

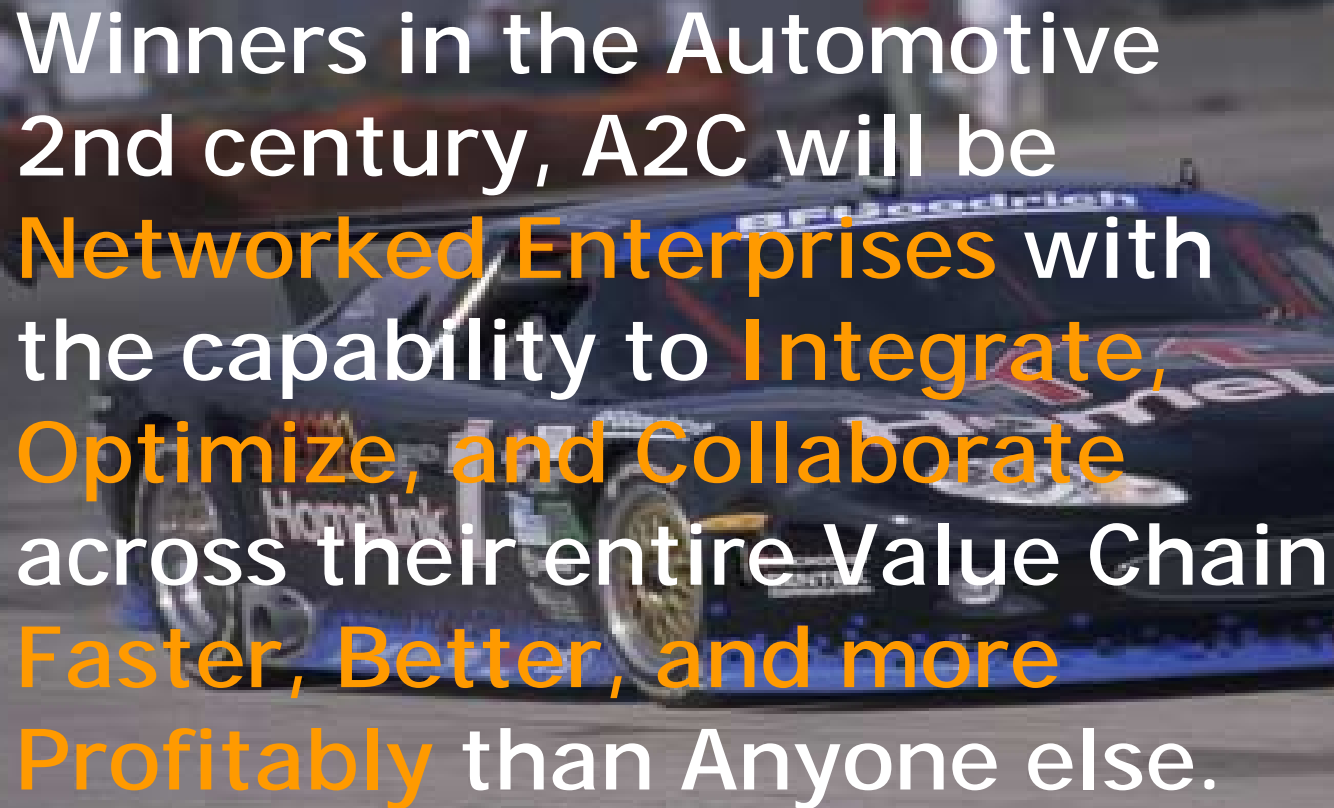
Driving Web-Enabled Market Efficiency

Unlocking Automotive Shareholder Value
through Collaborative Product Commerce

Federal Reserve Bank of Chicago
Detroit, Michigan USA
2000

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eRace for Value Chain Leadership

A blue race car is shown on a track, with various sponsor logos visible. The text is overlaid on the image.

Winners in the Automotive
2nd century, A2C will be
Networked Enterprises with
the capability to **Integrate,**
Optimize, and Collaborate
across their entire Value Chain
Faster, Better, and more
Profitably than Anyone else.

Market Efficiency and Competitiveness

Market
Efficiency

=

Operational
Effectiveness

+

Strategic
Positioning

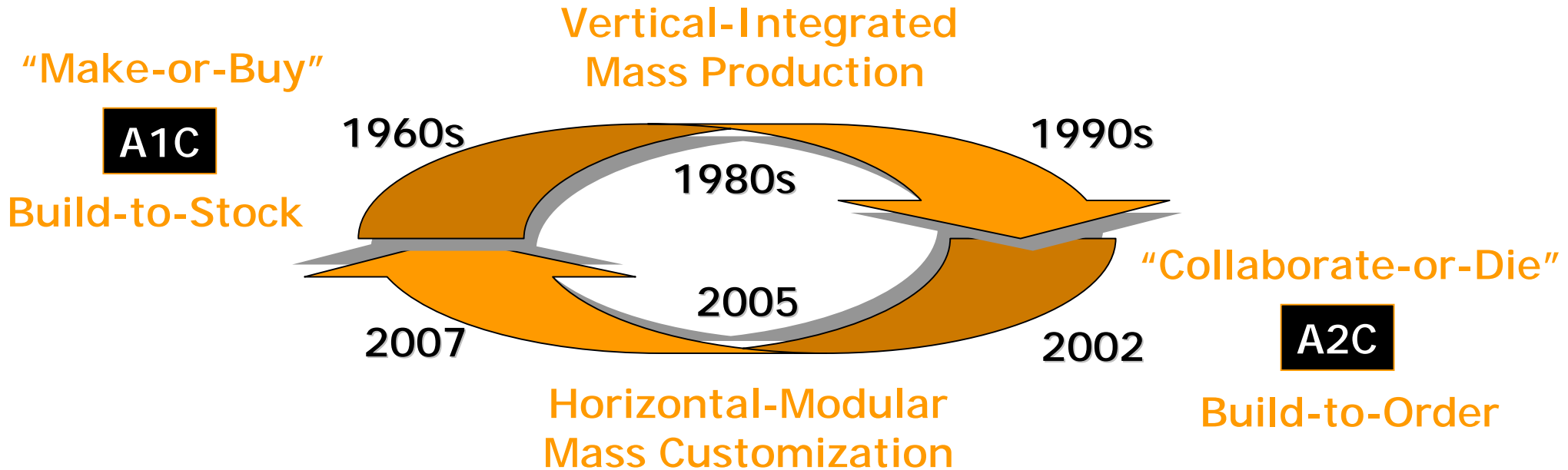
- **Operational Effectiveness** is about Adapting, Achieving, and Extending Best Business and Technology Practices
- **Strategic Positioning** is about creating a Unique, Sustainable Competitive Advantages

Competitiveness = Margin x Market Share x Market Size

Source: Michael Porter

Driving Market Efficiency in A2C

Auto Industry is Shifting from a Vertical-Integrated Industry Product Structure to a Horizontal-Modular phase.

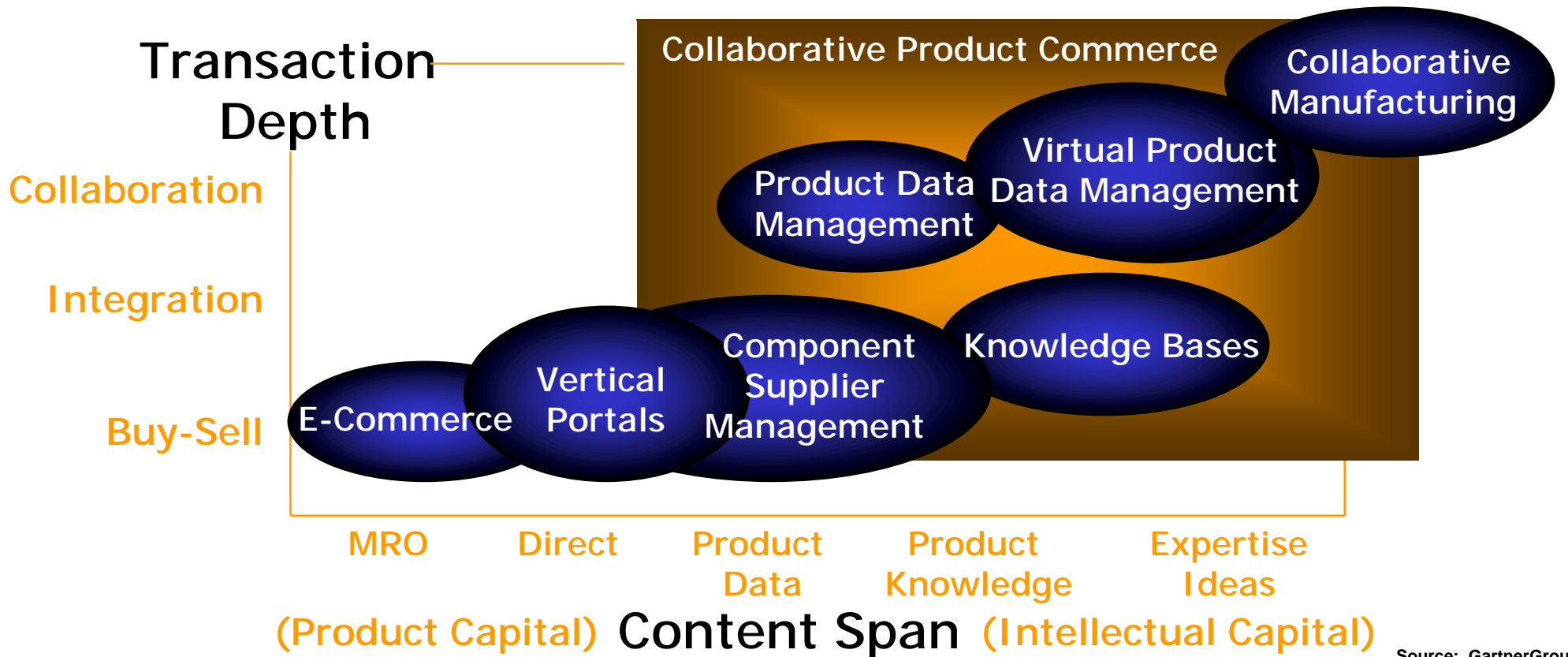


Competition today is not just between Products and Services, it's between Business Models and Value Chains.

Source: Modified from Charlie Fine

What is CPC ?

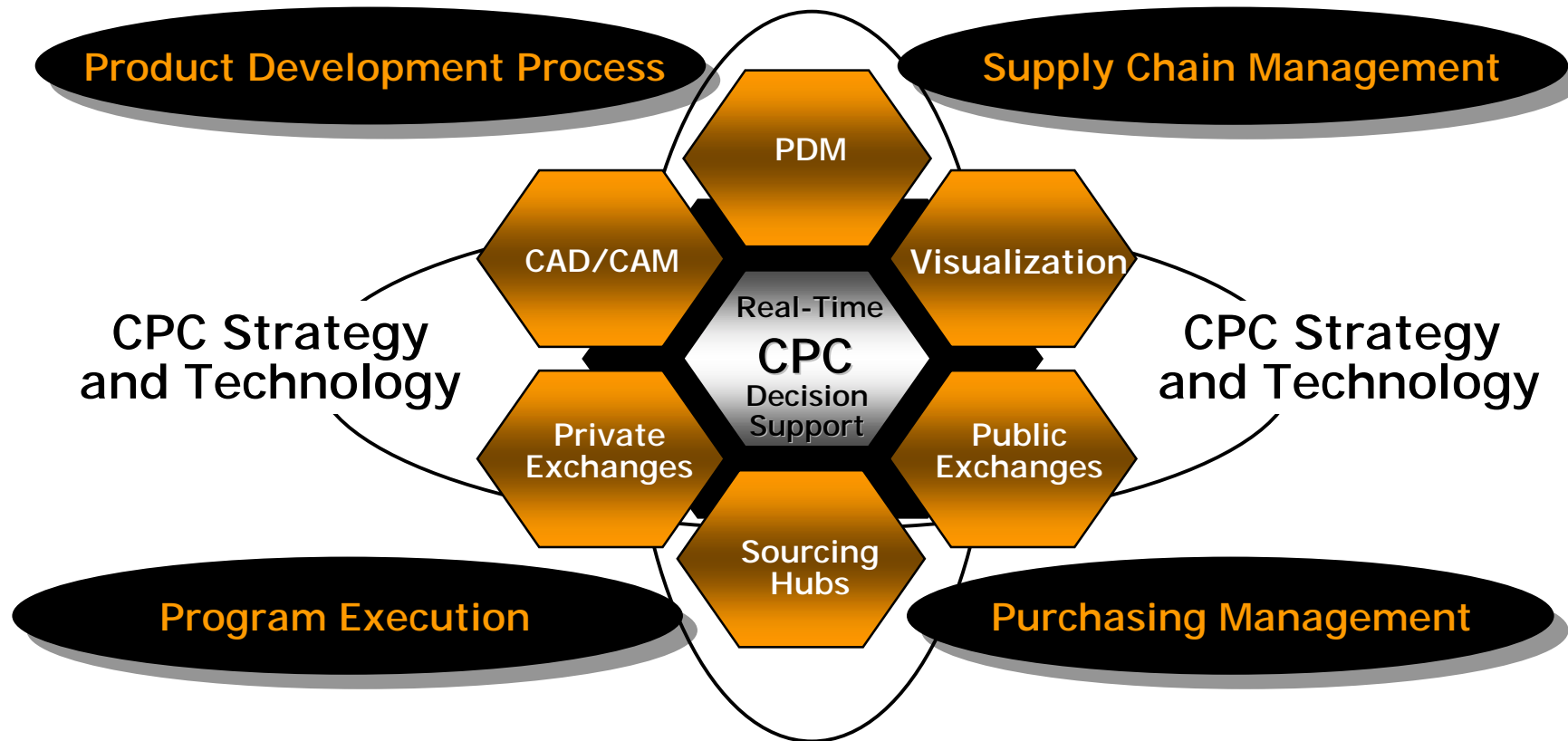
Collaborative Product Commerce is the Application of Internet-Centric tools for Real-Time Decision Support and Value Chain Collaboration throughout the Product-Process Lifecycle.



Source: GartnerGroup

CPC Connectivity and Interoperability

Product-Centric • Customer-Focused • Share-Holder Driven



Web-Enabled Market Efficiency

NETWORKED Enterprise Value Chain

Enterprise Exchange
(Private)

- Real-Time Visibility across total Value Chain
- Collaborative Supply-Demand chain Execution
- Build-to-Order Module and Vehicle configuration
- Optimized Inventory Management and Distribution

COLLABORATIVE Product-Process Development

- Global Product-Process Development
- Collaborative VSE and VMI
- Interactive Program Execution
- Real-Time Configuration Management

Design/Engineering Exchange
(Private)

E-Business

REAL-TIME Purchasing Procurement

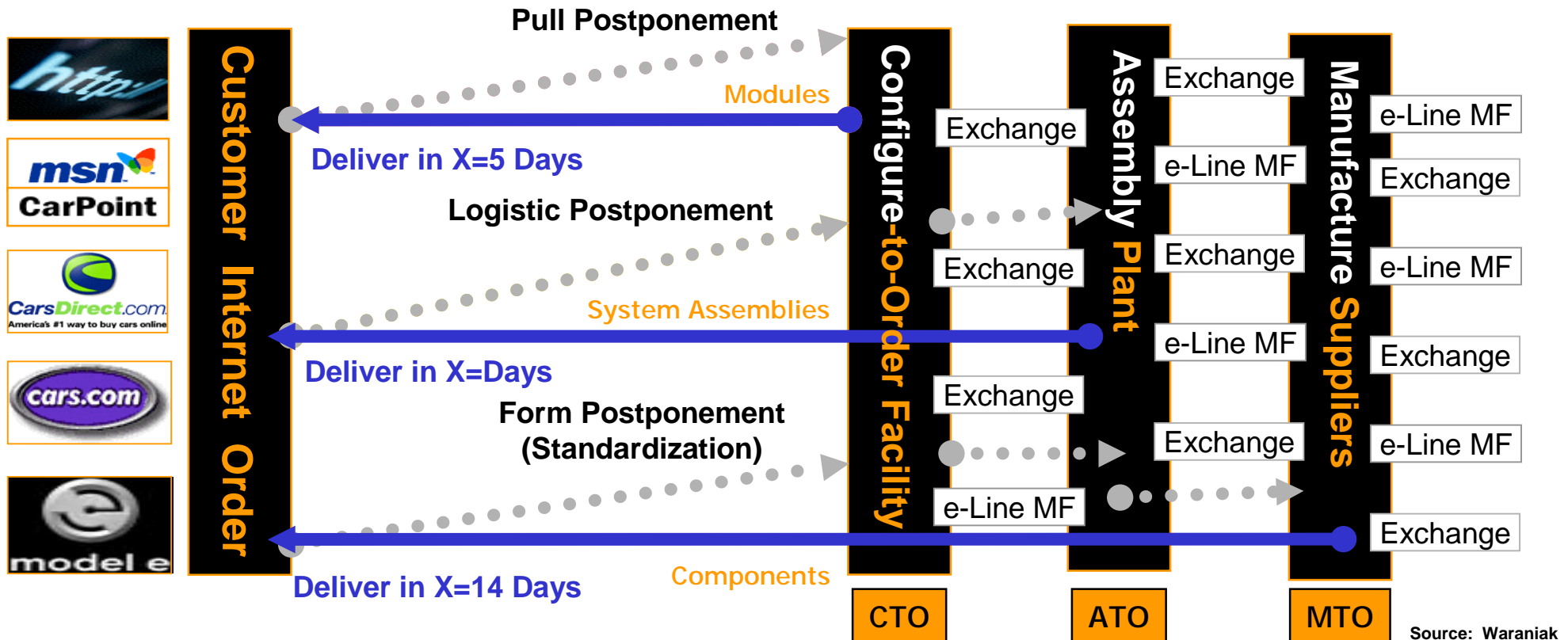
- On-line Auctions -- eRFx
- Consolidated Buying
- Liquid Market for Surplus
- Internet Requisitioning
Marketplace Exchange
(Semi-Private)

Market Efficiency and the X-Day Car

Getting Consumers The car they Want, When they want it, Profitably.

X-Day Car Order

Value Chain Collaboration



Source: Waraniak

Second Place is the First Loser

The Biggest Risk
is Not Taking One.

Building your order...



TECHNOLOGY THAT *touches* PEOPLE

JOHNSON
CONTROLS