

Leveraging the Full Value of E-commerce



1999 Annual Conference



Matt Anderson, Vice President
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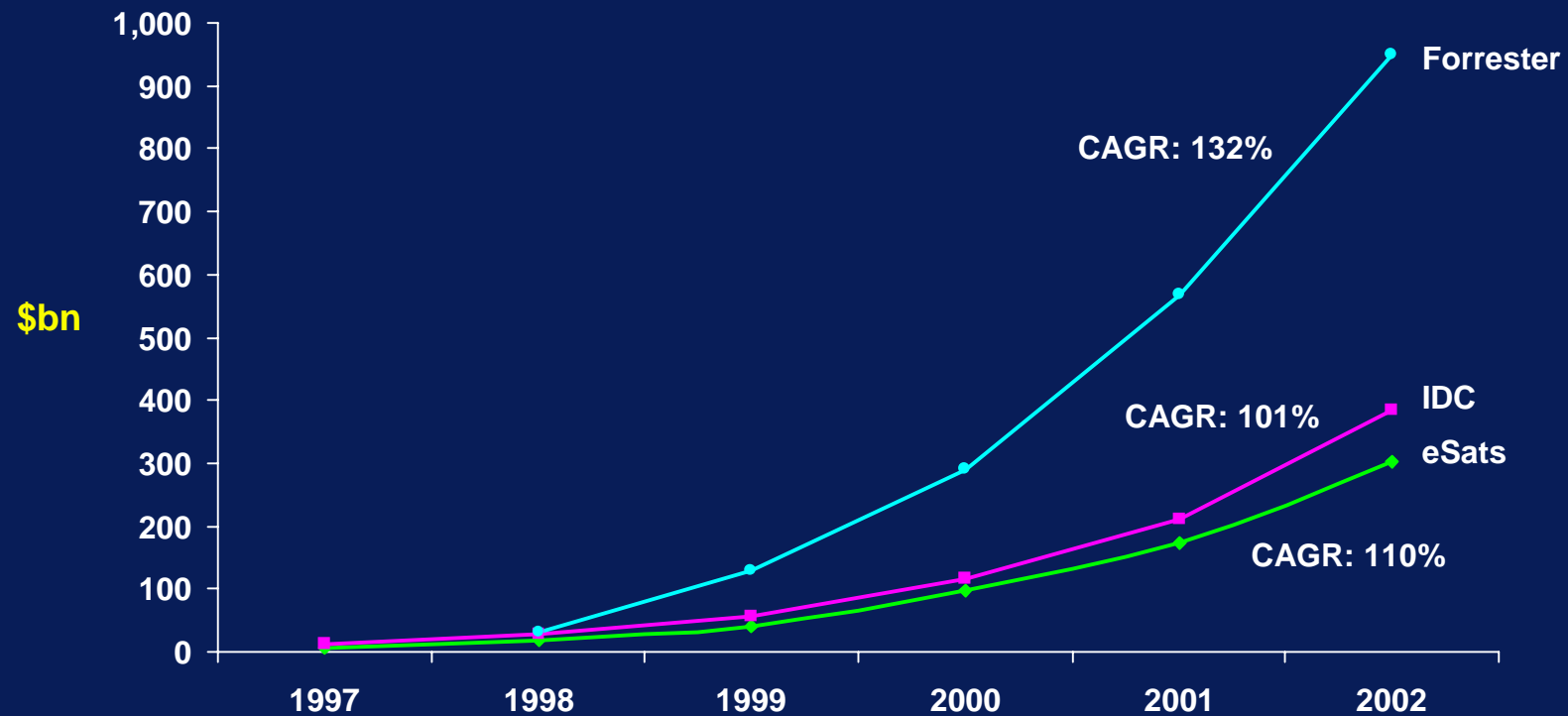
Agenda

- The growing importance of e-commerce
- E-commerce leverage points in supply chain management
- Defining the right approach for your company



The Growing Importance of E-commerce

E-commerce as a whole is expected to grow rapidly

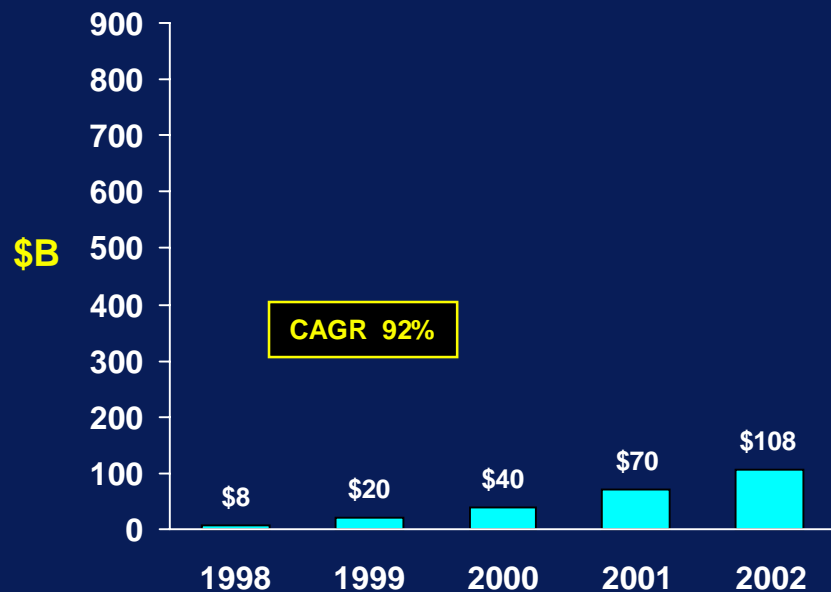


Source: eStat, IDC, Forrester, London Business School.

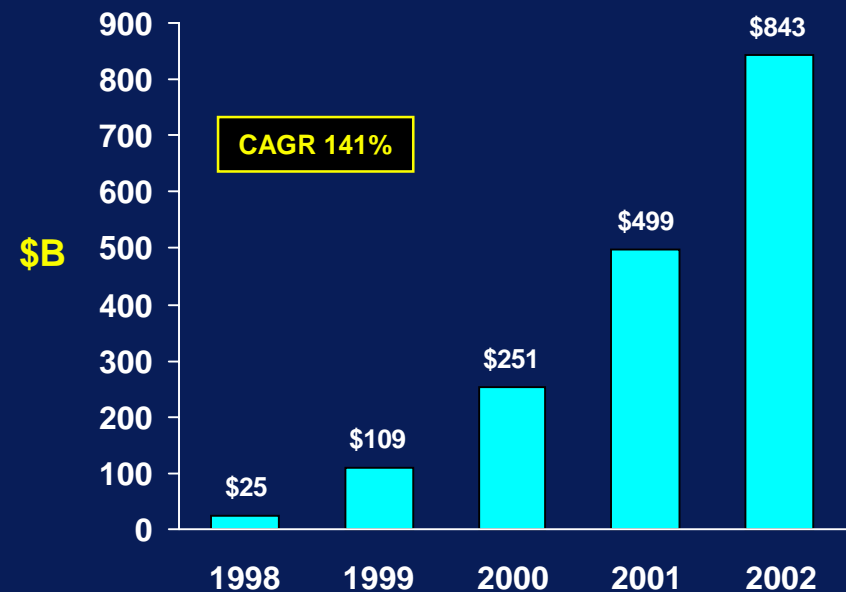
Note: EDI revenue not included in forecasts.

B-B e-commerce is larger and growing faster than B-C e-commerce

**Business-to-Consumer
Revenue Projections (\$ US)**

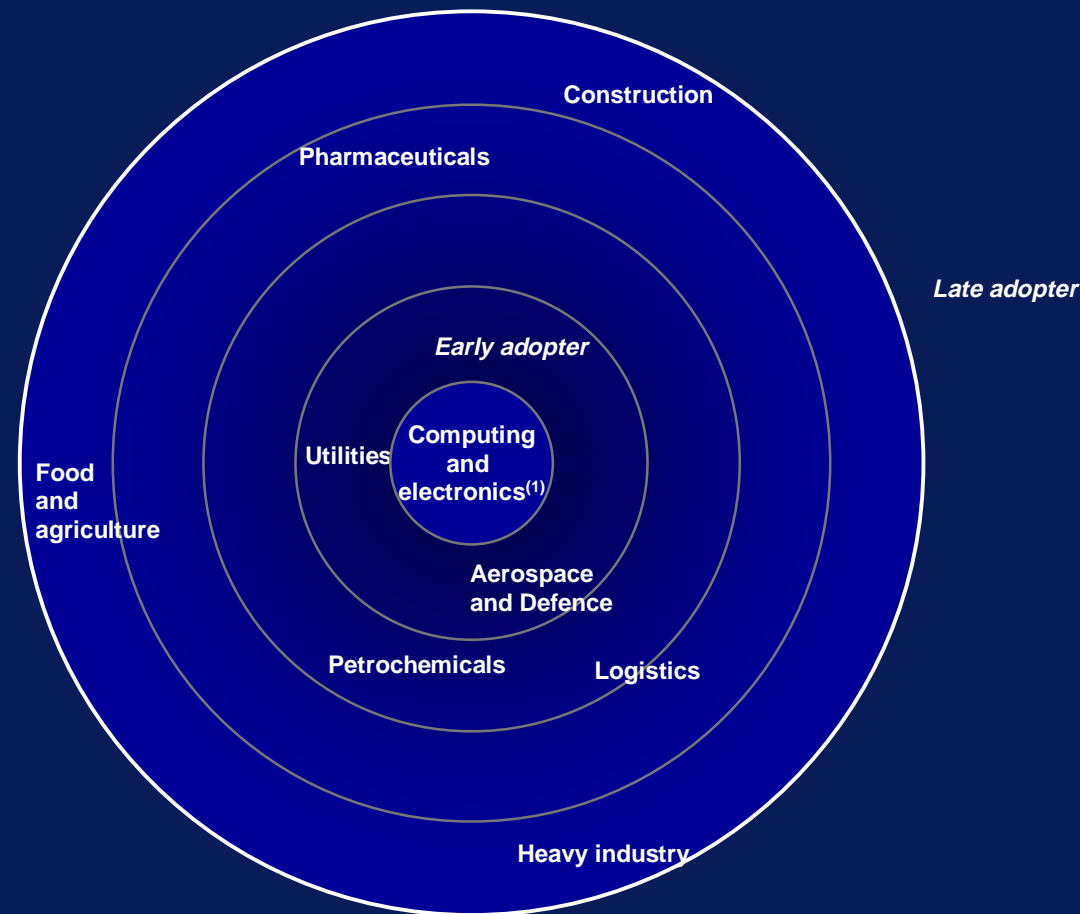


**Business-to-Business
Revenue Projections (\$ US)**



Source: Forrester Research 1998.

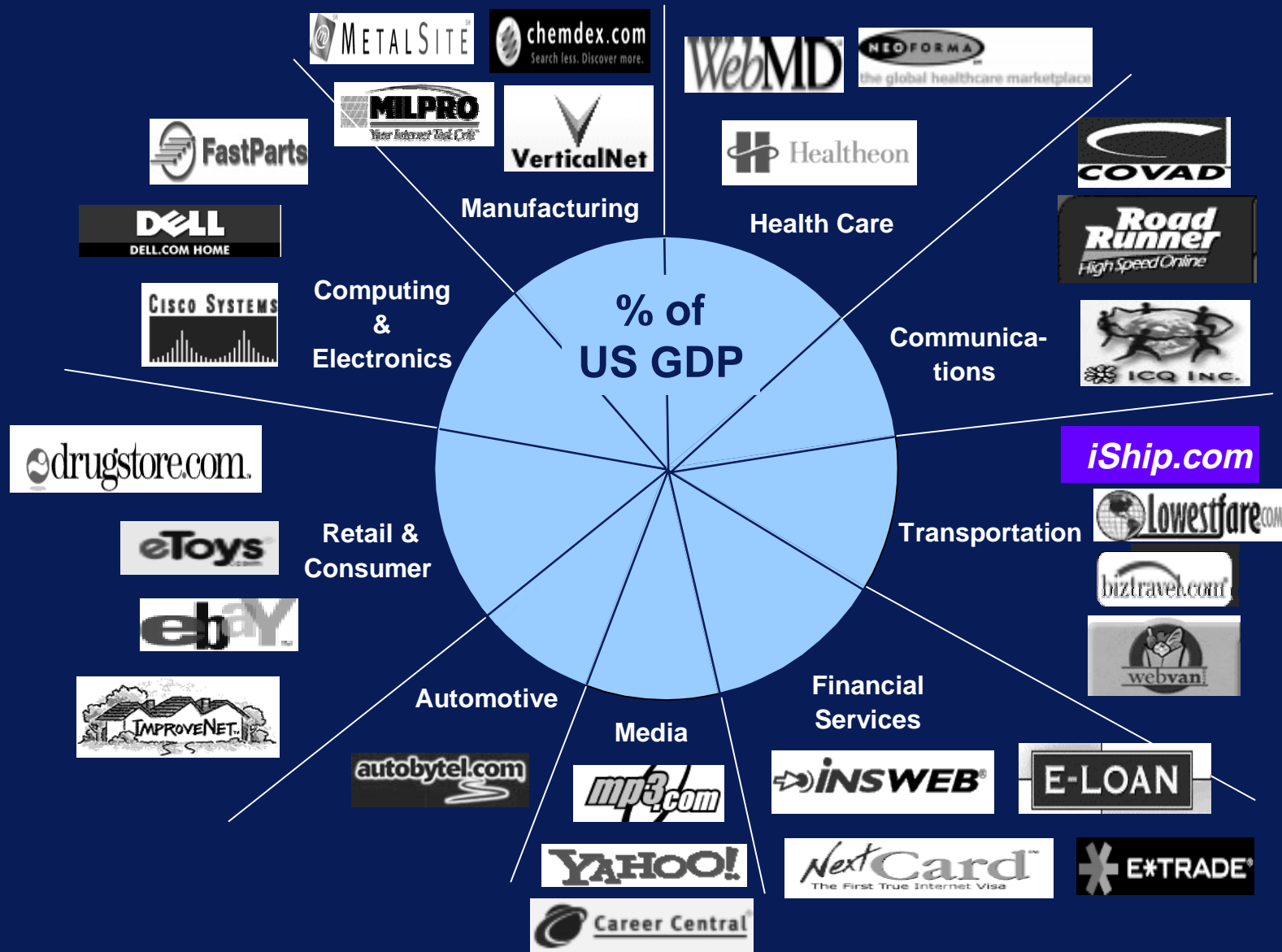
B-B e-commerce is currently concentrated in technology-related industries, but its eventual influence is predicted to be widespread



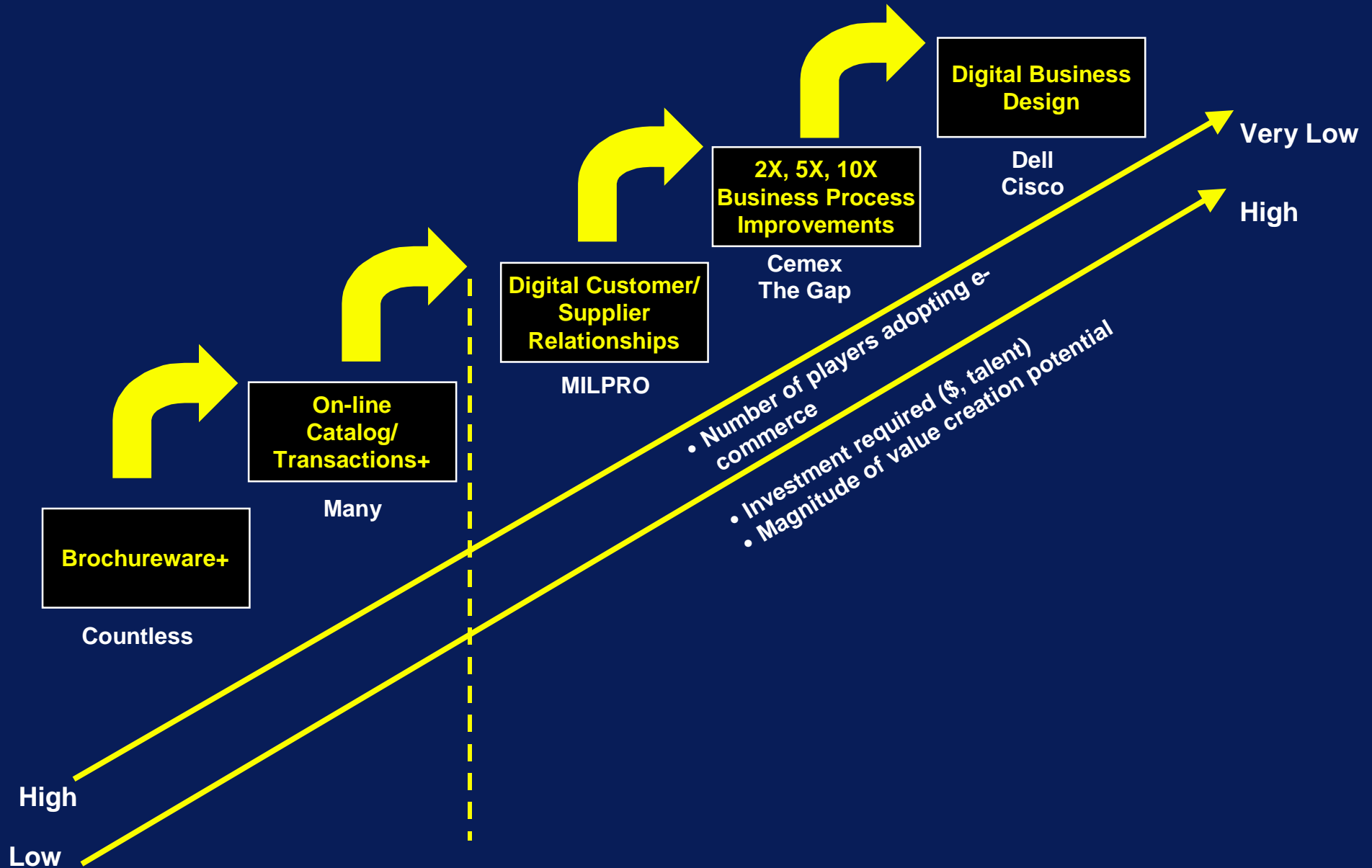
Source: Forrester Research.

Note(1): Computing and Electronics currently represents 40-50% of e-commerce value in US.

Early adopters cut across all sectors of the economy



Most companies are in the infancy of Internet adoption. Step function value creation occurs when companies go beyond basic e-commerce transactions.

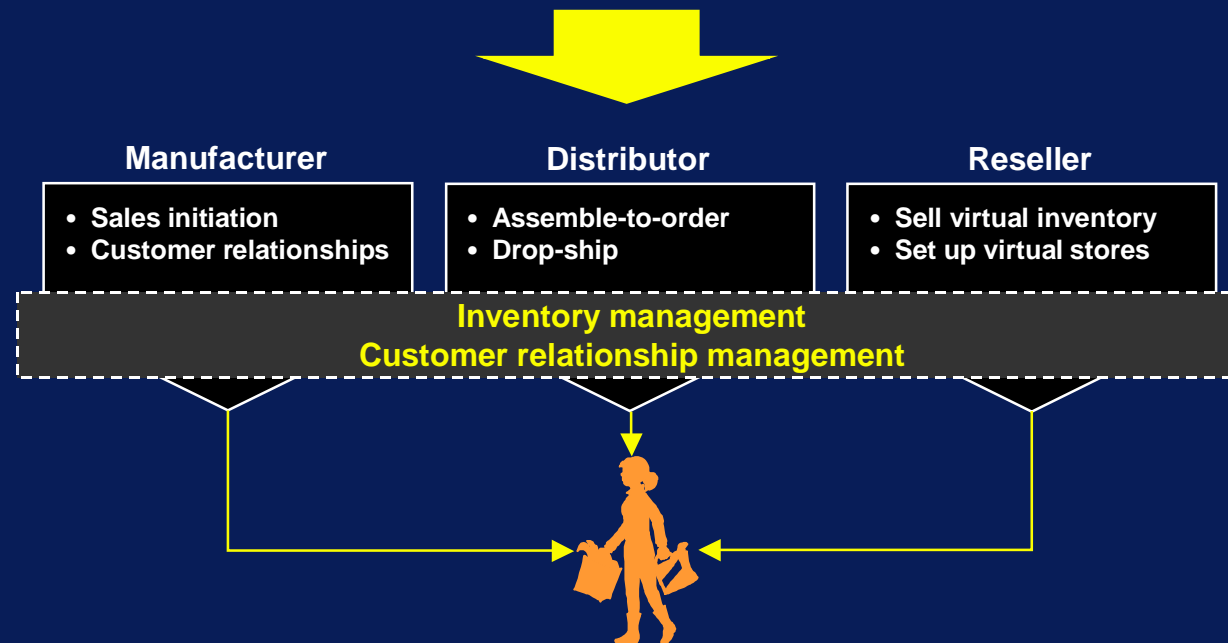


The internet is increasingly driving changes in the supply chain through greater interaction with the end customer

Traditional Roles:



New Roles:



Source: Forrester "Disintermediation Realities," Dec. 1998.

E-commerce is not the goal

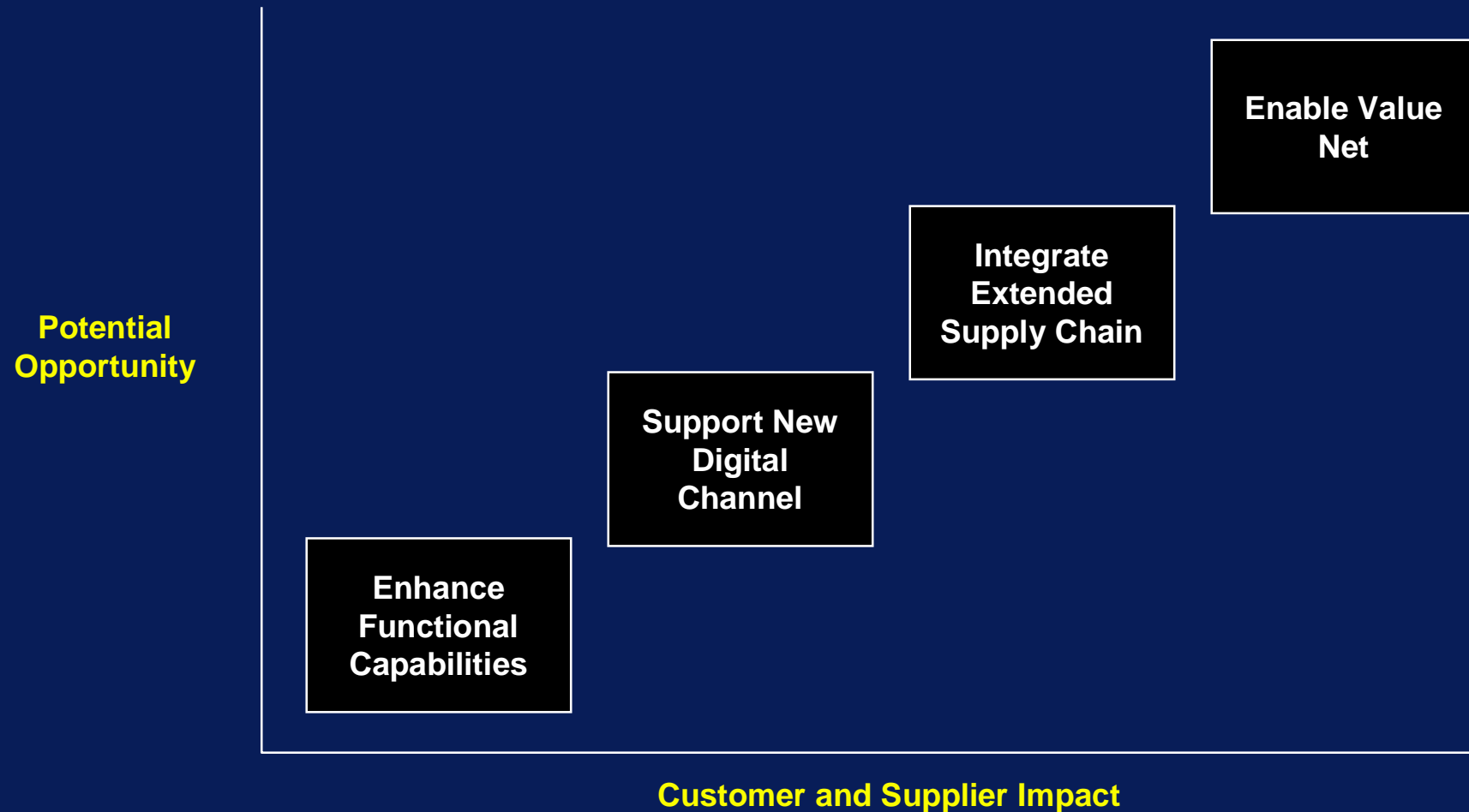
“Let’s be clear on one thing: If you take a business that is a bad business and put it online, it’s still a bad business – it’s just become an online bad business.”

– Michael Dell

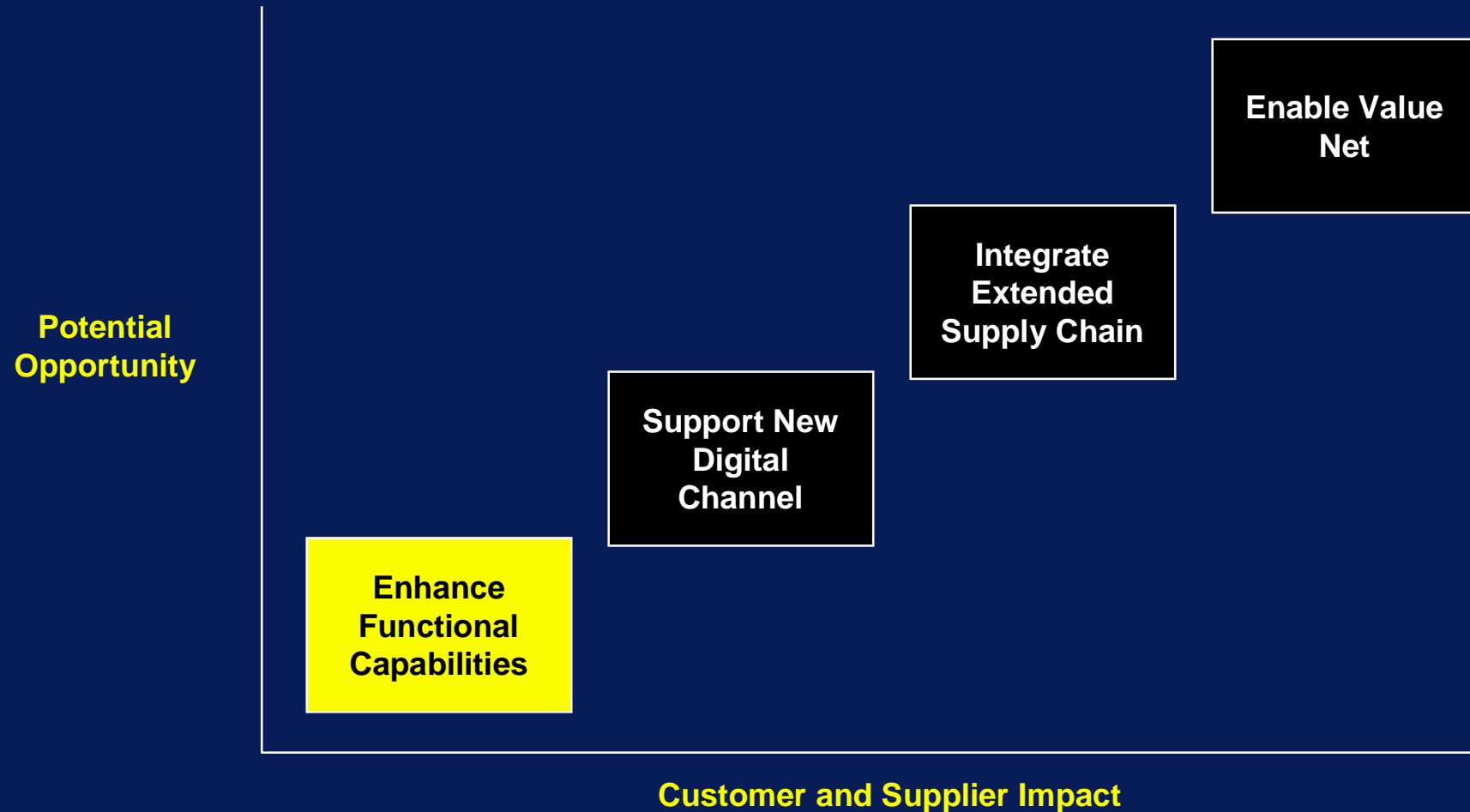


E-commerce Leverage Points in Supply Chain Management

E-commerce can enhance supply chain management at many levels



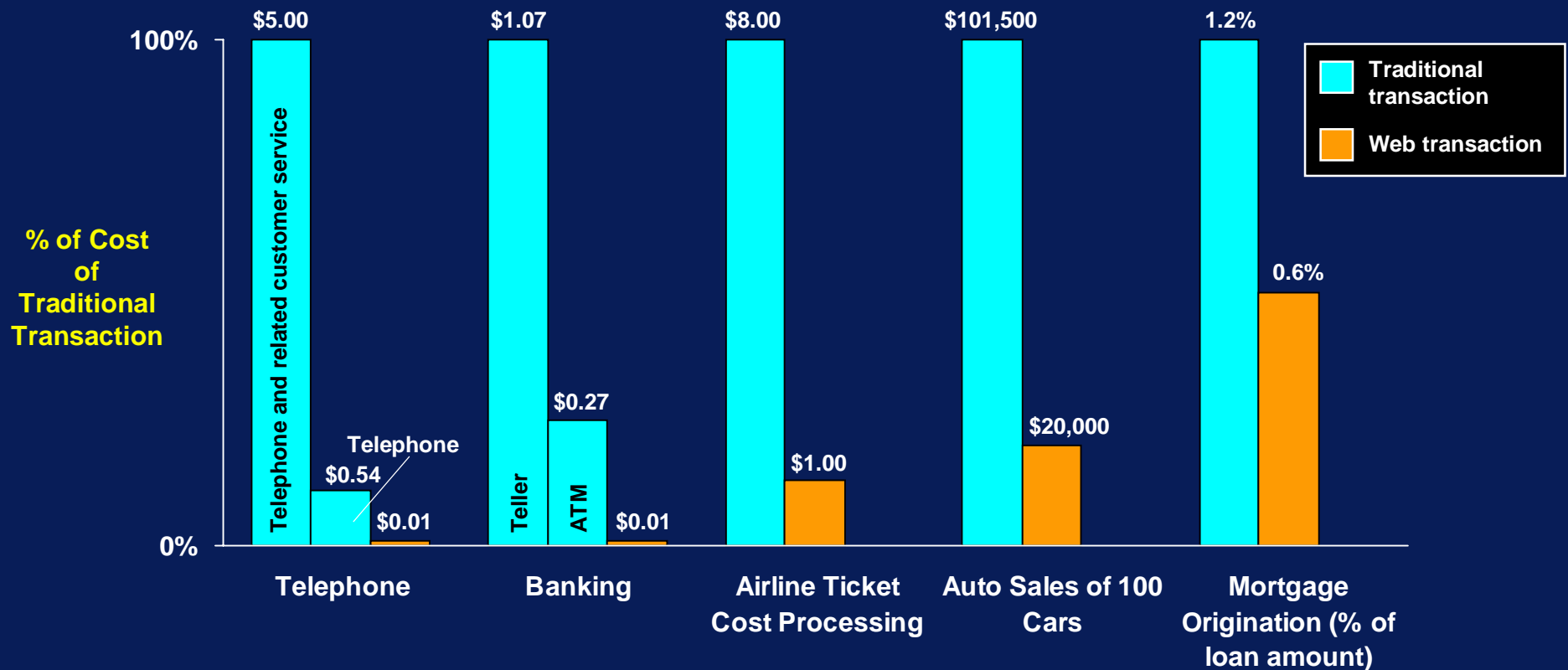
Enhance Functional Capabilities



On-line transactions are usually considerably less costly

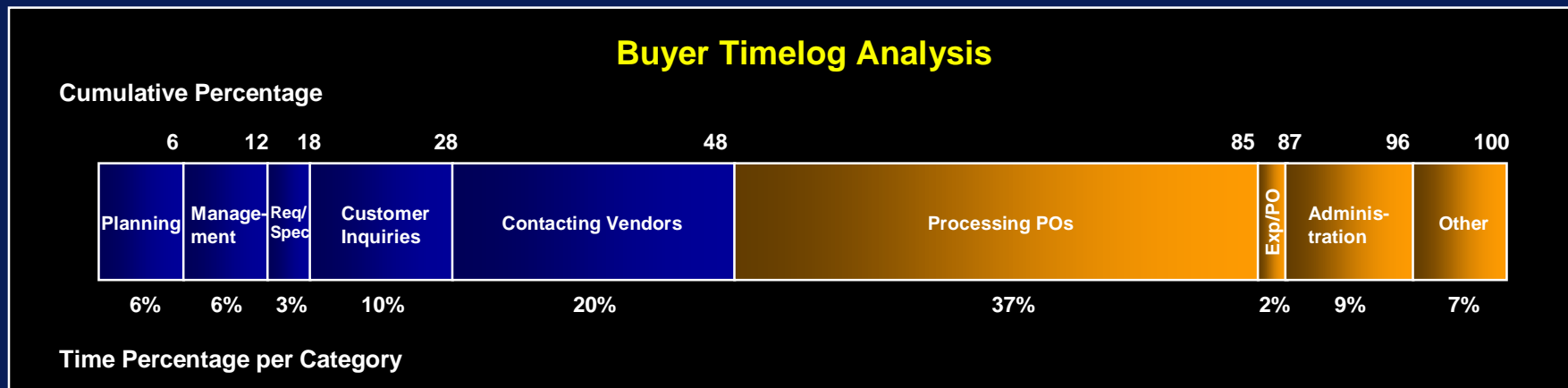


Traditional Vs. On-line Transaction Costs



Source: eStat collated from Booz Allen & Hamilton, National Automobile Dealers Association, Auto-by-tel, and First Mortgage Network.

E-commerce can also reduce administrative burden



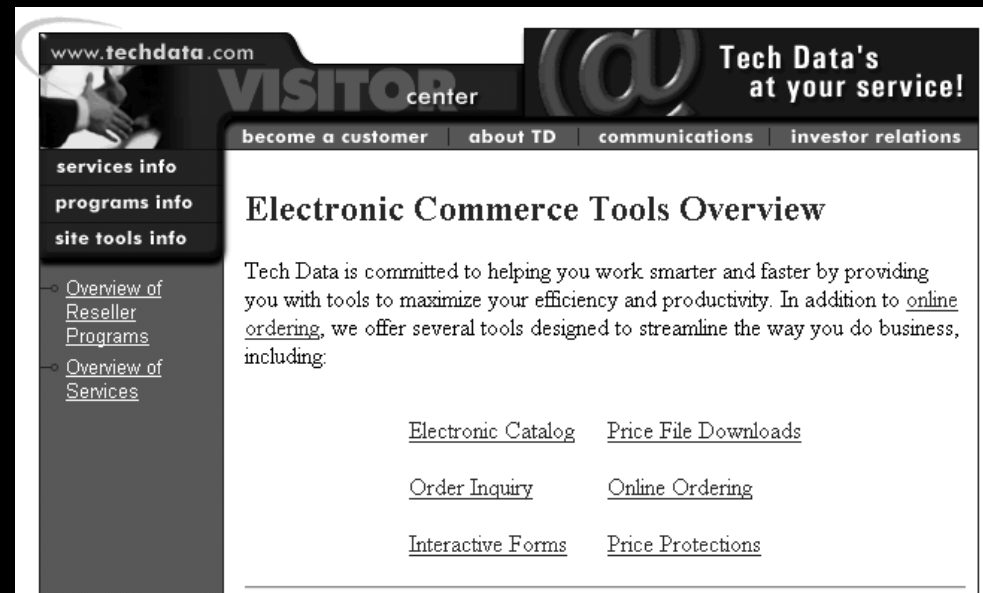
Tech Data, a major PC distributor, transformed (and streamlined) its selling processes through the implementation of a range of electronic, customer-direct ordering interfaces



Tech Data E-Commerce Solution

Historical Challenges:

- Call centers provided primary customer service and order management capabilities
 - Administrative focus rather than customer service
 - Fragmented process characterized as “hurry up and wait”



- **TD on CD:** A CD-ROM catalog that provides product and service information
- **TD On-line:** A client-server-based system that offers product searches, pricing, availability, order entry and inquiry options to preferred customers
- **TD Web:** Tech Data's Web site that offers password-protected access to their electronic catalog, a directory of manufacturers web sites, and order-tracking with direct links to UPS and FedEx

Early results associated with Tech Data's expanded e-commerce offerings have been positive



Customer Advantages

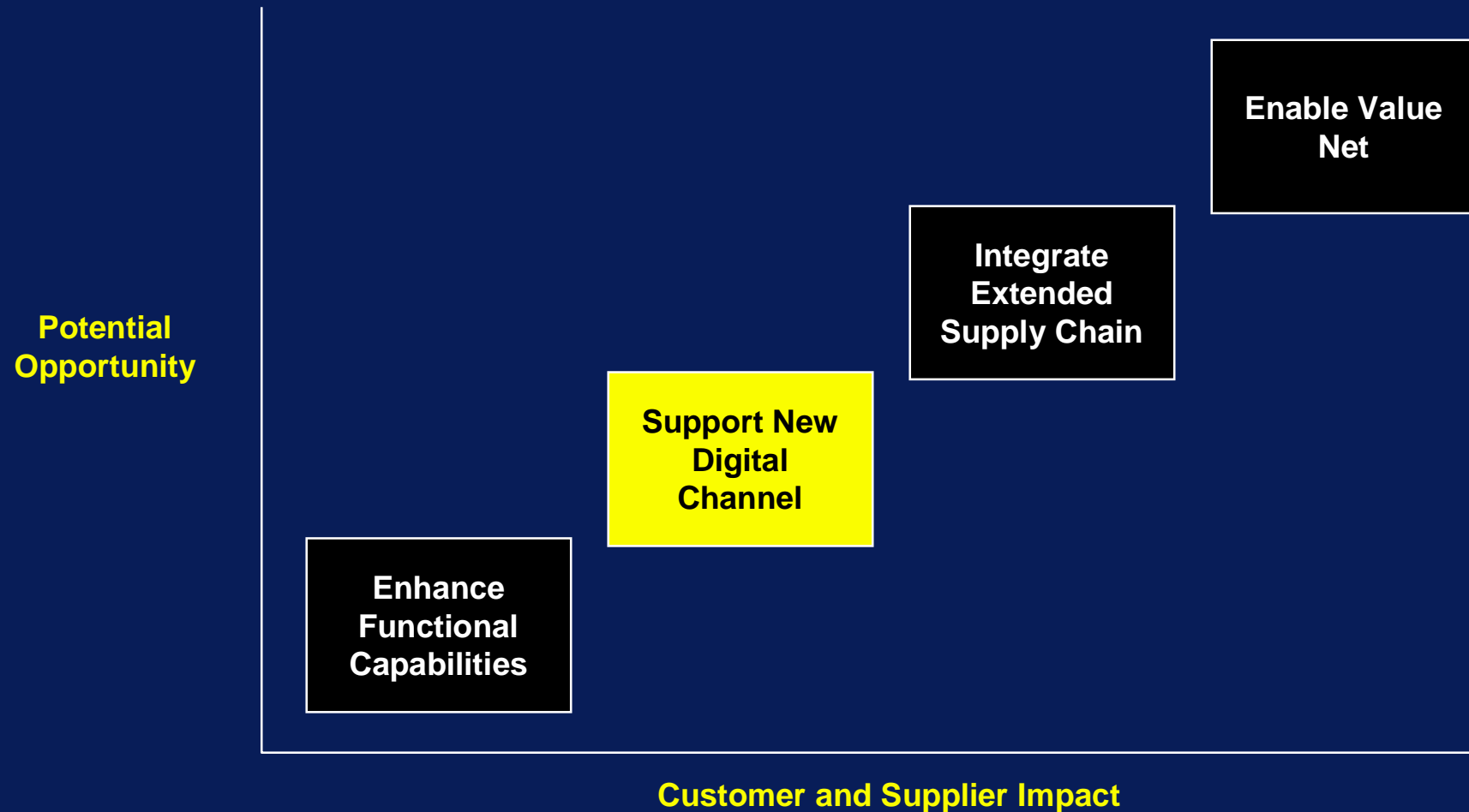
- Customer has expanded access to suppliers offerings
- Focus of call center is customer service rather than administrative support
- Delivery reliability is improved via automated mail order confirmation with link to order status inquiry page
- Marketing and sales efforts can be concentrated on customer needs and seeking ways to provide additional value-added services to the customer



Tech Data Benefits

- Reduced SG&A expenses from 6% to a company record low 4%
- Increased annual sales by 45%, while increasing sales staff by 6%
- Invested roughly \$16 million on tools, which has returned \$41 million in 3 years, representing enhanced revenue, productivity increases and reduced operating costs

Support New Digital Channel



New digital channels can create considerable supply chain challenges, particularly if they bypass traditional distribution steps



Market Issues

- Small, dispersed orders
- No “touch and feel”
- Highly variable sales

Service Issues

- Customer support requirements
- Limited shelf life
- Large assortments
- Fragile or temperature sensitive products
- Complex, multi-item orders

Economic Issues

- Insufficient consumer premium
- Low-margin products – high-cost distribution
- Sub-scale distribution operations
- Low-value product – high delivery-to-sales cost ratio
- Numerous sku's and stock points

For example, the internet grocery channel, requiring home delivery, faces many of these challenges



- Low order value – high cost-to-sales ratios
- Low profit margin in traditional channel
- Compressed delivery windows (before or after work)
- Large assortment of SKU's – high inventory and order picking cost
- Specialized transportation and storage
- Few affluent areas with sufficient geographic/population density

Streamline's supply chain is designed to overcome many of these challenges



Features

- Customer selection
- Breadth of product line
- Alignment
 - The Box
 - Weekly unattended delivery
 - Auto replenishment
- Outsourced distribution centers

Many positives in an exciting market – jury remains out



Streamline success with customers . . .

- 90% retention
- 40+ deliveries per year
- \$100 per order
- 94% consider Streamline primary provider of groceries and household goods/services
- 75% share of wallet



. . . Has attracted competition.

- ShopLink is imitator
 - Same suburbs of Boston
 - Same DC location
 - Same trucks
 - Same unattended delivery
 - On demand, not scheduled

Other models are surfacing . . .

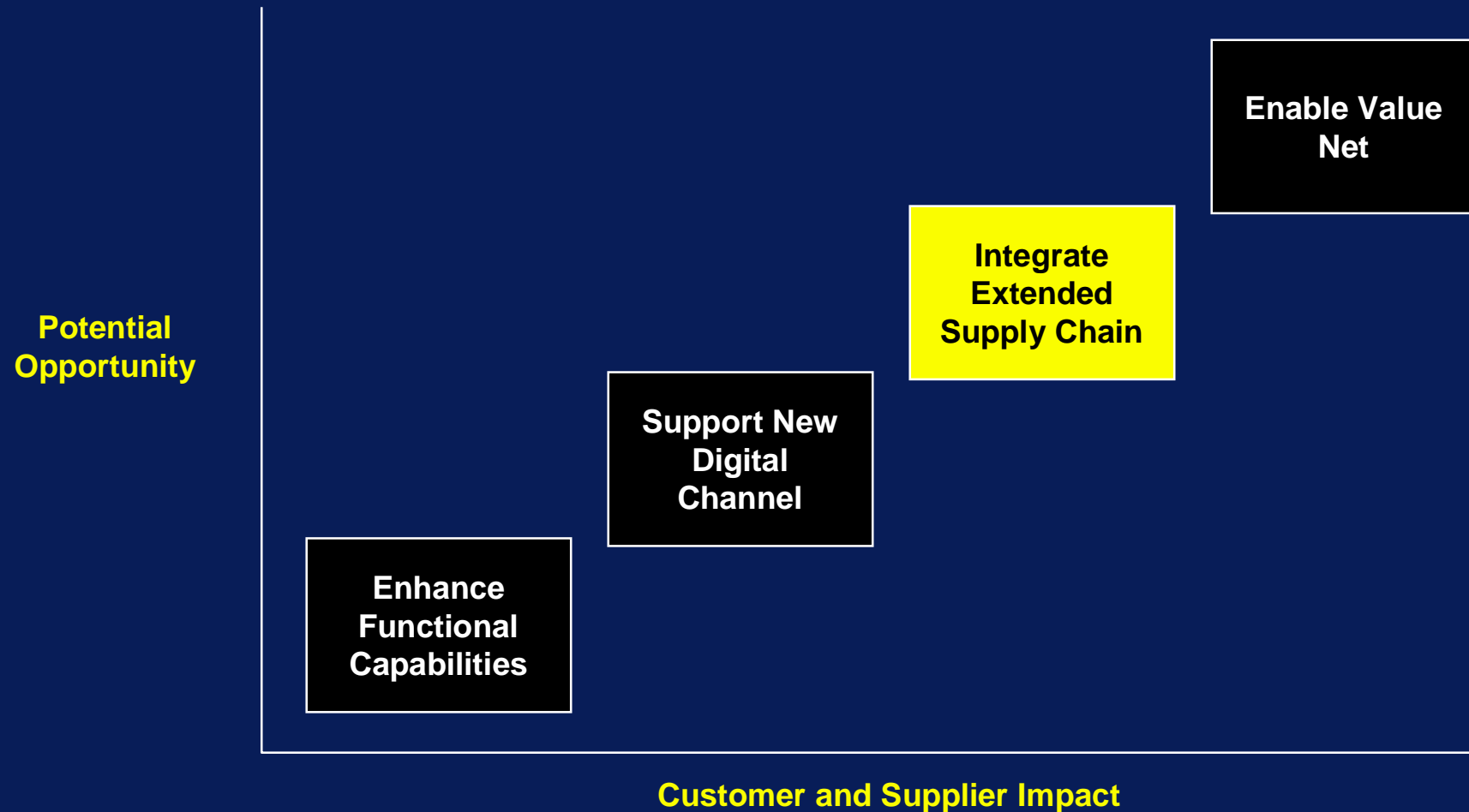
- WebVan
 - \$1 billion investment in automated DC
- Peapod
- Home Runs



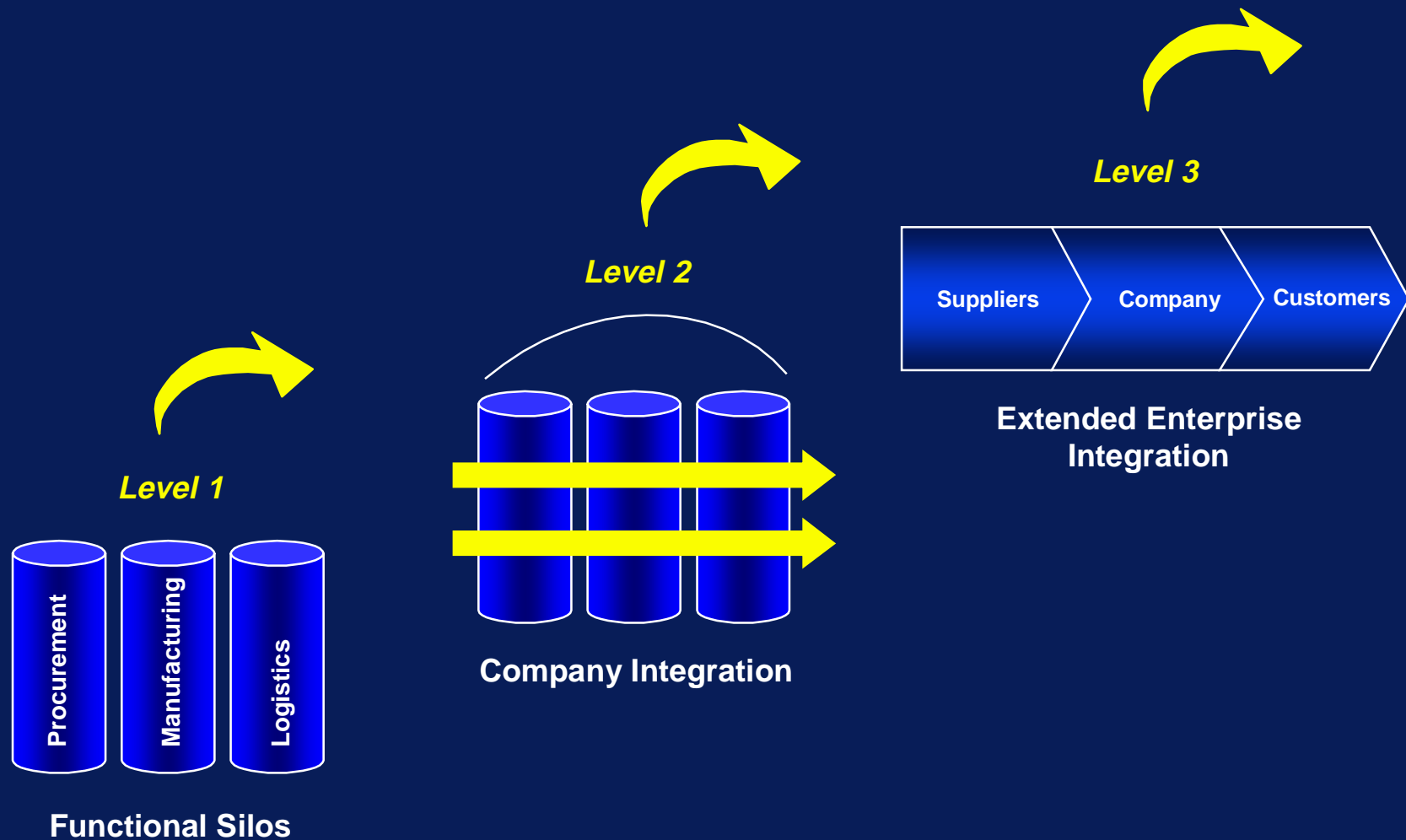
. . . Profits are elusive so far.

- Not yet profitable
- Plan to build:
 - Scale
 - National presence
- ... but concept is attractive
- Borders/Shahen
- NetGrocer/Amazon

Integrate Extended Supply Chain



E-commerce is being leveraged to integrate the extended supply chain



Integrating the extended enterprise requires advanced customer service and procurement practices



Mercer Levels of Procurement Excellence

1. Leveraged Buy:

*Volume
Consolidation/Supply
Base Optimization*

Leverage Points:

- Utilize supplier fixed costs more fully
- Exploit competitive supply base structure
- Leverage buyer's share
- Enhanced negotiation and contracting skills

2. Linked Buy:

*Supplier-Buyer
Integration/Linked
Cost Minimization*

Leverage Points:

- Improved coordination/forecast accuracy and predictability
- Optimized logistical flows/value added roles (including outsourcing)
- Streamlined transactional information flow
- Elimination of redundant/non-value added activities
- Improved supplier cost productivity
- Commitments to enable supplier investments

3. Value Buy:

*Specifications/
Consumption
Optimization*

Leverage Points:

- Increased and early supplier involvement in solution design
- Reduced complexity/simplified specifications
- Increased standardization
- Clarified response time objectives
- Rationalized requirements
- Controlled consumption rates
- Total cost of ownership perspective

4. Integrated Sell:

*Strategic Supplier
Alliances*

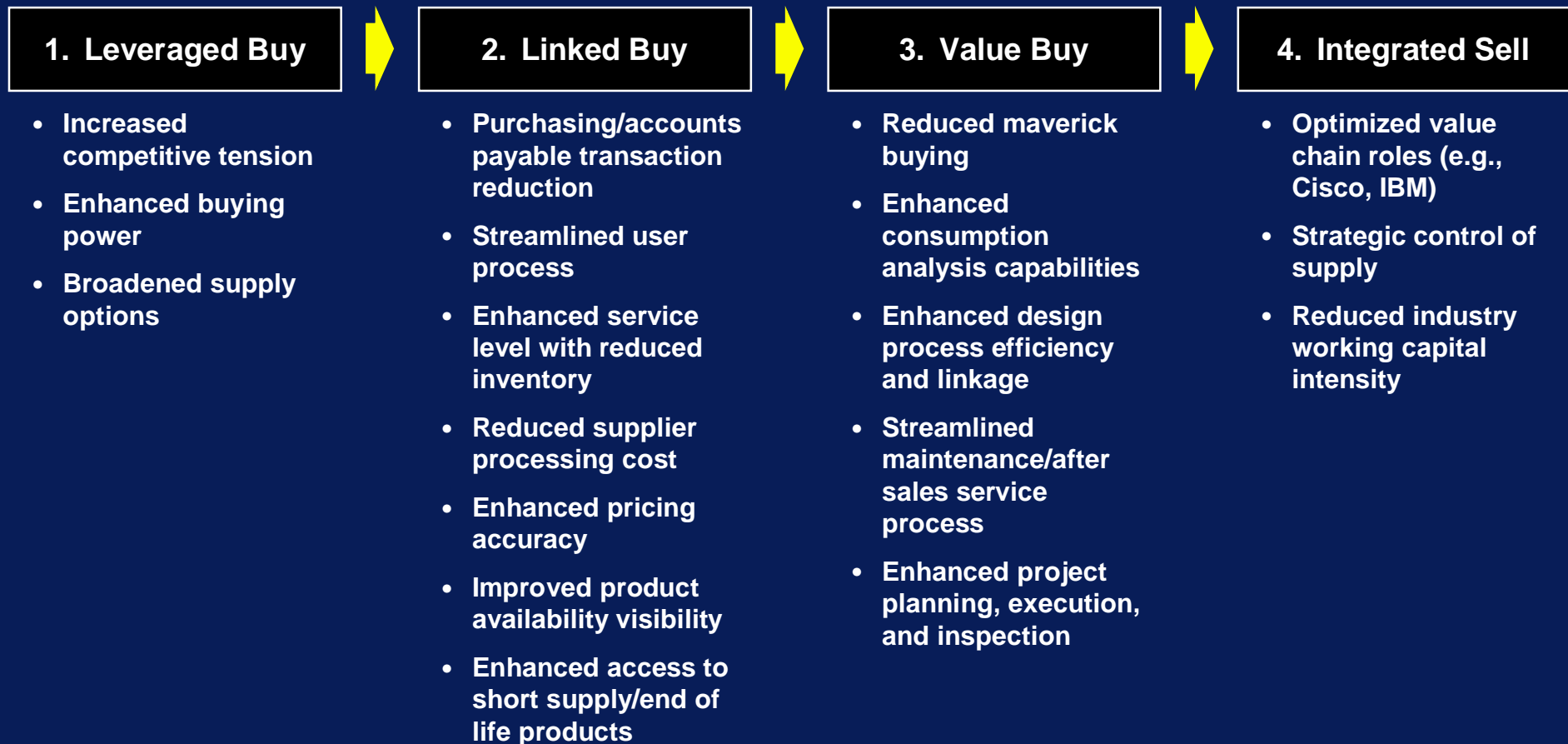
Leverage Points:

- Integrate multi-company products/services and channel portfolio
- Introduce creative risk sharing
- Exploit supplier capabilities and potential
- Manage complex channel relationships
- Cross utilize infrastructure and operating resources among multiple parties in value chain

E-procurement, fully utilized, supports all levels of procurement excellence



E-Procurement Leverage Points



BASF uses the internet as a 'low cost communications backbone for chemical companies moving toward supplier-managed inventory systems'



BASF	
Innovation:	<ul style="list-style-type: none">• Information provision to suppliers
Value Proposition:	<ul style="list-style-type: none">• Increased collaboration with suppliers leading to reduced inventory and lower administration costs
Business Initiative:	<ul style="list-style-type: none">• Internet communication link allows suppliers (Monsanto Co., Union Carbide Corp.) to:<ul style="list-style-type: none">– Check BASF's current inventory– Analyse historical usage– Calculate consumption forecasts• Move towards supplier-managed inventories<ul style="list-style-type: none">– Use of telemetric devices to accurately measure stock levels– Stock replenishment occurs when inventory reaches a predetermined level• Development of consignment arrangements<ul style="list-style-type: none">– BASF billed for consumption only– Suppliers receive more accurate demand data
Impact:	<ul style="list-style-type: none">• More accurate forecasting• Time savings• Reallocation of BASF human resources
e-commerce:	<ul style="list-style-type: none">• Internet, Web VMI

Source: 'Supply-Side Economics - Manufacturers Turn To Supplier Managed Inventory With A Boost From The Internet' Information Week, Nov 2, 1998.

Ford's latest initiative aims to improve collaboration between the automotive manufacturer and its suppliers, dealers, and customers



Ford	
Innovation:	<ul style="list-style-type: none">• Web-based interface that provides Ford suppliers access to business processes. Implemented June 1, 1999
Value Proposition:	<ul style="list-style-type: none">• Reduce cycle time and inventory requirements by sharing data about business processes with suppliers, dealers, and customers
Business Initiative:	<ul style="list-style-type: none">• Portal provides seamless access to Ford data<ul style="list-style-type: none">– Product design information– Quality control– Sales and aftermarket services• User can customise interface• New format is easier to use• Launched with 1500 companies, 1100 of which provide production supplies• Next phase is to integrate supplier back ends with Ford systems to allow automated data flow
Impact:	<ul style="list-style-type: none">• Improved efficiency• Increased access to data
e-commerce:	<ul style="list-style-type: none">• Internet

Source: 'Ford rebuilds extranet as supplier portal', Internet Week, May 17, 1999

Cemex, a Mexican cement producer, has used technology to tightly integrate with customers and carriers



Issue

- Customers constantly canceling or changing orders and delivery times

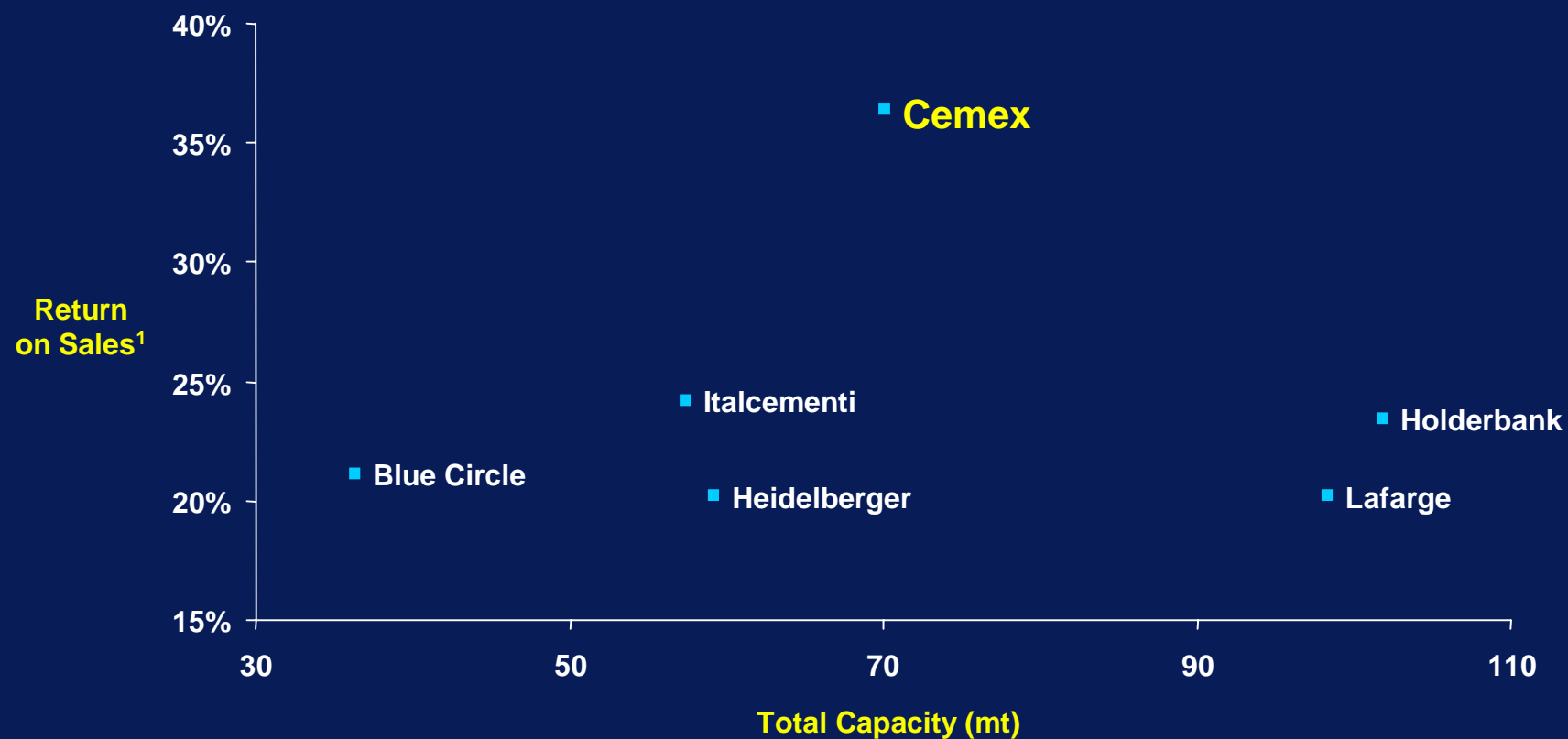
Solution

- Central tracking and direction
- GPS in trucks
- Automatic re-optimization of delivery path

Outcome

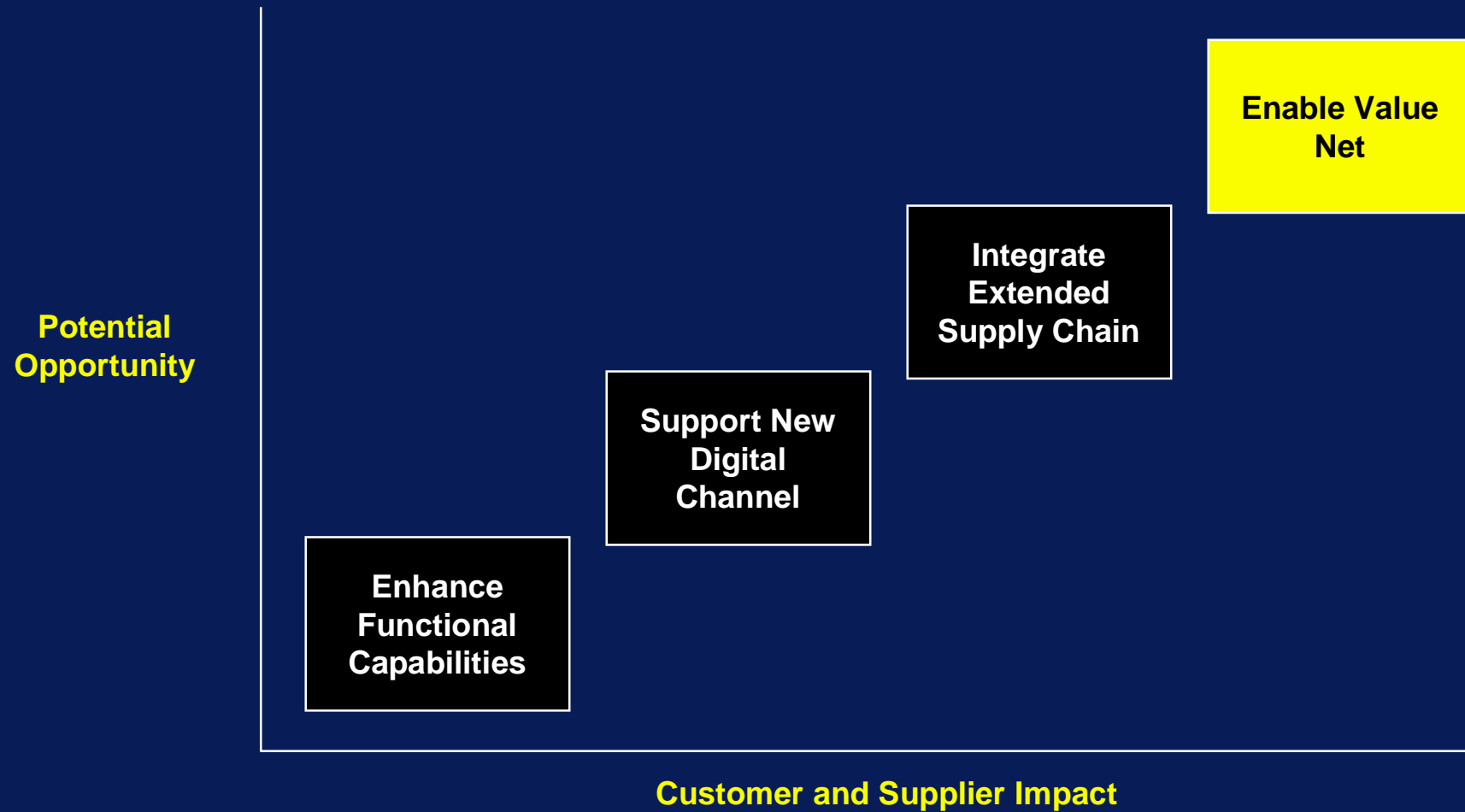
- 20 minute delivery window vs. 2-3 hours
- 98% reliability vs. 34%
- Reduced truck fleet 30%
- Premium pricing

Cemex's digital business design is a true industry breakthrough

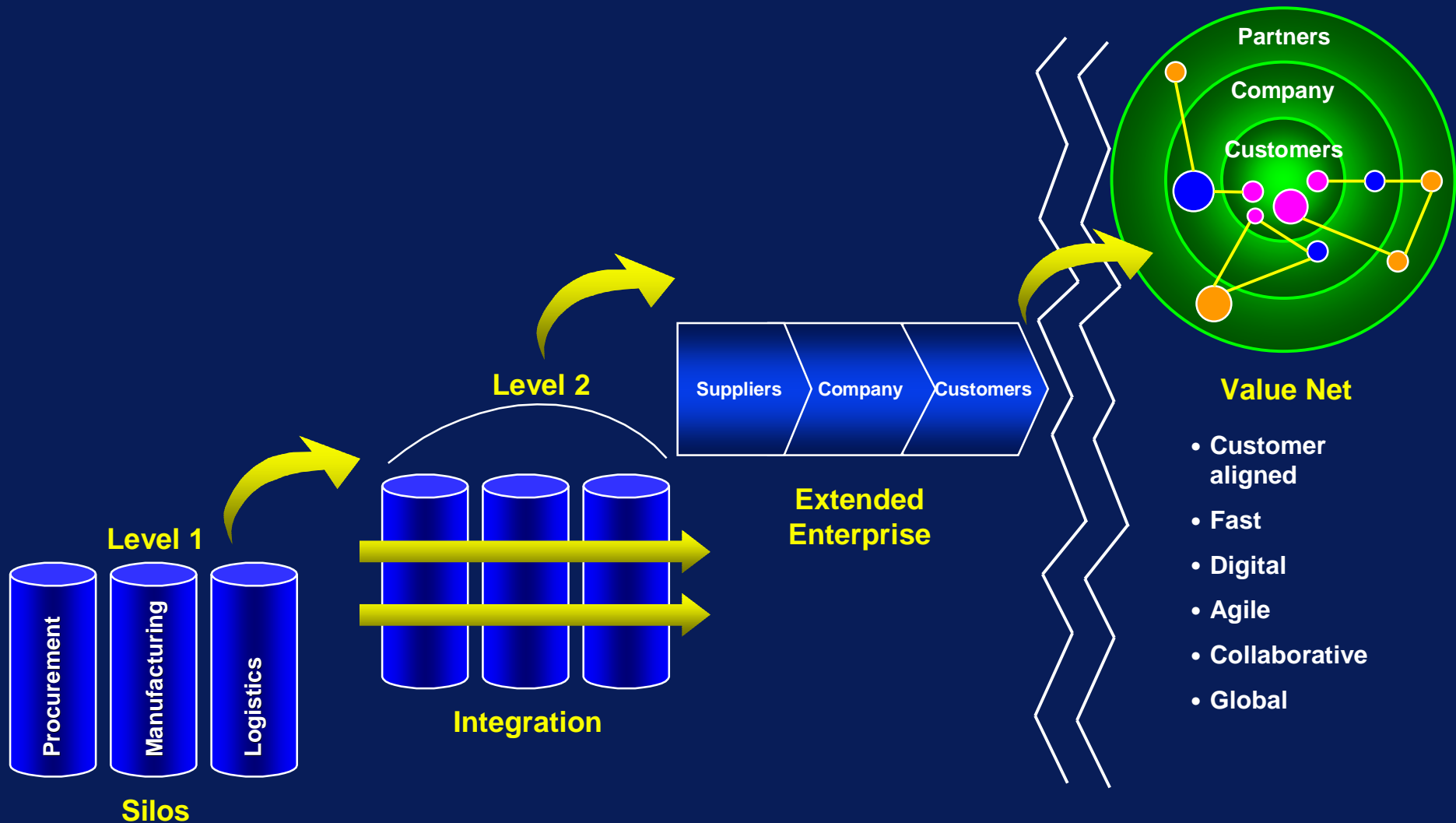


¹Return on Sales = EBITDA/Net Sales.

Enable Value Net



Innovators are replacing “supply chains” with “value nets”



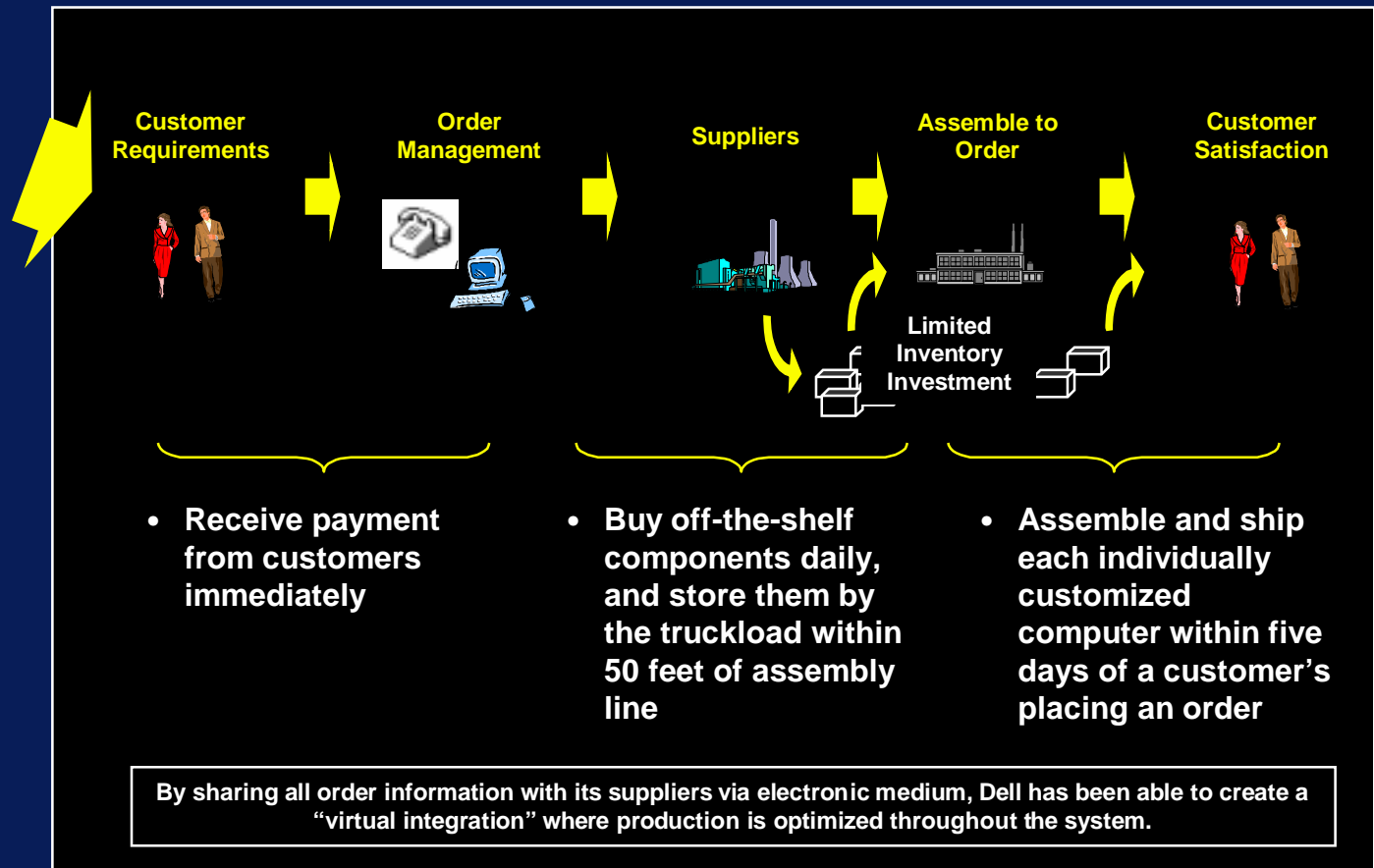
Dell revolutionized the PC industry through its “customer direct” marketing and its reinvention of the supply chain



Historical Challenges:

- High inventory investments
- Short product lifecycles
- Proliferation of end product configurations
- Customized components
- Long supplier lead times and supply variability

Dell Computers E-Commerce Solution



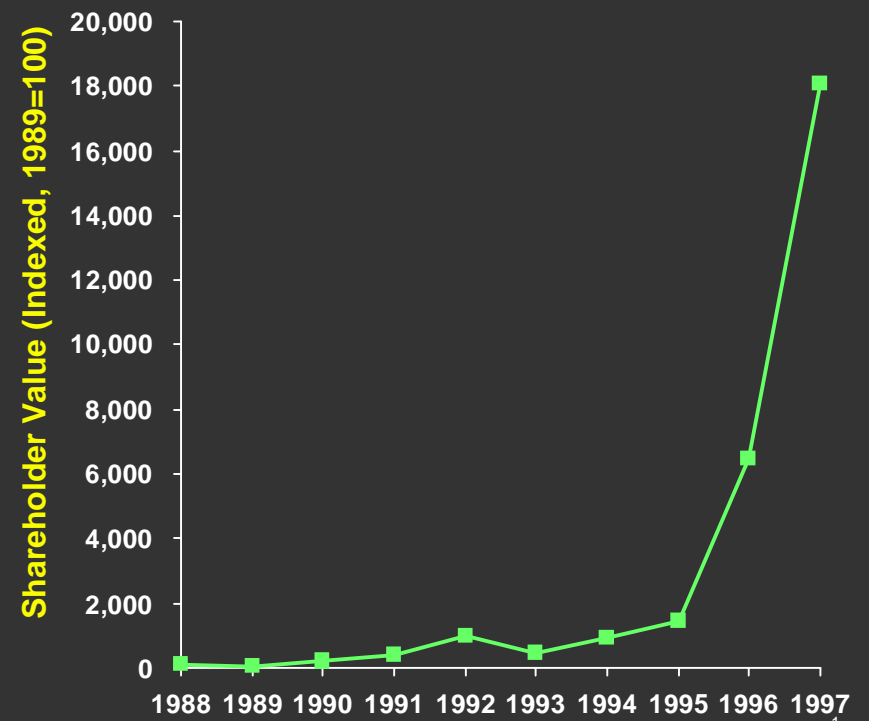
Dell's supply chain innovations have driven phenomenal success



Working Capital Balances FY 1998
(through fiscal year ending September 30, 1998)



Dell Computer Market Value Growth



⇒ Because of its digitized system, Dell can operate with negative working capital and can increase its liquidity as it grows

Thought leaders believe value net attributes are the wave of the future



- “If you don’t think people are trying to move toward the **Dell model** in all industries, you’re crazy.”
 - Jeffrey Trimmer, Director of operations and strategy, procurement and supply, **Chrysler**
- “The real unsung hero is how to do the **fulfillment process**.”
 - Victor Fung, CEO of **Li & Fung**
- “We are selling **speed and convenience**, not just a hammer and a light bulb.”
 - Wes Clark, Group President, **W.W. Grainger**
- “The **virtual model** allows you to be reliable and turn a profit even when you are small.”
 - Mahmoud Ladjevardi, CEO, **Soho Inc.**
- “In the 70s companies were all concerned with costs . . . when the 80s came along, there was a very big refocusing on quality. Now in the 90s . . . the **buzzword is time**.”
 - Mel Friedman, President, **Sun Microelectronics**

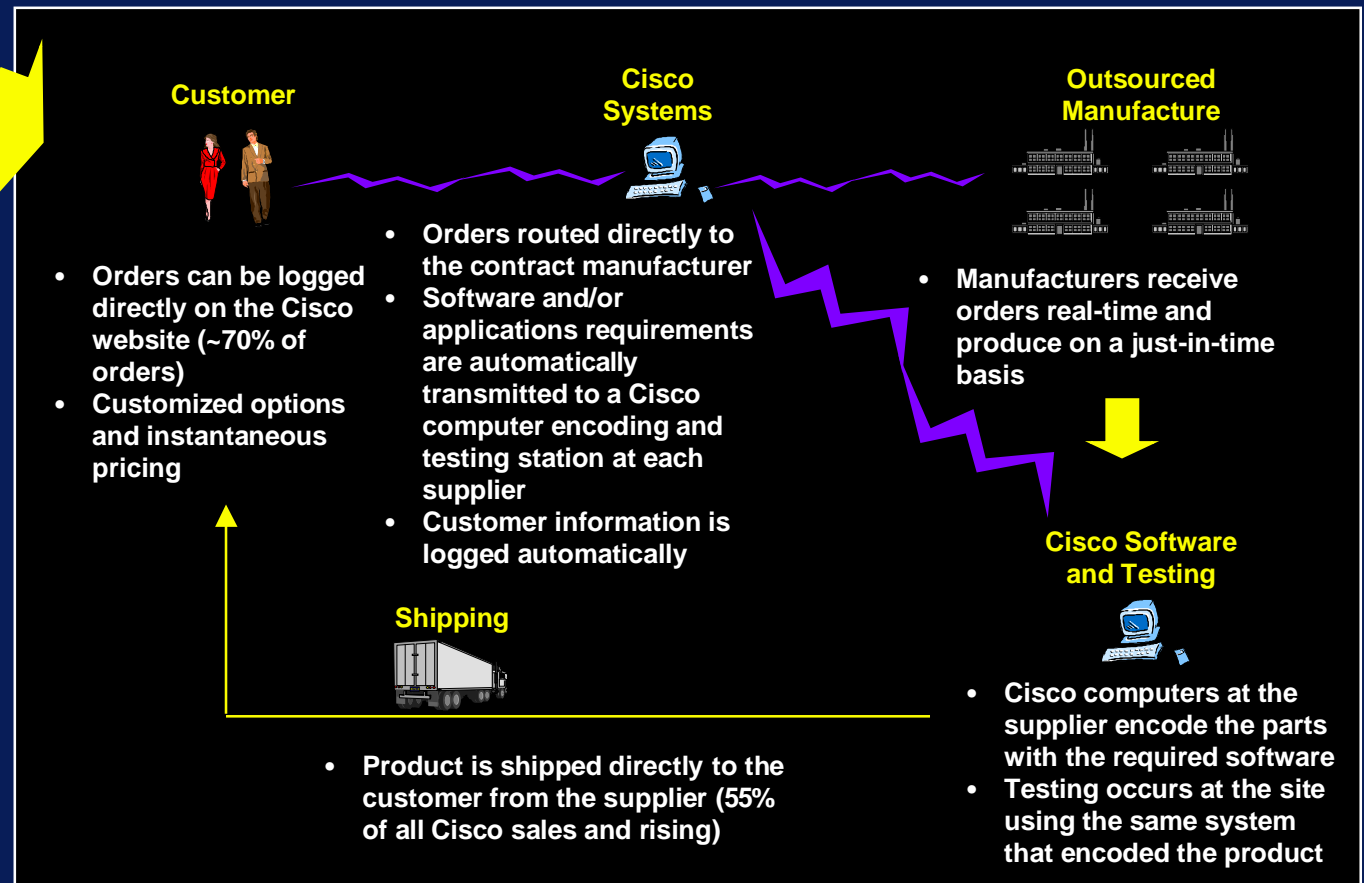
Cisco streamlined its production processes through a linked programming and testing system with each of its key suppliers



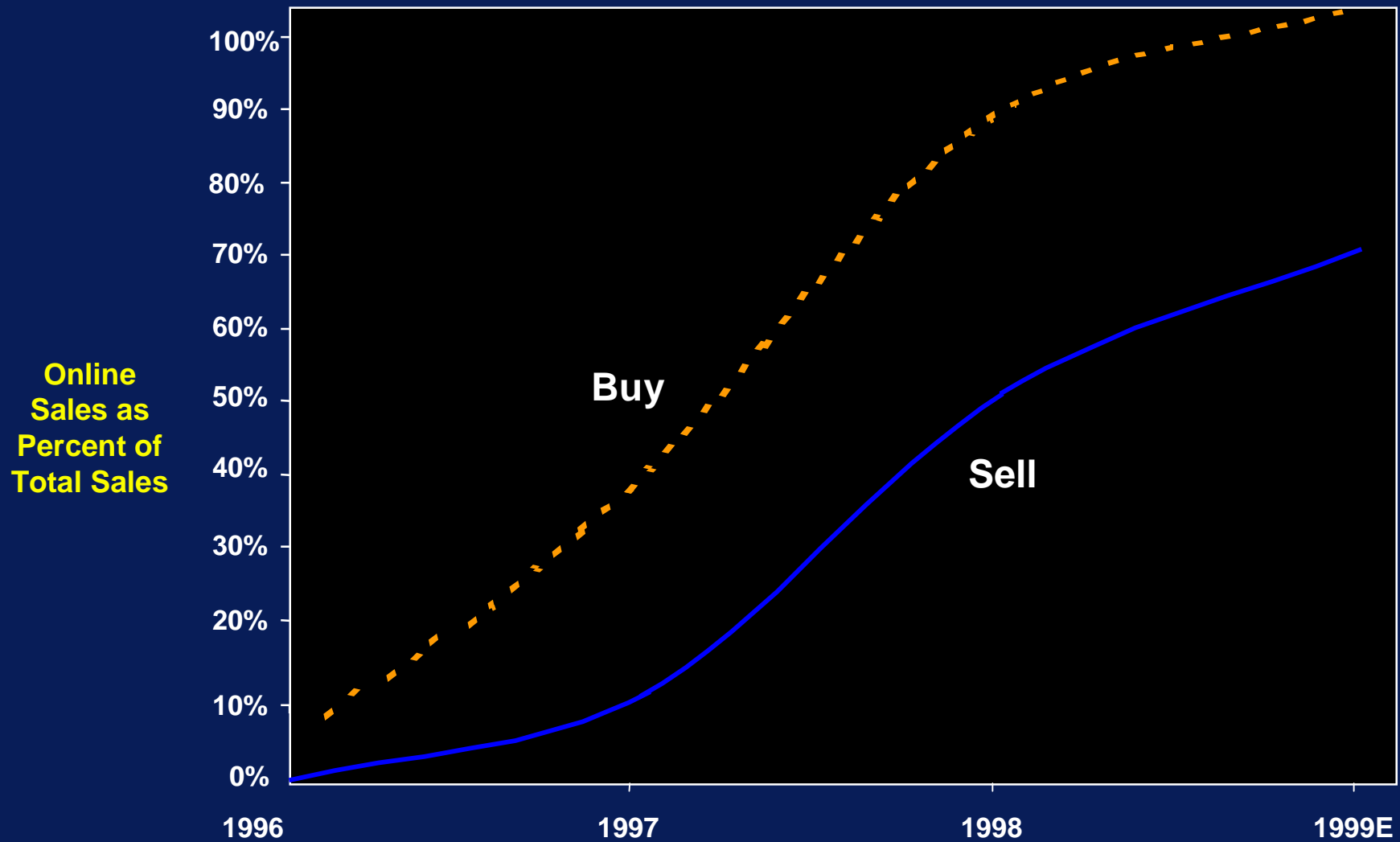
Historical Challenges:

- Network components production is a slow, highly technical process:
 - Multiple hand-offs for programming and testing
 - Significant physical movements and handling of work-in-process

Cisco Systems E-Commerce Solution



Cisco is a truly digital company



Cisco's digital supply chain has generated enormous benefits

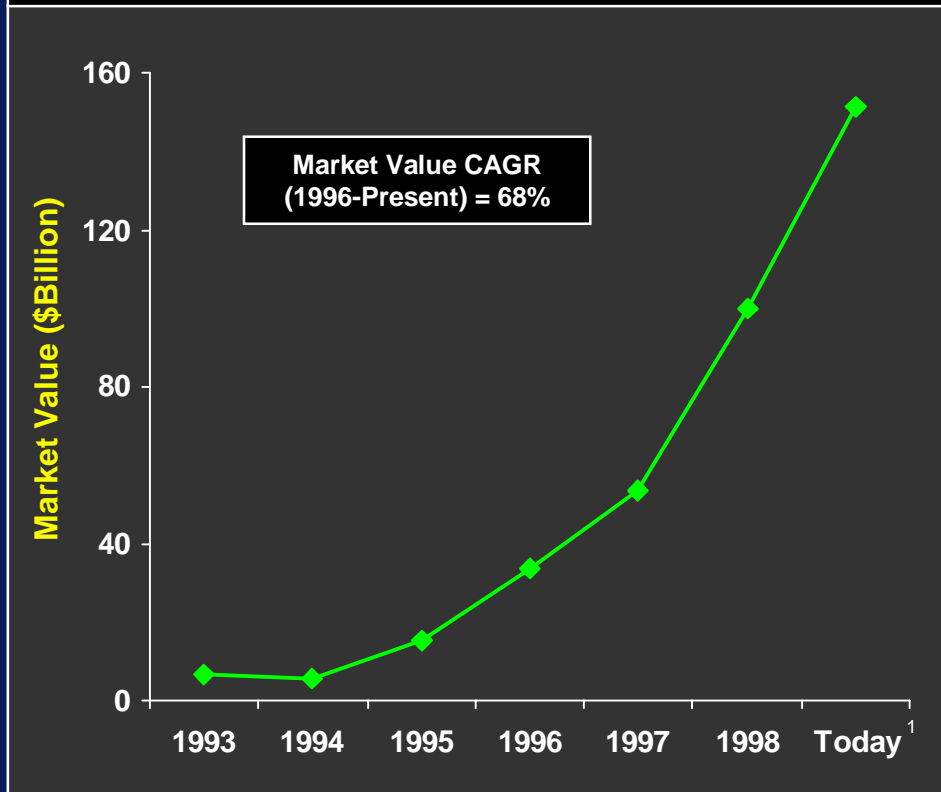


The Benefits of Electronically Managed Supplier Relations

- Estimated production cost savings of \$500 million per year
- Inventory (DIOH) = 27 days, half of nearest competitor
- Time to market for new products reduced by 66% to 6 months
- Improved cycle times with greater customization



Cisco Systems Market Value Growth

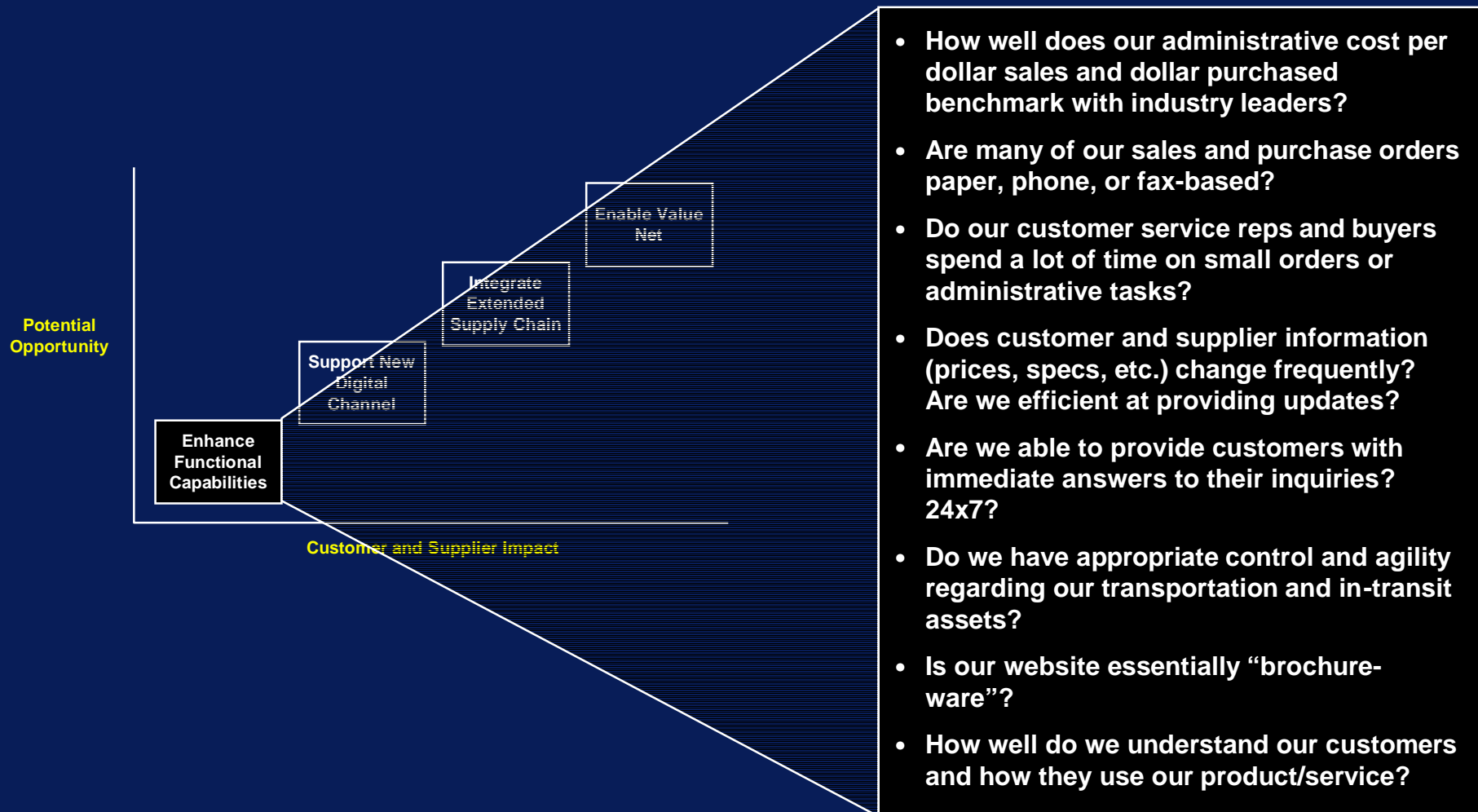


¹February 10, 1999.

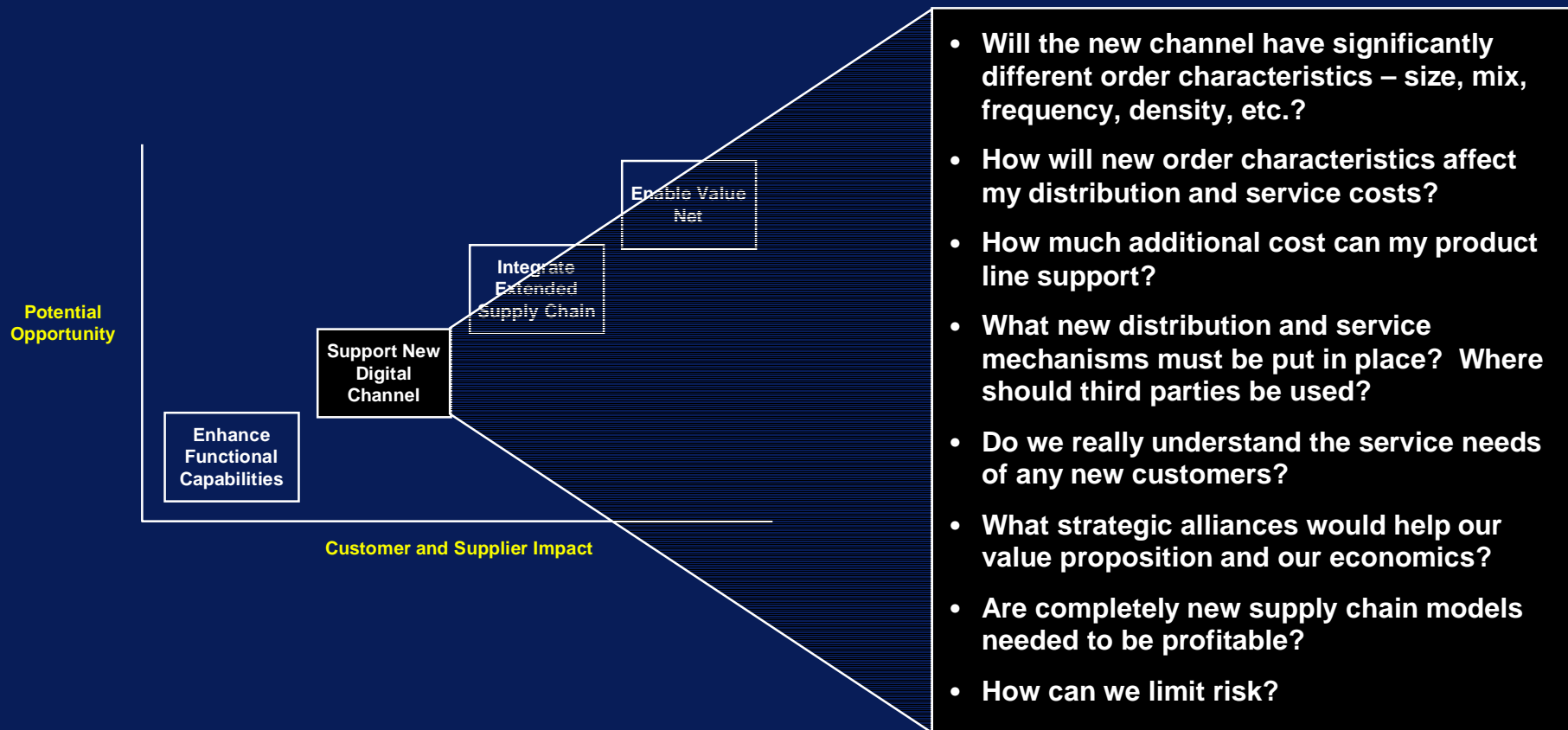


Defining the Right Approach for Your Company

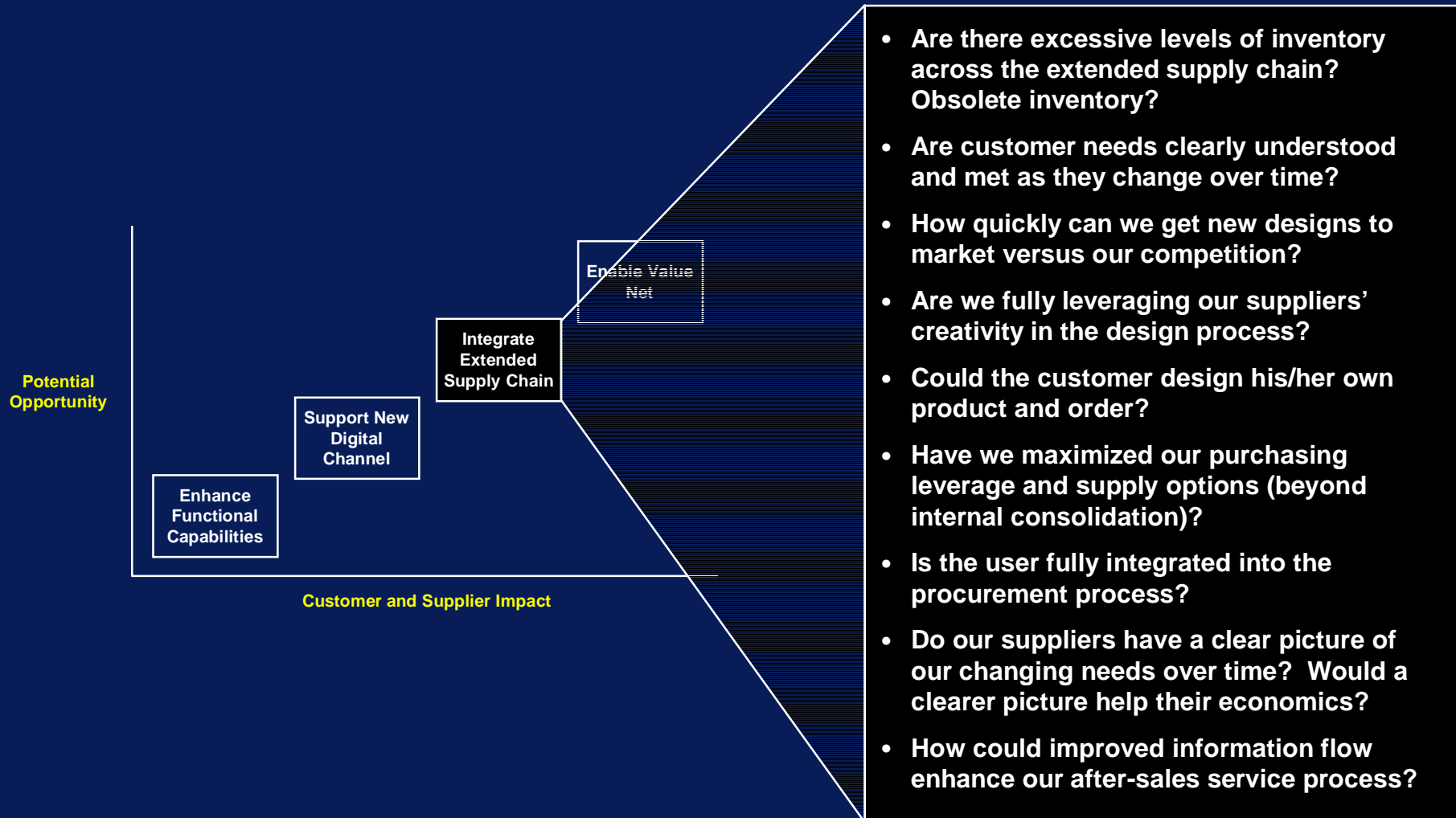
Diagnostic questions: Enhance functional capabilities



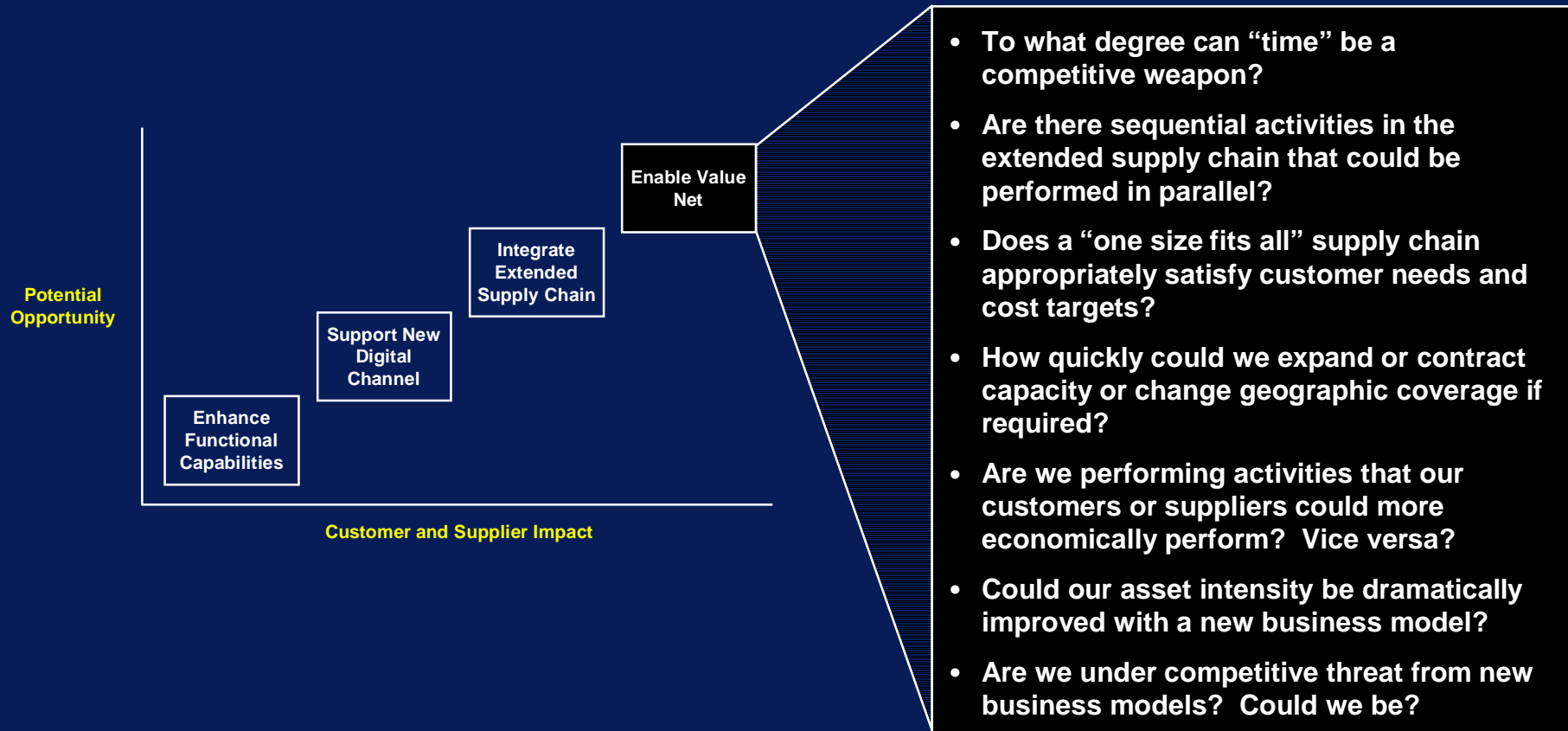
Diagnostic questions: Support new digital channel



Diagnostic questions: Integrate extended supply chain

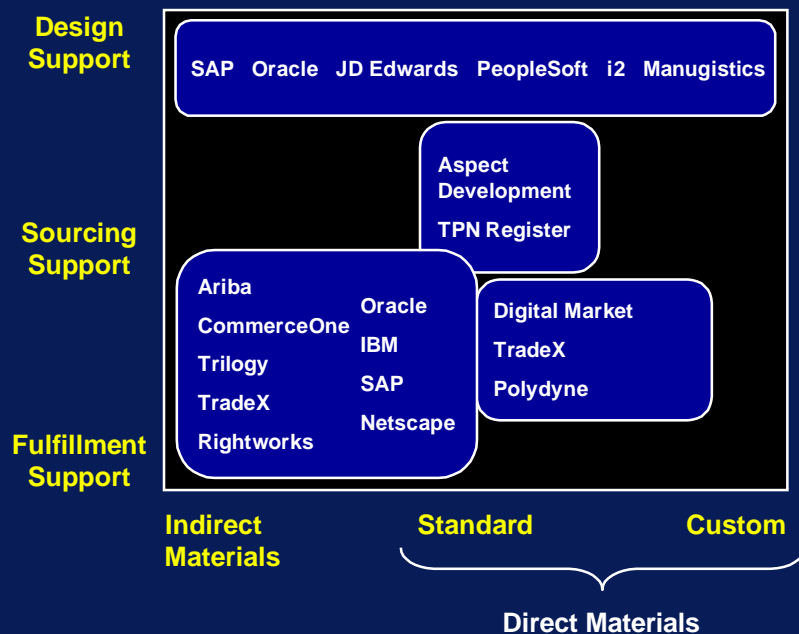


Diagnostic questions: Enable value net



The right e-commerce solution may draw upon a number of different types of providers.

Software Solutions



E-commerce Fulfillment

- Internetss
- Fingerhut
- Iconomy

Virtual 3PL

- Order Trust
- Keystone Fulfillment

e-markets

- Fast Parts
- Free Market (UnifiedMarket)
- Chemdex
- e-chemicals
- Net Buy

Infomediaries

- iShip
- InterShipper
- Tranzlink
- PurchasingCenter

Conclusion: Takeaways

- **E-commerce is not the goal, it is the enabler**
- **E-commerce should be thought of in terms of both selling and procurement processes**
- **E-commerce opportunities span the range from improving functional capabilities and reducing costs to enabling new business designs**
- **Value Nets may not be appropriate for all companies today, but is the model for where we believe all industries are headed long term**
- **The right e-commerce solution may draw upon a number of different types of providers**

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