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# The Future Of Europe's Online B2B Trade

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# The Future Of Europe's Online B2B Trade

B2B infrastructure will power Europe's online trade to €2.2 trillion in 2006. Rapid growth from 2003 will push slow-moving firms into the digital chasm. Executives should recharge B2B business cases with forecast data.

# MARKET OVERVIEW

## THE REALITY OF EUROPE'S ONLINE TRADE

In 1999, European firms awakened to the vision of online business trade: cost-efficient buying and selling with global reach. But the vision failed to become a reality due to immature technologies, skeptical trading partners, and incompatible IT systems. To rectify this problem, Europe's manufacturers are busy implementing B2B infrastructure in preparation for a bright future where efficient Net-based processes deliver results (see the May 2002 Forrester Report "Vendors' Guide To Europe's Tech Recovery").[1]

### B2B Infrastructure: The Prerequisite For Online Trade

B2B infrastructure connects the buying and selling processes of multiple firms. This process integration turns the strategic vision of online trade into an operational reality (see Figure 1). Specifically, European firms have:

- **Built ERP backbones.** Struggling with incompatible back-end systems, leading European CPG firms like Nestlé and Unilever launched multiyear global projects to implement and standardize ERP processes and data.

  "We invested €55 million to build an ERP backbone over five years. The project will end in 2003. Why did we do this? Without standardizing core processes and normalizing data for products and bills of material, online trade is impossible." (Beverages company)

- **Licensed spend management apps.** To rationalize, discipline, and analyze purchases of indirect goods and services, MRO consumables, and direct materials, firms like BMW and Siemens implement procurement apps.

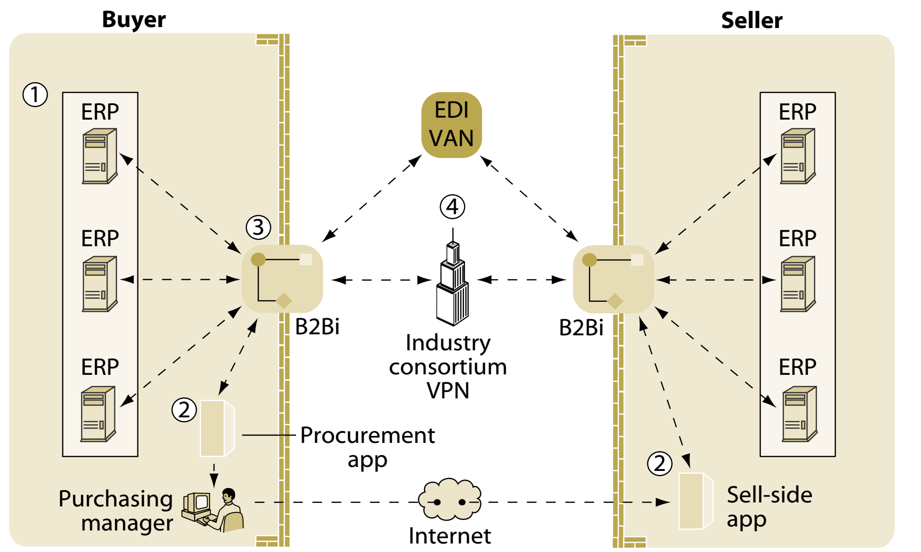
  "ERP doesn't capture line-item spend. We needed an eProcurement app to drill down into the details of our spending patterns and empower our organization to buy via a user-friendly interface with a flexible back end." (Automotive company)

- **Launched B2B commerce sites.** To capitalize on the global reach of the Web, firms like BASF invested in commerce sites like PlasticsPortal and Omnexus.

  "In June 2000, we decided to sell our metal products online using Intershop, which we integrated into SAP R/3 and legacy IBM systems. In 2003, we expect to sell €750 million online -- ahead of our European competitors but behind the US market leader." (Metals company)

**Figure 1** B2B Infrastructure: The Prerequisite For Online Trade




① ERP backbone for standardized processes.
② B2B apps enable Web-based buying and selling.
③ B2B integration links interfirm business processes.
④ Industry consortia and EDI VANs facilitate data exchange.

Source: Forrester Research, Inc.

- **Integrated B2B investments.** Firms like Alcatel and BP build integration platforms using software from vendors like webMethods and Asera. Why? In order to fire up ERP-to-ERP connections and provide customers with Web access to order status and real-time inventory data.

"Firms need to communicate with trading partners across the Net in a standard way. It's not as easy as sending out SAP iDocs direct to partners. The messages need to be transformed, they need an envelope, security, and routing data." (Chemical company)

- **Leveraged industry consortia investments.** Execs understand the benefits of jointly funding a hub-and-spoke network instead of duplicating spend on point-to-point networks (see the March 2002 Forrester Report "eMarketplaces: Rebound And Deliver").[2] The result? Multimillion-euro investments in consortia like Elemica in the chemicals sector and UCCnet in the consumer goods industry.

"We funded Quadrem, the metals and mining consortium. So far it has lived up to our expectations. We'll encourage it to offer data exchange on the sell-side if it continues to execute successfully on the buy-side." (Metals company)

# ANALYSIS

## EUROPE'S ONLINE TRADE IS POISED FOR GROWTH

Investments in B2B infrastructure and apps will enable firms to migrate buying and selling from the phone and fax to the Web and the Net. To forecast the future of online trade in Europe, Forrester analyzed growth drivers in 13 industries across 15 European countries. Based on this analysis, we built an online business trade forecast -- for each industry and country -- that examines:

- **Growth patterns.** The forecast projects the growth of online trade from 2002 to 2006 via B2B Web sites and ERP-to-ERP connections. The forecast uses data on IT investment per capita -- which varies from 20% of the EU average in Greece to 188% in Sweden -- to account for national variations in online trade (see the February 11, 2002 Forrester Brief "European IT Won't Recover Until 2004").[3]
- **Saturation levels.** Not all trade will migrate online. To estimate the maximum value of an industry's trade that will be transacted online, the forecast defines four structural assumptions: 1) product complexity; 2) product perishability; 3) industry concentration; and 4) the level of intra-industry trade (see the November 2001 Forrester Report "eBusiness Propels Productivity").[4]
- **Takeover time.** The speed of online adoption varies by industry. The forecast predicts industry growth using five behavioral assumptions: 1) technology risk tolerance; 2) executive commitment to eBusiness; 3) IT spend as a percentage of revenues; 4) data standards adoption; and 5) network hub capabilities (see the April 25, 2002 Forrester Brief "Tech Vendors: Search Out Industry Attitudes").[5]

### Europe's Online Trade Hits Its Stride In 2004

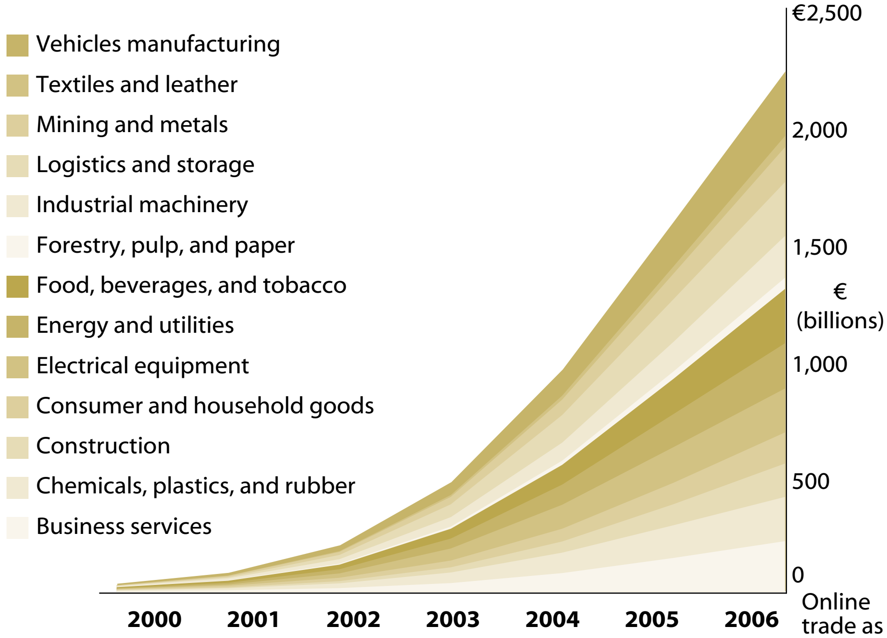
Forrester projects that the EU's modest €77 billion of online trade in 2001 -- representing less than 1% of total business trade -- will skyrocket to a massive €2.2 trillion in 2006 or 22% of total business trade (see Figure 2). When will online trade take off in different industries?

- **Electrical equipment, chemicals, and logistics ramp up in 2003.** Today, hungry firms like Premier Farnell already take 8% of orders online -- double the industry average -- via B2B commerce sites and 178 dedicated eProcurement connections (see the November 13, 2001 Forrester Brief "Premier Farnell Fires Up Its Commerce Engine").[6] By the end of 2003, 11.7% of trade in electrical equipment will be conducted online -- up from a mere 4.3% today. In chemicals and logistics, more than 7% of orders will be routed over the Net.

**Figure 2** Forecast: European Online B2B Trade, 2000 To 2006

The spreadsheet detailing this forecast is available by clicking the online "Get Data" button above this figure.




| Industry | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | Online trade as % of total trade |
|---|---|---|---|---|---|---|---|---|
| Business services | 2.5 | 6.1 | 15.3 | 36.7 | 79.5 | 144.1 | 215.6 | 19% |
| Chemicals, plastics, and rubber | 3.5 | 8.5 | 20.3 | 45.2 | 87.2 | 139.6 | 188.8 | 30% |
| Construction | 1.7 | 4.0 | 9.5 | 22.1 | 47.7 | 89.9 | 142.6 | 14% |
| Consumer and household goods | 3.3 | 6.9 | 14.3 | 28.9 | 54.5 | 91.5 | 132.7 | 19% |
| Electrical equipment | 1.6 | 5.5 | 18.6 | 51.5 | 102.3 | 152.0 | 187.5 | 40% |
| Energy and utilities | 2.7 | 6.9 | 17.8 | 42.4 | 86.0 | 141.3 | 193.1 | 28% |
| Food, beverages, and tobacco | 4.0 | 8.8 | 19.5 | 41.9 | 84.2 | 150.3 | 231.7 | 15% |
| Forestry, pulp, and paper | 0.9 | 2.0 | 4.3 | 9.2 | 18.0 | 31.4 | 47.7 | 14% |
| Industrial machinery | 3.8 | 8.6 | 19.2 | 40.5 | 76.9 | 126.3 | 178.4 | 22% |
| Logistics and storage | 1.5 | 5.1 | 18.0 | 54.7 | 117.8 | 182.3 | 230.0 | 30% |
| Mining and metals | 1.9 | 4.9 | 13.0 | 31.9 | 65.9 | 109.1 | 149.1 | 27% |
| Textiles and leather | 0.6 | 1.4 | 3.4 | 7.8 | 16.7 | 30.8 | 47.6 | 17% |
| Vehicles manufacturing | 3.6 | 9.1 | 22.3 | 52.3 | 109.0 | 189.6 | 274.2 | 27% |
| **Total (€ billions)** | **€31.5** | **€77.9** | **€195.4** | **€465.0** | **€945.6** | **€1,578.0** | **€2,219.0** | **22%** |

(numbers/percentages have been rounded)

Source: Forrester Research, Inc.

- **Net trade in industrial sectors doubles from 2003 to 2004.** Today, Europe's industrial sectors transform sales processes and adapt to new trends like strategic sourcing (see the February 26, 2002 Forrester Brief "Net Purchasing Forces Change In Sales Operations").[7] The impact: Europe's online trade will hit a massive €945 billion in 2004, representing 9.9% of total business trade. In 2004, sectors like industrial machinery, vehicle manufacturing, metals, and energy and utilities will receive a jolt as online trade doubles in a year.

- **Food, textiles, and household goods move online in 2005.** To speed up online trade adoption, slow-moving industries like textiles and beverages should back industry data exchange solutions (see the June 13, 2002 Forrester Brief "UCCnet: Focus On Basics To Support CPG Adoption").[8] The result? Europe's online B2B trade will top €1.6 trillion in 2005, and online trade in Europe's huge €1.3 trillion food and beverages sector will triple between 2004 and 2006.

## Online Trade Penetration Exposes Europe's Digital Divide

European industries are poised for rapid growth in online trade. But growth rates and timing will vary across countries. The online business trade forecast projects that:

- **Scandinavia will charge ahead, powered by high IT spend.** Sweden and Denmark invest more than 150% of the €588 average annual European IT spend per capita.[9] The result? In these geographies, 17% of business will be conducted over the Net in 2004 and the two economies will account for 10% of total online trade in Europe -- more than double their share of total B2B trade.

- **France, Germany, and the UK will bring volume online.** In 2006, the three major European economies will transact at least 23% of sales online. Their combined trade volumes will represent a whopping 64% of the European Union's total online trade. The rapid growth and high volume of Net-based trade in France, Germany, and the UK will pressure proximate countries with deep trading relationships -- like Belgium, Austria, and Ireland -- to accelerate their migration to the Net.

- **Southern Europe will fail to connect.** Despite the size of the Italian and Spanish economies, their historically low level of IT investment -- 57% and 46% of the EU average, respectively -- will retard online trade growth. In 2003, for example, online trade in Italy will flounder at 2.2% -- 11% behind Sweden. Prospects for Greece and Portugal are even bleaker. If current attitudes to IT spending persist, neither country will have more than 10% of B2B trade online by 2006.

# ACTION



The online business trade forecast pinpoints the emerging digital chasm between firms and countries that pursue the online opportunity -- despite the ups and downs of the business cycle -- and those that fall behind. What should firms do to keep pace?

### Kick-start stalled projects with recharged business cases.

In 2002, three European metals companies with turnover of more than €4 billion stated that they will sell 0%, 4%, and 8% of their products online. With every month that passes, laggards in all industries face an increased risk of quickly losing touch with market leaders. To avoid falling into the digital chasm, firms should reinvigorate stale business cases. Start by evaluating sell-side vendors like HAHT Commerce with specific industry solutions, the flexibility of modular sales, rapid implementation times, and 100% referenceable clients.

### Focus consortia on interoperative data exchange (IDE).

Corus, the Anglo-Dutch steel manufacturer, conducts 90% of its business under prenegotiated contracts. With relationships like this, the key to unlocking online trade is interoperative data exchange -- a Net-based service that maps and translates standard business documents between firms' ERP systems. Corus should convince STEEL24-7 to build a downstream IDE hub by copying the business plans and technical blueprints of leaders like Elemica and Quadrem.

### Sequence commerce site launch by industry/country pressure.

Beverages producers like Allied Domecq and Heineken operate in many European markets. When is a market ready for online ordering? Commerce site rollout should be sequenced based on the forecast level of online trade. For example, beverages firms should launch in Sweden in 2002, France and the UK in 2003, and Spain in 2004. Start the project nine months before the B2B online forecast is due to hit 5% -- ensuring high usage rates and market penetration.

### Link spend categories to online growth.

Inadequate supplier technology delays procurement directors' payback from eProcurement projects. To achieve better visibility as to when savings will occur, firms like Unilever should filter suppliers by national location and online business trade forecast. For example, tapping German utilities suppliers in 2004 is likely to succeed, with a forecast 11.7% of business trade online; in Spain, however, success is less likely with just 5.5% of sales online.

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# RELATED MATERIAL

### Online Resources

The underlying spreadsheet detailing the online business trade forecast in Figure 2 is available by clicking the online "Get Data" button above the figure.

### Methodology

To test the design and assumptions of the forecast, we interviewed 26 industry experts from firms in each of the 13 industries covered in the analysis. In addition, we spoke with statistical experts at Eurostat, the National Computing Centre, and national statistical agencies in Austria, Belgium, Finland, Germany, the Netherlands, Spain, Sweden, and the UK.

### Companies Interviewed For This Report

Ariba
*www.ariba.com*

CommerceOne
*www.commerceone.com*

Elemica
*www.elemica.com*

Eurostat
*www.europa.eu.int*

HAHT Commerce
*www.haht.com*

IntercontinentalExchange
*www.intercontinentalexchange.com*

The National Computing Centre
*www.ncc.co.uk*

PORTUM
*www.portum.com*

Quadrem
*www.quadrem.com*

UX Online
*www.ux-tech.com*

### Related Research

February 11, 2002 Forrester Brief "European IT Won't Recover Until 2004"
December 26, 2001 Forrester Brief "Global Online Trade Will Climb To 18% Of Sales"
November 2001 Forrester Report "eBusiness Propels Productivity"
July 2001 Forrester Report "Bridging The B2B Capability Gap"
November 2000 Forrester Report "Sizing Global Online Exports"
May 2000 Forrester Report "Euro eMarketplaces Top Hype"
February 2000 Forrester Report "eMarketplaces Boost B2B Trade"

# GRAPEVINE



**The 0% club.**
To validate our assumptions concerning online trade, we spoke with executives in each industry to discover what percentage of their annual sales and purchases they anticipated would be online in 2002. The answer from one multibillion-euro metals company was simple: 0% sales and 0% procurement. Things can only get better.

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**Sending me an email? Buy me a PC first.**
During our research, we contacted the Greek permanent representation to the European Union in Brussels to track down recent data on online trade in Greece. An attaché from the Economics Ministry, Mr. Lloukas, was most obliging but couldn't provide us with fresh data. When we offered to send him a PDF of the report by email, he pointed out this would be impractical because he didn't have a PC.

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**Arthur Andersen assures ICE customers.**
To hear about the cutting edge of online trading -- weather derivatives and natural gas contracts -- we spoke with Stephanie Trabia, VP at IntercontinentalExchange (ICE). Despite being at the cutting edge, we discovered on the firm's Web site an assurance for its customers that Arthur Andersen LLP had evaluated ICE and found it to be operating in compliance with its stated policies and practices. As the successor to EnronOnline, ICE might find time to sharpen its HTML skills and remove the ironic assurance.

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**Don't pilot commerce sites in Poland.**
While conducting our research, we asked industrial equipment manufacturers how they approached selling online. One company -- which will remain nameless -- decided to trial its B2B commerce site for heating systems in the Polish market. Why? Poland accounted for a small share of the business, so testing the water in that market was perceived as low risk. The trial flopped. Why? The Polish market was so low risk there were no customers online.

# ENDNOTES

1 In March 2002, Forrester conducted an online survey of 212 CIOs, CTOs, and eBusiness Directors to understand IT spending patterns in Europe. According to the data, 35% of firms increased IT budgets in 2002, and 34% maintained spending. For the 30% of firms that decreased IT budgets, the reduction was due to economic conditions, not a decreased importance in eBusiness.

2 Firms understand that interoperative data exchange is the lifeblood of eBusiness. Execs can choose to exchange data either via multiple, private point-to-point networks or a single hub-and-spoke network. Network economics show that the costs of point-to-point networks (like EDI) grow exponentially as the number of nodes in the network grows, whereas the cost of hub-and-spoke networks grows linearly as the network expands.

3 Spending on IT in Europe varies significantly by country; overall European IT spend as a percentage of revenues is 50% less than the US figure.

4 Product complexity measures the ability to define a good or service according to a standard contract; product perishability measures how quickly goods and services lose value over time; industry concentration measures the percentage of industry revenue generated by the four largest firms; and intra-industry trade measures the degree to which firms in the same industry buy from and sell to each other.

5 Technology risk tolerance measures a firm's willingness to work with emerging technologies and less-established vendors; executive commitment measures C-level executives' efforts to promote technology use and willingness to commit resources to IT investments; IT spending as a percentage of revenues measures historical levels of IT investment within an industry; data standards adoption indicates the ability of an industry to interoperate across buying and selling processes; and network hub capabilities gauge the presence and strength of an industry-dedicated hub-and-spoke network to interconnect trading pairs.

6 Premier Farnell, a UK-based global electronic components distributor, estimates that it conducted 8% of sales online in 2001 and anticipates that online orders will top 30% in 2003.

7 New channels like eProcurement and strategic sourcing breed new purchasing behavior like spend aggregation and contract enforcement. To cope with these changes in purchasing practices, sales operations need to organize elite eProcurement teams, pilot demand management apps, and use in-house purchasing execs to train sales.

8 Executives in the CPG industry estimate that bad data costs the industry as a whole between €25 billion and €100 billion annually. To solve this problem, Wal-Mart, Procter & Gamble, and Coca-Cola among others have stated that they will adopt UCCnet's global registry -- the technology solution to standardize online data sharing among CPG manufacturers and retailers.

9 Source: IMD.

 

**Forrester's WholeView™ Research** provides clients with unified guidance on customer trends, business strategy, and technology investments through Technographics®, TechStrategy™, and TechRankings™. WholeView Research drills down into the most important details of an issue while maintaining a holistic perspective of the impact of technology change on business.

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Building The Best Enterprise Portal

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September 18-19, 2002

TV Summit
Television's On-Demand Transformation

New York, N.Y.
September 29-30, 2002
Register by August 1, 2002, and qualify for an early registration discount (Forrester clients: $1,200; Nonclients: $1,350).

Financial Services Forum Europe
Harnessing Technology For Profitable Innovation

London
October 7-8, 2002