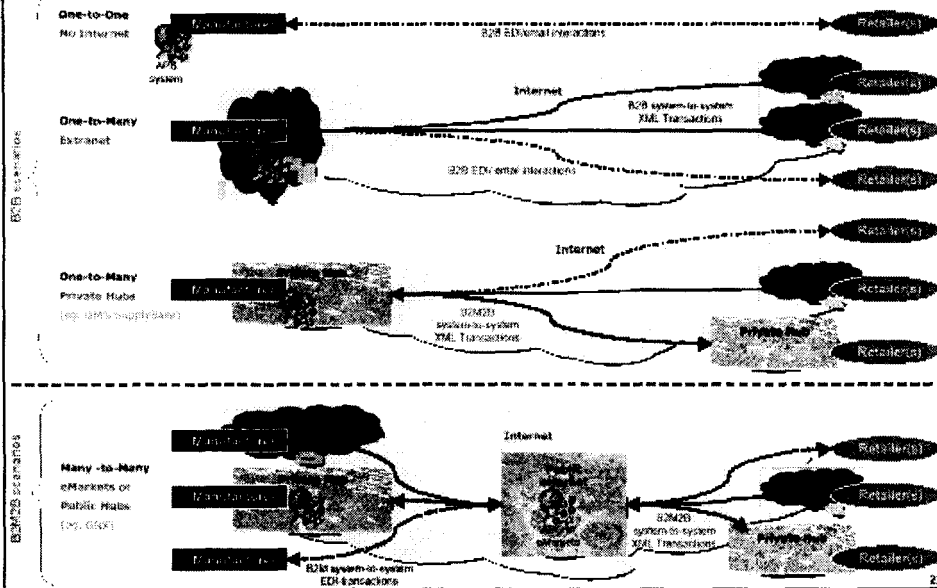
Hysteria Captures the Corner Office: The CEO's Dilemma

- Where do we start from?
 - Do We Join an Existing Exchange?
 - If So, How Do We Prevent Our Products From Becoming Commodities?
 - Do We Start Our Exchange With One or More of Our Competitors?
 - How? We've Hated Them for Decades?
 - Do We Start Our Own?
 - Will Anyone Join?

- And then, inquiring minds want to get answers to ten tough questions
 - What Will We Get for Our Membership Fee?
 - What's The ROI?
 - What Functionality Will Be Delivered and When?
 - What Will The Exchange Cost Over 5 Years?
 - Will We Get Everything Promised or Will We Have to Arise Up Again in 2 or 3 Years?
 - How Will You Resolve Competition Among Best of Breed Vendors?
 - What Is Your Plan to Attract and Retain Suppliers?
 - What's The Business Process Model for New Collaboration Applications?
 - How Do We Integrate With Our Back End Systems?
 - What's Inside/Outside Our Firewall?
 - How Much Will It Cost?
 - What About the Immaturity of Standards?
 - How Will You Handle M2M or E2E Integration?
 - When Should We Worry About Performance?
 - What Are The Key Metrics?
 - Liquidity, Supplier Retention, Market Value?

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eMarket Deployment - From B2B to B2M2B Scenarios



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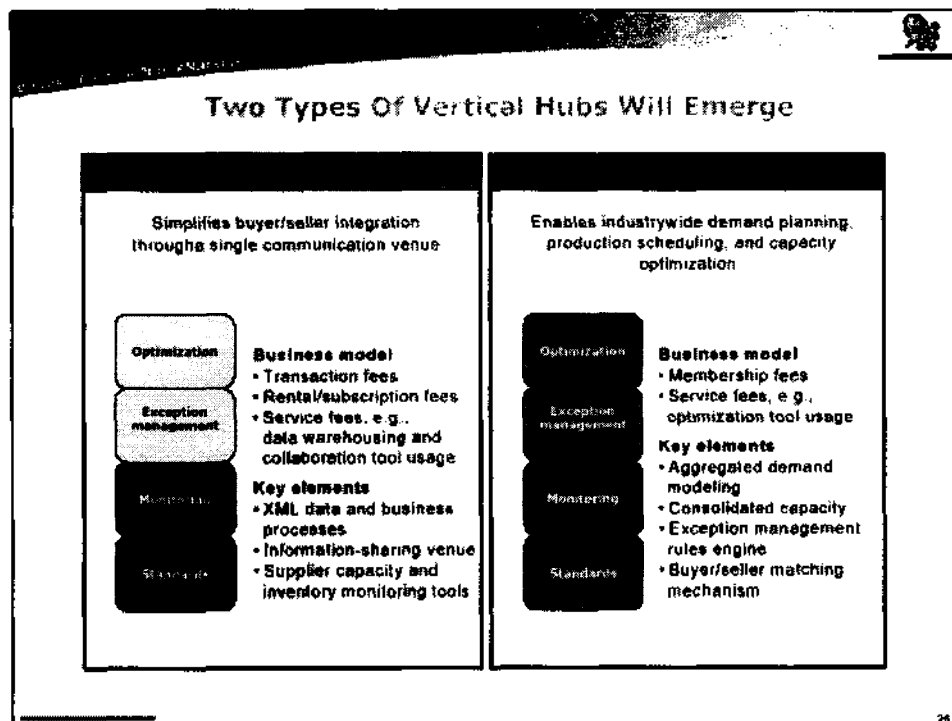
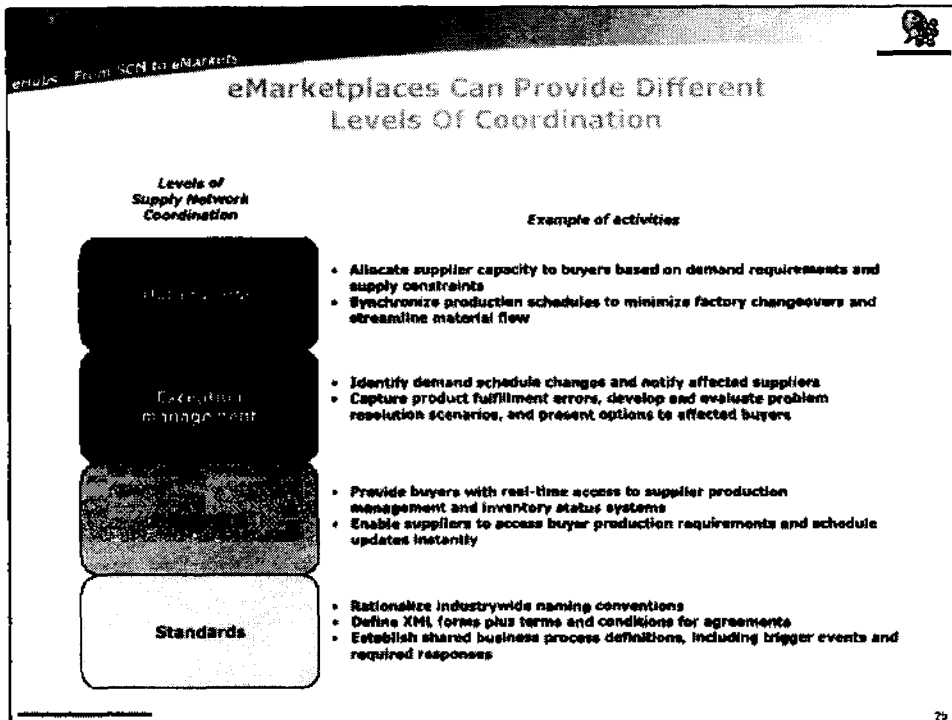
Public Versus Private eMarkets

	Public eMarket	Private eMarket or eHub
Ownership		<ul style="list-style-type: none"> • Owned by a single firm
Standards driver		<ul style="list-style-type: none"> • Often the driver
Site access		<ul style="list-style-type: none"> • Restricted to invited participants
Data control		<ul style="list-style-type: none"> • High level of control, with most data captured from participants
Buyer costs		<ul style="list-style-type: none"> • Customized information tailored to buyer's requirements • High level of control • High level of integration
Seller costs		<ul style="list-style-type: none"> • High level of control • High level of integration

Vertical Orientation

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- eHubs From SCM to eMarkets
- ## eMarket Orientation – vHubs and fHubs
- An eHub can specialize vertically along a specific industry or market, or it can specialize horizontally along a specific function or business process. Based on these dimensions, we classify the universe of eHubs into two primary types:
 - **Vertical eMarkets or vHubs (vertical eHubs)**
 - vHubs have a vertical market or industry focus. They provide deep domain-specific content, and domain-specific relationships
 - **Horizontal eMarkets or fHubs (functional eHubs)**
 - fHubs focus on providing the same functions or automating the same business process across different industries. Their expertise usually lies in a business process that is fairly "horizontal", which means that it is generalizable across vertical markets.
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Inquiring Minds Want to Know Ten Tough Questions

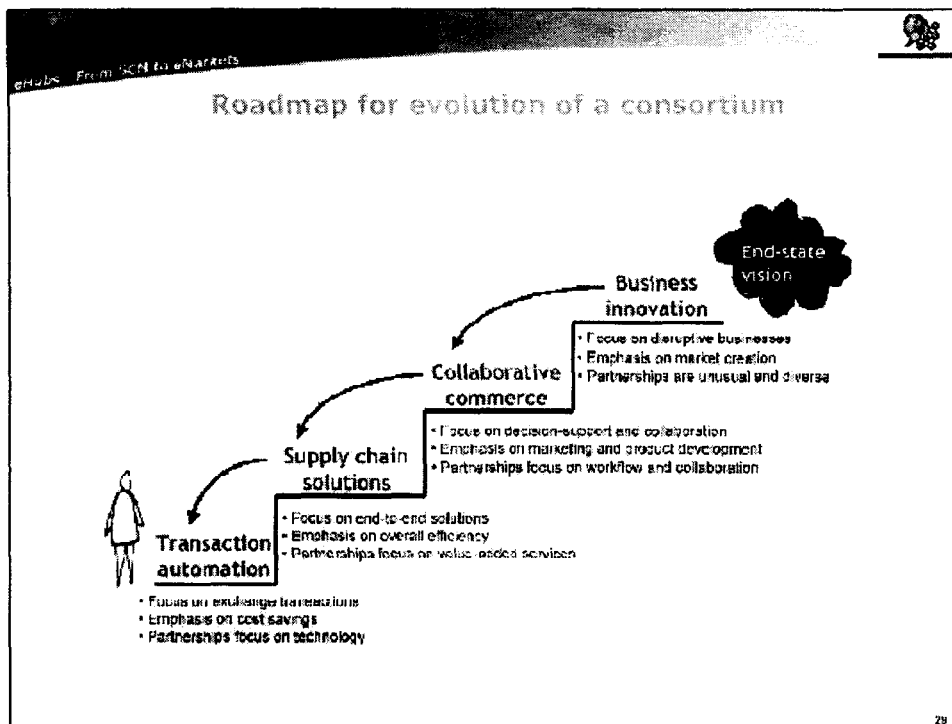
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Different originators of B2B consortia

Who sponsors the consortium	Industries where it works best	Value proposition	Key challenges	Examples
Buyers	<ul style="list-style-type: none"> • Concentrated on buyer side, frag. related on supplier side • Multi-layered supply chain 	<ul style="list-style-type: none"> • Reduce procurement costs • Streamline buying process 	<ul style="list-style-type: none"> • Attracting large suppliers • Antitrust concerns about supplier screening and exclusion • Execution and governance 	<ul style="list-style-type: none"> • Aircrafts • Aerospace supplies • Retailing
Suppliers	<ul style="list-style-type: none"> • Concentrated on supply side • Inefficient demand chain 	<ul style="list-style-type: none"> • Reduce distribution costs • Improve demand chain efficiency 	<ul style="list-style-type: none"> • Attracting non-founding suppliers • Antitrust concerns about price collusion • Execution and governance 	<ul style="list-style-type: none"> • Paper • Meat and poultry • Metals • Airlines
Intermediary - Distributors - Associations	<ul style="list-style-type: none"> • Fragmented industry • Concentrated channel 	<ul style="list-style-type: none"> • Aggregate demand and supply • Price transparency • Improved coordination 	<ul style="list-style-type: none"> • Maintaining neutrality • Reconciling conflicting interests of sponsors 	<ul style="list-style-type: none"> • Foodservice • Consumer packaged goods • Electrical supplies
Startup firm	<ul style="list-style-type: none"> • Fragmented industry, early mover advantage 	<ul style="list-style-type: none"> • Aggregate demand and supply • One-stop shopping • Price transparency 	<ul style="list-style-type: none"> • Building liquidity, particularly on supplier side 	<ul style="list-style-type: none"> • Steel • Chemicals • Life sciences

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- From SCM to eMarkets
- ### B2B Consortium Best practices
- Put last things first – gain clear agreement on end goals
 - Define capital structure, participants and revenue streams accordingly
 - Keep the board small, nimble, and less than 50% insiders
 - For NewCo models, bring in outside investors and bankers early
 - Separate ownership from governance and operations
 - Create a transition team with clear hand-offs to management
 - Kill or buy out competing internal initiatives among founders
 - Think beyond cost savings and procurement to value-added services
 - Offer equal and open access to non-participants and independent exchanges to preempt antitrust concerns
 - Partner with or acquire cash and liquidity-strapped independent B2B exchanges to speed execution and enhance neutrality
 - Involve implementation partners with deep vertical market expertise
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